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By

Prof. Yuh-Shan Ho

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[Title: Nippon Ika Daigaku Zasshi 1126](#_Toc317164483)

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[Title: Nippon Nogeikagaku Kaishi-Journal of the Japan Society for Bioscience Biotechnology and Agrochemistry 1135](#_Toc317164485)

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[Title: Nordisk Psykologi 1144](#_Toc317164490)

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[Title: Notes and Records of the Royal Society 1149](#_Toc317164495)

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[Title: Nutrition Metabolism and Cardiovascular Diseases 1202](#_Toc317164523)

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[Title: Oncologia (Madrid) 1279](#_Toc317164552)

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[Title: Online Review 1309](#_Toc317164562)

[Title: Open It-Based Innovation: Moving Towards Cooperative It Transfer and Knowledge Diffusion 1310](#_Toc317164563)

[Title: 3rd Open Conference on Information Science in Canada on Organizational Patterns in Information Science in Canada 1311](#_Toc317164564)

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[Title: Organization Science 1333](#_Toc317164577)

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[Title: OR Spektrum 1337](#_Toc317164579)

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[Title: Oriental Journal of Chemistry 1340](#_Toc317164581)

[Title: Orl-Journal for Oto-Rhino-Laryngology and Its Related Specialties 1341](#_Toc317164582)

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[Title: Osteoarthritis and Cartilage 1346](#_Toc317164585)

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[Title: Outlook on Agriculture 1369](#_Toc317164589)

[Title: Oxford Review of Education 1371](#_Toc317164590)

[Title: Ozone-Science & Engineering 1372](#_Toc317164591)

# Title: Kagaku Kogaku Ronbunshu

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? Watanabe, F. and Hasatani, M. (1982), Intraparticle diffusion mechanisms in liquid-phase adsorption on active-carbon particles of relatively large diameter. *Kagaku Kogaku Ronbunshu*, **8** (6), 685-692.

? Wang, N.H., Takishima, S. and Masuoka, H. (1989), Solubility measurements of benzene and cyclohexane in molten polyisobutylene by the piezoelectric-quartz sorption method and its correlation by the modified dual-sorption model. *Kagaku Kogaku Ronbunshu*, **15** (2), 313-321

? Wang, N.H., Ishida, S., Takishima, S. and Masuoka, H. (1992), Sorption measurement of nitrogen in polystyrene at high-pressure and its correlation by a modified dual-sorption model. *Kagaku Kogaku Ronbunshu*, **18** (2), 226-232.

Abstract: The pressure and temperature dependency of frequency change was measured at temperatures of 287 to 433K, and pressures up to 25MPa for 5MHz At-cut quartz crystals so that the piezolectric-quartz sorption method could be conveniently used over wide temperature and pressure regions. The sorption of nitrogen in polystyrene was measured at temperatures of 323.2, 353.2 and 393.2K, and pressures up to 25MPa. The total amount of sorption could be divided into the two parts of sorption inside and adsorption on the surface from measurements using coated films of different thicknesses. Furthermore, a modified dual-sorption model was suggested which takes account of the promotion effect of sorbed gas and the resistive effect of pressure on plasticization of a glassy polymer. The experimental data about sorption of nitrogen in polystyrene were correlated very well with this model, and the applicability of the model was confirmed.

Keywords: Adsorption, Carbon-Dioxide, Dependency, Films, High Pressure, Measurements, Methacrylate), Model, Modified, Modified Dual Sorption, Nitrogen, Phase Equilibrium, Piezoelectric Quartz Sorption, Polymer, Polystyrene, Pressure, Sorbed, Sorption, Surface, Systems, Temperature, Thermodynamics, Transport

? Suzuki, K., Iriyama, M., Nakamori, Y. (1992), Statistical-analysis of dynamics of a rotary-kiln sewage-sludge incinerator using fuzzy modeling. *Kagaku Kogaku Ronbunshu*, **18** (6), 894-903.

Abstract: Rotary kiln sewage sludge incinerators play an important role in the sewage treatment system. However, a practical control system has not yet been developed because of the complexity of the process, including large disturbances of inputs and lack of accurate instruments for measuring state variables. In this paper, an interactive modeling method based on fuzzy set theory is applied to modeling and analyzing the dynamic performance of the process. In fuzzy modeling, the process dynamics are represented by a number of IF-THEN rules comprised of fuzzy variables in the premise (IF) part and an ARX model in the consequence (THEN) part. Each rule claims local characteristics of the process in each sub-space. By integrating these sub-models, we can predict the process performance more correctly. A fuzzy model was identified by using time-series data after various statistical examinations. The model’s accuracy was evaluated by an error index an computer simulations, and the model was compared with a conventional time-series model. The results showed that the fuzzy model is superior in describing process performance. Fuzzy modeling is also expected to be an effective method for other ill-structured processes.

Keywords: Environment, Process System, Combustion, Fuzzy Set Theory, Rule-Based Model, Dynamics, Time-Series Data Analysis, Rotary-Kiln Sewage Sludge Incinerator

? Miura, K., Hayashi, J., Dohmoto, T. and Hashimoto, K. (1993), Adsorption characteristics of molecular-sieving carbons produced from coal and phenol-formaldehyde resin modified with various organic-substances. *Kagaku Kogaku Ronbunshu*, **19** (6), 1006-1014.

Abstract: Molecular sieving carbons (MSCs) were produced by simply carbonizing a mixture of coal-phenolformaldehyde (PF) resin which was modified by organic substances such as coal pitches, anthracene, dihydroanthracene and acenaphthylene. By changing the carbonization temperature as well as the mixing ratio of coal, PF - resin, and organic substances we could prepare MSCs with sharp pore distributions around 0.37 to 0.44 nm in pore diameter. The possibility of using the MSCs for separation of gaseous mixtures of (1) C3H8-C3H6, (2) 1-C4H8-i-C4HB, and (3) CO2-CH4 was examined from the viewpoint of adsorption isotherm and adsorption rate. We could successfully prepare MSCs that separate each gas mixture by the difference in adsorption amounts. We could also prepare MSC whose intraparticle diffusivity for CO2 is 40 times larger than that for CH4. The separation efficiencies of the MSCs for the above gas mixtures were well correlated with the size and shape of the gas molecules to be separated and the average size and the dispersion of pore distribution curves of the MSCs.

Keywords: Adsorption, Adsorption Isotherm, Adsorption Rate, Anthracene, Carbonization, CH4, CO2, Coal, Dispersion, Distribution, Distributions, Gas Separation, Isotherm, Mixing, Modified, Modified Coal, Modified Phenol Formaldehyde Resin, Molecular Sieving Carbon, Organic, Pore Structure, Separation, Temperature

? Okayasu, S., Kuratani, T. and Imai, H. (1995), Online temperature control of fluidized-bed incinerator using fuzzy algorithm. *Kagaku Kogaku Ronbunshu*, **21** (2), 272-278.

Abstract: Automatic control of incinerators for their stable operation has been desired for the preservation of the environment in the factory. An on-line fuzzy control system has been successfully introduced for temperature control of the fluidized bed of incinerator for industrial wastes. In this case, manual control can be applied to the plant instead of a PID control system, because of the complexity of the waste materials and the large delay in detection of the temperature change in the fluidized bed sand. On the basis of analyzing the dynamic performance of the process and the know-how of skilled operators, membership functions and fuzzy control rules are selected, then determined carefully for the system. Introduction of the system resulted in almost the same performance as manual control. Subsequently the operators are freed from manual operation in the control room for an hour.

Keywords: Fuzzy Control, Incinerator, Fluidized Bed, Factory Plant, Industrial Wastes, Online Temperature Control

? Naitou, T., Iijima, C., Itou, P. and Miyahara, T. (1996), Characteristics of a fluidized bed incinerator under the supply of unshredded municipal solid waste. *Kagaku Kogaku Ronbunshu*, **22** (5), 1185-1191.

Abstract: A new combustion control system for a fluidized bed incinerator being fed with unshredded municipal solid wastes (MSW) was developed and tested under the control of primary and secondary air flow rate, and the feeder speed. This control system corresponds to the detection of brightness in a furnace and is for the purpose of obtaining stable combustion; also, this method could cope with recent stringent air pollution regulations. As a result, the combustion was stabilized and the concentration of carbon monoxide in the waste gas become less than 10 ppm, whereas it was sometimes about 1000 ppm in the case of no new combustion control system. In addition, a new method of the feed forward control that weakens the fluidization of sand before MSW reaches the fluidizing sand by detecting the MSW feed rate is raised; this method will be very effective for combustion.

Keywords: Municipal, Garbage, Fluidized Bed, Incinerator, Combustion, Flue Gas, Carbon Monoxide

? Naitou, T., Iijima, C., Itou, H. and Miyahara, T. (1996), Optimum control of waste heat boiler and on-off operation of fluidized bed incinerator being supplied with of municipal solid wastes. *Kagaku Kogaku Ronbunshu*, **22** (6), 1307-1312.

Abstract: Experiments were conducted to improve thermal efficiency of a waste heat boiler fitted to a commercial fluidized bed incinerator being supplied with municipal solid waste (MSW). As a result, it was found that the control method, which is a operation of stopping fluidization instantaneously for the purpose of preventing excess steam generation, is effective. Furthermore, the daily on-off operation of a fluidized bed incinerator, which is the operation of maintaining the operational steam pressure using the heat accumulation in sand without feeding MSW at night and performing maximum combustion in the daytime, was confirmed to be effective for producing excess electric power.

Keywords: Municipal Solid Waste, Fluidized Bed, Incinerator, Waste Heat Boiler, Combustion Control, Steam Generation Rate

? Naitou, T., Iijima, C., Itou, H. and Miyahara, T. (1997), Optimum control of waste heat boiler and on-off operation of fluidized bed incinerator being supplied with of municipal solid wastes (vol 22, pg 1307, 1996). *Kagaku Kogaku Ronbunshu*, **23** (2), U3.

? Naitou, T., Iijima, C., Itou, P. and Miyhara, T. (1997), Characteristics of a fluidized bed incinerator under the supply of unshredded municipal solid waste (vol 22, pg 1185, 1996). *Kagaku Kogaku Ronbunshu*, **23** (2), U3.

? Itoh, H., Kusunose, Y. and Yokoyama, M. (1999), New ion exchange resin operation for downstream of bioprocess. *Kagaku Kogaku Ronbunshu*, **25** (5), 689-694.

Abstract: A new ion exchange resin operation system which can treat fermentation broth without any pre-treatment is studied. In a conventional fixed bed column pre-treatment such as membrane or centrifugal separation is required in order to prevent the clogging of bacteria in the resin layer inside. However these processes require higher capital investment and lower the yield. The new method solves these problems by treating ion exchange resin as slurry. No problem is observed in pilot scale experiments using lysine fermentation broth. The bacteria do not clog the resin phase, and elute is not contaminated, even if the bacteria concentration of the feed fermentation broth is very high (10 vol%). In addition, it is found that the amount of washing water in the new method is less than that of the conventional method. A simple numerical simulation model is also proposed and evaluated. The numerical value expresses good agreement with the experimental value, and it is proved that this model can be used for optimization of process design.

Keywords: Adsorption, Column, Elution, Fixed Bed, Fixed Bed Column, Fixed-Bed, Ion Exchange, Ion Exchange Resin, Lysine Broth, Model, Slurry

? Fukui, K., Yoshida, H., Sakaguchi, H. and Arita, M. (1999), Zeolite synthesis from coal fly ash prepared by hydro-thermal treatment method and effect of particle size on its reaction mechanism. *Kagaku Kogaku Ronbunshu*, **25** (6), 987-992.

Abstract: We investigate the effect of fly ash particle size on the synthesis of zeolites from coal fly ash, and propose and formulate the formation mechanism of zeolite.

It is found that the treatment time for the zeolites to synthesize decreases with decreasing feed fly ash particle size. When the feed size is small, both phillipsite and hydroxysodalite are synthesized by hydrothermal treatment with NaOH solution. Only phillipsite is synthesized when large fly ash particles are used. The zeolite from the fly ash having 2.1 μm mass median diameter indicates the maximum NH4+-adsorption capacity.

The change in liquid ion concentrations calculated by the newly proposed model agrees with the experimental results. It is assumed that dissoluble silica is contained by about twice the mass of dissoluble alumina in the large fly ash particles, while in the case of small ones, they are almost equal.

Keywords: Fly Ash, Hydrothermal Synthesis, Particle Size, Zeolite

? Asakawa, T., Inoue, K. and Tanaka, T. (2000), Adsorption of silver on dithiocarbamate type of chemically modified chitosan. *Kagaku Kogaku Ronbunshu*, **26** (3), 321-326.

Abstract: Dithiocarbamate (DTC) -type chemically modified chitosan was synthesized by incorporating functional groups of dithiocarbamate onto polymer matrices of chitosan, and the adsorptive separation characteristics of precious metals were investigated, among which silver in particular was examined in detail. DTC-chitosan is found to exhibit high selectivity not only towards silver but also towards gold and palladium. The adsorptive separation characteristics of DTC-chitosan are superior to raw material chitosan and commercial chelating resin containing the same functional group(DTC), which is considered to be attributable to synergistic effects by a combination of dithiocarbamate group and polymer matrices of chitosan. Furthermore, adsorptive recovery of silver from waste cynaide and noncyanide solution for silver plating is found to be achievable. The maximum adsorption capacity of DTC-chitosan for silver is 3.6 mol./kg. From the above-mentioned results, it is concluded that DTC-chitosan is a practical candidate for an adsorbent.

Keywords: Adsorbent, Adsorption, Capacity, Chemical Modified Chitosan, Chemically Modified Chitosan, Chitosan, Dithiocarbamate Type, Functional Groups, Gold, Metals, Modified, Palladium, Polymer, Recovery, Selectivity, Separation, Silver, Waste

? Furukawa, S., Aoyama, N., Nishiumi, T., Nitta, T., Takahashi, H. and Nakano, M. (2006), Molecular simulation study on adsorption of methanol/water mixed gases in mesoporous silicas with surface modification. *Kagaku Kogaku Ronbunshu*, **32** (1), 18-24.

Full Text: [2006\Kag Kog Ron32, 18.pdf](2006/Kag%20Kog%20Ron32,%2018.pdf)

Abstract: Two types of molecular simulation techniques have been utilized to investigate surface modification effects on adsorption of methanol/water in mesoporous silicas with hexagonal uniform pore structure: the NVT-ensemble Molecular Dynamics technique with the melt-quench algorithm for modeling a non-silylated mesoporous silica (an OH surface pore model) and a fully silylated mesoporous silica (an FS surface pore model), and the μ VT-ensemble Orientational-Bias Monte Carlo method for calculating adsorption isotherms. In the OH surface pore, the adsorption isotherms of pure gases at 298 K show a stepped curve for methanol and a catastrophically increasing curve for water, the latter of which is characteristic of the condensation mechanism. The simulation isotherms for each gas are in good agreement with the experiments. In the FS surface pore, water does not adsorb at elevated pressures while methanol shows an adsorption isotherm representing the condensation mechanism, which indicates that the surface silylation weakens the adsorption affinity of methanol as well as water. Equilibrium adsorption densities have been calculated at 333 K for an equi-relative-pressure mixture (a mixture in which each component has the same relative pressure, i.e., the partial pressure divided by the saturation pressure of each component). It is noted that, in the FS surface pore, water are substantially adsorbed along with methanol, showing an isotherm representing the condensation mechanism. The local density profiles of the two components indicate that methanol is preferentially localized near the pore surface due to the hydrophobic interactions between the CH3 group and the pore wall, while water and methanol form a fluid phase with a homogeneous composition.

Keywords: 298 K, 298-K, Adsorption, Adsorption Isotherm, Adsorption Isotherms, Algorithm, Binary-Mixtures, Carbon-Dioxide, Composition, Computer-Simulation, Condensation, Densities, Density, Gases, Homogeneous, Hydrocarbons, Hydrophobic, Interactions, Intermolecular Potential Functions, Isotherm, Isotherms, Liquid-Equilibrium, Local, MCM-41, Mechanism, Mesoporous Material, Methanol, Model, Modeling, Modification, Molecular Simulation, Monte Carlo, Monte-Carlo, OH, Partial Pressure, Pressure, Profiles, Saturation, Silica, Simulation, Structure, Surface, Surface Modification, Techniques, Vapor, Water, Water

? Seki, H., Yu, K.F., Maruyama, H. and Suzuki, A. (2006), Biosorption of heavy metals onto sphagnum peat moss. *Kagaku Kogaku Ronbunshu*, **32** (5), 409-413.

Full Text: [2006\Kag Kog Ron32, 409.pdf](2006/Kag%20Kog%20Ron32,%20409.pdf)

Abstract: Biosorption of Cd2+ and Pb2+ onto sphagnum peat moss was investigated. The mole numbers and acid dissociation constants of metal-binding sites (carboxyl and phenolic hydroxyl groups) were determined by potentiometric titration. The Cd2+ and Pb2+ adsorption data were analyzed using two different adsorption models. The models were based on the acid dissociation reactions of acidic sites and the monodentate or bidentate binding reactions of bivalent metal ions to acidic sites. The results showed that the biosorption of bivalent metal ions onto peat moss followed the bidentate adsorption model. The number of acidic sites of peat moss was about 1.5 mmol . g-1, so that the saturated adsorption amount of bivalent metal ions was 0.75 mmol . g-1. It was also shown that the adsorption process of Cd2+ and Pb2+ followed pseudo-second-order kinetics.

Keywords: Biosorption, Cadmium, Lead, Sphagnum Peat Moss, Humic-Acid, Ions, Sorption, Copper, Adsorption, Flotation, Stability, Kinetics, Cadmium

? Matsumoto, M., Tachibana, S., Nakanishi, H. and Kondo, K. (2009), Adsorption of oxometallic ions on raw wood particles. *Kagaku Kogaku Ronbunshu*, **35** (1), 55-59.

Full Text: Kag Kog Ron35, 55.pdf

Abstract: Because oxometallic ions (Mo(VI), W(VI), V(V), B(III), Cr(VI), Ge(IV)) are toxic for animals and plants, it is important to economically remove them from industrial wastewater. In this paper, we examined whether the raw wood materials can adsorb oxometallic ions. It was found that wood particles such as cedar or bamboo can adsorb oxometallic ions. The optimum pHs of adsorption depended on the metal and wood particles used. The adsorption isotherm of metals correlated well with the Langmuir equation. The saturation adsorption capacities of metal ions on cedar were larger than those on bamboo. In order to improve the adsorption ability, the wood particles were pre-treated with NaOH. Treatment with NaOH was effective for cedar. Adsorption kinetics of metal ions on wood particles correlated well with a pseudo-second-order reaction model. The unmodified raw wood material, especially cedar, was found to be promising adsorbent for the recovery of oxometallic ions.

Keywords: Acid, Adsorbent, Adsorption, Adsorption Capacities, Adsorption Isotherm, Adsorption Kinetics, Animals, Aqueous-Solutions, Bamboo, Cedar, Cu(II), Extraction, Industrial Wastewater, Ions, Isotherm, IV, Kinetics, Langmuir, Langmuir Equation, Metal, Metal Ions, Metals, Model, Molybdate, Molybdenum, NaOH, Oxometallic Ion, Particles, Plants, Pseudo Second Order, Pseudo-Second-Order, Recovery, Removal, Resin, Saturation, Sawdust, Toxic, Treatment, VI, Waste Water Treatment, Wastewater, Wood, Wood Powder

? Ono, Y., Amano, Y., Aikawa, M. and Machida, M. (2011), Effect of particle diameter of activated carbon on adsorption rate-controlling step of organic compounds. *Kagaku Kogaku Ronbunshu*, **37** (1), 22-27.

Full Text: 2011\Kag Kog Ron37, 22.pdf

Abstract: The effect of particle diameter of coconut shell-based granular activated carbons on the adsorption and desorption of organic compounds from solutions was studied. The adsorption of phenol and benzothiophene was examined for different particle sizes (0.053-0.588 mm) at 298 K in aqueous and hexane solution, respectively. The adsorption isotherm of phenol was well represented by the Langmuir equation and the amount of maximum adsorption was not influenced by the particle size. For both phenol and benzothiophene, the adsorption kinetics became faster with decreasing particle size. The desorption of phenol began before the adsorption equilibrium was reached, showing that adsorbate was rapidly desorbed from outer surface and subsequently re-adsorbed into the inner surface of the activated carbon. Analysis of the kinetics data revealed that the adsorption was represented by a pseudo-first-order equation during the first stage of the experiment, while a pseudo-second-order equation was given a better fit as time advanced. The adsorption model suggested in this work is discussed in terms of the mechanisms of phenol and benzothiophene adsorption onto activated carbon.

Keywords: Activated Carbon, Adsorbents, Adsorption, Adsorption Isotherm, Adsorption Kinetics, Aqueous Solution, Area, Carbon, Deep Desulfurization, Desorption, Diesel Fuel, Equilibrium, Isotherm, Kinetics, Langmuir, Organic Compounds, Phenol, Sulfur-Compounds, Surface-Properties

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? Hartel, V. (1982), Calculation of vulcanization times of thick-walled articles with a programmable desk: Top calculator. *Kautschuk Gummi Kunststoffe*, **35** (2), 88.

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Language:

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Publisher Address:

Subject Categories:

Impact Factor

? Cochran, P. (2010), Why did Byron envy Thomas hope’s anastasius? *Keats-Shelley Review*, (24), 76-90.

Abstract: The article summarizes the plot of Thomas Hope’s 1819 novel Anastasius, its background in Hope’s life, and tries to answer the question, ‘Why did Byron feel such envy for its creator?’. In doing so, it examines Hope’s satirical attitude to the Greeks and Turks, and queries whether any stable division between the two national identities (of the kind which might, for example, justify the ‘Greek War of Independence’) can be sustained after reading it. It then looks at the numerous incidents which Byron steals from Hope’s narrative in writing Don Juan, and concludes that his indebtedness to Hope is far greater than usually stated.

Keywords: Anastasius, Byron, Greek, Hope, Plagiarism, Turk, Writing

# Title: Keio Journal of Medicine

Full Journal Title: Keio Journal of Medicine

ISO Abbreviated Title:

JCR Abbreviated Title: Keio J Med

ISSN: 0022-9717

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Rahman, M., Sakamoto, J. and Fukui, T. (2004), Japan’s share of research output in basic medical science. *Keio Journal of Medicine*, **53** (3), 172-177.

Abstract: Objective: To investigate the degree of Japan’s contribution to the research in basic biomedical science in the last decade. Methods: Articles published during 1991-2000 in highly reputed basic biomedical science journals (10 journals from each of the 16 categories related to basic biomedical science) were accessed through MEDLINE database. The number of articles having affiliation with a Japanese institution was then determined using appropriate search strategies. Results: In total 312,748 articles were published in the selected journals and Japan’s share was 20,665 articles (6.6% of total) with an upward trend over time (p = 0.01). Japan’s share was higher in the journals, which publish mostly original articles (6.9%) than that in the journals, which publish only review articles (2.6%). The former group showed an upward trend (p = 0.01) over time (1991-2000) while the latter did not (p = 0.08). Among the 16 categories, Japan had significantly positive trend in 7 categories while others remained unchanged. Conclusions: Japan’s share of original articles for basic medical science has increased in the last decade. On the other hand, its share of review articles was low and has remained stagnant in the same period.

Keywords: Affiliation, Biomedical, Database, Japan, Journals, Medical, Research, Review, Science, Science Journals, Search Strategies, Trend

# Title: Kemiai Kozlemenyek

Full Journal Title: Kemiai Kozlemenyek

ISO Abbreviated Title:

JCR Abbreviated Title: Kem Kozlemen

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Giber, J., Wegner, M. and Kerepes, R. (1971), Adsorption of oxygen and water vapour on chemically treated germanium single crystal surfaces. 4. Data on kinetics of water adsorption. *Kemiai Kozlemenyek*, **35** (2), 161-??.

# Title: Khimicheskaya Promyshlennost

Full Journal Title: Khimicheskaya Promyshlennost

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Moroz, V.A. and Tikhonov, V.I. (1982), Adsorption modifying effect on properties of enamels based on green phthalocyanine pigment. *Khimicheskaya Promyshlennost*, (1), 21-22.

# Title: Khimiko-Farmatsevticheskii Zhurnal

Full Journal Title: Khimiko-Farmatsevticheskii Zhurnal

ISO Abbreviated Title:

JCR Abbreviated Title: Khim-Farm Zh

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Valueva, S.P., Gulyaeva, N.M., Surinova, S.I. and Eltsefon, B.S. (1978), Investigation of kinetics of adsorption of metabolites with varying molecular mass by activated charcoals. *Khimiko-Farmatsevticheskii Zhurnal*, **12** (6), 108-113.

# Title: Kidney International

Full Journal Title: [Kidney International](http://www.blackwell-synergy.com/servlet/useragent?func=showIssues&code=kid)

ISO Abbreviated Title: Kidney Int.

JCR Abbreviated Title: Kidney Int

ISSN: 0085-2538

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Bobeck, J.D., Cipoletti, J.J. and Wexler, M. (1978), Isothermic and kinetic studies of uremic metabolite adsorption with ambersorb XE-344 resin. *Kidney International*, **30** (6), S163-S169.

? Boyce, N.W. and Holdsworth, S.R. (1986), Hydroxyl radical mediation of immune renal injury by desferrioxamine. *Kidney International*, **30** (6), 813-817.

? Vaziri, N.D., Lin, C.Y., Farmand, F. and Sindhu, R.K. (2003), Superoxide dismutase, catalase, glutathione peroxidase and NADPH oxidase in lead-induced hypertension. *Kidney International*, **63** (1), 186-194.

Full Text: 2003\Kid Int63, 186.pdf

Abstract: Background. Earlier studies from this laboratory have revealed the presence of oxidative stress and its role in the pathogenesis of lead-induced hypertension (HTN). We have further shown evidence of increased hydroxyl radical (.OH) and superoxide production in lead-treated rats and cultured endothelial cells. This study was designed to determine whether oxidative stress in animals with lead-induced HTN is associated with dysregulation of the main antioxidant enzymes namely superoxide dismutase (SOD), catalase (CAT) and glutathione peroxidase (GPX) or increased superoxide producing enzyme nicotinamide adenine dinucleotide (phosphate) oxidase [NAD(P)H].

Methods. Male Sprague-Dawley rats were randomly assigned to lead-exposed and control groups. Animals in the lead-exposed group were provided with drinking water containing 100 ppm lead acetate for 12 weeks. The control group was provided with regular drinking water. At the conclusion of the experiment, immunodetectable Cu Zn SOD, Mn SOD, CAT, GPX and gp(91) phox subunit of NAD(P)H oxidase were determined by Western analysis in the kidney, brain and left ventricle of control and lead-exposed rats. Subgroups of the study animals were treated with IV infusion (180 mumol/kg/h) of the superoxide trapping agent, tempol, and arterial pressure and urinary nitric oxide (NO) metabolite (NOx) excretion were determined.

Results. Lead exposure for 12 weeks resulted in a marked rise in systolic blood pressure, a significant reduction in urinary NOx excretion, a significant increase in kidney and brain Cu, Zn SOD, a significant increase in brain and insignificant increase in kidney and heart gp(91) phox. In contrast, Mn SOD, CAT and GPX in the kidney, brain and left ventricle were unchanged. Incubation with lead acetate did not alter SOD activity in vitro. Infusion of tempol significantly lowered arterial pressure and raised urinary NOx excretion in the lead-exposed group (but had no effect in the control group) pointing to increased superoxide production in the lead-exposed animals.

Conclusion. Animals with lead-induced hypertension exhibited oxidative stress which was associated with mild up-regulation of superoxide-generating enzyme, NAD(P)H oxidase, with no evidence of quantitative SOD, CAT or GPX deficiencies.

Keywords: Lead, Hypertension, Oxidative Stress, Superoxide, Superoxide Dismutase, Tempol, Nitric Oxide, Catalase, Glutathione Peroxidase, NAD(P)H oxidase, Free Radical Activity, Nitric-Oxide, Synthase Expression, Endothelial-Cells, Blood-Pressure, Up-Regulation, Oxidative Stress, Rats, Inactivation, Resistance

? Garg, A.X., Iansavichus, A.V., Kastner, M., Walters, L.A., Wilczynski, N., McKibbon, K.A., Yang, R.C., Rehman, F. and Haynes, R.B. (2006), Lost in publication: Half of all renal practice evidence is published in non-renal journals. *Kidney International*, **70** (11), 1995-2005.

Full Text: [2006\Kid Int70, 1995.pdf](2006/Kid%20Int70,%201995.pdf)

Abstract: Physicians often scan a select number of journals to keep up to date with practice evidence for patients with kidney conditions. This raises the question of where relevant studies are published. We performed a bibliometric analysis using 195 renal systematic reviews. Each review used a comprehensive method to identify all primary studies for a focused clinical question relevant to patient care. We compiled all the primary studies included in these reviews, and considered where each study was published. Of the 2779 studies, 1351 (49%) were published in the top 20 journals. Predictably, this list included Transplantation Proceedings (5.9% of studies), Kidney International (5.3%), American Journal of Kidney Diseases (4.7%), Nephrology Dialysis Transplantation (4.3%), Transplantation (4.2%), and Journal of the American Society of Nephrology (2.4%). Ten non-renal journals were also on this list, including New England Journal of Medicine (2.4%), Lancet (2.3%), and Diabetes Care (2.2%). The remaining 1428 (51%) studies were published across other 446 journals. When the disciplines of all journals were considered, 59 were classified as renal or transplant journals (42% of articles). Other specialties included general and internal medicine (16%), endocrinology (diabetes) and metabolism (6.5%), surgery (6.2%), cardiovascular diseases (6.1%), pediatrics (4.3%), and radiology (3.3%). About half of all renal practice evidence is published in non-renal journals. Browsing the top journals is important. However, relevant studies are also scattered across a large range of journals that may not be routinely scanned by busy physicians, and keeping up with this literature requires other continuing education strategies.

Keywords: Analysis, Bibliometric, Bibliometric Analysis, Bibliometrics, Cardiovascular, Cardiovascular Diseases, Chronic Kidney-Disease, Clinical, Contrast-Induced Nephropathy, Converting-Enzyme-Inhibitors, Diabetes, Dietary-Protein Restriction, Diseases, Education, England, General, Hemolytic-Uremic Syndrome, Idiopathic Membranous Nephropathy, Internal Medicine, Kidney, Kidney Diseases, Live-Donor Nephrectomy, Low-Dose Dopamine, Medical, Metabolism, Nephrology, New England, Patient, Patients, Pediatrics, Periodicals, Physicians, Practice, Publication, Radiocontrast-Induced Nephropathy, Radiology, Randomized Controlled-Trials, Range, Renal, Review, Reviews, Strategies, Surgery, Systematic Reviews, Transplant, Transplantation

? Parikh, C.R., McSweeney, P. and Schrier, R.W. (2005), Acute renal failure independently predicts mortality after myeloablative allogeneic hematopoietic cell transplant. *Kidney International*, **67** (5), 1999-2005.

Full Text: 2005\Kid Int67, 1999.pdf

Abstract: Background. Patients undergoing myeloablative allogeneic hematopoietic cell transplantation (HCT) have a high incidence of acute renal failure (ARF). However, it is unclear if ARF is independently associated with mortality after this procedure. Methods. We performed meta-analysis of published reports on ARF after myeloablative allogeneic HCT Four databases (MEDLINE, Cochrane Library, PUBMED, Web of Science) and hand searching of conference proceedings were used to identify the studies. ARF was defined as the doubling of serum creatinine occurring within the first 100 days after HCT. The absolute and the relative risks for death after ARF were calculated for every study. The combined relative risk was calculated using the random effects model. Also, multivariate analysis of patient level data was performed on patients from The University of Colorado to establish independent association between ARF and mortality. Results. One thousand two hundred and eleven patients were included in the meta-analysis from the 6 published reports in the literature. The overall incidence of ARF varied from 42% to 84% in these studies. On combining the studies by random-effects model, the relative risk of death after ARF was 2.22 (95%CI 1.38-3.5, P < 0,001). The analysis of patient level data from the University of Colorado demonstrated increasing mortality with worsening grades of ARE After controlling for various demographic and clinical variables with logistic regression, patients who required dialysis had a 6.8-fold higher association with mortality. Conclusion. ARF appears to independently influence mortality after myeloablative allogeneic HCT. Future studies should be aimed at interventions that can reduce the incidence and severity of ARF with this procedure.

Keywords: Analysis, Bone Marrow Transplantation, Bone-Marrow-Transplantation, Cochrane, Comparing Methotrexate, Creatinine, Databases, Dialysis, Epidemiology, Hand, Incidence, Intensive-Care Unit, Interventions, Literature, Malignancy, Medline, Meta-Analysis, Metaanalysis, Methods, Model, Mortality, Pubmed, Relative Risk, Requiring Dialysis, Risk, Risk-Factors, Science, Surgery, Systematic Reviews, University, Versus-Host-Disease, Web of Science

# Title: Kinetics and Catalysis

Full Journal Title: [Kinetics and Catalysis](http://www.springerlink.com/(tc3taa45st23gybocqnz2455)/app/home/journal.asp?referrer=backto&backto=linkingpublicationresults,1:106289,1;&absoluteposition=1#A1)

ISO Abbreviated Title: Kinet. Catal.

JCR Abbreviated Title: Kinet Catal-Engl Tr

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Snagovskii, Y.S. (1975), Adsorption equilibrium and reaction-kinetics at inhomogeneous surfaces during joint adsorption of several substances. 1. Adsorption equilibrium. *Kinetics and Catalysis*, **16** (6), 1246-1252.

? Snagovskii, Y.S. (1976), Adsorption equilibrium and reaction-kinetics at inhomogeneous surfaces during joint adsorption of several substances. 2. Reaction-kinetics. *Kinetics and Catalysis*, **17** (1), 77-85.

? Bykov, V.I. and Yablonskii, G.S. (1977), Steady-state kinetic characteristics of simplest catalytic mechanisms, impact and adsorption. *Kinetics and Catalysis*, **18** (5), 1070-1075.

? Slinkin, A.A., Kucherov, A.V. and Rubinshtein, A.M. (1978), Kinetics of adsorption and nature of irreversible chemisorption of hydrogen on coated nickel microcrystals. *Kinetics and Catalysis*, **19** (2), 415-417.

? Tovbin, Y.K. and Fedyanin, V.K. (1978), Kinetics of chemisorption in system of interacting molecules. 1. General formulas for rates of adsorption and desorption. *Kinetics and Catalysis*, **19** (4), 794-800.

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? Klyachko, A.L., Brueva, T.R. and Rubinshtein, A.M. (1979), The kinetics of ammonia adsorption on zeolites. *Kinetics and Catalysis*, **20** (6), 1256-1259.

# Title: Kinetics of Soil Chemical Process

Academic Press, New York

? Sparks, D.L. (1989), *Kinetics of Soil Chemical* *Processes*, Academic Press, New York.

# Title: Klinische Monatsblatter fur Augenheilkunde

Full Journal Title: Klinische Monatsblatter fur Augenheilkunde

ISO Abbreviated Title: Klinische Monatsblat. Augenheilkunde

JCR Abbreviated Title: Klin Monatsbl Augenh

ISSN: 0023-2165

Issues/Year: 12

Journal Country/Territory: Germany

Language: Multi-Language

Publisher: Georg Thieme Verlag Kg

Publisher Address: Rudigerstr 14, D-70469 Stuttgart, Germany

Subject Categories:

Ophthalmology: Impact Factor 0.534, / (2002); Impact Factor 0.495, / (2003)

? Mojon-Azzil, S.M., Jiang, X.Y., Wagner, U. and St Mojon, D. (2002), Ophthalmology ‘Made in Switzerland’ - Swiss papers listed in MEDLINE. *Klinische Monatsblatter für Augenheilkunde*, **219** (12), 866-871.

Abstract: Background: Publications are one of the most important tools to measure scientific production in a particular sphere. Hence, the aim of this study was to identify the quantitative and (through journal Impact Factor) qualitative amount of ophthalmological articles coming from Switzerland. Materials and methods: With a specifically developed software we searched 70 ophthalmological journals indexed by MEDLINE for articles from Switzerland. Results: Not counting the publications related to the annual meeting of the Swiss Ophthalmological Society, the amount of Swiss papers in ophthalmological journals indexed by MEDLINE, increased between 1988 and 1999 by a factor of four. in proportion to the global amount of ophthalmological publications we calculated an increase by a factor of 2.6. The amount of publications grew particularly during the analysed time period in journals with high impact factors. In 1999 a total of 1.8% of the indexed ophthalmological articles originated from Swiss research institutes and hospitals. The average amount of authors of Swiss publications increased, thereby following an international trend. Conclusions: The increased amount of publications may rely on the growing role of Swiss research in ophthalmology as well as on a broadened and deepened international orientation of Swiss ophthalmology. The increased amount of authors can be explained by the growing complexity and interdisciplinarity of research projects. Both, the amount of publications and the number of authors, can be linked to the ‘publish or perish’ paradigma.

Keywords: Switzerland, Research, Ophthalmology, Publications, Authors, Articles, papers

? Pahor, D. (2011), Slovenia’s contribution to research in ophthalmology (1991-2009). *Klinische Monatsblatter fur Augenheilkunde*, **228** (3), 220-225.

Full Text: [2011\Kli Mon Aug228, 220.pdf](2011/Kli%20Mon%20Aug228,%20220.pdf)

Abstract: Objective: The purpose of our study was to evaluate Slovenia’s contribution to research in ophthalmology over a period of 18 years (1991 2009) including not only ophthalmologists but also other researchers. The aim of the study was to determine the relative contribution, quantitatively and qualitatively, to research in ophthalmology and to determine the trend over the period. The first authors as well as their institutes were evaluated. Methods: A bibliometric analysis was performed using the database of the Institute for Scientific Information (IS!) 2007 report. All articles published in the top 45 ophthalmology journals listed in the ISI 2007 report were analysed. Results: A total of 187170 articles have been published in these journals in the given period of time. Slovenia’s ophthalmologists and other researchers published 75 articles or 0.040% of all publications. The articles were published in 21 of the 45 listed journals. Two were excluded from the study because they were only abstracts. In 8 articles the first author was not a Slovenian ophthalmologist. At the end, 65 articles remained in the study. 22 different Slovenian ophthalmologists were found as first author among these journals. Comparing ophthalmologists and other researchers, ophthalmologists produced 57 from 65 articles or 87.69%. 13 from 22 ophthalmologists had published only one paper, accounting for 22.8% (13 of 57) of total first authors. There were 47 articles with one or more co-authors (82.5%) and 10 papers with a single author, which represent 17.5% of total papers. There was only one first author who issued more than 10 articles (13 from 57 or 22.8%). All the contribution came from two university clinical centres, Ljubljana (27 articles or 47.37%) and Maribor (30 articles or 52.63%). Three authors contributed to 45.6% of all papers. Two-thirds of articles were published in English and one-third in German language. Conclusions: Although the number of articles published by Slovenia’s ophthalmologists is increasing over the last 8 years there is a need to increase the quality and quantity of clinical research in ophthalmology and to involve more ophthalmologists in research work to support these trends.

Keywords: Analysis, Authors, Bibliometric, Bibliometric Analysis, Clinical, Clinical Research, Co-Authors, Database, Expert Opinions,Bibliometric Analysis, First, History of Medicine, Impact Factor, Information Technology, Institute for Scientific Information, Institute For Scientific Information (ISI), IS, ISI, Journals, Mar, Medical Publications, Papers, Productivity, Publications, Purpose, Quality, Research, Research in Ophthalmology, Slovenia, Research Work, Support, Trend, Trends, University, Vision Science, Work

# Title: Knee Surgery Sports Traumatology Arthroscopy

Full Journal Title: Knee Surgery Sports Traumatology Arthroscopy

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Eriksson, E. (2004), Impact factors and publication times. *Knee Surgery Sports Traumatology Arthroscopy*, **12** (4), 261.

Keywords: Publication

# Title: Knowledge-Based Software Engineering

Full Journal Title: Knowledge-Based Software Engineering

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Vesely, M., Rajman, M. and Le Meur, J.Y. (2008), Using bibliographic knowledge for ranking in scientific publication databases. *Knowledge-Based Software Engineering*, **180**, 201-212.

Abstract: Document ranking for scientific publications involves a variety of specialized resources (e.g. author or citation indexes) that are usually difficult to use within standard general purpose search engines that usually operate on large-scale heterogeneous document collections for which the required specialized resources are not always available for all the documents present in the collections. Integrating such resources into specialized information retrieval engines is therefore important to cope with community-specific user expectations that strongly influence the perception of relevance within the considered community. In this perspective, this paper extends the notion of ranking with various methods exploiting different types of bibliographic knowledge that represent a crucial resource for measuring the relevance of scientific publications. In our work, we experimentally evaluated the adequacy of two such ranking methods (one based on freshness, i.e. the publication date, and the other on a novel index, the download-Hirsch index, based on download frequencies) for information retrieval from the CERN scientific publication database in the domain of particle physics. Our experiments show that (i) the considered specialized ranking methods indeed represent promising candidates for extending the base line ranking (relying on the download frequency), as they both lead to fairly small search result overlaps; and (II) that extending the base line ranking with the specialized ranking method based on freshness significantly improves the quality of the retrieval: 16.2% of relative increase for the Mean Reciprocal Rank (resp. 5.1% of relative increase for the Success@10, i.e. the estimated probability of finding at least one relevant document among the top ten retrieved) when a local rank sum is used for aggregation. We plan to further validate the presented results by carrying out additional experiments with the specialized ranking method based on the download-Hirsch index to further improve the performance of our aggregative approach.

Keywords: Bibliometrics, Citation, Citation Indexes, Databases, Information Retrieval, Information Retrieval Systems, Lead, Publication, Publications, Rank Aggregation Models, Ranking, Scientific Publication, Scientific Publication Databases, Scientific Publications

# Title: Knowledge Organization

Full Journal Title: Knowledge Organization

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Efremenkova, V.M. and Milovidov, N. (1993), The data structure of the Viniti computer-networks information file. *Knowledge Organization*, **20** (4), 208-209.

Full Text: 1993\Kno Org20, 208.pdf

Abstract: Presents an attempt of scientometric analysis of information, which is contained in databases produced by the All-Russian Institute of Scientific and Technical Information (VINM). The “computer networks” area is analyzed and a new classification structure is described.

Keywords: Analysis, Classification, Databases, Scientometric Analysis

? (1995), International Society for Scientometrics and Informetrics (ISSI). *Knowledge Organization*, **22** (1), 36.

? Nissan, E. and Shimony, S.E. (1996), Tambalacoque: For a formal account of the gist of a scholarly argument. *Knowledge Organization*, **23** (3), 135-146.

Abstract: Argumentation as reflected in a short communication from the published literature of botany and zoology is discussed. Trying to capture the logic structure of the argument, however imperfectly, is of interest to information science depending on a particular goal. namely, to potentially benefit the task of sketching the relation between bibliographic entries somewhat better than present-day bibliometric or scientometric practice does. This imposes tight limits on the depth of the analysis of the text. Even that way, the project of normalizing the analyzed paper’s argument is ambitious.

Keywords: Bibliometric, Defense, Heuristics, Indicators, Literature, Science

? Ibekwe-SanJuan, F. and SanJuan, E. (2002), From term variants to research topics. *Knowledge Organization*, **29** (3), 181-197.

Abstract: In a scientific and technological watch (STW) task, an expert user needs to survey the evolution of research topics in his area of specialisation in order to detect interesting changes. The majority of methods proposing evaluation metrics (bibliometrics and scientometrics studies) for STW rely solely on statistical data analysis methods (co-citation analysis, co-word analysis). Such methods usually work on structured databases where the units of analysis (words, keywords) are already attributed to documents by human indexers. The advent of huge amounts of unstructured textual data has rendered necessary the integration of natural language processing (NLP) techniques to first extract meaningful units from texts. We propose a method for STW which is NLP-oriented. The method not only analyses texts linguistically in order to extract terms from them, but also uses linguistic relations (syntactic variations) as the basis for clustering. Terms and variation relations are formalised as weighted di-graphs which the clustering algorithm, CPCL (Classification by Preferential Clustered Link) will seek to reduce in order to produces classes. These classes ideally represent the research topics present in the corpus. The results of the classification are subjected to validation by an expert in STW.

Keywords: Analysis, Bibliometrics, Classification, Clustering, Co-Citation, Co-Citation Analysis, Co-Word, Co-Word Analysis, Cocitation Analysis, Data Analysis, Databases, Evaluation, Hierarchical Clustering, Metrics, Research, Research Topics, Scientific and Technological Watch, Scientometrics, Survey, Term Extraction, Terminological Variation, Textmining

# Title: Kolloid-Zeitschrift

Colloid & Polymer Science

From Volume 1 (1906) to Volume 12 (1913), this journal was published as Zeitschrift für Chemie und Industrie der Kolloide.

From Volume 13 (1913) to Volume 110/1 (1945 and from Volume 110/2 (1948) to Volume 179 (1961), this journal was published as Kolloid Zeitschrift.

From Volume 180 (1962) to Volume 251 (1973), this journal was published as Kolloid-Zeitschrift & Zeitschrift für Polymere. (Kolloid Zeits.)

P.S.: Zeitschrift means Journal

Full Journal Title: [Kolloid-Zeitschrift](http://www.springerlink.com/content/101551/?p=99f9925b57b94be2bf3c0d2936eb3364&pi=0)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0368-6590

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Walter, D.S. (1914), Adsorption. *Kolloid-Zeitschrift*, **14** (5), 242-252. (English)

Full Text: [-1959\Kol-Zei14, 242.pdf](-1959/Kol-Zei14,%20242.pdf)

? Trümpler, G. (1914), The adsorption isotherms in very low concentrations. *Kolloid-Zeitschrift*, **15** (1), 10-18. (English)

Full Text: [-1959\Kol-Zei15, 10.pdf](-1959/Kol-Zei15,%2010.pdf)

? Fodor, V.A. and Schönfeld, B. (1922), Die Abhängigkeit der adsorption durch kohle von der kohlenmenge, ferner über das wesen der adsorptionsisotherme. *Kolloid-Zeitschrift*, **31** (2), 75-80.

Full Text: [-1959\Kol-Zei31, 75.pdf](-1959/Kol-Zei31,%2075.pdf)

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Full Text: [-1959\Kol-Zei31, 75.pdf](-1959/Kol-Zei31,%2075.pdf)

? Fodor, V.A. and Schönfeld, B. (1922), The dependency of adsorption on carbon from the carbon mass moreover, over the nature of the adsorption isotherm. *Kolloid-Zeitschrift*, **31** (2), 75-80. (English)

Full Text: [-1959\Kol-Zei31, 75.pdf](-1959/Kol-Zei31,%2075.pdf)

? Eggert, J. and Reitstötter, J. (1925), Die photographische wirksamkeit yon methylenblau als adsorptionseffekt. *Kolloid-Zeitschrift*, **36** (S), 298-305.

Full Text: [-1959\Kol-Zei36, 298.pdf](-1959/Kol-Zei36,%20298.pdf)

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Full Text: [-1959\Kol-Zei36, 298.pdf](-1959/Kol-Zei36,%20298.pdf)

? Hüttig, G.F. and Kürschner, E.R. (1937), On the adsorption rates of aluminium oxide in various solvents, whereby the oxide is heated in basic aluminium acetates in the presence of different gases. *Kolloid-Zeitschrift*, **81** (1), 40-45. (English)

Full Text: [-1959\Kol-Zei81, 40.pdf](-1959/Kol-Zei81,%2040.pdf)

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Full Text: [-1959\Kol-Zei81, 40.pdf](-1959/Kol-Zei81,%2040.pdf)

Abstract: Zusammenfassung Basisches Aluminiumazetat wurde in stets der gleichen Weise, jedoch in Gegenwart verschiedener Gase (Luft, Stickstoff, Schwefeldioxyd, Salpetersäureanhydrid, Ammoniak und Essigsäureanhydrid) durch Erhitzen in Aluminiumoxyd umgewandelt. Von den so entstandenen Aluminiumoxyd-Präparaten wurden die Auflösungsgeschwindigkeiten in schwefliger Säure, Salpetersäure und Essigsäure bestimmt. Die Ergebnisse werden in der Tabelle I mitgeteilt. Die Präparate zeigen je nach dem Fremdgas, welches bei ihrer Entstehung anwesend war, in ein und demselben Lösungsmittel sehr verschiedene Auflösungsgeschwindigkeiten. Für ein und dasselbe Präparat gelangt man zu Vergleichszahlen, wenn man das Verhältnis der Auflösungsgeschwindigkeiten in den verschiedenen Lösungsmitteln berücksichtigt. Auf dieser Grundlage wird der Versuch unternommen, zu ersten Gesetzmäßigkeiten über die Art der Einwirkung des Fremdgases während der Entstehung des Aluminiumoxydes zu gelangen.

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# Title: Kolloid-Zeitschrift and Zeitschrift fur Polymere

Colloid & Polymer Science

Volume 1 / 1906 - Volume 289 / 2011

From Volume 1 (1906) to Volume 12 (1913), this journal was published as Zeitschrift für Chemie und Industrie der Kolloide.

From Volume 13 (1913) to Volume 110/1 (1945 and from Volume 110/2 (1948) to Volume 179 (1961), this journal was published as Kolloid Zeitschrift.

From Volume 180 (1962) to Volume 251 (1973), this journal was published as Kolloid-Zeitschrift & Zeitschrift für Polymere. (Kolloid Zeits.)

Title: Colloid and Polymer Science; Zeitschrift Means Journal (Colloid Polym. Sci.; Kolloid-Zeitschrift and Zeitschrift fur Polymere; Kolloid Z. u. Z. Polym.; Kolloid-Z.; Kolloid-Z. and Z. Polym.; KZZPA)

Full Journal Title: [Kolloid-Zeitschrift und Zeitschrift fur Polymere](http://www.springerlink.com/content/101551/?p=99f9925b57b94be2bf3c0d2936eb3364&pi=0)

ISO Abbreviated Title:

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ISSN:

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# Title: Kolloid-Zeitschrift and Zeitschrift fur Polymere

Full Journal Title: Kolloid-Zeitschrift and Zeitschrift fur Polymere

ISO Abbreviated Title:

JCR Abbreviated Title: Kolloid-Z

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IDS Number: N6875

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# Title: Kolloidnyi Zhurnal

Full Journal Title: Kolloidnyi Zhurnal

ISO Abbreviated Title:

JCR Abbreviated Title: Kolloid Zh

ISSN: 0023-2912

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

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# Title: Kolner Zeitschrift fur Soziologie und Sozialpsychologie

Full Journal Title: [KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie](http://www.springerlink.com/content/120459/); Kolner Zeitschrift fur Soziologie und Sozialpsychologie

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Full Text: [2007\Kol Zei Soz Soz59, 125.pdf](2007/Kol%20Zei%20Soz%20Soz59,%20125.pdf)

Abstract: Resources within and between higher education and research institutions are increasingly allocated according to scientific performance. Evaluation exercises and the measurement of research performance take on a new role in this context. Third party research income is a performance indicator which is rather easy to measure and is used in most of the new performance-based evaluation procedures. This paper sets out to scrutinize the meaning and validity of third party research income. We studied research teams from three different research fields with a mixed quantitative / qualitative approach. The focus is on the causal relations between institutional / input indicators, third party research income as another input indicator, and a variety of output indicators of scientific production. An important result is that third party money has a positive effect on performance only below a certain and discipline-specific threshold. Further analysis shows that output performance is to a great extent field-specific. The context conditions for scientific production differ greatly, so that comparative performance assessments are only valid within homogeneous research fields. Another important result is that output performance is multidimensional and cannot be measured by bibliometric indicators only. These findings have implications for the rationality of the evaluation assessment exercises as well as for the funding decisions of science foundations, ministries of science and - increasingly, the heads of universities and departments. These topics are discussed in the last chapter as well as the implications for further research.

Keywords: Analysis, Assessment, Assessments, Bibliometric, Bibliometric Indicators, Citation, Competition, Education, Effects, Evaluation, Funding, Higher Education, Homogeneous, Impact, Income, Indicator, Indicators, Institutions, Meaning, Measurement, Optimal Size of Research Teams, Organization, Output, Paper, Peer Review, Performance, Performance Indicator, Performance of Research Teams, Performance-Based Evaluation, Production, Productivity, Qualitative, Reputation, Research, Research Funding, Research Performance, Role, Science, Science Policy, Scientific Production, System, Third Party Funding, Threshold, Universities, Validity

# Title: Korean Journal of Chemical Engineering

Full Journal Title: [Korean Journal of Chemical Enffgineering](http://www.springerlink.com/content/120599/)

ISO Abbreviated Title: Korean J. Chem. Eng.

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ISSN: 0256-1115

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Publisher Address: #307 Regent River View Office, 547-8 Kui-Dong Sungdong-Ku, Seoul 133-200, S

Subject Categories:

Chemistry: Impact Factor 0.304, 89/121

Engineering, Chemical: Impact Factor 0.304, 73/110

Kim, H.J., Moon, H. and Park, H.C. (1985), Multicomponent adsorption equilibria of phenols on activated carbon: Application of Ideal Adsorbed Solution (IAS) theory. *Korean Journal of Chemical Engineering*, **2** (2), 181-187.

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Moon, H., Kook, S.K. and Park, H.C. (1991), Adsorption of phenols onto a polymeric sorbent. *Korean Journal of Chemical Engineering*, **8** (3), 168-176.

Full Text: [K\Kor J Che Eng8, 168.pdf](K/Kor%20J%20Che%20Eng8,%20168.pdf)

Abstract: Adsorption of phenols from aqueous solutions onto a polymeric sorbent, SP206, was carried out in a finite batch adsorber. Multicomponent adsorption equilibrium data were experimentally measured and compared with those predicted by the ideal adsorbed solution theory (IAST) based on the Langmuir equation as single species isotherms. Intraparticle diffusion during adsorption was assumed to be expressed by the pore diffusion and the surface diffusion mechanisms and the effective diffusion coefficient of each species was determined by comparing experimental and predicted concentration histories. The surface diffusion model incorporated with the IAST successfully simulated the adsorption behaviour of a phenols-polymeric sorbent system up to three-species mixtures. The regeneration of spent sorbents was also investigated to get information for a cyclic adsorption process.

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Full Text: [1998\Kor J Che Eng15, 157.pdf](1998/Kor%20J%20Che%20Eng15,%20157.pdf)

Abstract: Biosorption is one of the useful phenomena that can be used for removal of heavy metals in wastewater. To date, many researchers have used Langmuir or Freundlich isotherms to quantify sorption capacity; however, these isotherms lack physical meaning for the adsorption mechanism, and parameters in isotherm equations must be obtained by experiment whenever environmental conditions change. We used a surface complexation model that considered adsorption phenomena as chemical reactions in solution. Using titration, we determined a surface active site and equilibrium constants for binding parameters. This model car, predict the pH effect on adsorption of Pb and could be applied to explain multi-ion and other competent chemicals such as EDTA.

Keywords: Adsorption, Adsorption Mechanism, Biomass, Biosorption, Brown Algae, Capacity, Complexation, Equilibrium, Heavy Metal Removal, Heavy Metals, Isotherm, Isotherms, Lead, Mathematical Modeling, Mechanism, Metals, pH Effect, Removal, Sorption, Surface Complexation Mechanism, Surface Complexation Model, Wastewater, Wastewater Treatment

Moon, D.J., Chung, M.J., Kim, H., Lee, B.G., Lee, S.D. and Park, K.Y. (1998), Adsorption equilibria of chloropentafluoroethane on activated carbon powder. *Korean Journal of Chemical Engineering*, **15** (6), 619-624.

Full Text: [K\Kor J Che Eng15, 619.pdf](K/Kor%20J%20Che%20Eng15,%20619.pdf)

Abstract: An equilibrium study was conducted on the adsorption of chloropentafluoroethane (CFC-115, CF3CF2Cl) on activated carbon powder between 298.15 K and 373.15 K. Experimental data were fitted with several isotherm equations. Among the two-parameter equations, the BET equation showed the best results over the entire relative pressure range studied. When the pressure range was divided into two regions, a better result was obtained by applying the Langmuir equation in the lower pressure range and the BET equation in the higher relative pressure region. Among the three-parameter equations, the Langmuir-Freundlich equation gave better results than the Redrich-Peterson equation. The isosteric heat of adsorption of CFC-115 on the activated carbon powder was estimated. It was found to have the same order of magnitude with the heat of condensation, which indicates that the adsorption was primarily due to physical forces.

Keywords: CFC-115, Chloropentafluoroethane, Activated Carbon, Adsorption Equilibrium, CFCs, Silica-Gel, Chlorofluoromethanes, Destruction, Ozone

Kim, K.R., Lee, S.H., Paek, S.W., Chung, H.S. and Yoo, J.H. (1999), Adsorption of cobalt(II) ion by titanium-based oxides in high temperature water. *Korean Journal of Chemical Engineering*, **16** (1), 34-39.

Full Text: [K\Kor J Che Eng16, 34.pdf](K/Kor%20J%20Che%20Eng16,%2034.pdf)

Abstract: Titanium-based adsorbents such as TiO2 and Fe-Ti-O were prepared by hydrolysis of Ti(OC3H7)4 and alkalinizing an equimolar mixed solution of TiCl4 and FeCl2 followed by heat treatment of their hydroxides, respectively. The prepared Fe-Ti-O adsorbent was found to be stable nonstoichiometric ferrous and ferric titanium oxides with pseudobrookite and rutile structures. The Co2+ adsorption characteristics of the adsorbent in high temperature water were investigated in the autoclave. Co2+ adsorption capacity of the Fe-Ti-O adsorbent was determined to be larger than that of TiO2 at high temperatures. The enthalpy changes of 34 and 49 kJ.mol-1 due to the adsorption of Co2+ On the TiO2 and Fe-Ti-O adsorbents indicate that the adsorption is endothermic in the experimental temperature range (15-280°C). From this preliminary study, titanium-based oxides are shown to have good potential applicability for reactor water purification as high temperature adsorption media.

Keywords: TiO2, Fe-Ti-O, Adsorbents, Cobalt(II) Ion, Reactor Water Purification, Removal

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Full Text: [1999\Kor J Che Eng16, 69.pdf](1999/Kor%20J%20Che%20Eng16,%2069.pdf)

Abstract: An accurate and realistic model for transient diffusion and adsorption in a biporous pellet is typically represented by two coupled second-order partial differential equations. The model, however, has been rarely used in practice because of its mathematical complexity and bulky numerical computation, and approximations of the model have been used instead. But the accuracy of the available approximations has been limited and not enough for de tailed analysis and simulation of the mass transfer process. Therefore, in this study, we develop for the first time high-order approximations, of up to third order, for noncyclic and cyclic adsorption in a biporous pellet, respectively. The approximations are in the form of a state equation which consists of first-order differential equations; the number of the equations is the same as the approximation order. The approximations are easy to use and their accuracy dramatically increases with increasing approximation order, so that the second- or the third-order approximations can effectively substitute the complex biporous diffusion model.

Keywords: Adsorption, Approximation, Biporous Adsorbent, Diffusion, Diffusion and Adsorption, Diffusivities, Fixed-Bed, LDF Equation

Choi, S.H. and Nho, Y.C. (1999), Adsorption of Pb2+, Cu2+ and Co2+ by polypropylene fabric and polyethylene hollow fiber modified by radiation-induced graft copolymerization. *Korean Journal of Chemical Engineering*, **16** (2), 241-247.

Full Text: [K\Kor J Che Eng16, 241.pdf](K/Kor%20J%20Che%20Eng16,%20241.pdf)

Abstract: Cation-exchange adsorbents were prepared by radiation-induced grafting of glycidyl methacrylate (GMA) onto polypropylene (PP) fabric and polyethylene (PE) hollow fiber and subsequent phosphonation of epoxy groups of poly(GMA) graft chains. The adsorption characteristics of Pb2+, Cu2+ and Co2+ for the two cation-exchange adsorbents were studied. In the grafting of GMA onto PP fabric, the degree of grafting (%) increased with an increase in reaction time, reaction temperature, and pre-irradiation dose. The maximum grafting yield was observed around 60 % CMA concentration. In 50, 130 and 250 % GMA-grafted PP fabric, the content of phosphoric acid was 1.52, 3.40 and 4.50 mmol/g at 80°C in the 85 % phosphoric acid aqueous solution for 24 h, respectively. The adsorption of Pb2+, Cu2+ and Co2+ by pp fabric adsorbent was enhanced with an increased phosphoric acid content. The order of adsorption capacity of the PP fabric adsorbent was Pb2+>Co2+>Cu2+. In adsorption of Pb2+, Cu2+ and Co2+ by PE hollow fiber, the amount of Pb2+ adsorbed by the PE hollow fiber adsorbent containing 1.21 mmol/g of -PO3H was ca. 54.4 g per kg. The adsorption amount of Cu2+ and Co2+ the same PE hollow fiber was ca. 21.0 g per kg and ca. 32.1 g per kg, respectively. The order of adsorption of the PE hollow fiber adsorbent was Pb2+>Co2+>Cu2+.

Keywords: Adsorbent, Adsorbents, Adsorption, Biomaterials, Capacity, Concentration, Copolymerization, Cu2+, Fabric, Graft Copolymerization, Grafting, Irradiation, Membrane, Modified, Phosphoric Acid, Polyethylene, Polyethylene Hollow Fiber, Polypropylene, Polypropylene Fabric, Radiation-Induced Graft Copolymerization, Reaction, Temperature, Yield

Park, Y.K., Chung, S.T. and Row, K.H. (1999), A simple method to determine the adsorption isotherm of taxol from a Yew tree. *Korean Journal of Chemical Engineering*, **16** (3), 388-391.

Full Text: [K\Kor J Che Eng16, 388.pdf](K/Kor%20J%20Che%20Eng16,%20388.pdf)

Abstract: Taxol, a powerful anticancer agent, was extracted from yew extract and separated by NP-HPLC (Normal-Phase High Performance Liquid Chromatography). At the mobile phase composition of hexane/IPA/MeOH, 90/4/6 vol%, taxol was preparatively separated in a chromatographic column with large packings (15 μm). The purified taxol was used to determine the adsorption isotherm of taxol. From the experimental results, the adsorption isotherm was obtained as the following Langmuir type,

C-s = 59.5C(M)/1+2.0C(M)

To obtain the adsorption isotherm, only two injections of a small and large amount of taxol were required, and the Langmuir adsorption parameters were calculated from the assumption of monolayer coverage on the solid surface.

Keywords: Taxol, Yew Tree, Langmuir Adsorption Isotherm, Chromatography, Hplc Separation, Phase

Kim, S.J., Hwang, K.R., Cho, S.Y. and Moon, H. (1999), Simultaneous removal of cyanide and copper ions in a semi-fluidized ion exchanger bed. *Korean Journal of Chemical Engineering*, **16** (5), 664-669.

Full Text: [K\Kor J Che Eng16, 664.pdf](K/Kor%20J%20Che%20Eng16,%20664.pdf)

Abstract: Simultaneous removal of cyanide and copper ions from electroplating wastewater was studied in a liquid-solid semi-fluidized ion exchanger bed. The diameter and the height of column are 20 mm and 600 mm, respectively Strong-base anion exchange resin particles (Dowex1X8-50) were contacted with synthetic solutions containing copper and cyanide ions. Cyanide and copper ions in the solution were analyzed by a cyanide electrode and ICP (inductively coupled plasma), respectively. The ion exchange equilibrium data of Cu+ removed as cyanide-copper complexes on Dowex1X8-50 at 25°C can be fitted with the Langmuir equation. Early leakage of cyanide from experimental loading profile data results in not only lower selectivity of free cyanide but also different selectivities of CN-Cu complexes due to the size and the structure of complexes. The optimum molar ratio (Q) between cyanide and copper ions is about 3 to obtain a reasonable removal rate of cyanide in this experiment.

Keywords: Simultaneous Removal, Cyanide, Copper, Ion-Exchange, Semi-Fluidized Bed

Yu, Q.M. and Kaewsarn, P. (1999), A model for pH dependent equilibrium of heavy metal biosorption. *Korean Journal of Chemical Engineering*, **16** (6), 753-757.

Full Text: [K\Kor J Che Eng16, 753.pdf](K/Kor%20J%20Che%20Eng16,%20753.pdf)

Abstract: Biosorption of heavy metals can be an effective process for the removal and recovery of heavy metal ions from aqueous solutions. The biomass of marine macro algae has been reported to have high uptake capacities for a number of heavy metal ions and the uptake capacities are strongly influenced by the value of the solution pH. In this paper, a modified Langmuir model was proposed for describing the pH dependent biosorption equilibrium and validated with isotherm data obtained from batch experiments and from the literature. The model assumes that the functional groups for heavy metal interactions are weakly acidic and the uptake capacities of the biomass are affected through the association and dissociation equilibrium between two apparent ionic forms. The model equations fitted the experimental data well, which supports the biosorption mechanism proposed.

Keywords: Adsorption-Isotherms, Uranium Biosorption, *Rhizopus-arrhizus*, *Mucor-Miehei*, Biomass, Mechanisms, Binding, Ions, Biosorption of Heavy Metals, Langmuir Equation, *Durvillaea potatorum*, Wastewater Treatment

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Full Text: [1999\Kor J Che Eng16, 758.pdf](1999/Kor%20J%20Che%20Eng16,%20758.pdf)

Abstract: Sorption experiments for Co-60, Sr-85, and Cs-137 Onto a Bulguksa granite were carried out to investigate the migration mobility. Reversibility and Linearity of sorption as well as sorption mechanism were examined. Sorption isotherms were fitted in the range of 10-3 M and 10-11 M and the applicability of the two isotherm equations, Langmuir and Freundlich, was examined. Sr-85 give rise to almost linear isotherms, while Co-60 and Cs-137 show nonlinear behavior. In order to distinguish sorption types of the cations, a sequential chemical extraction was introduced. The sorbed cations were extracted by applying different solutions of synthetic groundwater CaCl2, KCl, and KTOX(K2C2O4+NH2OH-HCl). Sorption types considered are reversible sorption under a groundwater condition, ion exchange, association with ferro-manganese oxides, and irreversible fixation.

Keywords: Cesium, Extraction Techniques, Fracture, Ion Exchange, Isotherm, Isotherms, Mechanism, Migration, Sediments, Sequential Chemical Extraction, Soils, Sorption, Sorption Isotherm, Sorption Linearity, Sorption Reversibility, Strontium, Surface Complexation Model

Kim, J.S., Chah, S. and Yi, J.H. (2000), Preparation of modified silica for heavy metal removal. *Korean Journal of Chemical Engineering*, **17** (1), 118-121.

Full Text: [K\Kor J Che Eng17, 118.pdf](K/Kor%20J%20Che%20Eng17,%20118.pdf)

Abstract: 2-hydroxy-5-nonyl-acetophenoneoxime, di-2, 4, 4-trimethylpentyl phosphinic acid, and a tertiary amine were bound on the silica surface after surface modification. The adsorption of the metal chelating agents appears to be due to physical attraction such as van der Waals interactions and not covalent bonding. Stability tests show that the adsorbents are stable under acidic conditions. Batch tests were conducted fur heavy metal ion adsorption and elution. Heavy metal ions which were adsorbed to the surface of the adsorbents could be recovered by elution with 0.1 M HCl.

Keywords: Acid, Separation, Phase, Metal Chelating Agents, Stability, Adsorption

? Lee, M.G., Yi, G., Ahn, B.J. and Roddick, F. (2000), Conversion of coal fly ash into zeolite and heavy metal removal characteristics of the products. *Korean Journal of Chemical Engineering*, **17** (3), 325-331.

Full Text: [2000\Kor J Che Eng17, 325.pdf](2000/Kor%20J%20Che%20Eng17,%20325.pdf)

Abstract: Fly ash obtained from a power generation plant was used for synthesizing zeolite. Zeolites could be readily synthesized from the glassy combustion residues and showed potential for the removal of heavy metal ions. By the use of different temperatures and NaOH concentration, five different zeolites were obtained: Na-P1, faujasite, hydroxy sodalite, analcime, and cancrinite. The synthesized zeolites had greater adsorption capabilities for heavy metals than the original fly ash and natural zeolites. Na-P1 exhibited the highest adsorption capacity with a maximum value of about 1.29 mmole Pb g-1 and had a strong affinity for Pb2+ ion. The metal ion selectivity of Na-P1 was determined as: Pb2+>Cu2+>Cd2+>Zn2+, consistent with the decreasing order of the radius of hydrated metal ion. The adsorption isotherm for lead by Na-P1 fitted the Freundlich rather than the Langmuir isotherm.

Keywords: Adsorption, Adsorption Capacity, Adsorption Isotherm, Capacity, Combustion, Fly Ash, Heavy Metal, Heavy Metal Adsorption, Heavy Metals, Isotherm, Langmuir Isotherm, Lead, Metal, Metal Ions, Metals, Removal, Sorption, Synthetic Zeolite, Zeolite

Lee, H.S. and Suh, J.H. (2000), Continuous biosorption of heavy metal ions by Ca-loaded Laminaria japonica in fixed bed column. *Korean Journal of Chemical Engineering*, **17** (4), 477-479.

Full Text: [K\Kor J Che Eng17, 477.pdf](K/Kor%20J%20Che%20Eng17,%20477.pdf)

Abstract: Continuous biosorption process for removal of lead and copper by laboratory scale fixed-bed reactor was carried out using Ca- loaded Laminaria japonica. All biosorption processes were observed as cation exchange such as Pb2+ vs. Ca2++, Cu2+ vs. Ca2+, and Pb2+ vs. Cu2+. The affinity of lead ions towards L. japonica was stronger than that of copper ions because the initial amount of desorbed Cu2+ in Cu-Pb system was higher than that of eluted Pb2+ in Pb-Cu system.

Keywords: Biosorption, Column, Copper, Fixed Bed, Fixed Bed Column, Fixed-Bed, Ion Exchange, Laminaria Japonica, Lead, Lead Ions, Metal Ions, Pb2+ Accumulation, Removal, Saccharomyces-Cerevisiae

Markovska, L., Meshko, V. and Noveski, V. (2001), Adsorption of basic dyes in a fixed bed column. *Korean Journal of Chemical Engineering*, **18** (2), 190-195.

Full Text: [K\Kor J Che Eng18, 190.pdf](K/Kor%20J%20Che%20Eng18,%20190.pdf)

Abstract: The adsorption of basic dyes from aqueous solution onto granular activated carbon and natural zeolite has been studied by using a fixed bed column. The design procedures for fixed bed adsorption columns have been investigated for two basic dyes, Maxilon Goldgelb GL EC 400% (MG-400) and Maxilon Shwarz FBL-01 300% (MS-300). The effects of process variables such as bed height, volumetric flow rate, and dye concentration have been investigated. The results have been used to predict the effect of parameter changes on the system by using the bed depth service time (BDST) approach. The performances of the column charged with the natural zeolite were compared with those of the column charged with activated carbon.

Keywords: Acid Dye, Activated Carbon, Activated-Carbon, Adsorption, Basic Dye, Bed Depth Service Time, Chitin, Color, Column, Dye, Fixed Bed, Fixed Bed Column, Fixed-Bed, Granular Activated Carbon, Natural Adsorbents, Natural Zeolite, Removal, Waste-Water Treatment, Zeolite

Lee, D.H. and Moon, H. (2001), Adsorption equilibrium of heavy metals on natural zeolites. *Korean Journal of Chemical Engineering*, **18** (2), 247-256.

Full Text: [K\Kor J Che Eng18, 247.pdf](K/Kor%20J%20Che%20Eng18,%20247.pdf)

Abstract: Prior to equilibrium experiments, a clinoptilolite-type Korean natural zeolite was pretreated with HCl, NaOH, and NaCl to improve the ion-exchange capacity for heavy metals. Single- and multi-species equilibrium data of heavy metals such as copper, cadmium, cesium, and lead on treated and untreated natural zeolites were measured experimentally. For single-species equilibrium data, one of the conventional adsorption isotherms, the Sips equation, was used to fit them and then multi-species equilibrium data were predicted by using the loading ratio correlation (LRC), the ideal adsorbed solution (IAS) theory, and the real adsorbed solution (RAS) theory based on the Sips equation. In applying the RAS theory, we used the Wilson equation for fitting activity coefficients of metal ions in the ion-exchanger phase. It was proven that basic adsorption models except the LRC model could describe multi-species ion-exchange equilibrium for heavy metals/natural zeolite systems well.

Keywords: Korean Natural Zeolite, Heavy Metals, Ion Exchange, Multi-Species Equilibrium, Ion-Exchange Equilibria, Prediction, Removal

? Lee, H.S. and Suh, J.H. (2001), Interference of aluminum in heavy metal biosorption by a seaweed biosorbent. *Korean Journal of Chemical Engineering*, **18** (5), 692-697.

Full Text: [2001\Kor J Che Eng18, 692.pdf](2001/Kor%20J%20Che%20Eng18,%20692.pdf)

Abstract: Heavy metal and Al sorption capacities of Ca-loaded Sargassum fluitans biomass were studied by using equilibrium methodology. An evaluation of sorption performance and modeling in a two-metal system was carried out with a modified multi-component Langmuir isotherm. The maximum uptakes of Cr, Pb, Cu, Cd, Zn and Al calculated from the Langmuir isotherm were 1.74 mmol/g, 1.65 mmol/g, 1.61 mmol/g, 1.15 mmol/g, 0.81 mmol/g, and 2.95 mmol/g at pH 4.5, respectively. The interference of Al in heavy metal biosorptive uptakes was assessed by ‘cutting’ the three-dimensional uptake isotherm surfaces at constant second-metal final concentrations. The reduction of Pb, Cu, Zn, Cd and Cr uptakes at its final equilibrium concentrations of 1 mM at pH 4.5 was 78.4%, 82.7%, 85.1%, 89.8% and 51.2% in the presence of 1 mM Al ion, respectively. The presence of Al ion greatly affected the uptake of all heavy metals tested except Cr.

Keywords: Aluminum, Biomass, Biosorption, Ca-Loaded Biomass, Equilibrium, Heavy Metal, Heavy Metals, Isotherm, Langmuir Isotherm, Metal, Metals, Modeling, Sargassum, Sargassum Fluitans, Sorption, Two-Metal System

Kim, T.Y., Kim, S.J. and Cho, S.Y. (2001), Effect of pH on adsorption of 2,4-dinitrophenol onto an activated carbon. *Korean Journal of Chemical Engineering*, **18** (5), 755-760.

Full Text: [K\Kor J Che Eng18, 755.pdf](K/Kor%20J%20Che%20Eng18,%20755.pdf)

Abstract: The adsorption characteristics of 2,4-dinitrophenol from water onto a granular activated carbon, F-400, were studied at pH 4.3, 7 and 10. Adsorption equilibria of 2,4-dinitrophenol on GAC could be represented by Sips equation. Equilibrium capacity increased with decreasing pH. The differences in the rates of adsorption are primarily attributable to the differences in the equilibrium at the various pHs. Intraparticle diffusion was explained by surface diffusion mechanism. An adsorption model based on the linear driving force approximation (LDFA) was used for simulating the adsorption behavior of 2,4-dinitrophenol in a fixed bed adsorber.

Keywords: Adsorption, 2,4-Dinitrophenol, Activated Carbon, Fixed Bed, pH, Liquid-Phase Adsorption

? Jeon, C., Park, J.Y. and Yoo, Y.J. (2001), Removal of heavy metals in plating wastewater using carboxylated alginic acid. *Korean Journal of Chemical Engineering*, **18** (6), 955-960.

Full Text: [2001\Kor J Che Eng18, 955.pdf](2001/Kor%20J%20Che%20Eng18,%20955.pdf)

Abstract: Potentially, biosorption is an economic process for metal sequestering from water. Carboxylated alginic acid showed high uptake capacities for heavy metals of 5-6 meq/g dry mass. For application to actual plating wastewater, the carboxylated alginic acid was immobilized using PVA. In order to remove chelating or organic materials in plating wastewater, oxidation using sodium hypochlorite was performed as a pretreatment. When carboxylated alginic acid bead was applied in a packed-bed contactor, the breakthrough point of copper ion in the acid-alkaline wastewater appeared around 350 bed volumes; the breakthrough point of nickel ion in the chelating wastewater emerged around 200 bed volumes. The adsorption capacity for heavy metal of the carboxylated alginic acid bead was higher than that of a commercial ion exchanger (IR-120 plus) in plating wastewater.

Keywords: Adsorption, Adsorption Capacity, Alginic Acid, Bead, Bed, Biosorption, Biosorption, Capacity, Copper, Heavy Metal, Heavy Metals, Ions, Metal, Metals, Nickel, Plating Wastewater, PVA, Sodium, Wastewater, Water

Lee, M.G., Lim, J.H. and Kam, S.K. (2002), Biosorption characteristics in the mixed heavy metal solution by biosorbents of marine brown algae. *Korean Journal of Chemical Engineering*, **19** (2), 277-284.

Full Text: [K\Kor J Che Eng19, 277.pdf](K/Kor%20J%20Che%20Eng19,%20277.pdf)

Abstract: The biomass of nonliving, dried marine brown algae U. pinnatifida, H. fusiformis, and S. fulvellum harvested in the sea near Cheju Island, Korea were studied for their sorption ability of copper, zinc, and lead. The metal uptakes by biosorbent materials increased with increasing initial metal concentration and pH in the range of C-i 0.05-10 mM. The higher metal uptakes were obtained in the range of pHs 4.0-5.3, 4.0-6.0, and 3.0-6.0 for copper, lead, and zinc, respectively. The metal uptakes by biosorbent materials decreased in the following sequence: U. pinnatifida>H. fusiformis>S. fulvellum. The maximum metal uptake values of U. pinnatifida for Cu2+, Pb2+, and Zn2+ in the single metal solution are 2.58, 2.6, and 2.08 meq/g in the range of pHs 5.3-4.4, respectively. The metal uptakes by biosorbent materials in the mixed metal solution decreased greatly in comparison to each metal uptake in the single metal solution.

Keywords: Accumulation, Biomass, Biosorbents, Biosorption, Biosorption Rate, Brown Algae, Copper, Cu2+, Heavy Metal, Ions, Lead, Marine Brown Algae, Metal, Mixed Metal Ions, Recovery, Removal, Sorption, Zn2+

Kang, T.W., Park, Y., Park, J.C., Cho, Y.S. and Yi, J.H. (2002), Preparation of chemically active mesoporous adsorbent for Pt(II) and Pd(II) adsorption from aqueous solutions. *Korean Journal of Chemical Engineering*, **19** (4), 685-687.

Full Text: [K\Kor J Che Eng19, 685.pdf](K/Kor%20J%20Che%20Eng19,%20685.pdf)

Abstract: Chemically active mesoporous silica was prepared via grafting of N-(3-triethoxysilylpropyl)-4,5-dihydroimidazole. Binding behavior of the adsorbent toward Pt(II) and Pd(II) ions was investigated. In addition, the properties of the adsorbent, such as pore structure and pore uniformity, were also examined. Results showed that the adsorbents developed in this study have high affinity for noble metal ions, such as Pt(II) and Pd(II), in aqueous solutions.

Keywords: Imidazole, Mesoporous Silica, Adsorbent, Noble Metal Ion, Metal, Silica

Kim, S.J., Shim, W.G., Kim, T.Y., Moon, H., Kim, S.J. and Cho, S.Y. (2002), Adsorption equilibrium characteristics of 2,4-dichlorophenoxyacetic acid and 2,4-dinitrophenol on granular activated carbons. *Korean Journal of Chemical Engineering*, **19** (6), 967-977.

Full Text: [K\Kor J Che Eng19, 967.pdf](K/Kor%20J%20Che%20Eng19,%20967.pdf)

Abstract: Adsorption characteristics of 2,4-dichlorophenoxyacetic acid (2,4-D) and 2,4-dinitrophenol (2,4-dNP) onto granular activated carbon (GAC) were studied to obtain basic information on their removal from aqueous solution. Single component adsorption equilibria of 2,4-d and 2,4-dNP dissolved in water have been measured for three kinds of GACs (F400, SLS103, and WWL). In case of 2,4-d, the mapitude of adsorption capacity was in the order of F400>SLS103>WWL, and that for 2,4-dNP was SLS103>F400>WWL. The influence of temperature and initial pH of aqueous solution on adsorption has been discussed in detail by using the Sips equation.

Keywords: Adsorption, GAC, 2,4-dichlorophenoxyacetic Acid, 2,4-dinitrophenol, Equilibrium Aqueous-Solutions, 2,4-D

Kim, S.J., Kim, T.Y., Kim, S.J. and Cho, S.Y. (2002), A study of adsorption behavior of 2,4-dichlorophenoxyacetic acid onto various GACs. *Korean Journal of Chemical Engineering*, **19** (6), 1050-1058.

Full Text: [K\Kor J Che Eng19, 1050.pdf](K/Kor%20J%20Che%20Eng19,%201050.pdf)

Abstract: Adsorption and desorption of 2,4-dichlorophenoxyacetic acid (2,4-d) onto granular activated carbon (GAC) were studied to get basic information on their removal from aqueous solution. Single species adsorption equilibria of 2,4-d dissolved in water have been measured using F400, SLS103, and WWL. Equilibrium capacity increased with decreasing pH. The magnitude of adsorption capacity of 2,4-d was the order of F400>SLS103>WWL. Kinetic parameters were measured in a batch adsorber to analyze the adsorption rate of 2,4-d. The internal diffusion coefficients were determined by comparing the experimental concentration curve with that predicted from the surface diffusion model (SDM) and Pore diffusion model (PDM). The linear driving force approximation (LDFA) model was used to simulate isothermal adsorption behaviors in a fixed bed adsorber and successfully simulated experimental adsorption breakthrough behavior under various operation conditions.

Keywords: Adsorption, Activated Carbon, 2,4-dichlorophenolacetic Acid, Equilibrium, Batch Adsorption, Fixed Bed, Activated Carbon

? Kim, S.J., Lim, K.H., Joo, K.H., Lee, M.J., Kil, S.G. and Cho, S.Y. (2002), Removal of heavy metal-cyanide complexes by ion exchange. *Korean Journal of Chemical Engineering*, **19** (6), 1078-1084.

Full Text: [2002\Kor J Che Eng19, 1078.pdf](2002/Kor%20J%20Che%20Eng19,%201078.pdf)

Abstract: Simultaneous removal of heavy metal and cyanide ions in an ion exchange column is studied on the basis of formation of metal-cyanide complexes at high pH range. Strong base anion exchange resin beads were contacted with water containing heavy metal (Cu, Cd, Zn) and cyanide ions in semi-fluidized and fluidized beds. Compositions of the heavy metal-cyanide complexes formed for different heavy metal and cyanide concentrations are used to explain the ion exchange behavior. Ion exchange equilibrium data of this study were fitted well with the Langmuir isotherm. The ion exchange capacity of CN- as metal complexes increased to about three times that of free cyanide due to higher selectivity of metal complexes on the anion exchange resin. The ion exchange efficiency of the three heavy metal-cyanide systems decreases as the concentration ratio of cyanide and heavy metal increases. The regeneration rates of the regenerants used was in the order of NaSCN>NaCN>NaOH, and the regeneration rate of NaOH was substantially lower than other two.

Keywords: Bed, Biosorption, Cadmium, Capacity, Complex, Copper, Cyanide, Equilibrium, Heavy Metal, Ion Exchange, Isotherm, Langmuir Isotherm, Metal, Recovery, Regeneration, Removal, Semi-Fluidized, Waste-Water, Water

Kang, C.D., Sim, S.J., Cho, Y.S. and Kim, W.S. (2003), Process development for the removal of copper from wastewater using ferric/limestone treatment. *Korean Journal of Chemical Engineering*, **20** (3), 482-486.

Full Text: [K\Kor J Che Eng20, 482.pdf](K/Kor%20J%20Che%20Eng20,%20482.pdf)

Abstract: The removal of copper from wastewater by ferric/limestone coagulation followed by screen filtration was carried out at a laboratory scale. The optimum coagulant (FeCl3) dose and working pH were 50 mg/l of Fe(III) and pH 7.5, respectively, through jar tests. For the efficient removal of copper from wastewater, we developed a novel process including the co-precipitation of copper with FeCl3, alkalization in a limestone aeration bed, and separation of precipitates in a sedimentation tank coupled with internal stainless steel screen filter. The performance results showed that removal of copper from the solution was over 99.5%. The pH was effectively maintained over 7.5 in limestone bed during the whole process. Ferric hydroxide/copper aggregates were removed over 99% by stainless steel screen filter of 1, 450 mesh. Periodic air backwashing alleviated fouling of the filter surface.

Keywords: Copper, Limestone, Ferric Chloride, Coagulation, Filtration, Heavy-Metal Ions, Aqueous-Solution, Water, Coagulation

Rengaraj, S., Kim, Y., Joo, C.K., Choi, K.H. and Yi, J.H. (2004), Batch adsorptive removal of copper ions in aqueous solutions by ion exchange resins: 1200H and IRN97H. *Korean Journal of Chemical Engineering*, **21** (1), 187-194.

Full Text: [K\Kor J Che Eng21, 187.pdf](K/Kor%20J%20Che%20Eng21,%20187.pdf)

Abstract: The removal of copper from aqueous solution by ion exchange resins, such as 1200H and IRN97H, is described. Effect of initial metal ion concentration, agitation time and pH on adsorption capacities of ion exchange resins was investigated in a batch mode. The adsorption process, which is pH dependent, shows maximum removal of copper in the pH range 2-7 for an initial copper concentration of 10 mg/L. The experimental data have been analyzed by using the Freundlich, Langmuir, Redlich-Peterson, Temkin and Dubinin-Radushkevich isotherm models. The batch sorption kinetics have been tested for a first-order, pseudo-first order and pseudo-second order kinetic reaction models. The rate constants of adsorption for all these kinetic models have been calculated. Results showed that the intraparticle diffusion and initial sorption into resins of Cu(II) in the ion exchange resins was the main rate limiting step. The uptake of copper by the ion exchange resins was reversible and thus has good potential for the removal/recovery of copper from aqueous solutions. We conclude that such ion exchange resins can be used for the efficient removal of copper from water and wastewater.

Keywords: Adsorption, Adsorption Isotherms, Adsorption Kinetics, Copper, Copper(II), Diffusion, First Order, Ion Exchange, Ion Exchange Resins, Isotherm, Kinetic, Kinetic Models, Kinetics, Metal, Modified Silica, Pseudo Second Order, Pseudo-First Order, Pseudo-First Order and Pseudo-Second Order, Pseudo-Second Order, Removal, Separation, Sorption, Waste-Water, Wastewater, Water

? Cho, D., Youn, S.H. and Rhee, I.H. (2004), Interaction of β-cyclodextrin with lipophilic ring compounds deposited in a sandy soil matrix during flushing. *Korean Journal of Chemical Engineering*, **21** (2), 389-397.

Full Text: [2004\Kor J Che Eng21, 389.pdf](2004/Kor%20J%20Che%20Eng21,%20389.pdf)

Abstract: Chemical soil flushing in a packed sandy soil matrix using a natural surfactant, beta-cyclodextrin (CD) was investigated via a fluorescence spectroscopy and a dye labeling. The contaminants are lipophilic ring compounds phenanthrene and naphthalene. Sand type and flushing intensity (rate and concentration) are critical investigation variables. The removal efficiencies were proportional to flow rate, concentration, temperature of the flushing solution and voidity of the sand column. Initial sorption of the surfactant onto the soil matrix was found to be a key step while flow shear was more crucial in the later steps. From time delay experiments before flushing, we speculate that the complexation reaction appears to be rate-limiting in non-equilibrium washing schemes.

Keywords: Aquifer Remediation, Beta-Cyclodextrin, Cd, Columns, Complexation, Dye, Field-Scale, Flow Rate, Kinetics, Lipophilic Compounds, Oils, Phase, Polarity Organic-Compounds, Removal, Sand, Sandy Soil, Solubilization, Sorption, Surfactant, Surfactant Flushing, Surfactant-Enhanced Remediation

? Kang, M.J. and Hahn, P.S. (2004), Adsorption behavior of aqueous europium on Kaolinite under various disposal conditions. *Korean Journal of Chemical Engineering*, **21** (2), 419-424.

Full Text: [2004\Kor J Che Eng21, 419.pdf](2004/Kor%20J%20Che%20Eng21,%20419.pdf)

Abstract: This work investigated the adsorption behavior of europium on kaolinite under various disposal conditions. Batch-wise adsorption and precipitation experiments and equilibrium model calculations were performed over a pH range of 4-10 and CO2 concentration range of 0%, 0.03%, and 10%. Experimental precipitation behaviors are in agreement with the results of equilibrium model calculations using the geochemical code MINTEQA2. Aqueous species of Eu3+ exists mainly at pH 5 or below and solid phases of Eu(OH)3(s), Eu(OH)CO3(S), and Eu2(CO3)33H2O(s) are formed at higher pH ranges. Adsorption behavior of Eu on kaolinite in the low pH range can be explained by interlayer ion-exchange reaction. The significant increase in adsorbed amount at pH 5-6 is due to the surface complexation at the edge site of kaolinite. In the high pH range, precipitation of Eu contributes mainly to the adsorption quantity. The rapid decrease in adsorbed amount above pH 7 under 10% CO, condition occurs by the formation of anionic europium species of Eu(CO3)2-. The adsorption of Eu on kaolinite could be well interpreted by the Freundlich adsorption isotherm. The data except for the highest equilibrium concentration ranges were also explained by Langmuir isotherm and the maximum adsorbed quantity of Eu on kaolinite, b, is 1.2 mg/g.

Keywords: Acid, Adsorption, Adsorption Isotherm, CO2, Complexation, Equilibrium, Europium, Ion Exchange, Isotherm, Kaolinite, Langmuir Isotherm, Sorption, Species

? Chae, Y.R., Yoon, Y.J. and Ryu, K.G. (2004), Development of modified stokes expression to model the behavior of expanded beds containing polydisperse resins for protein adsorption. *Korean Journal of Chemical Engineering*, **21** (5), 999-1002.

Full Text: [2004\Kor J Che Eng21, 999.pdf](2004/Kor%20J%20Che%20Eng21,%20999.pdf)

Abstract: Expanded bed behavior was modeled by using the Richardson-Zaki correlation between the superficial velocity of the feed stream and the void fraction of the bed. A polydisperse material, Chelating excellose(R) (70-210 μm in diameter, 1.21 g/cm3 in density), which has Ni2+ ions for the selective binding of histidine-tagged proteins, was used as the resin. A method to modify the Stokes expression to express the terminal settling velocity of the resins by introducing two empirical parameters, the effective diameter of the resins and an exponent for (rho(p)-rho)/mu term, was developed. Combined use of the Richardson-Zaki correlation and the modified Stokes expression was successful in modeling the bed expansion by incorporating physical properties of feed streams and the resins.

Keywords: Adsorption, Behavior, Correlation, Dehydrogenase, Density, Expanded Bed, Model, Modeling, Modified, Parameters, Physical Properties, Properties, Protein, Protein Adsorption, Proteins, Resins, Scale-Up, Selective, Settling Velocity, Stokes Expression, Stream, Streams, Void Fraction

? Moon, J.K., Lee, E.H. and Kim, H.T. (2004), Ion exchange of Cs ion in acid solution with potassium cobalt hexacyanoferrate. *Korean Journal of Chemical Engineering*, **21** (5), 1026-1031.

Full Text: [2004\Kor J Che Eng21, 1026.pdf](2004/Kor%20J%20Che%20Eng21,%201026.pdf)

Abstract: Potassium cobalt hexacyanoferrate (KCoFC) was synthesized for removal of Cs ions in acid waste solution. The synthesized KCoFC was stable in nitric acid solution of pH=1 and showed high selectivity for Cs ion over Sr and Na ions. The K-d,K-cs for 0.01 N Cs ion solution at pH=2 was about 3.6×103 mL/g in the presence of the same concentrations of Sr and Na ions, respectively. In the binary ion exchange system, both the Dubinin-Polanyi model and Langmuir model fit the experimental data, although the Dubinin-Polanyi model fit more correctly than the Langmuir model. However, in the multi-component system, only the modified Dubinin-Polanyi model, which is a semi-empirical equation, fit the experimental data accurately. The ion exchange capacity of KCoFC for Cs ion obtained by the Dubinin-Polanyi equation was 1.72 meq/g.

Keywords: 4A, Capacity, Cesium, Cesium Ion, Cobalt, Distribution Coefficient, Ion Exchange, Nickel Hexacyanoferrate(II), Potassium Cobalt Hexacyanoferrate, Radioactive Liquid Waste, Removal, Separation, Separation Factor, Sorption, Strontium, Uptake Behavior, Zeolite Columns

? Son, B.C., Park, K., Song, S.H. and Yoo, Y.J. (2004), Selective biosorption of mixed heavy metal ions using polysaccharides. *Korean Journal of Chemical Engineering*, **21** (6), 1168-1172.

Full Text: [2004\Kor J Che Eng21, 1168.pdf](2004/Kor%20J%20Che%20Eng21,%201168.pdf)

Abstract: Although much research has been conducted on the separation of single species of heavy metal, the selective adsorption of two or more heavy metals in mixture is relatively little known. In this study, polysaccharide beads were prepared to selectively remove the targeted heavy metal ion from mixture. Among the biomasses, polysaccharide was examined due to its low cost and easy accessibility. In a single metal ion system, chitosan, lambda-carrageenan, and alginic acid showed high affinity to mercury, copper, and lead, respectively. In the ion mixture, the same trend shown in the single metal ion solution was observed. The optimum electrolyte concentraion was investigated to adsorb the metal ion selectively, and it was possible to remove the targeted metal ion selectively with chitosan, alginic acid and lambda-carrageenan at 1 mmol concentration of electrolyte. In order to demonstrate the feasibility of selective biosorption, two packed-bed reactors in series containing chitosan and alginic acid beads in each were studied and selective adsorption to Hg2+ and Pb2+, respectively, was observed.

Keywords: Adsorption, Bioseparation, Biosorption, Cadmium, Chitosan, Copper, Heavy Metal, Heavy Metal Ion, Heavy Metals, Lead, Mercury, Metal, Metal Ions, Metals, Model, Polysaccharides, Research, Selective Biosorption, Surface, Water, Zinc

Kim, T.Y., Park, S.K., Cho, S.Y., Kim, H.B., Kang, Y., Kim, S.D. and Kim, S.J. (2005), Adsorption of heavy metals by brewery biomass. *Korean Journal of Chemical Engineering*, **22** (1), 91-98.

Full Text: [2005\Kor J Che Eng22, 91.pdf](2005/Kor%20J%20Che%20Eng22,%2091.pdf)

Abstract: In this work, biosorption of lead, copper and cadmium by waste brewery yeast has been studied. The adsorption capacity for lead, copper and cadmium on the biomass increased with the increasing temperature and the maximum uptakes were 0.465 mmolPb/g (96.4 mg/g), 0.769 mmolCu/g (48.9 mg/g) and 0.127 mmolCd/g (14.3 mg/g) at 308 K. The Langmuir isotherm, favorable type, and the pseudo second-order kinetic model represent our experimental data very well. The heat of biosorption was evaluated from the Langmuir isotherm equation, and the biosorption of lead, copper and cadmium was endothermic reaction.

Keywords: Adsorption, Adsorption Capacity, Aqueous-Solutions, Biosorption, Biosorption, Brewery Yeast, Cadmium, Capacity, Copper, Equilibrium, Heavy Metal, Heavy Metals, Ions, Isotherm, Kinetic, Langmuir Isotherm, Lead, Metals, pH, Pseudo Second Order, Removal, Saccharomyces-Cerevisiae, Second Order, Sorption, Uranium

? Park, J.C., Joo, J.B. and Yi, J. (2005), Adsorption of acid dyes using polyelectrolyte impregnated mesoporous silica. *Korean Journal of Chemical Engineering*, **22** (2), 276-280.

Full Text: [2005\Kor J Che Eng22, 276.pdf](2005/Kor%20J%20Che%20Eng22,%20276.pdf)

Abstract: Cationic polyelectrolyte, PDDA (Poly(diallyldimethylammonium chloride)), was impregnated on mesoporous silica SBA-15 (PDDA/SBA-15) and amorphous conventional silica (PDDA/CS) supports. Acid dye adsorption characteristics, such as adsorption kinetics, adsorption isotherms, maximum adsorption capacity, and breakthrough curves of the prepared PDDA/SBA-15 and PDDA/CS adsorbents, were examined by batch and column adsorption techniques where the Acid Violet 17, Acid Red 44, and Acid Blue 45 were used as target adsorbates. PDDA/SBA-15 adsorbent showed fast adsorption kinetics of less than 10 min and much higher adsorption capacities compared to PDDA/CS due to large pore sizes, ordered cylindrical pore structures, and high amount of impregnated PDDA. Results from batch and column experiments showed that practical use of PDDA/SBA-15 adsorbent for effective removal of acid dyes from aqueous solution would be possible. Polyelectrolyte impregnation method was suggested as a simple method for the development of adsorbent with large pore diameters and efficient adsorption characteristics.

Keywords: Acid Dye, Adsorbent, Adsorption, Adsorption Isotherm, Adsorption Isotherms, Advanced Oxidation Processes, Aqueous-Solution, Breakthrough Curve, Breakthrough Curves, Carbons, Dye, Dye Adsorption, Earth, Kinetics, Mesoporous Silica, Polyelectrolyte, Removal, Surface, Waste, Water

? Shin, E.W. (2005), Cadmium removal by Juniperus monospenna: The role of calcium oxa late monohydrate structure in bark. *Korean Journal of Chemical Engineering*, **22** (4), 599-604.

Full Text: [2005\Kor J Che Eng22, 599.pdf](2005/Kor%20J%20Che%20Eng22,%20599.pdf)

Abstract: This study suggests that calcium oxalate monohydrate over Juniperus monosperma bark is an ion-exchangeable site for cadmium adsorption on the basis of its cadmium adsorption behavior and surface characterization. Cadmium adsorption behavior showed that jumper bark had a higher cadmium adsorption capacity (84.6 mu mol Cd g-1 at pH 5) than jumper wood (32.0 mu mol Cd g-1 at pH 5), and that the base-treatment improved the cadmium adsorption capacity of only juniper wood. This difference between juniper bark and wood might have originated from different cadmium binding sites. In calcium displacement, the cadmium uptake onto juniper bark was identical to the amount of calcium ions displaced, which indicated that calcium played an important role in cadmium adsorption onto juniper bark. X-ray diffraction (XRD) results gave evidence that only juniper bark contained the structure of calcium oxalate monohydrate. Furthermore, cadmium adsorption decreased the intensity of the characteristic XRD peaks for calcium oxalate monohydrate. In diffuse reflectance infrared Fourier transform (DRIFT) spectra, existence of oxalate on juniper bark was proven again and interpretation on IR. band of carbonyl groups matched significantly the cadmium adsorption behavior.

Keywords: Calcium Oxalate Monohydrates, Juniperus Monosperma Bark, Cadmium Adsorption, Oxalate Monohydrate, FT-IR, Crystal-Growth, Metal-Ions, Spectroscopy, Biosorption, Moss, Esterification, Improvement, Kinetics

? Zhang, H.T., Yu, P., Yuan, Z. and Luo, Y.B. (2006), Study of adsorption behavior using activated carbon for removal of colored impurities from 30% caprolactam solution produced by means of SNIA-toluene-technology. *Korean Journal of Chemical Engineering*, **22** (3), 455-463.

Full Text: [2006\Kor J Che Eng22, 455.pdf](2006/Kor%20J%20Che%20Eng22,%20455.pdf)

Abstract: We studied the adsorption removal of the colored impurities from caprolactam solution by granular activated carbons. It was observed that removal was favored at lower pH (pH 3.84 or below) and higher temperature. The effects of concentration, dosage of activated carbons, contact time have been also reported. Uptake of colored impurities was very rapid in the first 100 minutes and reached equilibrium after 24 h. The batch adsorption kinetics was found to follow the pseudo-second-order model and the rate constants of adsorption for all these kinetic models have been calculated. Three isotherm expressions Langmuir, Freundlich and Trinomial were shown to fit with the experimental results successfully. The mass transfer coefficient 8 and the effective diffusion coefficient in aqueous phase D-eff was calculated under a temperature 35-80°C. The value of the mean free energy of adsorption E signifies that the adsorption of colored impurities onto activated carbon has a physical nature.

Keywords: Colored Impurities, Caprolactam Solution, Activated Carbon, Adsorption Kinetics, Diffusion, Epsilon-Caprolactam, 2,4-Dichlorophenoxyacetic Acid, Equilibrium, Kinetics, 2,4-Dinitrophenol, Diffusion, Water

? Kim, T.Y. and Cho, S.Y. (2005), Adsorption equilibria of reactive dye onto highly polyaminated porous chitosan beads. *Korean Journal of Chemical Engineering*, **22** (5), 691-696.

Full Text: [2005\Kor J Che Eng22, 691.pdf](2005/Kor%20J%20Che%20Eng22,%20691.pdf)

Abstract: The adsorption of vinyl sulfone type reactive black 5 (RB 5) in aqueous solution onto chitosan beads and cross-linked chitosan beads with glutaraldehyde has been investigated in terms of initial pH and temperature of the solution. The adsorption equilibrium data were correlated with three adsorption models, such as Langmuir, Freundlich and Sips isotherms. Among them, the Freundlich isotherm best fit the data over the entire pH and temperature range of the solution. The adsorption capacity of RB 5 onto chitosan beads and cross-linked chitosan beads increased with decreasing initial pH and with increasing temperature. Equilibrium amount of RB 5 on chitosan beads was greater than that of cross-linked chitosan beads at the same initial pH values. Thermodynamic studies have also been carried out and values of standard free energy (ΔG°), enthalpy (ΔH°) and entropy (ΔS°) were calculated.

Keywords: Adsorption, Adsorption Capacity, Capacity, Chitosan, Chitosan Beads, Color, Cross-Linked Chitosan, Cross-Linked Chitosan Beads, Cross-Linking, Cross-Linking, Dye, Equilibrium, Immobilization, Isotherm, Isotherms, Reactive Dye, Sorption

? Kim, J.H., Shin, W.S., Kim, Y.H., Choi, S.J., Jo, W.K. and Song, D.L. (2005), Sorption and desorption kinetics of chlorophenols in hexadecyltrimethyl ammonium-montmorillonites and their model analysis. *Korean Journal of Chemical Engineering*, **22** (6), 857-864.

Full Text: [2005\Kor J Che Eng22, 857.pdf](2005/Kor%20J%20Che%20Eng22,%20857.pdf)

Abstract: Sorption and desorption kinetics of chlorophenols, 2-chlorophenol (2-ChP), 2,4-dichlorophenol (2,4-DChp) and 2,4,5-trichlorophenol (2,4,5-TChP), in montmorillonite modified with hexadecyltrimethyl ammonium cations (HDTMA-mont) were investigated by using laboratory batch adsorbers. To investigate the effect of chemical concentration and sorbent weight on the sorption or desorption rate constants, the initial chemical concentration and sorbent weight were varied from 50 to 150 mg/L and from 0.2 to 1.0 g, respectively. A one-site mass transfer model (OSMTM) and two compartment first-order kinetic model (TCFOKM) were used to analyze kinetics. The OSMTM applicable to desorption rate analysis was newly derived. As expected from the number of model parameters involved, the three-parameter TCFOKM was better than the two-parameter OSMTM in describing sorption and desorption kinetics of chlorophenols in HDTMA-mont. The mass transfer coefficient for sorption (k(s)) in OSMTM generally increased as K-ow value increases, except for 2,4,5-TChP, while the mass transfer coefficient for desorption (k(d)) consistently increases as K-ow value decreases, due to the weaker hydrophobic interaction between the solute and the organoclay. Since most sorption and desorption complete in an hour and half an hour, respectively, k(d) values were found to be greater than k(s) values for all three solutes studied. The fraction of the fast sorption (or desorption) and the first-order sorption (or desorption) rate constants for the fast and slow compartments in TCFOKM were determined by fitting experimental data to the TCFOKM. The results of kinetics reveal that the fraction of the fast sorption or desorption and the sorption rate constants in the fast and slow compartments were in the order 2,4,5-TChP > 2,4-DChP > 2-ChP, which agrees with the magnitude of the octanol-water partition coefficient, K-ow. The first-order sorption rate constants in the fast and slow compartments were found to vary 101-102 hr-1 and 10-3-10-2 hr-1, respectively. However, the desorption rate constants in the fast and slow compartments were not correlated well with K,,,. The first-order desorption rate constants in the fast compartment (101-102 hr-1) were found to be much larger than those in the slow compartment (10-3-104 hr-1). Sorption affinity and desorption resistance of each chlorophenol in 50% HDTMA-mont were found to show the same tendency: the weakly-sorbed chlorophenol (i.e., 2-ChP) was easily desorbed, while the strongly-sorbed chlorophenol (i.e., 2,4,5-TChP) was rather resistant to desorption.

Keywords: Adsorption, Cationic Surfactant, Chlorophenols, Clay, Containment Barriers, Desorption, Desorption Kinetics, First Order, Hdtma, Interaction, Kinetic, Kinetics, Mass Transfer, Montmorillonite, Organic Contaminants, Organobentonites, Organoclay, Organoclays, Phenol, Soil, Sorption, Water

? Choi, K.J., Kim, S.G., Kim, C.W. and Park, J.K. (2006), Removal efficiencies of endocrine disrupting chemicals by coagulation/flocculation, ozonation, powdered/granular activated carbon adsorption, and chlorination. *Korean Journal of Chemical Engineering*, **23** (3), 399-408.

Full Text: [2006\Kor J Che Eng23, 399.pdf](2006/Kor%20J%20Che%20Eng23,%20399.pdf)

Abstract: Removal efficiencies of endocrine disrupting chemicals (EDCs), bisphenol A and nonylphenol, during various types of water treatment processes were evaluated extensively using laboratory- and pilot-scale experiments. The specific processes of interest were coagulation/flocculation sedimentation/filtration (conventional water treatment process), powdered activated carbon (PAC), granular activated carbon (GAC), ozonation and chlorination. Batch sorption tests, coagulation tests, and ozone oxidation tests were also performed at higher concentrations with 14 EDCs including bisphenol A. The conventional water treatment process had very low removal efficiencies (0 to 7%) for all the EDCs except DEHP, DBP and DEP that were removed by 53%, 49%, and 46%, respectively. Ozonation at 1 mgO(3)/L removed 60% of bisphenol A and 89% of nonylphenol, while chlorination at 1 mg/L removed 58% and 5%, respectively. When ozone and chlorine doses were 4 and 5 mg/L, respectively, both EDCs were not detected. PAC removal efficiencies ranged from 15% to 40% at 3 to 10 mg/L of PAC with a contact time of 15 minutes. In the high concentration batch sorption tests, EDC removal efficiencies by PAC were closely related to octanol-water partition coefficient (K-ow). GAC adsorption was very effective water treatment process. The type and service time of GAC did not affect EDC removal efficiencies. The combination of ozonation and GAC in series appears to remove EDCs effectively to safe levels while conventional water treatment could not.

Keywords: Activated Carbon, Adsorption, Bisphenol-A, Carbon, Chromatography-Mass Spectrometry, Endocrine Disrupting Chemicals, Henrys Law Constants, Organic-Chemicals, Phthalate-Esters, Removal, Sewage-Treatment Plants, Solid-Phase Extraction, Sorption, Vapor-Pressures, Waste-Water, Water, Water Partition-Coefficients, Water Treatment

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Full Text: [2006\Kor J Che Eng23, 455.pdf](2006/Kor%20J%20Che%20Eng23,%20455.pdf)

Abstract: We studied the adsorption removal of the colored impurities from caprolactam solution by granular activated carbons. It was observed that removal was favored at lower pH (pH 3.84 or below) and higher temperature. The effects of concentration, dosage of activated carbons, contact time have been also reported. Uptake of colored impurities was very rapid in the first 100 minutes and reached equilibrium after 24 h. The batch adsorption kinetics was found to follow the pseudo-second-order model and the rate constants of adsorption for all these kinetic models have been calculated. Three isotherm expressions Langmuir, Freundlich and Trinomial were shown to fit with the experimental results successfully. The mass transfer coefficient 8 and the effective diffusion coefficient in aqueous phase D-eff was calculated under a temperature 35-80 degrees C. The value of the mean free energy of adsorption E signifies that the adsorption of colored impurities onto activated carbon has a physical nature.

Keywords: 2,4-Dichlorophenoxyacetic Acid, 2,4-Dinitrophenol, Activated Carbon, Adsorption, Adsorption Kinetics, Batch, Caprolactam Solution, Colored Impurities, Diffusion, Diffusion, Epsilon-Caprolactam, Equilibrium, Kinetic Models, Kinetics, Langmuir, Water

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Full Text: [2006\Kor J Che Eng23, 812.pdf](2006/Kor%20J%20Che%20Eng23,%20812.pdf)

Abstract: Adsorption equilibrium of two amino acids - Phenylalanine (Phe) and Tryptophane (Trp) - onto nonionic polymeric sorbent, SP850 was studied under various pH values and temperatures. Adsorption equilibrium data of two amino acids on SP850 were fitted well with the Langmuir and Freundlich equations Thermodynamic parameters such as Gibbs free energy (ΔG); enthalpy (ΔH), and entropy (ΔS) were evaluated by applying,the Van’t Hoff equation. Besides, adsorption kinetic of Phe was also investigated. Adsorption kinetic data were analyzed using the models of pseudo first-order, pseudo-second-order and intraparticle diffusion. The results indicated that the pseudo-second.:order model was more successful in simulating the adsorption kinetic data and the adsorption rate was mainly controlled by the diffusion rate in adsorption process. On the, other hand, desorption studies were conducted by employing different organic, solvents such as isopropyl alcohol (IPA), ethanol, and methanol. It was found that IPA was the, best material for desorbing amino acid on the polymeric sorbent.

Keywords: Adsorption, Desorption, Amino Acids, Nonionic Polymeric Sorbent, Amino-Acids, Aqueous-Solution, Cephalosporin-C, Equilibrium, Removal, Adsorbents, Kinetics, Sawdust, Carbon, Resins

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Full Text: [2006\Kor J Che Eng23, 997.pdf](2006/Kor%20J%20Che%20Eng23,%20997.pdf)

Abstract: A rate model was adapted to simulate the dynamics of protein adsorption. This model takes axial dispersion and film mass transfer into account where there is a nonlinear adsorption isotherm for protein. The model equations were solved with the application of orthogonal collocation method on finite elements. The model is validated with experimental adsorption of urokinase in a batchwise column chromatographic process. Adsorption kinetics and isotherm were measured in a batchwise operation. With the assumption of back mixing at the column inlet, the effect of the different flow pattern on the concentration change inside the column can be simulated with the rate model.

Keywords: Adsorption, Adsorption Isotherm, Affinity Chromatography, Batchwise Chromatography, Beds, Behavior, Bovine Serum-Albumin, Breakthrough Curves, Chromatography, Concentration, Design, Dispersion, Dynamics, Elements, Film, Finite Elements, Flow, Isotherm, Kinetics, Liquid-Chromatography, Mass Transfer, Mixing, Model, Modified, Protein, Protein Adsorption, Rate Model, Simulation

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Full Text: [2007\Kor J Che Eng24, 67.pdf](2007/Kor%20J%20Che%20Eng24,%2067.pdf)

Abstract: Oil palm empty fruit bunch (OPEFB) fibers were modified with silylation by trimethylchlorosilane (TMCS) and diethyldichlorosilane (DEDCS). The investigation was carried out at room temperature at a concentration of 1, 3, 5, and 9%wt and aging time of 3, 5, and 9 hr. Fiber modification was conducted by leaching out surface contaminants resulting in open porous surface. An optimal condition to reach the equilibrium silylation reaction was undertaken at a concentration of 9%wt and aging time of 3 hr. The sorption of oil which was emulsified in water on fresh and silylated OPEFB fibers fit Temkin and Langmuir isotherms, respectively.

Keywords: Adsorption, Aging, Biomass, Equilibrium, Isotherms, Langmuir Isotherms, Oil Palm Empty Fruit Bunch Fibers, Oil Sorption, Silylation, Sorption, Surface Modification, Water

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Full Text: [2007\Kor J Che Eng24, 246.pdf](2007/Kor%20J%20Che%20Eng24,%20246.pdf)

Abstract: The present study aims at the removal of copper from industrial wastewater by using a low - cost adsorbent. Activated periwinkle shell carbon (PSC) was prepared and characterized for various physiochemical properties. To determine copper removal capacity, the performance of PSC was compared with commercial activated carbon (CAC) and a mixture of activated periwinkle shell carbon and commercial activated carbon (PSC: CAC) in a ratio I: 1. The effect of adsorbent dose, contact time, pH, agitation speed and adsorbent particle size was studied for adsorption of copper from wastewater under batch conditions. The result obtained showed that PSC competes favourably with CAC. The maximum adsorption capacity was observed for PSC: CAC with 88.12% removal at an optimal pH of 8. The PSC and CAC had 84.19% removal and 85.15% removal, respectively. The equilibrium data obtained fitted both the Langmuir and the Freundlich models. Good correlation coefficients were obtained for the pseudo-second-order kinetic model.

Keywords: Copper Adsorption, Batch, Industrial Wastewaters, Periwinkle Shell, Kinetic Model, Heavy-Metal Ions, Aqueous-Solution, Waste-Water, Zinc

? Sakultung, S., Pruksathorn, K. and Hunsom, M. (2007), Simultaneous recovery of valuable metals from spent mobile phone battery by an acid leaching process. *Korean Journal of Chemical Engineering*, **24** (2), 272-277.

Full Text: [2007\Kor J Che Eng24, 272.pdf](2007/Kor%20J%20Che%20Eng24,%20272.pdf)

Abstract: This research was carried out to recover some valuable metals from the electrodes of spent mobile phone batteries by leaching process in laboratory scale. Two types of spent mobile phone batteries were employed in this study: nickel-metal hydride (Ni-MH) and lithium-ion (Li-ion) batteries. Effects of parameters including types of acid (H2SO4, HNO3 and HCl), acid concentration (1-6 M), solid-liquid ratio (1040 g/l), leaching time (5-120 min) and leaching temperature (303-363 K) on the leaching percentages of Co and Ni were investigated. The preliminary results indicated that HCl provided higher leaching percentages than that of H2SO4 and HNO3 for both metals at all leaching conditions. At optimum conditions, greater than 92% and 84% of Ni and Co were leached, respectively. Further investigation indicated that the leaching process of both metals was endothermic with the rate law of a second-order reaction and its kinetics was principally controlled by the physical process.

Keywords: Spent Battery, Acid Leaching Process, Kinetics Model, Heavy Metal, Saturation Concentration, Ni-Cd Batteries, Hydrometallurgical Process, Secondary Batteries, Electrodeposition, Extraction, Kinetics, Cadmium, Values, Pb, Cu

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Full Text: [2008\Kor J Che Eng25, 1060.pdf](2008/Kor%20J%20Che%20Eng25,%201060.pdf)

Abstract: The waste biomass generated from mono sodium glutamate fermentation process, Corynebacterium glutamicum, was evaluated as a biosorbent for the removal of Basic Blue 3 (BB 3), as a model cationic dye, from aqueous solution. A series of batch experiments to study pH edge, precipitation of dye, isotherms and kinetics were undertaken. The solution pH was found to be air important factor in biosorption of BB 3. With increasing the pH, the uptake of BB 3 increased, except at a pH below 2. At pH values below 2, the precipitation of BB 3 occurred rather than biosorption, which resulted in overestimation of the sorption performance. The sorption process could reach quickly to equilibrium after 1 min. The Langmuir and Freundlich models were used to fit the experimental data at different pH conditions. Between them, the Langmuir model described the experimental data very well with high correlation coefficients. Furthermore, C glutamicum was easily eluted by shifting the solution pH, making repeated sorption/desorption cycle (up to 4 times) possible without significant performance decrease.

Keywords: Activated Carbons, Adsorption, Basic Blue 3, Biosorption, Cationic Dye, Decolorization, Dye, Effluent, Equilibrium, Green, Isotherms, Kinetics, pH Effect, Precipitation, Reactive Dyes, Removal, Rice Straw, Sodium, Sorption, Waste Biomass, Wheat-Straw

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Full Text: [2009\Kor J Che Eng26, 364.pdf](2009/Kor%20J%20Che%20Eng26,%20364.pdf)

Abstract: The biosorption of nickel(II) was studied by using crab shell particles of diameter (d(p)=0.012 mm) under different initial concentrations of nickel(II) in solution (0.01-5.0 g/l), temperature (20-40°C, pH (2-6.5), and biosorbent dosages (0.5-10 g/l). The maximum removal of nickel(II) occurred at pH 6.5 and temperature 40 degrees C for a biosorbent dosage of 6 g/l. The results were modeled by response surface methodology (RSM), which determines the maximum biosorption of nickel(II) as a function of the above four independent variables, and the optimum values for the efficient biosorption of nickel(II) were obtained. The RSM studies were carried out using Box-Behnken design and the analysis of variance confirms the adequacy of the quadratic model with coefficient of correlation R-2 to be 0.9999. The quadratic model fitted the data well with Prob>F to be <0.0001, indicating the applicability of the present proposed model.

Keywords: Aqueous-Solutions, Biomass, Biosorbent, Biosorption, Box-Behnken Design, Copper(II), Crab Shell, Crab Shell Particles, Equilibrium, Fungal, Heavy-Metals, Lead, Nickel(II), Particles, Removal, RSM Modeling, Uranium

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Full Text: [2009\Kor J Che Eng26, 462.pdf](2009/Kor%20J%20Che%20Eng26,%20462.pdf)

Abstract: One kind of potentially biodegradable cationic sorbent, which bears hydroxyl groups of phosphoric acid as its functional groups, with high sorption capacity of copper was prepared by thermochemically esterifying phosphoric acid (PA) onto soybean hull. Sorption of Cu(II) from aqueous solution onto modified soybean hull (MSH) was investigated in a batch system. The sorption experiments were performed under various conditions such as different initial pH, copper concentration, MSH dosage, and contact time. The maximum copper sorption was obtained when initial solution pH >= 3.5. The isothermal data of copper sorption fitted the Langmuir model and the sorption process could be described by the pseudo-first-order kinetic model. The maximum sorption capacity (Q(m)) of MSH for Cu(II) was 31.55 mg/g. For 100 mg/l of Cu(II) solution, a sorption ratio above 91 % could be achieved by 5.0 g/l of MSH. The equilibrium of Cu(H) sorption was reached within 50 min. The foreign cation and chelator in Cu(II) solution caused decline of Cu(II) sorption.

Keywords: Adsorption, Batch System, Cadmium, Capacity, Copper, Cu(II), Equilibrium, Esterification, Heavy-Metals, Ions, Kinetic, Lead, Phosphoric Acid, Removal, Residues, Sorption, Soybean Hull, Waste-Water, Zn(II)

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Full Text: [2009\Kor J Che Eng26, 1058.pdf](2009/Kor%20J%20Che%20Eng26,%201058.pdf)

Abstract: The present study provides an electrocoagulation process for the removal of iron from drinking water with aluminum alloy as the anode and stainless steel as the cathode. The studies were carried out as a function of pH, temperature and current density. The adsorption capacity was evaluated with both the Langmuir and the Freundlich isotherm models. The results showed that the maximum removal efficiency of 98.8% was achieved at a current density of 0.06 A dm2, at a pH of 6.5. The adsorption of iron preferably fitting the Langmuir adsorption isotherm suggests monolayer coverage of adsorbed molecules. The adsorption process follows second-order kinetics. Temperature studies showed that adsorption was endothermic and spontaneous in nature.

Keywords: Adsorption, Adsorption Capacity, Adsorption Isotherm, Aluminum, Capacity, Coverage, Drinking Water, Efficiency, Electrocoagulation, Electrodes, Endothermic, Filter, Fluoride, Freundlich, Freundlich Isotherm, Function, Groundwater, Industrial Solid-Waste, Iron, Isotherm, Kinetics, Langmuir, Langmuir Adsorption Isotherm, Manganese, Models, Monolayer, pH, Phosphate, Removal, Removal Efficiency, Second Order, Second Order Kinetics, Second-Order, Second-Order Kinetics, Temperature, Wastewaters, Water

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Full Text: [2009\Kor J Che Eng26, 1556.pdf](2009/Kor%20J%20Che%20Eng26,%201556.pdf)

Abstract: Our purpose was to synthesize, characterize and test photodegradation of methyl orange on two catalysts containing 10 wt% titanium supported on mesoporous MCM-41 synthesized with rice husk silica. The first catalyst was Ti-RH-MCM-41 prepared by adding tetrabutyl orthotitanate (TBOT) in a synthetic gel of RB-MCM-41, and the second catalyst was TiO2/RH-MCM-41 prepared by grafting TBOT on the preformed RH-MCM-41. The mesoporous structures were observed on both catalysts and they had surface area of 1,073 and 1,006 m2/g. The Ti in Ti-RH-MCM-41 was in the form of Ti(IV) with tetrahedral geometry residing in the mesoporous structure. This form was less active for photodegradation of methyl orange than the other one. The Ti in TiO2/RH-MCM-41 was anatase titania with octahedral geometry located outside the mesoporous framework. This form was more an active phase for the photodegradation and the reaction parameters on this catalyst were further investigated. The optimum catalyst weight to methyl orange volume ratio was 5 g/L and the optimum initial concentration of the dye was 2.0 ppm. The degradation rate obeyed pseudo-first order and the adsorption of methyl orange on TiO2/RH-MCM-41 obeyed Langmuir isotherm.

Keywords: Active Phase, Adsorbents, Adsorption, Catalyst, Concentration, Degradation, Dye, First, Framework, Gel, Grafting, Isotherm, Langmuir, Langmuir Isotherm, MCM-41, Mesoporous, Methyl Orange, Molecular-Sieves, Nov, Performance, Photocatalysis, Photocatalytic, Photodegradation, Pseudo First Order, Pseudo-First Order, Pseudo-First-Order, Purpose, Rh-Mcm-41, Rice, Rice Husk, Rice Husk Silica, Rice-Husk, Silica, Structure, Surface, Surface Area, TiO2, TiO2 Methyl Orange, Titanium, Volume

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Full Text: [2009\Kor J Che Eng26, 1717.pdf](2009/Kor%20J%20Che%20Eng26,%201717.pdf)

Abstract: With a simple model for a surfactant consisting of a hydrophilic head group and hydrophobic tail groups connected by harmonic springs, the structural change of the association structures of the surfactant in an aqueous solution was studied by using the dissipative particle dynamics (DPD) simulation. The effect of the interaction parameter of DPD particles on the structural change of the association structures was also studied. Simulations show that the proper relative values of these interaction parameters could yield desirable changes for the association structure depending on the concentration of the surfactant. That is, a spherical structure forms at phi=0.15, structural change from a spherical to cylindrical one occurs at phi=0.26, and a hexagonal structure appears at phi=0.30, where phi is the volume fraction of surfactant SDS (sodium dodecyl sulfate), and they are in good agreement with observation.

Keywords: Association Structure, Computer-Simulation, Dissipative Particle Dynamics, Dissipative Particle Dynamics (DPD) Simulation, Interaction, Mesoscopic Simulation, Nonionic Surfactants, Particles, Polymer, Rheology, Sodium, Sodium Dodecyl Sulfonate (SDS), Sorption, Structural Transition, Surfactant, Surfactant Solution, Suspensions, Water

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Full Text: [2009\Kor J Che Eng26, 1748.pdf](2009/Kor%20J%20Che%20Eng26,%201748.pdf)

Abstract: Coal-based granular activated carbon was modified with acetates of sodium, potassium and lithium at concentrations of 10 and 15% and used as adsorbents to explore the adsorption mechanism of nickel ion in aqueous solution. Acetate treatment reduced surface area and pore volume of the activated carbons, but the adsorption amount of MOD on the modified activated carbons (MAC) was greater than that on the virgin activated carbon. The adsorption depended on pH of the solution with an optimum at 4.5 and the adsorbed nickel could be fully desorbed by using 0.05 M HCl solution. The maximum adsorption capacity of nickel ion on Li (15 wt%) modified activated carbon was 151.3 mg/g and the adsorption isotherm follows Langmuir, Sips, and Redlich-Peterson isotherm models better than the Freundlich isotherm model. The kinetic data was better fitted by a non-linear form of the pseudo-first order than the pseudo-second order, but the difference between two kinetic models was small.

Keywords: Acid, Activated Carbon, Activated Carbons, Adsorbents, Adsorption, Adsorption Capacity, Adsorption Isotherm, Adsorption Mechanism, Aqueous Solution, Capacity, Carbon, Copper, Data, Desorption, Freundlich, Freundlich Isotherm, Freundlich Isotherm Model, Granular Activated Carbon, Ground-Water, Ions, Iron, Isotherm, Isotherm Model, Isotherm Models, Kinetic, Kinetic Models, Langmuir, Lithium, Mac, Manganese, Mechanism, Model, Models, Modified, Modified Activated Carbon, Nickel, NOV, pH, Pore Volume, Potassium, Pseudo First Order, Pseudo Second Order, Pseudo-First Order, Pseudo-First-Order, Pseudo-Second Order, Pseudo-Second-Order, Redlich-Peterson, Redlich-Peterson Isotherm, Removal, Small, Sodium, Solution, Surface, Surface Area, Surface Treatment, Treatment, Volume, Waste, Wastewaters, Zinc

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Full Text: [2010\Kor J Che Eng27, 116.pdf](2010/Kor%20J%20Che%20Eng27,%20116.pdf)

Abstract: We prepared Fe-impregnated mesoporous silicates to investigate the adsorption of tetracycline in aqueous solution. Mesoporous silicates with different Fe content (5, 10, 30, 50 wt%) were prepared by an incipient wetness method. Adsorption kinetics for tetracycline showed that Fe-impregnation improved the adsorption ability for tetracycline. By fitting the adsorption kinetic data to a pseudo second-order model, we obtained a maximum adsorption amount of tetracycline with Fe(30)SBA-15 (30 wt% Fe-impregnated mesoporous silicates) at 41.7 mg/g. The pH dependency of tetracycline adsorption exhibited a volcano curve where the maximum adsorption onto the Fe(30)SBA-15 sample occurred in the neutral pH region. The introduction of Fe species into the SBA-15 revived the adsorption ability for tetracycline, whereas there was no interaction between tetracycline and SBA-15, a mesoporous silicate. These results suggest that impregnated Fe species produce an effective interaction with tetracycline in an aqueous system.

Keywords: Acid, Adsorbents, Adsorption, Adsorption, Adsorption Kinetic, Adsorption Kinetics, Aluminum, Aqueous Solution, Aqueous-Solution, Data, Degradation, Dependency, Fe-Impregnation, Interaction, Irradiation, Kinetic, Kinetics, Mesoporous, Mesoporous Silica, Mesoporous Silicates, Model, Oxytetracycline, pH, Pseudo Second Order, Pseudo Second-Order, Pseudo-Second-Order, Removal, SBA-15, Second Order, Second-Order, Second-Order Model, Silicate, Solution, Sorption, Species, Tetracycline

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Full Text: [2010\Kor J Che Eng27, 218.pdf](2010/Kor%20J%20Che%20Eng27,%20218.pdf)

Abstract: The present investigation explored the use of Citrus reticulata waste biomass (CWB) for the removal of Pb(II) and Co(II) from the aqueous solutions. The Pb(II) and Co(II) biosorption was found to be dependent on pH of the solution, biosorbent dose, biosorbent particle size, temperature, shaking speed, contact time and initial concentration of metal ions. A metal uptake capacity of 41.16 and 52.64 mg/g was observed at pH 5 and 7 for Pb(II) and Co(II), respectively. The biosorption data followed the Freundlich model for both metals. The overall biosorption process was best described by pseudo-second order kinetics. The effect of several pretreatments on the biosorption efficiency of CWB was also investigated. The results demonstrated that pretreatments influenced the biosorption capacity of the biomass for the both metals significantly. Maximum biosorption capacity of 83.77 and 95.55 mg/g was observed for Pb(II) and Co(II) with sodium hydroxide treated and simply heated biomass, respectively. FTIR spectrum indicated the presence of -OH, -NH, -COOH groups in the biomass. The surface structure of CWB was analyzed by JEOL JMT 300 scanning electron microscope (SEM), and the existence of metal ions on the surface of biosorbent was determined by energy dispersive X-ray (EDX) spectroscopy.

Keywords: Adsorption, Aqueous Solutions, Aqueous-Solutions, Biomass, Biosorbent, Biosorption, Capacity, Citrus Reticulata, Co(II), Co(II), Cobalt, Concentration, Cr(III), Data, EDX, Efficiency, Energy, Equilibrium, Freundlich, Freundlich Model, FTIR, Heavy-Metal Biosorption, Investigation, Ions, Kinetics, Lead, Metal, Metal Ions, Metal Uptake, Metals, Model, Particle Size, Pb(II), Pb(II), pH, Pretreatment, Pretreatments, Pseudo Second Order, Pseudo Second Order Kinetics, Pseudo-Second Order, Pseudo-Second Order Kinetics, Pseudo-Second-Order, Removal, SEM, Size, Sodium, Solution, Solutions, Spectroscopy, Structure, Surface, Surface Structure, Temperature, Treatments, Uptake, Waste, Waste Biomass, X-Ray

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Full Text: [2010\Kor J Che Eng27, 1184.pdf](2010/Kor%20J%20Che%20Eng27,%201184.pdf)

Abstract: Mesoporous MCM-41 was synthesized at room temperature using tetraethoxysilane (TEOS) with cetyltrimethylammonium bromide (CTAB) and employed as an effective adsorbent for the adsorption of methylene blue dye from aqueous solution. The as-synthesized MCM-41 was calcined at 250 and 550ºC to study the relation between the surface area and pore volume with surfactant removal. The synthesized MCM-41 was characterized using thermo gravimetric analysis (TGA), X-ray diffraction (XRD) patterns, nitrogen adsorption/desorption isotherms and Fourier transform infrared (FT-IR) spectroscopy. The MCM-41 calcined at 550 degrees C showed higher surface area (1,059 m2 g-1) with pore volume of 0.89 ml g-1 and was used for the investigation of adsorption isotherms and kinetics. The experimental results indicated that the Freundlich and Redlich-Peterson models expressed the adsorption isotherm better than the Langmuir model. In addition, the influence of temperature and pH on adsorption was also investigated. The decrease in temperature or the increase in pH enhanced the adsorption of dye onto MCM-41. A maximum adsorption capacity of 1.5×10-4 mol g-1 was obtained at 30ºC. The kinetic studies showed that the adsorption of dye on MCM-41 follows the pseudo-second-order kinetics.

Keywords: Activated Carbon, Adsorbent, Adsorbents, Adsorption, Adsorption Capacity, Adsorption Isotherm, Adsorption Isotherms, Adsorption, Desorption, Analysis, Aqueous Solution, Aqueous-Solution, Bromide, Calcined, Capacity, CTAB, Dye, Dyes Removal, Equilibrium, Experimental, Freundlich, FT-IR, FTIR, Industry Waste, Investigation, Isotherm, Isotherm, Isotherms, Kaolinite, Kinetic, Kinetic Parameters, Kinetic Studies, Kinetics, Langmuir, Langmuir Model, MCM-41, Mesoporous, Methylene Blue, Methylene Blue Adsorption, Model, Models, Nitrogen, pH, Pore Volume, Pseudo Second Order, Pseudo Second Order Kinetics, Pseudo-Second-Order, Pseudo-Second-Order Kinetics, Redlich-Peterson, Removal, Room Temperature, Silica, Solution, Sorption, Spectroscopy, Surface, Surface Area, Surfactant, Temperature, Teos, Tetraethoxysilane, TGA, Volume, Waste-Water, X-Ray, X-Ray Diffraction, XRD

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Full Text: [2010\Kor J Che Eng27, 1469.pdf](2010/Kor%20J%20Che%20Eng27,%201469.pdf)

Abstract: Experimental studies and biosorption kinetics of an intraparticle diffusion model for acid dye removal using a musa spp. waste sorbent were carried out to find the removal effects and dynamics of various operating parameters, such as initial dye concentration, sorbent dosage, pH and temperature. Experimental data were modeled with kinetic models and two biosorption isotherms of intraparticle diffusion models as well as the physiochemical data of sorbents characterized by SEM and FT-IR. Kinetic studies showed that the sorption process follows second-order rate kinetics with an average rate constant of 0.0018675 (g/mg.min). Thermodynamic parameters such as entropy of biosorption (ΔSº) enthalpy of biosorption (ΔHº) and Gibbs free energy of biosorption (ΔGº) were obtained and analyzed. Sorbent, musa spp. waste (banana peel) was characterized by FTIR and SEM. The results showed that musa spp. waste can be considered as potential sorbent for the sorption of acid violet 54 from dilute aqueous solution.

Keywords: Acid Dye, Adsorbents, Adsorption, Adsorption Kinetics, Aqueous Solution, Aqueous-Solution, Av 54, Basic Dye, Biosorption, Biosorption, Biosorption Isotherms, Biosorption Kinetics, Concentration, Data, Diffusion, Diffusion Model, Dye, Dye Removal, Dynamics, Energy, Enthalpy, Entropy, Equilibrium, FT-IR, FTIR, Gibbs Free Energy, Intra Particle Diffusion Model, Intraparticle Diffusion, Intraparticle Diffusion Model, Isotherm Kinetics, Isotherms, Kinetic, Kinetic Models, Kinetic Studies, Kinetics, Kinetics Model, Low Cost, Mechanism, Methylene-Blue, Model, Models, Musa spp., Natural, Performance, pH, Pollution, Potential, Rate Constant, Rate Kinetics, Removal, Rice Husk, Second Order, Second-Order, SEM, Solution, Sorbent, Sorbents, Sorption, Sorption Process, Temperature, Thermodynamic, Thermodynamic Parameters, Waste

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Full Text: [2010\Kor J Che Eng27, 1476.pdf](2010/Kor%20J%20Che%20Eng27,%201476.pdf)

Abstract: Activated carbon (AC) was produced from brewer’s yeast with K2CO3 activation. The effects of K2CO3/yeast ratio and activation temperature on the yield and adsorption properties of the AC were investigated. The results indicate that the optimum conditions were as follows: ratio of K2CO3/yeast=2 and activation temperature 800 degrees C. The AC produced under the optimum conditions has BET surface area of 1,603 m2/g, pore volume of 1.43 cm2/g and average pore diameter of 3.5 nm. Adsorption of phenol onto the AC was determined by batch test at solution pH of 7. The effects of contact time and initial phenol concentration were investigated. The adsorption process was found to follow pseudo-second-order kinetics. The rate of phenol adsorption onto the AC produced was rapid with the adsorption equilibrium reached within 5 min. The experimental data fitted well with the Langmuir isotherm model. The maximum phenol uptake by the AC was estimated to be 513.5 mg/g.

Keywords: Activated Carbon, Activation, Adsorption, Adsorption, Adsorption Equilibrium, Adsorption Properties, Batch, Batch Test, BET, BET Surface Area, Brewer’s Yeast, Carbon, Characterization, Chemical Activation, Concentration, Data, Equilibrium, Experimental, Isotherm, Isotherm Model, K2CO3, Kinetics, Langmuir, Langmuir Isotherm, Langmuir Isotherm Model, Manure, Model, Palm-Shell, pH, Phenol, Physical Activation, Pore Volume, Pseudo Second Order, Pseudo Second Order Kinetics, Pseudo-Second-Order, Pseudo-Second-Order Kinetics, Solution, Surface, Surface Area, Temperature, Uptake, Volume, Waste, Yeast

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Full Text: [2010\Kor J Che Eng27, 1547.pdf](2010/Kor%20J%20Che%20Eng27,%201547.pdf)

Abstract: Syzygium cumini L. leaf powder and Cd(II) loaded samples were characterized using FTIR and SEM techniques. The biosorption of cadmium ions from aqueous solution was studied in a batch adsorption system as a function of pH, contact time, adsorbate, adsorbent, anion and cation concentrations. The biosorption capacities and rates of transfer of cadmium ions onto S. cumini L. were evaluated. The kinetics could be best described by both linear and nonlinear pseudo-second order models. The isothermic data fitted to various models in the order Freundlich>Redlich-Peterson>Langmuir>Temkin. The maximum adsorption capacity of S. cumini L. leaves at room temperature was estimated to be 34.54 mg g-1. The negative values of ΔGº indicated the feasibility of the adsorption process. The endothermic nature was confirmed by the positive value of the enthalpy change (ΔHº=3.7 kJ mol-1). The positive value of entropy change (ΔSº=16.87 J mol-1 K-1) depicted internal structural changes during the adsorption process.

Keywords: Adsorbent, Adsorption, Adsorption, Adsorption Capacity, Aqueous Solution, Aqueous Solutions, Batch, Batch Adsorption, Biosorbent, Biosorption, Cadmium, Cadmium Ions, Capacity, Cation, Cd(II), Changes, Copper(II), Data, Endothermic, Enthalpy, Entropy, Equilibrium, Equilibrium Isotherm Models, Equilibrium Studies, Feasibility, FTIR, Function, Ions, Isotherm, Kinetic, Kinetic Models, Kinetics, Langmuir, Metal-Ions, Models, pH, Pseudo Second Order, Pseudo-Second Order, Pseudo-Second-Order, Rates, Removal, Room Temperature, SEM, Solution, Solutions, Sorption, Syzygium cumini L., Techniques, Temkin, Temperature, Tree Fern, Value, Waste-Water, Wheat Bran

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Full Text: [2010\Kor J Che Eng27, 1560.pdf](2010/Kor%20J%20Che%20Eng27,%201560.pdf)

Abstract: An ion exchanger with carboxyl groups as active sites was prepared by activating sawdust with epichlorohydrin, followed by coupling the epoxy-activated sawdust with aspartic acid. The optimal sorption condition, sorption capacity, kinetics and thermodynamics of basic dyes on sawdust ion exchanger (SIE) from aqueous solution were investigated in a batch system. Two basic dyes, methylene blue (MB) and crystal violet (CV), were selected as sorbates. The optimal pH value of MB and CV solutions for favorable sorption was pH 4 and above. The removal ratios of MB and CV on SIE increased with increasing sorbent dose but decreased with increasing dye concentration. The isothermal data of MB and CV sorbed on SIE correlated basically with the Langmuir model. The maximum sorption capacity (*Q*m) of SIE for MB and CV was 222.22 and 232.56 mg/g, respectively. The sorption equilibriums of MB and CV on SIE were reached at about 9 h, and the sorption processes could be described by the pseudo-second-order kinetic model. The thermodynamic study indicated that the sorptions of MB and CV on SIE were spontaneous and endothermic at the predetermined temperatures. High temperatures were favorable for the sorption processes.

Keywords: Adsorption Behavior, Aqueous Solution, Aqueous-Solutions, Basic Dye, Basic Dyes, Batch, Batch System, Capacity, Concentration, Crystal Violet, Data, Dye, Dyes, Endothermic, Equilibrium, Isotherm, Isothermal, Kinetic, Kinetic Model, Kinetics, Kinetics And Thermodynamics, Langmuir, Langmuir Model, Malachite Green, MB, Methylene Blue, Methylene-Blue, Model, pH, pH Value, Preparation, Pseudo Second Order, Pseudo-Second-Order, Pseudo-Second-Order Kinetic Model, Removal, Sawdust, Sawdust Ion Exchanger, Solution, Solutions, Sorbent, Sorbent Dose, Sorption, Sorption Capacity, Thermodynamic, Thermodynamics, Value, Waste, Water, Yellow

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Full Text: [2011\Kor J Che Eng28, 149.pdf](2011/Kor%20J%20Che%20Eng28,%20149.pdf)

Abstract: Methylene blue dye was adsorbed on an adsorbent prepared from cashew nut shell. A batch adsorption study was carried out with variable adsorbent amount, initial dye concentration, contact time and pH. Studies showed that the pH of aqueous solutions affected dye removal as a result of removal efficiency increased with increasing solution pH. The experimental data were analyzed by the Langmuir, Freundlich, Redlich-Peterson, Koble-Corrigan, Toth, Temkin, Sips and Dubinin-Radushkevich models of adsorption using MATLAB 7.1. The experimental data yielded excellent fits within the following isotherm order: Redlich-Peterson>Toth>Sips>Koble-Corrigan>Langmuir>Temkin>Dubinin-Radush kevich>Freundlich, based on its correlation coefficient values. Three simplified kinetic models including a pseudofirst-order, pseudo-second-order and intraparticle diffusion equations were selected to follow the adsorption process. It was shown that the adsorption of methylene blue could be described by the pseudo-second-order equation. The results indicate that cashew nut shell activated carbon could be employed as a low cost alternative to commercial activated carbon in the removal of dyes from wastewater.

Keywords: Acid, Activated Carbon, Adsorbent, Adsorption, Adsorption, Alternative, Aqueous Solution, Aqueous Solutions, Basic Dye, Batch, Batch Adsorption, Carbon, Cashew Nut Shell, Concentration, Correlation, Correlation Coefficient, Cost, Data, Diffusion, Dye, Dye Removal, Dyes, Efficiency, Equilibrium, Experimental, Freundlich, Intraparticle Diffusion, Isotherm, Isotherms, Kinetic, Kinetic Models, Kinetics, Kinetics, Langmuir, Low Cost, Low Cost Adsorbent, Low-Cost Adsorbent, Methylene Blue, Models, pH, Porosity, Pseudo Second Order, Pseudo-Second-Order, Pseudo-Second-Order Equation, Redlich-Peterson, Removal, Removal Efficiency, Removal of Dyes, Rice-Husk, Solution, Solutions, Sorption, Surface-Area, Waste-Water, Wastewater

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Full Text: [2011\Kor J Che Eng28, 267.pdf](2011/Kor%20J%20Che%20Eng28,%20267.pdf)

Abstract: Silver nanoparticles (AgNPs), potent antibiotic materials, have been found to cause cell-membrane damage and produce reactive oxygen species (ROS). The resultant structural change in the cell-membrane could cause an increase in cell permeability of silver ions and AgNPs. To address this issue further, in-vivo and in-vitro cytotoxicity testing of as-made nanomaterials was conducted to quantify and assess their nanotoxicity. Considering the behavior of AgNPs in the environment, toxicity may be reflected by differences in their physicochemical properties (size, agglomeration rate, adsorption properties on humic acid) dependency and toxicity depression. Therefore, We investigated the effect of the cellular uptake of AgNPs with the kinetics of agglomeration and adsorption. The amount of agglomerated and adsorbed AgNPs with sizes of <14 nm was higher than that for AgNPs with sizes of 90 and 140 nm. For 90 and 140 nm sized AgNPs, adsorption was more significant than agglomeration. It is noteworthy that the normal concept that smaller sized AgNPs are taken up more readily may be in error in cases of interactions of abiotic factors.

Keywords: Adsorption, Adsorption Properties, Agglomeration, Antibacterial Activity, Behavior, Damage, Dependency, Depression, Dispersion, Environment, Error, Escherichia Coli, Escherichia-Coli, Humic Acid, Ions, Kinetics, Nanomaterials, Nanoparticles, Normal, Oxygen, Permeability, Reactive Oxygen Species, Salinity, Silver, Silver Nanoparticle, Silver Nanoparticles, Size, Species, Testing, Toxicity, Uptake

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Full Text: [2011\Kor J Che Eng28, 800.pdf](2011/Kor%20J%20Che%20Eng28,%20800.pdf)

Abstract: This study examines the adsorption behavior of methylene blue (MB) from aqueous solutions onto chemically activated halloysite nanotubes. Adsorption of MB depends greatly on the adsorbent dose, pH, initial concentration, temperature and contact time. The Langmuir and Freundlich models were applied to describe the equilibrium isotherms and the Langmuir model agrees very well with experimental data. The maximum adsorption capacities for MB ranged from 91.32 to 103.63 mg.g-1 between 298 and 318 K. A comparison of kinetic models applied to the adsorption data was evaluated for pseudo-first-order; pseudo-second-order, Elovich and intra-particle diffusion equation. The results showed the adsorption process was well described by the pseudo-second-order and intra-particle diffusion mode. Thermodynamic parameters suggest that the adsorption is spontaneous and endothermic. The obtained results indicated that the product had the potential to be utilized as low-cost and effective alternative for dye removal in wastewater.

Keywords: Adsorption, Agricultural Waste, Carbon, Dye, Dye Adsorption, Effluent, Equilibrium, Equilibrium Isotherms, Fly-Ash, Freundlich, Halloysite Nanotubes, Isotherm, Kinetic, Kinetic Model, Kinetics, Langmuir, Methylene Blue, pH, Red, Removal, Sorption, Textile, Thermodynamic, Wastewater

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Full Text: [2011\Kor J Che Eng28, 895.pdf](2011/Kor%20J%20Che%20Eng28,%20895.pdf)

Abstract: The low cost fresh biomass of *Saccharomyces cerevisiae* (*S. cerevisiae*) was utilized for removal of Chromium ion from aqueous solution. The maximum biosorption was found to occur at pH 1.0. The biosorption capacity of S. cerevisiae was found to be 3.89 mg/g for a solution with initial Cr(VI) concentration of 50 mg/L at 35ºC. Several biosorption isotherms were used to fit the equilibrium data, indicating biosorption relied mainly on physical adsorption onto heterogeneous surface. Kinetic models were evaluated and we found that pseudo-second-order rate kinetic model showed better correlation, and the biosorption of Cr(VI) was governed by film diffusion as well as intraparticle diffusion. Thermodynamic constants indicated that the biosorption was spontaneous and endothermic. Fourier transform infra-red (FTIR) spectroscopy was used to reveal the main function groups of biosorption, which were hydroxyl, amine groups, C-H of the alkanes, C=O and S=O.

Keywords: Activated Carbon, Adsorption, Adsorption-Kinetics, Aqueous-Solutions, Biosorption, Chromium, Cone Biomass, Equilibrium, FTIR, Heavy-Metals, Hexavalent Chromium, Isotherm, Kinetic, Kinetic Model, Kinetic Models, Kinetics, Low-Cost Adsorbents, pH, Removal, *Saccharomyces cerevisiae*, Thermodynamic, Thermodynamics, Waste, Water

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Full Text: [2011\Kor J Che Eng28, 933.pdf](2011/Kor%20J%20Che%20Eng28,%20933.pdf)

Abstract: Hydrotalcite (HTC), a typical layered compound, is a promising adsorbent for removal of organic pollutants. To partition azo dye from aqueous solution, Mg-Al HTCs intercalated with dodecanoic acid (DA) modifier, DAHTCs, were prepared by ion exchange and calcination-rehydration methods. The structures of HTCs and DAHTCs were characterized by powder XRD and FT-IR techniques. The introduction of DA broadened the spacing of interlayers and provided more space for ion exchange. The effects of pH value, contact time, adsorbent amount, temperature and different intercalated modifiers on the adsorption of azo dye onto HTCs and DAHTCs were determined. The optimum pH of uptake was around 3.0 and all the lower or higher pH values proved to decrease the adsorption properties. The pseudo-second-order model was found to best describe the adsorption dynamics of all adsorbents. Meanwhile, the size and polarity of intercalated modifiers might be crucial for adsorption of azo dye.

Keywords: Adsorption, Anion, Azo Dye, Dodecanoic Acid, Double Hydroxides, Dye, FT-IR, FTIR, Hydrotalcite, Intercalation, Intercalation, Methyl Orange, pH, Sorption

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Full Text: [2011\Kor J Che Eng28, 1029.pdf](2011/Kor%20J%20Che%20Eng28,%201029.pdf)

Abstract: Our aim was to test how MWCNTs can be used as a new adsorbent for mercury(II). Multi-walled carbon nanotubes (MWCNTs) have been used for removal of mercury from aqueous solutions. Mercury removal from aqueous solutions by batch adsorption was investigated. Equilibrium isotherms, such as Freundlich, Langmuir, Temkin, Harkins-Jura, were tested. Kinetic studies based on Lagergren first-order, pseudo-second-order and Elovich rate expressions were done. The batch experiments were conducted at three different temperatures (17, 27 and 37ºC) and different pHs of the initial solution. Error function analysis shows that mercury(II) removal obeys pseudo-second order kinetics and Freundlich isotherm equation. Finally, the effects of solution pH and temperature on the adsorption were studied.

Keywords: Activated Carbon, Adsorption, Equilibrium, Equilibrium Isotherms, Freundlich, Freundlich Isotherm, Ions, Isotherm, Isotherms, Kinetic, Kinetics, Langmuir, Mercury, Models, Multi-Walled Carbon Nanotubes, pH, Sorption, Systems, Waste, Water

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Full Text: [2011\Kor J Che Eng28, 1035.pdf](2011/Kor%20J%20Che%20Eng28,%201035.pdf)

Abstract: Removal of melanoidin pigment from molasses spent wash was investigated using a new adsorbent. Solid adsorbents were fabricated from charcoal fly ash and clay. The effect of various molasses concentration (6 to 12 g/l) on removal efficiency was studied. The obtained results revealed that maximum removal efficiency of 82% was achieved at the molasses concentration of 6 g/l and contact time of 7 h. The saturated porous adsorbents were regenerated and reused to conduct similar experiments. The achieved data showed that more than 90% of the capacity of the fresh adsorbent was recovered after regeneration. Various adsorption isotherms of Langmuir, Freundlich, Temkin and Harkins-Jura were applied to interpret the obtained experimental data. The obtained results revealed that the sorption data were well described by the Harkins-Jura model. Also, various kinetic models of pseudo-first order, pseudo-second order, Elovich and intra-particle diffusion were used to predict the characteristic parameters which are useful in process design. It was concluded that the best fit was obtained with pseudo-second order kinetic model at low molasses concentrations.

Keywords: Activated Carbons, Adsorption, Aqueous-Solution, Clay, Column, Decolorization, Fly Ash, Freundlich, Isotherms, Kinetic, Kinetic Model, Kinetics, Kinetics, Langmuir, Melanoidins, Molasses, Removal, Sorption, Strain, Sugarcane, Water

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Full Text: [2011\Kor J Che Eng28, 1532.pdf](2011/Kor%20J%20Che%20Eng28,%201532.pdf)

Abstract: The present study deals with the adsorption of arsenic ions from aqueous solution on polyaniline, rice husk (PAn, RH) nanocomposite. Batch studies were performed to evaluate the influence of various experimental parameters like pH, adsorbent dosage, contact time and the effect of temperature. Optimum conditions for arsenic removal were found to be pH 10, adsorbent dosage of 10 g, L and equilibrium time 30 minutes. Adsorption of arsenic followed pseudo-second-order kinetics. The equilibrium adsorption isotherm was better described by Freundlich adsorption isotherm model. The adsorption capacity (q(max)) of PAn, RH for arsenic ions in terms of monolayer adsorption was 34.48 mg, g. The change of entropy (ΔS(0)) and enthalpy (ΔH(0)) was estimated at -0.066 kJ, (mol K) and -22.49 kJ, mol, respectively. The negative value of the Gibbs free energy (ΔG(0)) indicates feasible and spontaneous adsorption of arsenic on PAn, RH.

Keywords: Activated Carbon, Adsorption, Arsenic, Dyes, Equilibrium, Gibbs Free Energy, Hexavalent Chromium, Ions, Isotherm, Kinetics, Metal-Ions, Model, Modified Electrodes, Nanocomposite, Polyaniline, Polypyrrole, Pseudo-Second-Order, Rice Husk, Rice Husk, Water

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Full Text: [2011\Kor J Che Eng28, 1658.pdf](2011/Kor%20J%20Che%20Eng28,%201658.pdf)

Abstract: N-succinyl-chitosan-g-polyacrylamide/attapulgite (NSC-*g*-PAM/AFT) composite was applied as adsorbent for the removal of methylene blue (MB) from aqueous solution. The initial pH value of the dye solutions, the contact temperature, the contact time and the concentration of the dye solutions on adsorption capacity of the composite for MB dye were investigated. The adsorption kinetics and isotherms were also studied. It was shown that all the sorption processes were better fitted by pseudo-second-order equation and the Langmuir equation. The results indicated that the adsorption capacity of the composite was higher than those of chitosan (CTS) and attapulgite (APT). The desorption studies revealed that the composite provided the potential for regeneration and reuse after MB dye adsorption, which implied that the composite could be used as quite effective adsorbent for the removal of MB from aqueous solution.

Keywords: Acid Dyes, Activated Carbon, Adsorbent, Adsorption, Adsorption Kinetics, And Isotherms, Aqueous Solution, Aqueous-Solution, Attapulgite, Bagasse Fly-Ash, Chitin, Composite, Desorption, Diffusion, Dye, Dye Adsorption, Equilibrium, Isotherms, Kinetics, Langmuir, Methylene Blue, N-Succinyl-Chitosan, pH, Removal, Sorption, Temperature, Waste Biomass

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Full Text: [2011\Kor J Che Eng28, 2033.pdf](2011/Kor%20J%20Che%20Eng28,%202033.pdf)

Abstract: Deletion of Cu(II) from synthetic solution was investigated using ground Prunus Amygdalus shell (GPAS). FTIR revealed the probable functional groups for the binding of Cu(II). XRD revealed amorphous nature of the GPAS. SEM analysis furnished microscopic details of GPAS. GPAS size analysis was done using seven ASTM screens and three mean diameters, namely mass mean, volume mean and volume surface mean diameters. Kinetic study consisted of pseudo-first and pseudo-second order kinetics. Langmuir and Freundlich isotherms were used to elucidate the isotherm study of uptake of Cu(II) onto GPAS. Trend of Scatchard was used to verify the applicability of the Freundlich model, while D-R model helped to determine the nature of biosorption. A detailed analysis for rate controlling step was made. Various mean diameters were used to estimate the diffusion coefficient for the biosorption of Cu(II) onto GPAS.

Keywords: Adsorption, Almond Shell, Aqueous-Solutions, Biosorbent, Biosorption, Characterization, Cu(II), Diffusion, Equilibrium, Freundlich, Freundlich Isotherms, FTIR, Heavy-Metals, Ion, Isotherm, Isotherms, Kinetic, Kinetics, Langmuir, Mechanistic Studies, pH, Prunus Amygdalus Shell, Pseudo Second Order, Removal, SEM, SEM Analysis, Size Analysis, Uptake

? Ghaedi, M., Tashkhourian, J., Pebdani, A.A., Sadeghian, B. and Ana, F.N. (2011), Equilibrium, kinetic and thermodynamic study of removal of reactive orange 12 on platinum nanoparticle loaded on activated carbon as novel adsorbent. *Korean Journal of Chemical Engineering*, **28** (12), 2255-2261.

Full Text: [2011\Kor J Che Eng28, 2255.pdf](2011/Kor%20J%20Che%20Eng28,%202255.pdf)

Abstract: The proposed research describes the synthesis and characterization of platinum nanoparticles loaded on activated carbon (Pt-NP-AC) and its efficient application as novel adsorbent for efficient removal of reactive orange 12 (RO-12). The influences of effective parameters following the optimization of variables on removal percentages, their value was set as 0.015 g Pt-NP-AC, pH 1, contact time of 13 min. At optimum values of all variables at 25 and 50 mgL-1 of RO-12 enthalpy (ΔH°) and entropy (ΔS°) changes was found to be 59.89 and 225.076, respectively, which negative value of ΔG° shows a spontaneous nature, and the positive values of ΔH° and ΔS° indicate the endothermic nature and adsorption organized of dye molecule on the adsorbent surface. Experimental data was fitted to different kinetic models including first-order, pseudo-second-order, Elovich and intra-particle diffusion models, and it was seen that the adsorption process follows pseudo-second-order model in consideration to intra-particle diffusion mechanism. At optimum values of all variables, the adsorption process follows the second-order kinetic and Langmuir isotherm model with adsorption capacity 285.143 mg g-1 at room temperature.

Keywords: Adsorbent, Adsorption, Adsorption Isotherm, Adsorptive Removal, Aqueous-Solution, Biosorption, Equilibrium, Fly-Ash, Green-Dye, Isotherm, Kinetic, Kinetic Models, Langmuir, Mechanism, Methylene-Blue, pH, Platinum Nanoparticle Loaded on Activated Carbon, Reactive Orange 12, Rhizopus-Arrhizus, Surfaces, Textile Dye, Thermodynamics and Kinetic of Adsorption

? Ghosh, M.K., Poinern, G.E.J., Issa, T.B. and Singh, P. (2012), Arsenic adsorption on goethite nanoparticles produced through hydrazine sulfate assisted synthesis method. *Korean Journal of Chemical Engineering*, **29** (1), 95-102.

Full Text: [2012\Kor J Che Eng29, 95.pdf](2012/Kor%20J%20Che%20Eng29,%2095.pdf)

Abstract: Goethite nanoparticles synthesized using hydrazine sulfate as a modifying agent were evaluated for As(V) adsorption capacity. The nanoparticles were characterized for their morphological and structural features. The precipitated goethite particles were spherical with particle size of less than 10 nm. Batch adsorption study was carried out systematically varying parameters such as pH, contact time, initial As(V) Concentration and adsorbent doses. The Langmuir isotherm represented the equilibrium data well and the estimated monolayer adsorption capacity at ambient temperature was 76 mg/g, which is significantly higher than most of the adsorbents reported in the literature. Adsorption kinetic data were better represented by the pseudo-second order kinetic model. Intra-particle diffusion played a significant role in the rate controlling process in the initial hour. Desorption study showed that the loaded adsorbent could be regenerated when treated with dilute sodium hydroxide solution of pH 13.

Keywords: Adsorbent, Adsorbents, Adsorption, Adsorption Kinetic, Aqueous-Solution, Arsenic, As(V), Batch, Desorption, Equilibrium, Goethite, Intraparticle, Intraparticle Diffusion, Ions, Iron, Isotherm, Isotherms, Kinetic, Kinetics, Langmuir, Langmuir Isotherm, Mechanisms, Nanoparticles, pH, Removal, Sorption, Temperature, Transformation

# Title: Korean Journal of Pathology

Full Journal Title: [Korean Journal of Pathology](2008/Kor%20J%20Pat42,%20131.pdf)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Seo, J.W., Cho, K.J., Kim, H.K. and Kang, D.Y. (2008), The *Korean Journal of Pathology* is selected for coverage in science citation index expanded and journal citation reports by Thomson Reuters. *Korean Journal of Pathology*, **42** (3), 131-133.

Full Text: [2008\Kor J Pat42, 131.pdf](2008/Kor%20J%20Pat42,%20131.pdf)

Keywords: Diagnosis

# Title: Kovove Materialy-Metallic Materials

Full Journal Title: Kovove Materialy-Metallic Materials

ISO Abbreviated Title: Kov. Mater.-Met. Mater.

JCR Abbreviated Title: Kovove Mater

ISSN: 0023-432X

Issues/Year: 6

Journal Country/Territory: Slovakia

Language: Multi-Language

Publisher: Redakcia Kovove Materialy

Publisher Address: UL Racianska 75, PO Box 95, 830 08 Bratislava 38, Slovakia

Subject Categories:

Materials Science, Multidisciplinary: Impact Factor 0.563 / (2003)

Metallurgy & Metallurgical Engineering: Impact Factor 0.563 / (2003)

? Nemecek, S. and Fiala, J. (1998), Evaluating the journal Kovove Materialy: Are bibliometric indicators the best criterion? *Kovove Materialy-Metallic Materials*, **36** (4), 298-305.

Abstract: The citation data offer a potential to develop quantitative tools for ranking, categorizing, and comparing journals. Citation analysis is used here to assess the journal Kovove materialy, and the limitation of these procedures is discussed

Keywords: Bibliometric, Citation, Journals

# Title: 4th Kuala Lumpur International Conference on Biomedical Engineering, Book Series: IFMBE Proceedings

Full Journal Title: 4th Kuala Lumpur International Conference on Biomedical Engineering, Book Series: IFMBE Proceedings

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Kabbashi, N.A., Karim, M.I.A. Saeed, M.E. and Yaacob, K.H.K. (2008), Application of carbon nanotubes for removal of copper ion from synthetic water. *4th Kuala Lumpur International Conference on Biomedical Engineering, Book Series: IFMBE Proceedings*, **21** (1-2), 77-81.

Full Text: [2008\IFMBE Pro21, 77.pdf](2008/IFMBE%20Pro21,%2077.pdf)

Abstract: The safety and the health of society can be affected by the presence of high concentration of environmental contaminants such as copper ion in wastewater. However, it was found that nanotechnology have shown remarkable results in the removal of the contaminants concentration from water by using nanomaterials. Thus, this study was carried out to evaluate the environmental application of carbon nanotubes for the adsorption experiment for the copper ion removal. The experiment was conducted to identify and determine the factors or the parameters that can influence the adsorption of copper ion such as pH, adsorbent dosage, contact time and agitation speed. The characterization of the carbon nanotubes is conducted by using field emission scanning electron microscope (FESEM). For result analysis, Langmuir and Freundlich Isotherm were used in order to study the kinetics of the adsorption behavior and to determine the adsorption capacity of the carbon nanotube. Regression analysis was used in order to identify the significance of the parameters used to the percentage removal obtained. From this study, it was found that 5 mg, pH 9, 150 rpm, and 80 min are the best conditions for the adsorption of copper ions which give 96.1% of removal.

Keywords: Carbon Nanotubes, Copper, Environmental Contaminant

# Title: Kungliga Svenska Vetenskapsakademiens. Handlingar

(K. Sven. Vetenskapsakad. Handl.)

Title: Kungliga Svenska Akademins Handlingar (Swedish)

Title: The Royal Swedish Academy’s Documents (English)

Lagergren, S. (1898), Zur theorie der sogenannten adsorption gelöster stoffe. *Kungliga Svenska Vetenskapsakademiens.* *Handlingar*, Band **24**, No. 4, 1-39.

Full Text: [-1959\Kun Sve Vet Han24, 1.pdf](-1959/Kun%20Sve%20Vet%20Han24,%201.pdf)

Lagergren, S. (1898), About the theory of so-called adsorption of soluble substances. *Kungliga Svenska Vetenskapsakademiens*. *Handlingar*, Band **24**, No. 4, 1-39.

# Title: Kunststoffe-Plast Europe

Full Journal Title: Kunststoffe-Plast Europe

ISO Abbreviated Title: Kunstst.-Plast Eur.

JCR Abbreviated Title: Kunstst-Plast Eur

ISSN: 0945-0084

Issues/Year: 12

Journal Country/Territory: Germany

Language: English

Publisher: Carl Hanser Verlag

Publisher Address: Kolbergerstrasse 22, Postfach 86 04 20, D-81679 Munich, Germany

Subject Categories:

Engineering, Chemical: Impact Factor 0.280, 78/110 (1999); Impact Factor 0.212, / (2000)

Polymer Science: Impact Factor 0.212, 57/69 (2000)

? Saykowski, F. and Martin, R. (1994), Comparing alternative forms of plastics reclamation from the point-of-view of energy: Hydrogenation and combustion in an incinerator with energy reclamation. *Kunststoffe-Plast Europe*, **84** (9), 1143 et seq.

Abstract: For waste plastics and packaging it is proposed to compare material reclamation and energy reclamation from the point of view of the overall demand for resources. Using the example of hydrogenation and incineration in a waste incineration plant (WIP) with energy recovery, the article describes the procedure and explains why a system comparison can only be carried out on the basis of an appropriately chosen functional unit. It is investigated how the efficiency factors, material losses and processes parameters affect the results.

# Title: Kuram Ve Uygulamada Egitim Bilimleri

Full Journal Title: Kuram Ve Uygulamada Egitim Bilimleri

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Bozdogan, A.E. (2011), A collection of studies conducted in education about “Global Warming” problem. *Kuram Ve Uygulamada Egitim Bilimleri*, **11** (3), 1618-1624.

Full Text: 2011\Kur Uyg Egi Bil11, 1618.pdf

Abstract: The studies global warming problem conducted in education discipline in the world and in Turkey were analysed for this study. The literature was reviewed extensively especially through the articles in the indexed journals of Ebsco Host, Science Direct, Taylor and Francis and Web of Science databases and this study was conducted according to the descriptive method. 62 scientific publications about global warming which were published between the years 1992 and 2009 were included in the research. The articles obtained as a result of this review process were analyzed by taking the aims, results and the education levels into consideration. As a result of the research, some studies which didn’t complement one another both in the world and in Turkey were encountered. However, for the most part the studies conducted had similar purposes and they had the same results. Descriptive studies introduced that similar misconceptions related to global warming existed in all levels of education and the media had negative effects during this process. Experimental studies revealed that the education methods where the students are active, visual materials and social activities outside the school were more effective methods in educating more conscious students about global warming.

Keywords: Activities, Consequences, Databases, Education, Elementary, Environment Education, Environmental-Issues, Global Warming, Greenhouse Effect, High-School-Students, Journals, Knowledge, Literature, Ozone-Layer Depletion, Publications, Research, Review, Science, Scientific Publications, Social, Students, Turkey, Web of Science

# Title: Kvantovaya Elektronika

Full Journal Title: Kvantovaya Elektronika

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Avdeev, A.V., Avdeeva, T.V. and Poizner, B.N. (1991), A scientometric investigation of the development of quantum- electronics trends during 25 years. *Kvantovaya Elektronika*, **18** (3), 394-396.

Abstract: A number of publications dealing with the optical-band quantum electronics (OBQE) since 1963 till 1987 has been counted by studying the content of the Soviet abstract journal ‘Physics’. It has been found that the rate of growth of the whole complex of publications on the OBQE increases to the end of 1980s, the rates of growth of the number of publications on different trends of the OBQE differ considerably, beginning with the end of 1970s the volume of publications on general problems of the OBQE and on the theory grows faster than that on laser applications, within the last 10-15 years the number of publications on gas lasers is distinguished by the greatest temporal dynamism, that on glass lasers-by the least one.

# Title: La Presse Médicale

Full Journal Title: [La Presse Médicale](http://www.sciencedirect.com/science/journal/07554982)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Rabineau, D. and Dhainaut, J.F. (2010), Étude comparative des facultés de médecine en France: Premiers résultats. *La Presse Médicale*, **39** (1), e1-e10.

Full Text: [2010\La Pre Med39, e1.pdf](2010/La%20Pre%20Med39,%20e1.pdf)

Abstract: Context. AERES has achieved the first comparative study of the French medical schools based on the analysis of both teaching performance and research activity. Methods. The human resources considered in the evaluation are full-time, tenured, university hospital teaching staff (TUHT), professors or lecturers, and are meaningful only if the number of students is considered. The estimated number of students is based on the Numerus Clausus (NC), number of students allowed each year to enter in the second year of medical studies. Teaching performance of each faculty is based on the success of their students in a national ranking examination (Examen Classant National – ECN), at the end of their second cycle of medical studies which allows them to choose, for their third specialising cycle of medical studies, the specialty and region of practice. Research activity is estimated on the SIGAPS score of the medical school based on the number and impact factor of the scientific papers produced for five years running by the full-time professors and lecturers of each medical school, the number of national clinical research projects (PHRC) they have conducted during the three past years and the number of research units headed by these professors labelled by CNRS and INSERM. Results. French medical school characteristics are markedly different in the number of university-hospital teaching staff, teaching performances and research activities. Numerous teaching staff and labelled research units have a beneficial influence on research activity and teaching results. The impact on teaching results is less statistically significant than that on research activity. A medical school mapping is then outlined. Prospect. More precise analysis of the observed differences between medical schools will allow propose recommendations.

# Title: Laboratory Animal Science

Full Journal Title: Laboratory Animal Science

ISO Abbreviated Title: Lab. Anim. Sci.

JCR Abbreviated Title: Lab Anim Sci

ISSN: 0023-6764

Issues/Year: 6

Journal Country/Territory: United States

Language: English

Publisher: Amer Assoc Laboratory Animal Science

Publisher Address: 9190 Crestwyn Hills Dr, Memphis, TN 38125

Subject Categories:

Veterinary Sciences Zoology: Impact Factor

? Morse, E.V. and Duncan, M.A. (1976), A survey of aquarium fishes, their foods, and environmental water for salmonellae. *Laboratory Animal Science*, **26** (3), 494-496.

Abstract: The presence of salmonellae in the pet shop environment, fishes, aquarium water, and in a variety of commercially prepared and natural fish foods was determined. Salmonellosis attributed to turtles purchased from pet shops has been responsible for an estimated 280,000 human cases annually in the United States. The possibility that aquarium fishes, or their food and aquatic habitat might also serve as sources of human salmonellosis was deemed worthy of clarification. Results of the present survey indicate that this is probably not correct, and a public health hazarddoes not exist.

# Title: Laboratory Investigation

Full Journal Title: [Laboratory Investigation](http://www.nature.com/labinvest/journal/v86/n4/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Crawford, J.M. (2006), Evidence-based interpretation of liver biopsies. *Laboratory Investigation*, **86** (4), 326-334.

Full Text: [2006\Lab Inv86, 326.pdf](2006/Lab%20Inv86,%20326.pdf)

Abstract: Evidence based medicine’ is a paradigm introduced in the 1990s in which collection of clinical data in a reproducible and unbiased way is intended to guide clinical decision-making. This paradigm has been promulgated across the spectrum of medicine, but with more limited critical analysis in the realm of pathology. The ‘evidence base’ in support of our practices in Anatomic Pathology is a critical issue, given the key role that such diagnoses play in patient management decisions. The question is, ‘On what basis are diagnostic opinions rendered in Anatomic Pathology?’ The operative question becomes, ‘What is the published literature that supports our anatomic pathology interpretations?’ This second question was applied to the published literature in Hepatopathology, by identifying the ‘citation classics’ of this discipline. Specifically, the top 150 most-cited liver pathology articles were analyzed for: authorship; journal of publication; type of publication; and year of publication. Results are as follows. First, it is indeed true that the preeminent hepatopathologists of the age are the most cited authors in the ‘top 150’. Second, the most cited articles in hepatopathology are not published in the pathology literature, but are instead published in much higher impact clinical journals. Third, the pathology of viral hepatitis is demonstrated to be extraordinarily well-grounded in ‘evidence based medicine’. Much of the remainder of the hepatopathology literature falls into a ‘narrative based’ paradigm, which is the rigorous reporting of case experience without statistical clinical outcomes validation. Finally, the years of publication reflect, on the one hand, a vigorous recent literature in the pharmaceutical treatment of viral hepatitis, and on the other, a broadly distributed set of ‘narrative’ articles from the 1960s, 1970s, 1980s, and 1990s. In conclusion, the discipline of hepatopathology appears to be well-grounded in ‘evidence based medicine’ in the realm of viral hepatitis. The remainder of our discipline rests predominantly upon the time-honored identification of disease process through the publication of narrative case series.

Keywords: Age, Analysis, Anatomic Pathology, Authorship, Citation, Citation Classics, Clinical, Clinical Outcomes, Collection, Data, Decision Making, Decision-Making, Distributed, Evidence, Evidence Based, Evidence Based Medicine, Evidence-Based, Experience, Hepatitis, Identification, Impact, Journal, Journals, Literature, Liver, Management, Medicine, Operative, Opinions, Outcomes, Paradigm, Pathology, Practices, Publication, Reporting, Role, Support, Treatment, Validation, Viral, Viral Hepatitis

? Ketcham, C.M. (2007), Predicting impact factor one year in advance. *Laboratory Investigation*, **87** (6), 520-526.

Full Text: [2007\Lab Inv87, 520.pdf](2007/Lab%20Inv87,%20520.pdf)

Abstract: The first impact factor (IF) to reflect the sole efforts of a new editorial team occurs 4 years into what is usually a 5-year editorship, owing to the lag times of: paper accrual and publication, accumulation of citations in derivative literature, and compiling of such citations by the Thomson ISI Web of Knowledge(SM) service. Through weekly collection of citation data from the Web of Science (R) over the past 2 years, we now demonstrate that the evolution of IF can be tracked weekly over the course of a calendar year, enabling prediction of the next year’s IF beginning at the middle of the previous year. The methodology used to track the developing IF for Lab Invest is presented in this study and a prediction made for the 2006 IF, along with IF predictions for other general pathology journals (American Journal of Pathology, Journal of Pathology, Modern Pathology, American Journal of Surgical Pathology, and Human Pathology). Despite the fact that the 2006 IF for Lab Invest will not be issued until June 2007, it became apparent as early as July 2006 that the Lab Invest IF would be greatly improved over 2004 and 2005 by a predicted 0.5 units. However, as important as IF can be to a journal, it is vital not to let IF considerations influence every aspect of the editors’ decisions. Rather, the significance of early prediction lies in earlier validation of editorial policies for journal management as a whole, and reassurance that the philosophy for journal operations is on track.

Keywords: Accumulation, Advance, Citation, Citations, Collection, Course, Data, Developing, Editorial Policies, Evolution, First, General, Impact, Impact Factor, ISI, Journal, Journals, Literature, Management, Methodology, Pathology, Philosophy, Policies, Prediction, Predictions, Publication, Service, Significance, Validation, Web of Science

? Ketcham, C.M. and Crawford, J.M. (2007), The impact of review articles. *Laboratory Investigation*, **87** (12), 1174-1185.

Full Text: [2007\Lab Inv87, 1174.pdf](2007/Lab%20Inv87,%201174.pdf)

Abstract: The expansion of the scientific literature has produced a concomitant increase in the number of review articles. One may posit that the sheer number of review articles belies their function. This study examines the growth of the review literature, what types of journals publish these papers, and provides data on the citation rate of the review literature. Focus is given to the pathology literature, defined as papers that have the word ‘pathology’ or its derivatives in the title, abstract or as a key word. The pathology literature is proliferating at a rapid rate; from 1991 to 2006, the total number of original articles increased 2.3-fold, while the number of reviews increased 5.6-fold. Furthermore, in that same time frame, approximately 90% of pathology articles and reviews were not published in pathology journals. An examination of the 538 review articles that were published in pathology journals in 2005 reveals that only 21% of them have been cited more than 10 times since their publication. The impact factors of 12 pathology journals were compared with and without review articles for the period 2000-2006, including The American Journal of Pathology (AJP), The Journal of Pathology (JP) and Laboratory Investigation (LI). Inclusion of reviews increased the impact factor for JP by 0.610±0.153 U (±s.d.), which was significantly greater than that for AJP (0.109±0.086) and LI (0.147±0.088). However, for all three journals the total impact factor was largely a reflection of the citations of original articles. The motivations of authors and editors who produce review articles are considered, such as career progress and increasing journal visibility, respectively. The fact that many review articles are poorly cited raises concern about the harm that poor review articles can cause, first by making it more difficult to find the good reviews, and in the worst case by propagating scientific error through lack of critical appraisal of original research. The attributes of the best reviews that serve to shape the future of science are described. These data are presented with the hope that authors and editors will carefully consider their respective roles in ensuring that the body of review literature will be of maximum benefit to the scientific and biomedical community.

Keywords: Authors, Biomedical, Citation, Citations, Community, Data, Error, Examination, First, Function, Growth, Impact, Impact Factor, Impact Factors, Information, Journal, Journals, Literature, Medical Knowledge, Papers, Pathology, Progress, Publication, Reflection, Research, Review, Review Literature, Reviews, Science, Scientific Literature, The Good, U, Visibility, Weight

? Ketcham, C.M. and Crawford, J.M. (2008), Can Impact Factor data be trusted? *Laboratory Investigation*, **88** (4), 340-341.

Full Text: [2008\Lab Inv88, 340.pdf](2008/Lab%20Inv88,%20340.pdf)

# Title: Labour Economics

Full Journal Title: Labour Economics

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Laband, D.N. (2002), Contribution, attribution and the allocation of intellectual property rights: Economics versus agricultural economics. *Labour Economics*, **9** (1), 125-131.

Full Text: [2001\Lab Eco9, 125.pdf](2001/Lab%20Eco9,%20125.pdf)

Abstract: In this paper, I compare several readily observable measures of intellectual property rights between agricultural economics-a discipline that attaches considerable importance to author order-and economics-a discipline that attaches little, if any, importance to author order. Specifically, I examine: (1) the incidence of coauthorship-i.e., the likelihood that an individual coauthors with others, (2) the extent of coauthorship-i.e., the number of authors listed on each coauthored paper, (3) the number of individuals thanked for contributing to the research being reported and (4) alphabetization of authorship for papers published in three top journals in each scientific discipline. I find statistically significant differences across-the-board. These differences suggest that interdisciplinary differences with respect to the relative importance attached to contribution affect the allocation of intellectual property rights in science. These findings are compelling because they demonstrate that the allocation of intellectual property rights and how the production of science is structured are related. (C) 2002 Elsevier Science B.V. All rights reserved.

Keywords: Author, Author Order, Authors, Authorship, Coauthorship, Contribution, Differences, Economics, Incidence, Intellectual Property Rights, Journals, Papers, Priority, Production of Science, Research, Science

# Title: Lakartidningen

Full Journal Title: Lakartidningen

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Drummond, M. (2006), High class of Swedish health economics seen from the international point of view. Continuous progress demands economical and political support according to an evaluation. *Lakartidningen*, **103** (47), 3696-3697

Keywords: Economics, Health, Health Economics, International, Support

# Title: Lancet

Full Journal Title: [Lancet](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=4886&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=bd0f7d5e398fdf05bc1359f9b11f3496)

ISO Abbreviated Title: Lancet

JCR Abbreviated Title: Lancet

ISSN: 0140-6736

Issues/Year: 52

Journal Country/Territory: England

Language: English

Publisher: Lancet Ltd

Publisher Address: 84 Theobalds Rd, London WC1X 8RR, England

Subject Categories:

Medicine, General & Internal: Impact Factor 10.197, 3/110 (1999); Impact Factor 10.232, 3/105 (2000); Impact Factor 11.251, / (2001)

? Stainthorpe, W.W. (1914), Observations on 120 cases of lead absorption from drinking water. *Lancet*, **184** (4743), 213-215.

Full Text: [-1959\Lancet184, 213.pdf](-1959/Lancet184,%20213.pdf)

(1967), Lead in drinking water. *Lancet*, **290** (7525), 1076-1078.

Full Text: [L\Lancet321, 1076.pdf](L/Lancet321,%201076.pdf)

Crawford, M.D. and Morris, J.N. (1967), Lead in drinking water. *Lancet*, **290** (7525), 1087-1088.

Full Text: [L\Lancet321, 1087.pdf](L/Lancet321,%201087.pdf)

? (1971), Cadmium pollution and itai-itai disease. *Lancet*, **297** (7695), 382-383.

Full Text: [1960-80\Lancet297, 382.pdf](1960-80/Lancet297,%20382.pdf)

? Mann, F. (1972), Acupuncture analgesia in dentistry. *Lancet*, **299** (7756), 898-899.

Full Text: [1960-80\Lancet299, 898.pdf](1960-80/Lancet299,%20898.pdf)

Notes: highly cited

? Hennekens, C.H., Rosner, B., Belanger, C., Speizer, F.E., Bain, C.J. and Peto, R. (1979), Use of permanent hair-dyes and cancer among registered nurses. *Lancet*, **313** (8131), 1390-1393.

Full Text: [1960-80\Lancet313, 1390.pdf](1960-80/Lancet313,%201390.pdf)

Abstract: A survey of 120 557 married, female, registered U.S. nurses, aged 30 to 55 years, carried out in 1976, showed that 38 459 (31·9%) had at some time used hair dyes, and 3548 (2·9%) had had cancer. For all cancers combined, the risk ratio (R.R.) for the development of cancer among women who had used hair dyes at any time, compared with those who had never used them, was 1·10 (P=0·02). When cancers were subdivided by anatomical site into 16 main groups, only those of the cervix uteri (R.R.=1·44, P<0·001) and those of the vagina and vulva (R.R.=2·58, P=0·02) showed statistically significant associations with use of permanent hair dyes. Both these associations were reduced but remained significant after standardisation for cigarette smoking, and neither showed increases in risk of cancer with increasing years since first use of hair dyes. Women who had used permanent dyes for 21 years or more before the onset of cancer had a significant increase in risk for all sites combined (R.R.=1·38, P=0·02), compared with “never users”. This increase was primarily due to an excess number of observed to expected cases of breast cancer (24 versus 16·3). However, among those who had first used dye 16 to 20 years before diagnosis of breast cancer, there was an almost equal deficit in numbers of cancers at this site (16 observed versus 25·1 expected). The present evidence does not indicate that any material risk of cancer is likely to have occurred during the initial 20 years following first use of permanent hair dyes.

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Full Text: [1981\Lancet317, 681.pdf](1981/Lancet317,%20681.pdf)

Abstract: A controlled trial of long term domiciliary oxygen therapy has been carried out in three centres in the U.K. The 87 patients, all under 70 years of age, who took part had chronic bronchitis or emphysema with irreversible airways obstruction, severe arterial hypoxaemia, carbon dioxide retention, and a history of congestive heart failure. The patients were randomised to oxygen therapy (treated) or no oxygen (controls). Oxygen was given by nasal prongs for at least 15 h daily, usually at 2 1/min. The two groups were well matched, both clinically and in terms of lung function and other laboratory findings. 19 of the 42 oxygen treated patients died in the five years of survival follow-up compared with 30 out of 45 controls: in the 66 men in this trial the survival advantage of oxygen did not emerge until 500 days had elapsed. Survival for the 12 female controls was surprisingly poor, 8 of them being dead at 3 years. Mortality was not easy to predict, though a summation of arterial carbon dioxide tension and red cell mass was helpful. Neither time spent in hospital because of exacerbations of respiratory failure nor work attendance were affected by oxygen therapy, but these patients were very ill at the start of the trial and many had already retired on grounds of age or illhealth. Physiological measurements suggested that oxygen did not slow the progress of respiratory failure in those who died early. However, in longer term survivors on oxygen, arterial oxygenation did seem to stop deterioration.

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Full Text: [1981\Lancet318, 1129.pdf](1981/Lancet318,%201129.pdf)

Abstract: A prospective general population study of 22707 Chinese men in Taiwan has shown that the incidence of primary hepatocellular carcinoma(PHC) among carriers of hepatitis B surface antigen (HBsAg)is much higher than among non-carriers (1158/100000 vs5/100000 during 75000 man-years of follow-up). The relative risk is 223. PHC and cirrhosis accounted for 54&middot; 3%of the 105 deaths among HBsAg carriers but accounted for only 1.5% of the 202 deaths among non-carriers. These findings support the hypothesis that hepatitis B virus has aprimary role in the aetiology of PHC.

Watts, G.T. (1983), The case against the citation index. *Lancet*, **321** (8328), 826.

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Pfaff, G. (1983), Citation indexes and language. *Lancet*, **321** (8334), 1166.

Full Text: [L\Lancet321, 1166.pdf](L/Lancet321,%201166.pdf)

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Full Text: [1983\Lancet321, 1273.pdf](1983/Lancet321,%201273.pdf)

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Full Text: [1983\Lancet321, 1273.pdf](1983/Lancet321,%201273.pdf)

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Full Text: [1984\Lancet1, 1311.pdf](1984/Lancet1,%201311.pdf)

Abstract: Biopsy specimens were taken from intact areas of antral mucosa in 100 consecutive consenting patients presenting for gastroscopy. Spiral or curved bacilli were demonstrated in specimens from 58 patients. Bacilli cultured from 11 of these biopsies were gram-negative, flagellate, and microaerophilic and appeared to be a new species related to the genus Campylobacter. The bacteria were present in almost all patients with active chronic gastritis, duodenal ulcer, or gastric ulcer and thus may be an important factor in the aetiology of these diseases.

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Full Text: [L\Lancet328, 881.pdf](L/Lancet328,%20881.pdf)

Abstract: The hypothesis that homoeopathic potencies are placebos was tested in a randomised, double-blind, placebo-controlled trial. The study model chosen compared the effects of a homoeopathic preparation of mixed grass pollens with placebo in 144 patients with active hayfever. The homoeopathically treated patients showed a significant reduction in patient and doctor assessed symptom scores. The significance of this response was increased when results were corrected for pollen count and the response was associated with a halving of the need for antihistamines. An initial aggravation of symptoms was noted more often in patients receiving the potency and was followed by an improvement in that group. No evidence emerged to support the idea that placebo action fully explains the clinical responses to homoeopathic drugs.

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Full Text: [1987\Lancet329, 1221.pdf](1987/Lancet329,%201221.pdf)

Abstract: The effect of blood-lead on children’s ability and attainment was investigated in a sample of 855 boys and girls aged 6-9 years from eighteen primary schools within a defined area of central Edinburgh. The geometric mean blood-lead value was 10.4 μg/dl. In a stratified subsample, 501 children completed individual tests of cognitive ability and educational attainment from the British Ability Scales (BAS). An extensive home interview with a parent was also done. Multiple regression analyses showed a significant negative relation between log blood-lead and BAS combined score, number skills, and word reading when thirty-three possible confounding variables were taken into account. There was a dose-response relation between blood-lead and test scores, with no evidence of a threshold. The size of the effect was small compared with that of other factors. Lead at low levels of exposure probably has a small harmful effect on the performance of children in ability and attainment tests.

Jones, R.R. (1989), The continuing hazard of lead in drinking-water. *Lancet*, **334** (8664), 669-670.

Full Text: [L\Lancet334, 669.pdf](L/Lancet334,%20669.pdf)

Abstract: Examines lead contamination of drinking water in the United Kingdom. Medical data; Need for standards.

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Full Text: [1989\Lancet334, 1019.pdf](1989/Lancet334,%201019.pdf)

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Full Text: [L\Lancet337, 867.pdf](L/Lancet337,%20867.pdf)

Abstract: In a retrospective survey, 487 research projects approved by the Central Oxford Research Ethics Committee between 1984 and 1987, were studied for evidence of publication bias. As of May, 1990, 285 of the studies had been analysed by the investigators, and 52% of these had been published. Studies with statistically significant results were more likely to be published than those finding no difference between the study groups (adjusted odds ratio [OR] 2.32; 95% confidence interval [Cl] 1.25-4.28). Studies with significant results were also more likely to lead to a greater number of publications and presentations and to be published in journals with a high citation impact factor. An increased likelihood of publication was also associated with a high rating by the investigator of the importance of the study results, and with increasing sample size. The tendency towards publication bias was greater with observational and laboratory-based experimental studies (OR = 3.79; 95% Cl = 1.47-9.76) than with randomised clinical trials (OR = 0.84; 95% Cl = 0.34-2.09). We have confirmed the presence of publication bias in a cohort of clinical research studies. These findings suggest that conclusions based only on a review of published data should be interpreted cautiously, especially for observational studies. Improved strategies are needed to identify the results of unpublished as well as published studies.

Keywords: Meta-Analysis, Trials, Hypothesis, Design

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Full Text: [L\Lancet337, 1197.pdf](L/Lancet337,%201197.pdf)

Abstract: It is suspected that diet influences the risk of getting breast cancer. A study of diet and breast cancer was done among 200 Singapore Chinese women with histologically confirmed disease and 420 matched controls. A quantitative food-frequency questionnaire was used to assess intakes of selected nutrients and foods 1 year before interview. Daily intakes were computed and risk analysed after adjustment for concomitant risk factors.

In premenopausal women, high intakes of animal proteins and red meat were associated with increased risk. Decreased risk was associated with high intakes of polyunsaturated fatty acids (PUFA), beta-carotene, soya proteins, total soya products, a high PUFA to saturated fatty acid ratio, and a high proportion of soya to total protein. In multiple analysis, the variables which were significant after adjustment for each other were red meat (p < 0.001) as a predisposing factor, and PUFA (p = 0.02), beta-carotene (p = 0.003), and soya protein (p = 0.02) as protective factors. The analysis of dietary variables in postmenopausal women gave uniformly non-significant results.

Our finding that soya products may protect against breast cancer in younger women is of interest since these foods are rich in phyto-oestrogens.

Keywords: Chinese, Population, Fat

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Full Text: [1993\Lancet341, 1359.pdf](1993/Lancet341,%201359.pdf)

Abstract: Gastric infection with Helicobacter pylori seems to be a risk factor for gastric cancer. We have conducted a multicentre epidemiological study to investigate this relation further. Our study was designed to look at the relation between the prevalence of H pylori infection and gastric cancer rates in 17 populations from 13 countries, chosen to reflect the global range of gastric cancer incidence. In each centre, about 50 males and 50 females in each of the two age groups 25-34 years and 55-64 years were selected at random from the local population and provided blood samples. Serum samples were assayed for the presence of IgG antibodies to H pylori in a single laboratory. Prevalence rates of H pylori seropositivity were related to local gastric cancer incidence and mortality rates using linear regression. There was a statistically significant relation between the prevalence of seropositivity and cumulative rates (0-74 years) for both gastric cancer incidence and mortality with regression coefficients of 2.68 (p=0.001) and 1.79 (p=0.002), respectively. Our findings are consistent with an approximately six-fold increased risk of gastric cancer in populations with 100% H pylori infection compared with populations that have no infection.

Keywords: Antibody Prevalence, Carcinoma, Groups, Helicobacter Pylori, International, Risk

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Full Text: [1993\Lancet342, 575.pdf](1993/Lancet342,%20575.pdf)

Abstract: Certain features of primary low-grade B-cell gastric lymphoma of mucosa-associated lymphoid tissue (MALT) suggest the tumour is antigen-responsive. Given the close association between gastric MALT lymphoma and Helicobacter pylori, these organisms might be evoking the immunological response, and eradication of H pylori might inhibit the tumour. 6 patients in whom biopsies showed histological and molecular-genetic evidence of low-grade gastric B-cell MALT lymphoma with H pylori infection were treated with antibiotics. In all cases H pylori was eradicated and in 5, repeated biopsies showed no evidence of lymphoma. These results suggest that eradication of H pylori causes regression of low-grade B-cell gastric MALT lymphoma, and that anti-H-pylori treatment should be given for this lymphoma.

Keywords: Campylobacter-Pylori, Helicobacter Pylori, Immune-Response, Monoclonality, Treatment

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Full Text: [L\Lancet342, 1209.pdf](L/Lancet342,%201209.pdf)

Abstract: A low mortality from prostatic cancer is found in Japanese men consuming a low-fat diet with high content of soy products, a rich source of isoflavonoids. We therefore assayed four isoflavonoids in plasma of 14 Japanese and 14 Finnish men. The geometric mean plasma total individual isoflavonoid levels were 7 to 110 times higher in the Japanese than in the Finnish men. Genistein, a tyrosine kinase inhibitor, occurred in the highest concentration (geometric mean 276 nmol/L). We hypothesise that these high phyto-oestrogen levels may inhibit the growth of prostatic cancer in Japanese men, which may explain the low mortality from prostatic cancer in that country.

Keywords: Prostate-Cancer, Diet

Oostvogel, P.M., van Wijngaarden, J.K., van der Avoort, H.G., Mulders, M.N., Conyn van Spaendonck, M.A., Rümke, H.C., van Steenis, G. and van Loon, A.M. (1994), Poliomyelitis outbreak in an unvaccinated community in The Netherlands, 1992-93 [see comments]. *Lancet*, **344** (8923), 665-670.

Full Text: [L\Lancet344, 665.pdf](L/Lancet344,%20665.pdf)

Abstract: An outbreak of poliomyelitis occurred in the Netherlands between September, (1992), and February, (1993), after 14 years without endemic cases. The outbreak was due to poliovirus type 3 and involved 71 patients, of whom 2 died and 59 had paralysis. The patients were aged between 10 days and 61 years (median 18 years). None of the patients had been vaccinated, and all but 1 belonged to a socially and geographically clustered group of people who refuse vaccination for religious reasons. Control measures were taken within 5 days of notification of the first patient and included a wide offer of vaccination with the trivalent oral poliovirus vaccine to the population at risk. Sequence analysis of the viral genome showed closest similarity (96.7%) with a strain isolated in India in 1992, indicating that the virus probably originates from the Indian subcontinent. The difference, however, is still too large to assume direct import. Extensive outbreak investigation at schools, in the environment, at virus diagnostic laboratories, and in the general population showed no evidence of widespread circulation of the epidemic virus outside the groups at risk and area where these groups live. As in the previous outbreak in 1978, the general population, including the majority of unvaccinated people who live dispersed in the population, seemed to be well-protected against poliomyelitis.

Scheinberg, I.H. and Sternlieb, I. (1994), Is non-Indian childhood cirrhosis caused by excess dietary copper? [see comments]. *Lancet*, **344** (8928), 1002-1004.

Full Text: [L\Lancet344, 1002.pdf](L/Lancet344,%201002.pdf)

Abstract: Indian childhood cirrhosis is generally believed to be caused by toxic excesses of hepatic copper derived from milk boiled in copper vessels. Sporadic cases of a disorder indistinguishable from Indian childhood cirrhosis have appeared in other countries where the toxic hepatic copper has been thought to be derived from drinking water. In published reports of seven 2-year-old or younger infants with non-Indian childhood cirrhosis (five of whom died), the copper content of their drinking water--which the authors considered the essential, if not the sole, aetiological factor--ranged from 0.05 to 6.8 mg Cu/L. We identified three Massachusetts towns in which between 1969 and 1991 there were 64, 124 child-years of exposure of children under the age of 6 years to drinking water that contained between 8.5 and 8.8 mg Cu/L. Data from the Massachusetts Department of Public Health showed that there were 135 deaths among these children, but no deaths from cirrhosis or any form of liver disease. These data, and evidence of a genetic aetiology in three of the seven infants reported previously, suggest that non-Indian childhood cirrhosis is an inherited disorder.

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Full Text: [L\Lancet349, 1300.pdf](L/Lancet349,%201300.pdf)

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Full Text: [1996\Lancet347, 1713.pdf](1996/Lancet347,%201713.pdf)

Abstract: Background The Collaborative Group on Hormonal Factors in Breast Cancer has brought together and reanalysed the worldwide epidemiological evidence on the relation between breast cancer risk and use of hormonal contraceptives. Methods Individual data on 53297 women with breast cancer and 100 239 women without breast cancer from 54 studies conducted in 25 countries were collected, checked, and analysed centrally. Estimates of the relative risk for breast cancer were obtained by a modification of the Mantel-Haenszel method. All analyses were stratified by study, age at diagnosis, parity, and, where appropriate, the age a woman was when her first child was born, and the age she was when her risk of conception ceased. Findings The results provide strong evidence for two main conclusions. First, while women are taking combined oral contraceptives and in the 10 years after stopping there is a small increase in the relative risk of having breast cancer diagnosed (relative risk [95% CI] in current users 1.24 [1.15-1.33], 2p<0.00001; 1-4 years after stopping 1.16 [1.08-1.23], 2p=0.00001; 5-9 years after stopping 1.07 [1.02-1.13], 2p=0.009). Second, there is no significant excess risk of having breast cancer diagnosed 10 or more years after stopping use (relative risk 1.01 [0.96-1.05], NS). The cancers diagnosed in women who had used combined oral contraceptives were less advanced clinically than those diagnosed in women who had never used these contraceptives: for ever-users compared with never-users, the relative risk for tumours that had spread beyond the breast compared with localised tumours was 0.88 (0.81-0.95; 2p=0.002). There was no pronounced variation in the results for recency of use between women with different background risks of breast cancer, including women from different countries and ethnic groups, women with different reproductive histories, and those with or without a family history of breast cancer. The studies included in this collaboration represent about 90% of the epidemiological information on the topic, and what is known about the other studies suggests that their omission has not materially affected the main conclusions. Other features of hormonal contraceptive use such as duration of use, age at first use, and the dose and type of hormone within the contraceptives had little additional effect on breast cancer risk, once recency of use had been taken into account. Women who began use before age 20 had higher relative risks of having breast cancer diagnosed while they were using combined oral contraceptives and in the 5 years after stopping than women who began use at older ages, but the higher relative risks apply at ages when breast cancer is rare and, for a given duration of use, earlier use does not result in more cancers being diagnosed than use beginning at older ages. Because breast cancer incidence rises steeply with age, the estimated excess number of cancers diagnosed in the period between starting use and 10 years after stopping increases with age at last use: for example, among 10 000 women from Europe or North America who used oral contraceptives from age 16 to 19, from age 20 to 24, and from age 25 to 29, respectively, the estimated excess number of cancers diagnosed up to 10 years after stopping use is 0.5 (95% CI 0.3-0.7), 1.5 (0.7-2.3), and 4.7 (2.7-6.7). Up to 20 years after cessation of use the difference between ever-users and never-users is not so much in the total number of cancers diagnosed, but in their clinical presentation, with the breast cancers diagnosed in ever-users being less advanced clinically than those diagnosed in never-users. The relation observed between breast cancer risk and hormone exposure is unusual, and it is not possible to infer from these data whether it is due to an earlier diagnosis of breast cancer in ever-users, the biological effects of hormonal contraceptives, or a combination of reasons. Interpretation Women who are currently using combined oral contraceptives or have used them in the past 10 years are at a slightly increased risk of having breast cancer diagnosed, although the additional cancers diagnosed tend to be localised to the breast. There is no evidence of an increase in the risk of having breast cancer diagnosed 10 or more years after cessation of use, and the cancers diagnosed then are less advanced clinically than the cancers diagnosed in never-users.

Keywords: Age, Association, Breast Cancer, Cancer, Collaboration, Diagnosis, Estrogen, Europe, Final Report, History, Information, Oral-Contraceptives, Patterns, Population, Premenopausal Women, Risk-Factors, Young-Women

Goldman, A.P., Kerr, S.J., Butt, W., Marsh, M.J., Murdoch, I.A., Paul, T., Firmin, R.K., Tasker, R.C. and Macrae, D.J. (1997), Extracorporeal support for intractable cardiorespiratory failure due to meningococcal disease. *Lancet*, **349** (9050), 466-469.

Full Text: [L\Lancet349, 466.pdf](L/Lancet349,%20466.pdf)

Abstract: Background Meningococcal disease is still associated with considerable mortality, despite the use of early antibiotics and management in specialised intensive care units, due principally to early refractory myocardial depression and hypotension as well as severe acute respiratory distress syndrome. Extracorporeal membrane oxygenation (ECMO) is a complex technology that uses a modified ‘heart–lung’ machine to provide temporary cardiac and respiratory support. We reviewed the UK and Australian experience of the use of ECMO in patients with refractory cardiorespiratory failure due to meningococcal disease.

Methods The records from all 12 known patients supported with ECMO for meningococcal disease in the UK and Australia since 1989 were reviewed.

Findings 12 patients (aged 4 months to 18 years, median 26 months) with meningococcal disease received ECMO over 8 years. In seven patients, ECMO was required early for cardiac support for intractable shock within 36 h of admission to intensive care. In the other five patients, ECMO was indicated for respiratory failure due to severe adult respiratory distress syndrome, which tended to occur later in the disease. The paediatric risk of mortality score ranged from 13 to 40 (median 29, median predicted risk of mortality 72%). Six of the 12 patients required cardiopulmonary resuscitation before ECMO and the other six were deteriorating despite maximal conventional therapy. Overall, eight of the 12 patients survived, with six leading functionally normal lives at a median of 1 year (range 4 months to 4 years) of follow-up.

Interpretation ECMO might be considered to support patients with intractable cardiorespiratory failure due to meningococcal disease who are not responding to conventional treatment.

Keywords: House-Dust Mite, Risk-Factors, Airway Responsiveness, Parental Smoking, Bronchial Responsiveness, Allergic Sensitization, Respiratory-Disease, Pulmonary-Function, Maternal Smoking, Passive Smoking

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Full Text: [L\Lancet349, 778.pdf](L/Lancet349,%20778.pdf)

Keywords: Research

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Full Text: [1997\Lancet350, 757.pdf](1997/Lancet350,%20757.pdf)

Abstract: Background Isolated systolic hypertension occurs in about 15% of people aged 60 years or older. In 1989, the European Working Party on High Blood Pressure whether active treatment investigated cardiovascular complications hypertension. Fatal and non-fatal stroke combined was the primary endpoint. Methods All patients (greater than or equal to 60 years) were initially started on masked placebo. At three run-in visits 1 month apart, their average sitting systolic blood pressure was 160-219 mm Hg with a diastolic blood pressure lower than 95 mm Hg. After stratification for centre, sex, and previous cardiovascular complications, 4695 patients were randomly assigned to nitrendipine 10-40 mg daily, with the possible addition of enalapril 5-20 mg daily and hydrochlorothiazide 12.5-25.0 mg daily, or matching placebos. Patients withdrawing from double-blind treatment were still followed up. We compared occurrence of major endpoints by intention to treat. Findings At a median of 2 years’ follow-up, sitting systolic acid diastolic blood pressures had fallen by 13 mm Hg and 2 mm Hg in the placebo group (n=2297) and by 23 mm Hg and 7 mm Hg in the active treatment group (n=2398). The between-group differences were systolic 10.1 mm Hg (95% CI 8.8-11.4) and diastolic, 4.5 mm Hg (3.9-5.1). Active treatment reduced the total rate of stroke from 13.7 to 7.9 endpoints per 1000 patient-years (42% reduction; p=0.003). Non-fatal stroke decreased by 44% (p=0.007). In the active treatment. group, all fatal and non-fatal cardiac endpoints, including sudden death, declined by 26% (p=0.03). Non-fatal cardiac endpoints decreased by 33% (p=0.03) and all fatal and non-fatal cardiovascular endpoints by 31% (p<0.001). Cardiovascular mortality was slightly lower on active treatment (-27%, p=0.07), but all-cause mortality was not influenced (-14%; p=0.22). Interpretation Among elderly patients with isolated systolic hypertension, antihypertensive drug treatment starting with nitrendipine reduces the rate of cardiovascular complications. Treatment of 1000 patients for 5 years with this type of regimen may prevent 29 strokes or 53 major cardiovascular endpoints.

Keywords: Calcium-Antagonists, Elderly Program SHEP, Endpoints, England, Morbidity, Mortality, Pressure, Primary, Risk, Stop, Swedish Trial

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Full Text: [L\Lancet350, 824.pdf](L/Lancet350,%20824.pdf)

? Linde, K., Clausius, N., Ramirez, G., Melchart, D., Eitel, N., Hedges, L.V. and Jonas, W.B. (1997), Are the clinical effects of homoeopathy placebo effects? A meta-analysis of placebo-controlled trials? *Lancet*, **350** (9081), 834-843.

Full Text: [L\Lancet350, 834.pdf](L/Lancet350,%20834.pdf)

Abstract: Background Homoeopathy seems scientifically implausible, but has widespread use. We aimed to assess whether the clinical effect reported in randomised controlled trials of homoeopathic remedies is equivalent to that reported for placebo.

Methods We sought studies from computerised bibliographies and contacts with researchers, institutions, manufacturers, individual collectors, homoeopathic conference proceedings, and books. We included all languages. Double-blind and/or randomised placebo-controlled trials of clinical conditions were considered. Our review of 186 trials identified 119 that met the inclusion criteria. 89 had adequate data for meta-analysis, and two sets of trial were used to assess reproducibility. Two reviewers assessed study quality with two scales and extracted data for information on clinical condition, homoeopathy type, dilution, ‘remedy’, population, and outcomes.

Findings The combined odds ratio for the 89 studies entered into the main meta-analysis was 2.45 (95% CI 2.05, 2.93) in favour of homoeopathy. The odds ratio for the 26 good-quality studies was 1.66 (1.33, 2.08), and that corrected for publication bias was 1.78 (1.03, 3.10). Four studies on the effects of a single remedy on seasonal allergies had a pooled odds ratio for ocular symptoms at 4 weeks of 2.03 (1.51, 2.74). Five studies on postoperative ileus had a pooled mean effect-size-difference of -0.22 standard deviations (95% CI -0.36, -0.09) for flatus, and -0.18 SDs (-0.33, -0.03) for stool (both p<0.05).

Interpretation The results of our meta-analysis are not compatible with the hypothesis that the clinical effects of homoeopathy are completely due to placebo. However, we found insufficient evidence from these studies that homoeopathy is clearly efficacious for any single clinical condition. Further research on homoeopathy is warranted provided it is rigorous and systematic.

Keywords: Homeopathic Preparation, Rheumatoid-Arthritis, Publication Bias, Complementary Medicine, General-Practitioners, Alternative Medicine, Systematic Reviews, Galphimia Glauca, Arnica-Montana, Pollinosis

? Sears, M.R. (1997), Epidemiology of childhood asthma. *Lancet*, **350** (9083), 1015-1020.

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Full Text: [1998\Lancet352, 364.pdf](1998/Lancet352,%20364.pdf)

Abstract: Background A problem acupuncture research has to face is the concept of a control group. If, in control groups, non-acupoint needling is done, physiological acupuncture effects are implied. Therefore the effects shown in this group are often close to those shown in the acupuncture group. In other trials, control groups have received obviously different treatments, such as transcutaneous electrical nervous stimulation or TENS-laser treatment; it is not clear if the effects of acupuncture are due only to the psychological effects of the treatment.

Methods We developed a placebo acupuncture needle, with which it should be possible to simulate an acupuncture procedure without penetrating the shin. In a cross-over experiment with 60 volunteers we tested whether needling with the placebo needle feels any different from real acupuncture.

Findings Of 60 volunteers, 54 felt a penetration with acupuncture (mean visual analogue scale [VAS] 13.4; SD 10.58) and 47 felt it with placebo (VAS 8.86; SD 10.55), 34 felt a dull pain sensation (DEQI) with acupuncture and 13 with placebo. None of the volunteers suspected that the needle may not have penetrated the skin.

Interpretation The placebo needle is sufficiently credible to be used in investigations of the effects of acupuncture.

Keywords: Pain

? Turner, R.C., Holman, R.R., Cull, C.A., Stratton, I.M., Matthews, D.R., Frighi, V., Manley, S.E., Neil, A., McElroy, K., Wright, D., Kohner, E., Fox, C., Hadden, D., Mehta, Z., Smith, A., Nugent, Z., Peto, R., Adlel, A.I., Mann, J.I., Bassett, P.A., Oakes, S.F., Dornan, T.L., Aldington, S., Lipinski, H., Collum, R., Harrison, K., MacIntyre, C., Skinner, S., Mortemore, A., Nelson, D., Cockley, S., Levien, S., Bodsworth, L., Willox, R., Biggs, T., Dove, S., Beattie, E., Gradwell, M., Staples, S., Lam, R., Taylor, F., Leung, L., Carter, R.D., Brownlee, S.M., Fisher, K.E., Islam, K., Jelfs, R., Williams, P.A., Williams, F.A., Sutton, P.J., Ayres, A., Logie, L.J., Lovatt, C., Evans, M.A., Stowell, L.A., Ross, I., Kennedy, I.A., Croft, D., Keen, A.H., Rose, C., Raikou, M., Fletcher, A.E., Bulpitt, C., Battersby, C., Yudkin, J.S., Stevens, R., Stearn, M.R., Palmer, S.L., Hammersley, M.S., Franklin, S.L., Spivey, R.S., Levy, J.C., Tidy, C.R., Bell, N.J., Steemson, J., Barrow, B.A., Coster, R., Waring, K., Nolan, L., Truscott, E., Walravens, N., Cook, L., Lampard, H., Merle, C., Parker, P., McVittie, J., Draisey, I., Murchison, L.E., Brunt, A.H.E., Williams, M.J., Pearson, D.W., Petrie, X.M.P., Lean, M.E.J., Walmsley, D., Lyall, F., Christie, E., Church, J., Thomson, E., Farrow, A., Stowers, J.M., Stowers, M., McHardy, K., Patterson, N., Wright, A.D., Levi, N.A., Shearer, A.C.I., Thompson, R.J.W., Taylor, G., Rayton, S., Bradbury, M., Glover, A., Smyth-Osbourne, A., Parkes, C., Graham, J., England, P., Gyde, S., Eagle, C., Chakrabarti, B., Smith, J., Sherwell, J., Oakley, N.W., Whitehead, M.A., Hollier, G.P., Pilkington, T., Simpson, J., Anderson, M., Martin, S., Kean, J., Rice, B., Rolland, A., Nisbet, J., Kohner, E.M., Dornhorst, A., Doddridge, M.C., Dumskyij, M., Walji, S., Sharp, P., Sleightholm, M., Vanterpool, G., Frost, G., Roseblade, M., Elliott, S., Forrester, S., Foster, M., Myers, K., Chapman, R., Hayes, J.R., Henry, R.W., Featherston, M.S., Archbold, G.P.R., Copeland, M., Harper, R., Richardson, I., Davison, H.A., Alexander, L., Scarpello, J.H.B., Shiers, D.E., Tucker, R.J., Worthington, J.R.H., Angris, S., Bates, A., Walton, J., Teasdale, M., Browne, J., Stanley, S., Davis, B.A., Strange, R.C., Hadden, D.R., Kennedy, L., Atkinson, A.B., Bell, P.M., McCance, D.R., Rutherford, J., Culbert, A.M., Hegan, C., Tennet, H., Webb, N., Robinson, I., Holmes, J., Nesbitt, S., Spathis, A.S., Hyer, S., Nanson, M.E., James, L.M., Tyrell, J.M., Davis, C., Strugnell, P., Booth, M., Petrie, H., Clark, D., Hulland, S., Barron, J.L., Gould, B.C., Singer, J., Badenoch, A., McGregor, M., Isenberg, L., Eckert, M., Alibhai, K., Marriot, E., Cox, C., Price, R., Fernandez, M., Ryle, A., Clarke, S., Wallace, G., Mehmed, E., Lankester, J.A., Howard, E., Waite, A., MacFarlane, S., Greenwood, R.H., Wilson, J., Denholm, M.J., Temple, R.C., Whitfield, K., Johnson, F., Munroe, C., Gorick, S., Duckworth, E., Fatman, M., Rainbow, S., Borthwick, L., Wheatcroft, D.J., Seaman, R.J., Christie, R.A., Wheatcroft, W., Musk, P., White, J., McDougal, S., Bond, M., Raniga, P., Day, J.L., Doshi, M.J., Wilson, J.G., Howard-Williams, J.R., Humphreys, H., Graham, A., Hicks, K., Hexman, S., Bayliss, P., Pledger, D., Newton, R.W., Jung, R.T., Roxburgh, C., Kilgallon, B., Dick, L., Waugh, N., Kilby, S., Ellingford, A., Burns, J., Fox, C.V., Holloway, M.C., Coghill, H.M. and Hein, N. (1998), Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). *Lancet*, **352** (9131), 837-853.

Full Text: [1998\Lancet352, 837.pdf](1998/Lancet352,%20837.pdf)

Abstract: Background Improved blood-glucose control decreases the progression of diabetic microvascular disease, but the effect on macrovascular complications is unknown. There is concern that sulphonylureas may increase cardiovascular mortality in patients with type 2 diabetes and that high insulin concentrations may enhance atheroma formation. We compared the effects of intensive blood-glucose control with either sulphonylurea or insulin and conventional treatment on the risk of microvascular and macrovascular complications in patients with type 2 diabetes in a randomised controlled trial. Methods 3867 newly diagnosed patients with type 2 diabetes, median age 54 years (IQR 48-60 years), who after 3 months’ diet treatment had a mean of two fasting plasma glucose (FPG) concentrations of 6.1-15.0 mmol, L were randomly assigned intensive policy with a sulphonylurea (chlorpropamide, glibenclamide, or. glipizide) or with insulin, or conventional policy with diet. The aim in the intensive group was FPG less than 6 mmol, L. in the conventional group, the aim was the best achievable FPG with diet atone; drugs were added only if there were hyperglycaemic symptoms or FPG greater than 15 mmol, L. Three aggregate endpoints were used to assess differences between conventional and intensive treatment: any diabetes-related endpoint (sudden death, death from hyperglycaemia or hypoglycaemia, fatal or non-fatal myocardial infarction, angina, heart failure, stroke, renal failure, amputation [of at least one digit], vitreous haemorrhage, retinopathy requiring photocoagulation, blindness in one eye,or cataract extraction); diabetes-related death (death from myocardial infarction, stroke, peripheral vascular disease, renal disease, hyperglycaemia or hypoglycaemia, and sudden death); all-cause mortality. Single clinical endpoints and surrogate subclinical endpoints were also assessed. All analyses were by intention to treat and frequency of hypoglycaemia was also analysed by actual therapy. Findings Over 10 years, haemoglobin A(1c) (HbA(1c)) was 7.0% (6.2-8.2) in the intensive group compared with 7.9% (6.9-8.8) in the conventional group-an 11% reduction. There was no difference in HbA(1c) among agents in the intensive group. Compared with the conventional group, the risk in the intensive group was 12% lower (95% CI 1-21, p=0.029) for any diabetes-related endpoint; 10% lower (-11 to 27, p=0.34) for any diabetes-related death; and 6% lower (-10 to 20, p=0.44) for all-cause mortality. Most of the risk reduction in the any diabetes-related aggregate endpoint was due to a 25% risk reduction (7-40, p=0.0099) in microvascular endpoints, including the need for retinal photocoagulation. There was no difference for any of the three aggregate endpoints the three intensive agents (chlorpropamide, glibenclamide, or insulin). Patients in the intensive group had more hypoglycaemic episodes than those in the conventional group on both types of analysis (both p<0.0001). The rates of major hypoglycaemic episodes per year were 0.7% with conventional treatment, 1.0% with chlorpropamide, 1.4% with glibenclamide, and 1.8% with insulin. Weight gain was significantly higher in the intensive group (mean 2.9 kg) than in the conventional group (p<0.001), and patients assigned insulin had a greater gain in weight (4.0 kg) than those assigned chlorpropamide (2.6 kg) or glibenclamide (1.7 kg). Interpretation Intensive blood-glucose control by either sulphonylureas or insulin substantially decreases the risk of microvascular complications, but not macrovascular disease, in patients with type 2 diabetes. None of the individual drugs had an adverse effect on cardiovascular outcomes. All intensive treatment increased the risk of hypoglycaemia.

Keywords: Heart-Disease, Mellitus, Microvascular Complications, Niddm Patients, Secondary, Therapy, Trial

Capes, S.E., Hunt, D., Malmberg, K. and Gerstein, H.C. (2000), Stress hyperglycaemia and increased risk of death after myocardial infarction in patients with and without diabetes: A systematic overview. *Lancet*, **355** (9206), 773-778.

Full Text: [L\Lancet355, 773.pdf](L/Lancet355,%20773.pdf)

Abstract: Background High blood glucose concentration may increase risk of death and poor outcome after acute myocardial infarction. We did a systematic review and metaanalysis to assess the risk of in-hospital mortality or congestive heart failure after myocardial infarction in patients with and without diabetes who had stress hyperglycaemia on admission.

Methods We did two searches of MEDLINE for English-language articles published from 1966 to October, 1998, a computerised search of Science Citation Index from 1980 to September, 1998, and manual searches of bibliographies. Two searchers identified all cohort studies or clinical trials reporting in-hospital mortality or rates of congestive heart failure after myocardial infarction in relation to glucose concentration on admission. We compared the relative risks of in-hospital mortality and congestive heart failure in hyperglycaemic and normoglycaemic patients with and without diabetes.

Findings 14 articles describing 15 studies were identified. Patients without diabetes who had glucose concentrations more than or equal to range 6.1-8.0 mmol/L had a 3.9-fold (95% CI 2.9-5.4) higher risk of death than patients without diabetes who had lower glucose concentrations. Glucose concentrations higher than values in the range of 8.0-10.0 mmol/L on admission were associated with increased risk of congestive heart failure or cardiogenic shock in patients without diabetes. In patients with diabetes who had glucose concentrations more than or equal to range 10.0-11.0 mmol/L the risk of death was moderately increased (relative risk 1.7 [1.2-2.4]).

Interpretation Stress hyperglycaemia with myocardial infarction is associated with an increased risk of in-hospital mortality in patients with and without diabetes; the risk of congestive heart failure or cardiogenic shock is also increased in patients without diabetes.

Keywords: Free Fatty Acids, Prognostic Importance, Insulin-Treatment, Blood-Glucose, Mortality, Mellitus, Admission, Therapy, Determinants, Prevalence

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Full Text: [2000\Lancet355, 1253.pdf](2000/Lancet355,%201253.pdf)

Abstract: Scientific reports on second-hand smoke have stimulated legislation on clean indoor air in the USA, but less so in Europe. Recently, the largest European study, by the International Agency for Research on Cancer (IARC), demonstrated a 16% increase in the point estimate of risk in lung cancer for nonsmokers, a result consistent with earlier studies. However, the study was described by newspapers and the tobacco industry as demonstrating no increase in risk. To understand the tobacco industry’s strategy on the IARC study we analysed industry documents released in US litigation and interviewed IARC investigators, The Philip Morris tobacco company feared that the study (and a possible IARC monograph on second-hand smoke) would lead to increased restrictions in Europe so they spearheaded an inter-industry, three-prong strategy to subvert IARC’s work. The scientific strategy attempted to undercut IARC’s research and to develop industry-directed research to counter the anticipated findings. The communications strategy planned to shape opinion by manipulating the media and the public. The government strategy sought to prevent increased smoking restrictions. The IARC study cost $2 million over ten years; Philip Morris planned to spend $2 million in one year alone and up to $4 million on research. The documents and Interviews suggest that the tobacco industry continues to conduct a sophisticated campaign against conclusions that secondhand smoke causes lung cancer and other diseases, subverting normal scientific processes.

Keywords: Respirable Suspended Particles, Passive Smoking, Lung-Cancer, Nonsmoking Women, Air-Quality, Exposure, Misclassification, Multicenter, Health, Risk

Reng, M., Philipp, A., Kaiser, M., Pfeifer, M., Gruene, S. and Schoelmerich, J. (2000), Pumpless extracorporeal lung assist and adult respiratory distress syndrome. *Lancet*, **356** (9225), 219-220.

Full Text: [L\Lancet356, 219.pdf](L/Lancet356,%20219.pdf)

Abstract: We report use of a pumpless extracorporeal lung assist––a safe and effective method in the management of severe acute respiratory failure that allows an extracorporal gas-exchange without the use of a pump.

Siebers, R. and Holt, S. (2000), Accuracy of references in five leading medical journals. *Lancet*, **356** (9239), 1445-1445.

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Full Text: [L\Lancet356, 2059.pdf](L/Lancet356,%202059.pdf)

Abstract: Background Hot flashes can be troublesome, especially when hormonal therapy is contraindicated. Preliminary data have suggested that newer antidepressants, such as venlafaxine, can diminish hot flashes. We undertook a double-blind, placebo-controlled, randomised trial to assess the efficacy of venlafaxine in women with a history of breast cancer or reluctance to take hormonal treatment because of fear of breast cancer.

Methods Participants were assigned placebo (n=56) or venlafaxine 37.5 mg daily (n=56), 75 mg daily (n=55), or 150 mg daily (n=54). After a baseline assessment week, patients took the study medication for 4 weeks. All venlafaxine treatment started at 37.5 mg daily and gradually increased in the 75 mg and 150 mg groups. Patients completed daily hot-flash questionnaire diaries. The primary endpoint was average daily hot-flash activity (number of flashes and a score combining number and severity). Analyses were based on the women who provided data throughout the baseline and study weeks.

Findings 191 patients had evaluable data for the whole study period (50 placebo, 49 venlafaxine 37.5 mg, 43 venlafaxine 75 mg, 49 venlafaxine 150 mg), After week 4 of treatment, median hot flash scores were reduced from baseline by 27% (95% CI 11-34), 37% (26-54), 61% (50-68), and 61% (48-75) in the four groups. Frequencies of some side-effects (mouth dryness, decreased appetite, nausea, and constipation) were significantly higher in the venlafaxine 75 mg and 150 mg groups than in the placebo group.

Interpretation Venlafaxine is an effective non-hormonal treatment for hot flashes, though the efficacy must be balanced against the drug’s side-effects. Confirmation of the results of this 4-week study awaits the completion of three ongoing randomised studies to assess the effects of other related antidepressants for the treatment of hot flashes.

Keywords: Quality-of-Life, Estrogen Replacement Therapy, Major Depression, Pilot Evaluation, Antidepressants, Attitudes, Women

Baron, D.N. (2001), Accuracy of references in theses. *Lancet*, **357** (9250), 150.

Full Text: [L\Lancet357, 150.pdf](L/Lancet357,%20150.pdf)

Peddicord, D. (2002), Sponsorship, authorship, and accountability. *Lancet*, **359** (9303), 350.

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Full Text: [L\Lancet359, 350-1.pdf](L/Lancet359,%20350-1.pdf)

Thomas, P.S., Tan, K.S. and Yates, D.H. (2002), Sponsorship, authorship, and accountability. *Lancet*, **359** (9303), 351.

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MacKinnon, L. and Clarke, M. (2002), Citation of group-authored papers. *Lancet*, **360** (9344), 1513-1514.

Full Text: [L\Lancet360, 1513.pdf](L/Lancet360,%201513.pdf)

Shaw, M.P.C. (2002), 1873 Kussmaul citation. *Lancet*, **360** (9349), 1982.

Full Text: [L\Lancet360, 1982.pdf](L/Lancet360,%201982.pdf)

Villanueva, P., Peiró, S., Librero, J. and Pereiró, I. (2003), Accuracy of pharmaceutical advertisements in medical journals. *Lancet*, **361** (9351), 27-32.

Full Text: [L\Lancet361, 27.pdf](L/Lancet361,%2027.pdf)

Background Because of the effect of the ever-growing evidence-based medicine movement on prescribing behaviour of doctors, the pharmaceutical industry incorporates bibliographical references to clinical trials that endorse their products in their advertisements. We aimed to assess whether the references about efficacy, safety, convenience, or cost of antihypertensive and lipid-lowering drugs included in advertisements supported the promotional claims.

Methods We assessed all advertisements for antihypertensive and lipid-lowering drugs published in six Spanish medical journals in 1997 that had at least one bibliographical reference. Two pairs of investigators independently reviewed the advertisements to see whether the studies quoted to endorse the advertising messages supported the corresponding claims.

Findings We identified 264 different advertisements for antihypertensive drugs and 23 different advertisements for lipid-lowering drugs. We recorded at least one reference in 31 advertisements in the antihypertensive group and at least one reference in every seven advertisements in the lipid-lowering group, providing a total of 125 promotional claims with references. We could not retrieve 23 (18%) references from monographic works and non-published data on file. 79 (63%) of the 125 references were from journals with a high impact factor; 84 (82%) of the 102 references retrieved were from randomised clinical trials. In 45 claims (44.1%; 95% CI 34.3–54.3) the promotional statement was not supported by the reference, most frequently because the slogan recommended the drug in a patient group other than that assessed in the study.

Interpretation Doctors should be cautious in assessment of advertisements that claim a drug has greater efficacy, safety, or convenience, even though these claims are accompanied by bibliographical references to randomised clinical trials published in reputable medical journals and seem to be evidence-based.

Liao P.H., Whitehead, T., Evans, T. and Griffiths, M. (2003), Ventilator-associated lung injury. *Lancet*, **361** (9354), 332-340.

Full Text: [L\Lancet361, 332.pdf](L/Lancet361,%20332.pdf)

Abstract: Mechanical ventilation is indispensable in support of patients with respiratory failure who are critically ill. However, use of this technique has adverse effects, including increased risk of pneumonia, impaired cardiac performance, and difficulties associated with sedation and paralysis. Moreover, application of pressure to the lung, whether positive or negative, can cause damage known as ventilator-associated lung injury (VALI). Despite difficulties in distinguishing the effects of mechanical ventilation from those of the underlying disorder, VALI greatly assists patients with the most severe form of lung injury, acute respiratory distress syndrome (ARDS). Moreover, modification of mechanical ventilation so that VALI is kept to a minimum improves survival of patients with ARDS. Here, we outline the effects of mechanical ventilation on injured lungs and explore the underlying mechanisms.

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Full Text: [L\Lancet361, 1017.pdf](L/Lancet361,%201017.pdf)

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Full Text: [L\Lancet361, 1106.pdf](L/Lancet361,%201106.pdf)

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Full Text: [L\Lancet361, 1106.pdf](L/Lancet361,%201106.pdf)

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Full Text: [L\Lancet361, 1312.pdf](L/Lancet361,%201312.pdf)

Keywords: Syncytial Virus, Infections, Influenza, Community

Ho, W. (2003), Guideline on management of severe acute respiratory syndrome (SARS). *Lancet*, **361** (9366), 1313-1315.

Full Text: [L\Lancet361, 1313.pdf](L/Lancet361,%201313.pdf)

Notes: highly cited > 1000

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Full Text: [L\Lancet361, 1319.pdf](L/Lancet361,%201319.pdf)

Abstract: Background An outbreak of severe acute respiratory syndrome (SARS) has been reported in Hong Kong. We investigated the viral cause and clinical presentation among 50 patients.

Methods We analysed case notes and microbiological findings for 50 patients with SARS, representing more than five separate epidemiologically linked transmission clusters. We defined the clinical presentation and risk factors associated with severe disease and investigated the causal agents by chest radiography and laboratory testing of nasopharyngeal aspirates and sera samples. We compared the laboratory findings with those submitted for microbiological investigation of other diseases from patients whose identity was masked.

Findings Patients, age ranged from 23 to 74 years. Fever, chills, myalgia, and cough were the most frequent complaints. When compared with chest radiographic changes, respiratory symptoms and auscultatory findings were disproportionally mild. Patients who were household contacts of other infected people and had older age, lymphopenia, and liver dysfunction were associated with severe disease. A virus belonging to the family Coronaviridae was isolated from two patients. By use of serological and reverse- transcriptase PCR specific for this virus, 45 of 50 patients with SARS, but no controls, had evidence of infection with this virus.

Interpretation A coronavirus was isolated from patients with SARS that might be the primary agent associated with this disease. Serological and molecular tests specific for the virus permitted a definitive laboratory diagnosis to be made and allowed further investigation to define whether other cofactors play a part in disease progression.

Keywords: Human-Disease, Virus, Infections, Diagnosis

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Abstract: We did a case-control study in five Hong Kong hospitals, with 241 non-infected and 13 infected staff with documented exposures to 31 index patients with severe acute respiratory syndrome (SARS) during patient care. All participants were surveyed about use of mask, gloves, gowns, and hand-washing, as recommended under droplets and contact precautions when caring for index patients with SARS. 69 staff who reported use of all four measures were not infected, whereas all Infected staff had omitted at least one measure (p=0.0224). Fewer staff who wore masks (p=0.0001), gowns (p=0.006), and washed their hands (p=0.047) became infected compared with those who didn’t, but stepwise logistic regression was significant only for masks (p=0.011). Practice of droplets precaution and contact precaution is adequate in significantly reducing the risk of infection after exposures to patients with SARS. The protective role of the mask suggests that in hospitals, infection is transmitted by droplets.

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Abstract: Severe acute respiratory syndrome is a new disease in human beings, first recognised in late February, 2003, in Hanoi, Vietnam. The severity of the disease, combined with its rapid spread along international air-travel routes, prompted WHO to set up a network of scientists from 11 laboratories around the world to try to identify the causal agent and develop a diagnostic test. The network unites laboratories with different methods and capacities to rapidly fulfil all postulates for establishing a virus as the cause of a disease. Results are shared in real time via a secure website, on which microscopy pictures, protocols for testing, and PCR primer sequences are also posted. Findings are discussed in daily teleconferences. Progress is further facilitated through sharing between laboratories of samples and test materials. The network has identified a new coronavirus, consistently detected in samples of SARS patients from several countries, and conclusively named it as the causative agent of SARS; the strain is unlike any other known member of the genus *Coronavirus*. Three diagnostic tests are now available, but all have limitations.

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Full Text: [L\Lancet361, 1701.pdf](L/Lancet361,%201701.pdf)

Abstract: Hong Kong has been severely affected by severe acute respiratory syndrome (SARS). Contact in households and health-care settings is thought to be important for transmission, putting children at particular risk. Most data so far, however, have been for adults. We prospectively followed up the first ten children with SARS managed during the early phase of the epidemic in Hong Kong. All the children had been in close contact with infected adults. Persistent fever, cough, progressive radiographic changes of chest and lymphopenia were noted in all patients. The children were treated with high-dose ribavirin, oral prednisolone, or intravenous methylprednisolone, with no short-term adverse effects. Four teenagers required oxygen therapy and two needed assisted ventilation. None of the younger children required oxygen supplementation. Compared with adults and teenagers, SARS seems to have a less aggressive clinical course in younger children.

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Abstract: Severe acute respiratory syndrome is a new disease In human beings, first recognised in late February, 2003, in Hanoi, Vietnam. The severity of the disease, combined with its rapid spread along international air-travel routes, prompted WHO to set up a network of scientists from 11 laboratories around the world to try to identify the causal agent and develop a diagnostic test. The network unites laboratories with different methods and capacities to rapidly fulfil all postulates for establishing a virus as the cause of a disease. Results are shared in real time via a secure website, on which microscopy pictures, protocols for testing, and PCR primer sequences are also posted. Findings are discussed in daily teleconferences. Progress is further facilitated through sharing between laboratories of samples and test materials. The network has identified a new coronavirus, consistently detected in samples of SARS patients from several countries, and conclusively named it as the causative agent of SARS; the strain is unlike any other known member of the genus Coronavirus. Three diagnostic tests are now available, but all have limitations.

Keywords: Nipah Virus, Infections

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Keywords: Influenza, Virulence, Evolution

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Full Text: [L\Lancet361, 1761.pdf](L/Lancet361,%201761.pdf)

Abstract: Background Health authorities worldwide, especially in the Asia Pacific region, are seeking effective public-health interventions in the continuing epidemic of severe acute respiratory syndrome (SARS). We assessed the epidemiology of SARS in Hong Kong.

Methods We included 1425 cases reported up to April 28, 2003. An integrated database was constructed from several sources containing information on epidemiological, demographic, and clinical variables. We estimated the key epidemiological distributions: infection to onset, onset to admission, admission to death, and admission to discharge. We measured associations between the estimated case fatality rate and patients’ age and the time from onset to admission.

Findings After the initial phase of exponential growth, the rate of confirmed cases fell to less than 20 per day by April 28. Public-health interventions included encouragement to report to hospital rapidly after the onset of clinical symptoms, contact tracing for confirmed and suspected cases, and quarantining, monitoring, and restricting the travel of contacts. The mean incubation period of the disease is estimated to be 6.4 days (95% CI 5.2–7.7). The mean time from onset of clinical symptoms to admission to hospital varied between 3 and 5 days, with longer times earlier in the epidemic. The estimated case fatality rate was 13.2% (9.8–16.8) for patients younger than 60 years and 43.3% (35.2–52.4) for patients aged 60 years or older assuming a parametric γ distribution. A non-parametric method yielded estimates of 6.8% (4.0–9.6) and 55.0% (45.3–64.7), respectively. Case clusters have played an important part in the course of the epidemic.

Interpretation Patients’ age was strongly associated with outcome. The time between onset of symptoms and admission to hospital did not alter outcome, but shorter intervals will be important to the wider population by restricting the infectious period before patients are placed in quarantine.

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Abstract: Background We investigated the temporal progression of the clinical, radiological, and virological changes in a community outbreak of severe acute respiratory syndrome (SARS).

Methods We followed up 75 patients for 3 weeks managed with a standard treatment protocol of ribavirin and corticosteroids, and assessed the pattern of clinical disease, viral load, risk factors for poor clinical outcome, and the usefulness of virological diagnostic methods.

Findings Fever and pneumonia initially improved but 64 (85%) patients developed recurrent fever after a mean of 8.9 (SD 3.1) days, 55 (73%) had watery diarrhoea after 7.5 (2.3) days, 60 (80%) had radiological worsening after 7.4 (2.2) days, and respiratory symptoms worsened in 34 (45%) after 8.6 (3.0) days. In 34 (45%) patients, improvement of initial pulmonary lesions was associated with appearance of new radiological lesions at other sites. Nine (12%) patients developed spontaneous pneumomediastinum and 15 (20%) developed acute respiratory distress syndrome (ARDS) in week 3. Quantitative reverse-transcriptase (RT) PCR of nasopharyngeal aspirates in 14 patients (four with ARDS) showed peak viral load at day 10, and at day 15 a load lower than at admission. Age and chronic hepatitis B virus infection treated with lamivudine were independent significant risk factors for progression to ARDS (p=0.001). SARS-associated coronavirus in faeces was seen on RT-PCR in 65 (97%) of 67 patients at day 14. The mean time to seroconversion was 20 days.

Interpretation The consistent clinical progression, shifting radiological infiltrates, and an inverted V viral-load profile suggest that worsening in week 2 is unrelated to uncontrolled viral replication but may be related to immunopathological damage.

Keywords: Virus

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Abstract: Background Severe acute respiratory syndrome (SARS) is a novel infectious disease with global impact. A virus from the family *Coronaviridae* has been identified as the cause, but the pathogenesis is still unclear.

Methods Post-mortem tissue samples from six patients who died from SARS in February and March, 2003, and an open lung biopsy from one of these patients were studied by histology and virology. Only one full autopsy was done. Evidence of infection with the SARS-associated coronavirus (SARS-CoV) and human metapneumovirus was sought by reverse-transcriptase PCR and serology. Pathological samples were examined by light and electron microscopy and immunohistochemistry.

Findings All six patients had serological evidence of recent infection with SARS-CoV. Diffuse alveolar damage was common but not universal. Morphological changes identified were bronchial epithelial denudation, loss of cilia, and squamous metaplasia. Secondary bacterial pneumonia was present in one case. A giant-cell infiltrate was seen in four patients, with a pronounced increase in macrophages in the alveoli and the interstitium of the lung. Haemophagocytosis was present in two patients. The alveolar pneumocytes also showed cytomegaly with granular amphophilic cytoplasm. The patient for whom full autopsy was done had atrophy of the white pulp of the spleen. Electron microscopy revealed viral particles in the cytoplasm of epithelial cells corresponding to coronavirus.

Interpretation SARS is associated with epithelial-cell proliferation and an increase in macrophages in the lung. The presence of haemophagocytosis supports the contention that cytokine dysregulation may account, at least partly, for the severity of the clinical disease. The case definition of SARS should acknowledge the range of lung pathology associated with this disease.

Keywords: A H5N1 Virus, Clinical-Features, Human Macrophages, Human-Disease, Influenza, Pneumonia

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Abstract: Background The cause of severe acute respiratory syndrome (SARS) has been identified as a new coronavirus. Whole genome sequence analysis of various isolates might provide an indication of potential strain differences of this new virus. Moreover, mutation analysis will help to develop effective vaccines.

Methods We sequenced the entire SARS viral genome of cultured isolates from the index case (SIN2500) presenting in Singapore, from three primary contacts (SIN2774, SIN2748, and SIN2677), and one secondary contact (SIN2679). These sequences were compared with the isolates from Canada (TOR2), Hong Kong (CUHK-W1 and HKU39849), Hanoi (URBANI), Guangzhou (GZ01), and Beijing (BJ01, BJ02, BJ03, BJ04).

Findings We identified 129 sequence variations among the 14 isolates, with 16 recurrent variant sequences. Common variant sequences at four loci define two distinct genotypes of the SARS virus. One genotype was linked with infections originating in Hotel M in Hong Kong, the second contained isolates from Hong Kong, Guangzhou, and Beijing with no association with Hotel M (p<0.0001). Moreover, other common sequence variants further distinguished the geographical origins of the isolates, especially between Singapore and Beijing.

Interpretation Despite the recent onset of the SARS epidemic, genetic signatures are emerging that partition the worldwide SARS viral isolates into groups on the basis of contact source history and geography. These signatures can be used to trace sources of infection. In addition, a common variant associated with a non-conservative aminoacid change in the S1 region of the spike protein, suggests that immunological pressures might be starting to influence the evolution of the SARS virus in human populations.

Keywords: Transmissible Gastroenteritis Coronavirus, Mouse Hepatitis-Virus, Bronchitis Virus, Spike Protein, Recombination, Determinant, Evolution

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Abstract: The outbreak of SARS warrants the search for antiviral compounds to treat the disease. At present, no specific treatment has been identified for SARS-associated coronavirus Infection. We assessed the antiviral potential of ribavirin, 6-azauridine, pyrazofurin, mycophenolic acid, and glycyrrhizin against two clinical Isolates of coronavirus (FFM-1 and FFM-2) from patients with SARS admitted to the clinical centre of Frankfurt University, Germany. Of all the compounds, glycyrrhizin was the most active in inhibiting replication of the SARS-associated virus. Our findings suggest that glycyrrhizin should be assessed for treatment of SARS.

Keywords: Nitric-Oxide

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Abstract: Background Contrast nephropathy is associated with increased in-hospital morbidity and mortality and leads to extension of hospital stay in patients with chronic renal insufficiency. Acetylcysteine seems to be a safe and inexpensive way to reduce contrast nephropathy. We aimed to assess the efficacy of acetylcysteine to prevent contrast nephropathy after administration of radiocontrast media in patients with chronic renal insufficiency. Methods We did a meta-analysis of randomised controlled trials comparing acetylcysteine and hydration with hydration alone for preventing contrast nephropathy in patients with chronic renal insufficiency. The trials were identified through a combined search of the BIOSIS+/RRM, MEDLINE, Web of Science, Current Contents Medizin, and The Cochrane Library Databases. We used incidence of contrast nephropathy 48 h after administration of radiocontrast media as an outcome measure. Findings Seven trials including 805 patients were eligible according to our inclusion criteria and were analysed. Overall incidence of contrast nephropathy varied between 8% and 28%. Since significant heterogeneity was indicated by the Q statistics (p=0.016) we used a random-effects model to combine the data. Compared with periprocedural hydration alone, administration of acetylcysteine and hydration significantly reduced the relative risk of contrast nephropathy by 56% (0.435 [95% CI 0.215-0.879], p=0.02) in patients with chronic renal insufficiency. Meta-regression revealed no significant relation between the relative risk of contrast nephropathy and the volume of radiocontrast media administered or the degree of chronic renal insufficiency before the procedure. Interpretation Compared with periprocedural hydration alone, acetylcysteine with hydration significantly reduces the risk of contrast nephropathy in patients with chronic renal insufficiency. The relative risk of contrast nephropathy was not related to the amount of radiocontrast media given or to the degree of chronic renal insufficiency before the procedure.

Keywords: Acute-Renal-Failure, Angiography, Clinical-Trials, Cochrane, Coronary Intervention, Databases, Efficacy, Hospital, Incidence, Insufficiency, Medline, Meta-Analysis, Methods, Model, Morbidity, Mortality, N-Acetylcysteine, Outcome, Prevention, Quality, Randomized Controlled-Trial, Relative Risk, Risk, Risk-Factors, Science, Statistics, Systematic Reviews, Web of Science

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Full Text: [2005\Lancet365, 1687.pdf](2005/Lancet365,%201687.pdf)

Abstract: Background Quinquennial overviews (1985-2000) of the randomised trials in early breast cancer have assessed the 5-year and 10-year effects of various systemic adjuvant therapies on breast cancer recurrence and survival. Here, we report the 10-year and 15-year effects. Methods Collaborative meta-analyses were undertaken of 194 unconfounded randomised trials of adjuvant chemotherapy or hormonal therapy that began by 1995. Many trials involved CMF (cyclophosphamide, methotrexate, fluorouracil), anthracycline-based combinations such as FAC (fluorouracil, doxombicin, cyclophosphamide) or FEC (fluorouracil, epirubicin, cyclophosphamide), tamoxifen, or ovarian suppression: none involved taxanes, trastuzumab, raloxifene, or modem aromatase inhibitors. Findings Allocation to about 6 months of anthracycline-based polychemotherapy (eg, with FAC or FEC) reduces the annual breast cancer death rate by about 38% (SE 5) for women younger than 50 years of age when diagnosed and by about 20% (SE 4) for those of age 50-69 years when diagnosed, largely irrespective of the use of tamoxifen and of oestrogen receptor (ER) status, nodal status, or other tumour characteristics. Such regimens are significantly (2p=0 . 0001 for recurrence, 2p<0 . 00001 for breast cancer mortality) more effective than CMF chemotherapy. Few women of age 70 years or older entered these chemotherapy trials. For ER-positive disease only, allocation to about 5 years of adjuvant tamoxifen reduces the annual breast cancer death rate by 31% (SE 3), largely irrespective of the use of chemotherapy and of age (<50, 50-69, >= 70 years), progesterone receptor status, or other tumour characteristics. 5 years is significantly (2p<0 . 00001 for recurrence, 2p=0 . 01 for breast cancer mortality) more effective than just 1-2 years of tamoxifen. For ER-positive tumours, the annual breast cancer mortality rates are similar during years 0-4 and 5-14, as are the proportional reductions in them by 5 years of tamoxifen, so the cumulative reduction in mortality is more than twice as big at 15 years as at 5 years after diagnosis. These results combine six meta-analyses: anthracycline-based versus no chemotherapy (8000 women); CMF-based versus no chemotherapy (14 000); anthracycline-based versus CMF-based chemotherapy (14 000); about 5 years of tamoxifen versus none (15 000); about 1-2 years of tamoxifen versus none (33 000); and about 5 years versus 1-2 years of tamoxifen (18 000). Finally, allocation to ovarian ablation or suppression (8000 women) also significantly reduces breast cancer mortality, but appears to do so only in the absence of other systemic treatments. For middle-aged women with ER-positive disease (the commonest type of breast cancer), the breast cancer mortality rate throughout the next 15 years would be approximately halved by 6 months of anthracycline-based chemotherapy (with a combination such as FAC or FEC) followed by 5 years of adjuvant tamoxifen. For, if mortality reductions of 38% (age <50 years) and 20% (age 50-69 years) from such chemotherapy were followed by a further reduction of 31% from tamoxifen in the risks that remain, the final mortality reductions would be 57% and 45%, respectively (and, the trial results could well have been somewhat stronger if there had been full compliance with the allocated treatments). Overall survival would be comparably improved, since these treatments have relatively small effects on mortality from the aggregate of all other causes. Interpretation Some of the widely practicable adjuvant drug treatments that were being tested in the 1980s, which substantially reduced 5-year recurrence rates (but had somewhat less effect on 5-year mortality rates), also substantially reduce 15-year mortality rates. Further improvements in long-term survival could well be available from newer drugs, or better use of older drugs.

Keywords: Cancer, Deaths, Diagnosis, England, Overview, Tamoxifen

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Abstract: Background Acute myocardial infarction is triggered by various factors, such as physical exertion, stressful events, heavy meals, or increases in air pollution. However, the importance and relevance of each trigger are uncertain We compared triggers of myocardial infarction at an individual and population level. Methods We searched PUBMED and the Web of Science citation databases to identify studies of triggers of non-fatal myocardial infarction to calculate population attributable fractions (PAP). When feasible, we did a meta-regression analysis for studies of the same trigger. Findings of the epidemiologic studies reviewed, 36 provided sufficient details to be considered. In the studied populations, the exposure prevalence for triggers in the relevant control time window ranged from 0.04% for cocaine use to 100% for air pollution. The reported odds ratios (OR) ranged from 1.05 to 23.7. Ranking triggers from the highest to the lowest OR resulted in the following order: use of cocaine, heavy meal, smoking of marijuana, negative emotions, physical exertion, positive emotions, anger, sexual activity, traffic exposure, respiratory infections, coffee consumption, air pollution (based on a difference of 30 mu g/m(3) in particulate matter with a diameter <10 mu m [PM(10)]). Taking into account the OR and the prevalences of exposure, the highest PAF was estimated for traffic exposure (7.4%), followed by physical exertion (6.2%), alcohol (5.0%), coffee (5.0%), a difference of 30 mu g/m(3) in PM(10) (4.8%), negative emotions (3.9%), anger (3.1%), heavy meal (2.7%), positive emotions (2.4%), sexual activity (2.2%), cocaine use (0.9%), marijuana smoking (0.8%) and respiratory infections (0.6%). Interpretation In view of both the magnitude of the risk and the prevalence in the population, air pollution is an important trigger of myocardial infarction, it is of similar magnitude (PAF 5-7%) as other well accepted triggers such as physical exertion, alcohol, and coffee. Our work shows that ever-present small risks might have considerable public health relevance.

Keywords: Acute Coronary Syndromes, Alcohol, Analysis, Assessment, Cardiovascular-Disease, Case-Crossover Analysis, Citation, Cocaine, Control, Databases, Emergency Admissions, Epidemiologic Studies, European Cities, Exposure, Heavy Physical Exertion, Hospital Admissions, Ischemic-Heart-Disease, Methods, Myocardial Infarction, Particulate Air-Pollution, Prevalence, Public Health, Pubmed, Ranking, Respiratory, Respiratory Infections, Risk, Risk Assessment, Science, Sexual-Activity, Smoking, Web of Science

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# Title: Lancet Infectious Diseases

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Full Text: [2008\Lan Inf Dis8, 553.pdf](2008/Lan%20Inf%20Dis8,%20553.pdf)

Abstract: Studies of cumulative HIV incidence suggest that cofactors such as genital ulcer disease, HIV disease stage, and male circumcision influence HIV transmission; however, the heterosexual infectivity of HIV-1 is commonly cited as a fixed value (approximately 0.001, or one transmission per 1000 contacts). We sought to estimate transmission cofactor effects on the heterosexual infectivity of HIV-1 and to quantify the extent to which study methods have affected infectivity estimates. We undertook a systematic search (up to April 27, 2008) of PUBMED, Web of Science, and relevant bibliographies to identify articles estimating the heterosexual infectivity of HIV-1. We used meta-regression and stratified random-effects meta-analysis to assess differences in infectivity associated with cofactors and study methods. Infectivity estimates were very heterogeneous, ranging from zero transmissions after more than 100 penile-vaginal contacts in some serodiscordant couples to one transmission for every 3.1 episodes of heterosexual anal intercourse. Estimates were only weakly associated with study methods. Infectivity differences, expressed as number of transmissions per 1000 contacts, were 8.1 (95 % CI 0.4-15.8) when comparing uncircumcised to circumcised susceptible men, 6.0 (3.3-8.8) comparing susceptible individuals with and without genital ulcer disease, 1.9 (0.9-2.8) comparing late-stage to mid-stage index cases, and 2.5 (0.2-4.9) comparing early-stage to mid-stage index cases. A single value for the heterosexual infectivity of HIV-1 fails to reflect the variation associated with important cofactors. The commonly cited value of 0.001 was estimated among stable couples with low prevalences of high-risk cofactors, and represents a lower bound. Cofactor effects are important to include in epidemic models, policy considerations, and prevention messages.

Keywords: Disease, Female Sex Workers, HIV, HIV-1-Discordant Couples, Human-Immunodeficiency-Virus, Incidence, Male, Male Circumcision, Male-to-Female, Meta-Analysis, Policy, Prevention, Prospective Cohort, Pubmed, Randomized Controlled-Trial, Review, Risk-Factors, Science, Sexually-Transmitted-Diseases, Sub-Saharan Africa, Systematic, Systematic Review, Web of Science

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Full Text: [2009\Lan Inf Dis9, 546.pdf](2009/Lan%20Inf%20Dis9,%20546.pdf)

Abstract: Detection and eradication of meticillin-resistant Staphylococcus aureus (MRSA) represents a public health priority worldwide. Our aim was to do a systematic review and meta-analysis of randomised, non-randomised, and observational studies to summarise the available evidence on the effect of MRSA detection by rapid screening tests on hospital-acquired MRSA infections and acquisition rate. Eligible studies were retrieved from Medline, EmBase, Science Citation Index, and the Cochrane database. We judged as eligible those studies that compared hospitals and wards in which active screening for the detection of MRSA carriers was done at hospital admission by use of a rapid molecular test to those in which active screening was done with culture alone or not at all. To account for statistical heterogeneity between studies, random-effects models were used. Ten studies (nine interventional studies and one unblinded, cluster-randomised, crossover trial) were reviewed. Meta-analysis was done for studies reporting data on the same outcome. Primary outcomes included MRSA acquisition rate per 1000 patient-days (four studies); incidence of MRSA bloodstream infections per 1000 patient-days (three studies); and incidence of MRSA surgical-site infections per 100 surgical procedures (five studies). Compared with culture screening, use of rapid screening tests was not associated with a significant decrease in MRSA acquisition rate (risk ratio 0.87, 95% CI 0.61-1.24). Between wards applying rapid screening tests and those not applying screening, we noted a significantly decreased risk for MRSA bloodstream infections (0.54, 95% CI 0.41-0.71), but not for MRSA surgical-site infections (0.69, 95% CI 0.46-1.01). We conclude that active screening for MRSA is more important than the type of test used. Since important and costly decisions, such as mandatory legislation for MRSA universal screening, are under consideration in many countries worldwide, policy makers should be aware of the limits and the heterogeneity of the available evidence.

Keywords: Bacteremia, Citation, Contact Isolation, Critical-Care, Impact, Infection, Management, Medline, Meta-Analysis, Methicillin-Resistant, Outcomes, Policy, Polymerase-Chain-Reaction, Public Health, Science, Science Citation Index, Surgery, Systematic Review, Transmission

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Full Text: [2009\Lan Inf Dis9, 567.pdf](2009/Lan%20Inf%20Dis9,%20567.pdf)

Abstract: Two new rotavirus vaccines have recently been licensed in many countries. However, their efficacy has only been shown against certain serotypes commonly circulating in Europe, North America, and Latin America, but thought to be globally important. To assess the potential impact of these vaccines in sub-Saharan Africa, where rotavirus mortality is high, knowledge of prevalent types is essential because an effective rotavirus vaccine is needed to protect against prevailing serotypes in the community. We did two systematic reviews and two meta-analyses of the most recent published data on the burden of rotavirus disease in children aged under 5 years and rotavirus serotypes circulating in countries in sub-Saharan Africa. Eligible studies were selected from PUBMED/MEDLINE, Cochrane Library, EMBASE, LILACS, Academic Search Premier, Biological Abstracts, ISI Web of Science, and the African Index Medicus. Depending on the heterogeneity, DerSimonian-Laird random-effects or fixed-effects models were used for meta-analyses. Geographical variability in rotavirus burden within countries in sub-Saharan Africa is substantial, and most countries lack information on rotavirus epidemiology. We estimated that annual mortality for this region was 243.3 (95% CI 187.6-301.7) deaths per 100 000 under 5 years (ie, a total of 300 000 children die of rotavirus infection in this region each year). The most common G type detected was G1 (34.9%), followed by G2 (9.1%), and G3 (8.6%). The most common P types detected were P[8] (35.5%) and P[6] (27.5%). Accurate information should be collected from surveillance based on standardised methods in these countries to obtain comparable data on the burden of disease and the circulating strains to assess the potential impact of vaccine introduction.

Keywords: Acute Diarrhea, Acute Gastroenteritis, Africa, Aged, Burden, Burden of Disease, Childhood Diarrhea, Children, Cochrane, Disease, Efficacy, Epidemiology, Europe, Global Distribution, Guinea-Bissau, Impact, Infection, Information, ISI, Knowledge, Latin America, Meta-Analysis, Mixed Infections, Molecular Epidemiology, Mortality, Northern Nigeria, Review, Science, Southern Africa, Sub-Saharan Africa, Surveillance, Systematic, Systematic Review, Systematic Reviews, Unusual Strains, Vaccine, Vaccines, Variability, Web of Science

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Full Text: [2010\Lan Inf Dis10, 853.pdf](2010/Lan%20Inf%20Dis10,%20853.pdf)

Abstract: Background Neisseria meningitidis is an important cause of meningitis and septicaemia, but most infected individuals experience a period of asymptomatic carriage rather than disease. Previous studies have shown that carriage rates vary by age and setting; however, few have assessed carriage across all ages. We aimed to estimate the age-specific prevalence of meningococcal carriage. Methods We searched EMBASE, MEDLINE, Web of Science, the Cochrane Library, and grey literature for papers reporting carriage of N meningitidis in defined age groups in European countries or in countries with a similar epidemiological pattern (where disease caused by serogroups B and C predominates). We used mixed-effects logistic regression with a natural cubic spline to model carriage prevalence as a function of age for studies that were cross-sectional or serial cross-sectional. The model assessed population type, type of swab used, when swabs were plated, use of preheated plates, and time period (decade of study) as fixed effects, with country and study as nested random effects (random intercept). Findings Carriage prevalence increased through childhood from 4.5% in infants to a peak of 23.7% in 19-year olds and subsequently decreased in adulthood to 7.8% in 50-year olds. The odds of testing positive for carriage decreased if swabs were not plated immediately after being taken compared with if swabs were plated immediately (odds ratio 0.46, 95% CI 0.31-0.68; p=0.0001). Interpretation This study provides estimates of carriage prevalence across all ages, which is important for understanding the epidemiology and transmission dynamics of meningococcal infection.

Keywords: C Conjugate Vaccination, Cochrane, Disease, Epidemiology, Herd-Immunity, Infants, Infection, Literature, Meta-Analysis, Methods, Model, Nasopharyngeal Carriage, Neisseria-Meningitidis Carriers, Papers, Pharyngeal Carriage, Prevalence, Ratio, Review, Risk-Factors, School Population, Science, Serogroup-C, Systematic, Systematic Review, University-Students, Web of Science, Young-Adults

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Full Text: [2011\Lan Inf Dis11, 845.pdf](2011/Lan%20Inf%20Dis11,%20845.pdf)

Abstract: Background We did a systematic review and random effects meta-analysis of randomised trials to assess the effect of oral care with chlorhexidine or povidone-iodine on the prevalence of ventilator-associated pneumonia versus oral care without these antiseptics in adults. Methods Studies were identified through PubMed, CINAHL, Web of Science, CENTRAL, and complementary manual searches. Eligible studies were randomised trials of mechanically ventilated adult patients receiving oral care with chlorhexidine or povidone-iodine. Relative risks (RR) and 95% CIs were calculated with the Mantel-Haenszel model and heterogeneity was assessed with the 12 test. Findings 14 studies were included (2481 patients), 12 investigating the effect of chlorhexidine (2341 patients) and two of povidone-iodine (140 patients). Overall, antiseptic use resulted in a significant risk reduction of ventilator-associated pneumonia (RR 0.67; 95% CI 0.50-0.88; p=0.004). Chlorhexidine application was shown to be effective (RR 0.72; 95% CI 0.55-0.94; p=0.02), whereas the effect resulting from povidone-iodine remains unclear (RR 0.39; 95% CI 0.11-1.36; p=0.14). Heterogeneity was moderate (I(2)=29%; p=0.16) for the trials using chlorhexidine and high (I(2)=67%; p=0.08) for those assessing povidone-iodine use. Favourable effects were more pronounced in subgroup analyses for 2% chlorhexidine (RR 0.53, 95% CI 0.31-0.91), and in cardiosurgical studies (RR 0.41, 95% CI 0.17-0.98). Interpretation This analysis showed a beneficial effect of oral antiseptic use in prevention of ventilator-associated pneumonia. Clinicians should take these findings into account when providing oral care to intubated patients. Funding None.

Keywords: 0.2-Percent Chlorhexidine, Adult, Adults, Analysis, Care, Chlorhexidine Gluconate, Decontamination, Funding, Heart-Surgery, Intensive-Care Units, Meta Analysis, Meta-Analysis, Methods, Model, Nosocomial Infections, Oral, Patients, Pneumonia, Povidone-Iodine, Prevalence, Prevention, Pubmed, Randomized Controlled-Trial, Reduction, Respiratory-Tract Infections, Review, Rinse, Risk, Risk Reduction, Science, Systematic, Systematic Review, Web of Science

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Full Text: [2012\Lan Inf Dis12, 45.pdf](2012/Lan%20Inf%20Dis12,%2045.pdf)

Abstract: Background We aimed to assess whether interferon-gamma release assays (IGRAs) can predict the development of active tuberculosis and whether the predictive ability of these tests is better than that of the tuberculin skin test (TST). Methods Longitudinal studies of the predictive value for active tuberculosis of in-house or commercial IGRAs were identified through searches of PubMed, Embase, Biosis, and Web of Science and complementary manual searches up to June 30,2011. Eligible studies included adults or children, with or without HIV, who were free of active tuberculosis at study baseline. We summarised incidence rates in forest plots and pooled data with random-effects models when appropriate. We calculated incidence rate ratios (IRR) for rates of disease progression in IGRA-positive versus IGRA-negative individuals. Findings 15 studies had a combined sample size of 26 680 participants. Incidence of tuberculosis during a median follow-up of 4 years (IQR 2-6), even in IGRA-positive individuals, was 4-48 cases per 1000 person-years. Seven studies with no possibility of incorporation bias and reporting baseline stratification on the basis of IGRA results showed a moderate association between positive results and subsequent tuberculosis (pooled unadjusted IRR 2.10, 95% CI 1.42-3.08). Compared with test-negative results, IGRA-positive and TST-positive results were much the same with regard to the risk of tuberculosis (pooled IRR in the five studies that used both was 2.11 [95% CI 1.29-3.46] for IGRA vs 1.60 [0.94-2.72] for TST at the 10 mm cutoff). However, the proportion of IGRA-positive individuals in seven of 11 studies that assessed both IGRAs and TST was generally lower than TST-positive individuals. Interpretation Neither IGRAs nor the TST have high accuracy for the prediction of active tuberculosis, although use of IGRAs in some populations might reduce the number of people considered for preventive treatment. Until more predictive biomarkers are identified, existing tests for latent tuberculosis infection should be chosen on the basis of relative specificity in different populations, logistics, cost, and patients’ preferences rather than on predictive ability alone.

Keywords: Accuracy, Adults, Association, Bias, Biomarkers, Children, Contacts, Development, Diagnostic Research, Disease, Disease Progression, Follow-up, HIV, Immune-Responses, Incidence, Infection, Latent Tuberculosis, Meta Analysis, Meta-Analysis, Methods, Mycobacterium-Tuberculosis, Patients, Progression, Pubmed, Quantiferon(R)-TB Gold, Review, Risk, Science, Skin-Test, Specificity, Systematic, Systematic Review, Treatment, Tuberculosis, Web of Science

# Title: Lancet Neurology

Full Journal Title: Lancet Neurology

ISO Abbreviated Title:

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ISSN:

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Journal Country/Territory:

Language:

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Subject Categories:

: Impact Factor

? Parsons, T.D., Rogers, S.A., Braaten, A.J., Woods, S.P. and Troster, A.I. (2006), Cognitive sequelae of subthalamic nucleus deep brain stimulation in Parkinson’s disease: A meta-analysis. *Lancet Neurology*, **5** (7), 578-588.

Abstract: Background Deep brain stimulation of the subthalamic nucleus (STN DBS) is an increasingly common treatment for Parkinson’s disease. Qualitative reviews have concluded that diminished verbal fluency is common after STN DBS, but that changes in global cognitive abilities, attention, executive functions, and memory are only inconsistently observed and, when present, often nominal or transient. We did a quantitative meta-analysis to improve understanding of the variability and clinical significance of cognitive dysfunction after STN DBS. Methods We searched MEDLINE, PsycLIT, and ISI Web of Science electronic databases for articles published between 1990 and 2006, and extracted information about number of patients, exclusion criteria, confirmation of target by microelectrode recording, verification of electrode placement via radiographic means, stimulation parameters, assessment time points, assessment measures, whether patients were on levodopa or dopaminomimetics, and summary statistics needed for computation of effect sizes. We used the random-effects meta-analytical model to assess continuous outcomes before and after STN DBS. Findings of 40 neuropsychological studies identified, 28 cohort studies (including 612 patients) were eligible for inclusion in the meta-analysis. After adjusting for heterogeneity of variance in study effect sizes, the random effects meta-analysis revealed significant, albeit small, declines in executive functions and verbal learning and memory. Moderate declines were only reported in semantic (Cohen’s d 0.73) and phonemic verbal fluency (0.51). Changes in verbal fluency were not related to patient age, disease duration, stimulation parameters, or change in dopaminomimetic dose after surgery. Interpretation STN DBS, in selected patients, seems relatively safe from a cognitive standpoint. However, difficulty in identification of factors underlying changes in verbal fluency draws attention to the need for uniform and detailed reporting of patient selection, demographic, disease, treatment, surgical, stimulation, and clinical outcome parameters.

Keywords: 5-Year Follow-Up, Advanced Pd, Assessment, Attention, Brain, Chronic Bilateral Stimulation, Cohort Studies, Databases, Disease, Information, ISI, Learning, Memory, Meta-Analysis, Methods, Model, Movement-Disorders, Neuropsychological Changes, Outcome, Outcomes, Pallidal Stimulation, Pallidotomy, Parkinson’s Disease, Points, Quality-of-Life, Quantitative, Science, Speech, Statistical Power, Statistics, Surgery, Surgical, Treatment, Variability, Web of Science

? Vlak, M.H.M., Algra, A., Brandenburg, R. and Rinkel, G.J.E. (2011), Prevalence of unruptured intracranial aneurysms, with emphasis on sex, age, comorbidity, country, and time period: A systematic review and meta-analysis. *Lancet Neurology*, **10** (7), 626-636.

Abstract: Background Unruptured intracranial aneurysms (UIAs) are increasingly detected and are an important health-care burden. We aimed to assess the prevalence of UIAs according to family history, comorbidity, sex, age, country, and time period. Methods Through searches of PUBMED, EMBASE, and Web of Science we updated our 1998 systematic review up to March, 2011. We calculated prevalences and prevalence ratios (PRs) with random-effects binomial meta-analysis. We assessed time trends with year of study as a continuous variable. Findings We included 68 studies, which reported on 83 study populations and 1450 UIAs in 94912 patients from 21 countries. The overall prevalence was estimated as 3.2% (95% CI 1.9-5.2) in a population without comorbidity, with a mean age of 50 years, and consisting of 50% men. Compared with populations without the comorbidity, Pits were 6.9 (95% CI 3.5-14) for autosomal dominant polycystic kidney disease (ADPKD), 3.4 (1.9-5.9) for a positive family history of intracranial aneurysm of subarachnoid haemorrhage, 3.6 (0.4-30) for brain tumour, 2.0 (0.9-4.6) for pituitary adenoma, and 1.7 (0.9-3-0) for atherosclerosis. The PR for women compared with men was 1.61(1.02-2.54), with a ratio of 2.2 (1.3-3.6) in study populations with a mean age of more than 50 years. Compared with patients older than 80 years, we found no differences by age, except for patients younger than 30 years (0.01, 0.00-0.12). Compared with the USA, Pits were similar for other countries, including Japan (0.8, 0.4-1.7) and Finland (1.0, 0.4-2.4). There was no statistically significant time trend. Interpretation The prevalence of UIAs is higher in patients with ADPKD or a positive family history of intracranial aneurysm of subarachnoid haemorrhage than in people without comorbidity. In Finland and Japan, the higher incidence of subarachnoid haemorrhage is not explained by a higher prevalence of UIAs, implicating higher risks of rupture.

Keywords: Adenoma, Brain, Brain MRI, Burden, Carotid-Artery Stenosis, Cerebrovascular Diseases, Comorbidity, Disease, Familial Cerebral Aneurysms, Health Care, Healthy-Young Men, History, Incidence, Incidental Findings, Japan, Kidney Disease, Magnetic-Resonance Angiography, Meta-Analysis, Methods, Polycystic Kidney-Disease, Prevalence, Pubmed, Ratio, Review, Saccular Aneurysms, Science, Subarachnoid Hemorrhage, Systematic, Systematic Review, Time Trends, Trend, Trends, Web of Science, Women

# Title: Lancet Oncology

Full Journal Title: [Lancet Oncology](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=6645&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=0a46962f13bdf084a16dad2dbd930132)

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ISSN:

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Publisher Address:

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: Impact Factor

Lindsey, H. (2003), AACR cancels annual meeting because of SARS. *Lancet Oncology*, **4** (5), 266.

Full Text: [L\Lan Onc4, 266.pdf](L/Lan%20Onc4,%20266.pdf)

? Wu, S.H., Chen, J.J., Kudelka, A., Lu, J. and Zhu, X.L. (2008), Incidence and risk of hypertension with sorafenib in patients with cancer: A systematic review and meta-analysis. *Lancet Oncology*, **9** (2), 117-123.

Full Text: [2008\Lan Onc9, 117.pdf](2008/Lan%20Onc9,%20117.pdf)

Abstract: Background Sorafenib is used in patients with advanced renal-cell carcinoma (RCC) or hepatocellular cancer, and its application in other types of cancers is also undergoing extensive clinical assessment. Hypertension is one of the major side-effects of this drug, and reported incidences vary substantially between clinical trials. We did a systematic review and meta-analysis of published clinical trials to establish the incidence of hypertension associated with sorafenib. The aim of this study is to gain a better understanding of the overall risk of hypertension in patients with cancer who receive sorafenib. Methods Databases, including MEDLINE (July, 1966, to July, 2007), and Web of Science, and abstracts presented at the American Society of Clinical Oncology annual meetings from 2004 to 2007 were searched to identify relevant studies. Eligible studies were prospective clinical trials of patients with cancer assigned single-drug sorafenib at 400 mg twice daily with data on hypertension available. Incidence and relative risk (RR) of hypertension were calculated using a random-effects or fixed-effects model, depending on the heterogeneity of the included studies. Findings Nine studies published between January, 2006, and July, 2007, which included a total of 4599 patients with RCC or other solid tumours, were selected from 223 articles screened for analysis. For patients assigned sorafenib, the overall incidence of all-grade and high-grade (ie, grade 3 or 4) hypertension were 23.4% (95% CI 16.0-32.9%) and 5.7% (2-5-12.6%), respectively. No significant difference was noted between patients with RCC or a non-RCC malignancy (all grade: RR 1. 03 [95% CI 0.73-1.45], p=0.89; high-grade: RR 1. 23 [0.76-1.99], p=0.40) who were assigned sorafenib. Sorafenib was associated with a significantly increased risk of all-grade hypertension in patients with cancer with an RR of 6.11 (2.44-15.321, p < 0.001) compared with controls. Interpretation Patients with cancer assigned sorafenib have a significant risk of developing hypertension. Appropriate monitoring and treatment is strongly recommended to prevent cardiovascular complications.

Keywords: Analysis, Angiogenesis, Assessment, Bay-43-9006, Cancer, Carcinoma, Cardiovascular, Clinical Trials, Databases, Drug, Endothelial Growth-Factor, Hypertension, Incidence, Inhibitor, Malignancy, Meta-Analysis, Methods, Model, Monitoring, Nephrectomy, Oncology, Phase-Ii, Progression, Proteinuria, Randomized Discontinuation Trial, Relative Risk, Renal-Cell-Carcinoma, Review, Risk, Science, Sorafenib, Systematic, Systematic Review, Treatment, Tumours, Web of Science

? Hapani, S., Chu, D. and Wu, S.H. (2009), Risk of gastrointestinal perforation in patients with cancer treated with bevacizumab: A meta-analysis. *Lancet Oncology*, **10** (6), 559-568.

Full Text: [2009\Lan Onc10, 559.pdf](2009/Lan%20Onc10,%20559.pdf)

Abstract: Background Gastrointestinal perforation is a serious adverse event associated with bevacizumab, an inhibitor of vascular endothelial growth factor (VEGF) widely used in current cancer treatment. The association is highlighted by a black-box warning issued by the US Food and Drug Administration, recommending that bevacizumab be permanently discontinued in patients with gastrointestinal perforation. However, no significant association has yet been established between bevacizumab and gastrointestinal perforation in randomised controlled trials. We did a systematic review and meta-analysis of published randomised controlled trials to assess the overall risk of gastrointestinal perforation associated with bevacizumab treatment. Methods We searched PUBMED and Web of Science for articles published between January, 1966, and July, 2008. Additionally, abstracts presented at American Society of Clinical Oncology conferences held between January, 2000, and July, 2008, were searched to identify relevant clinical trials. Eligible studies included prospective randomised controlled trials in which bevacizumab was compared with controls in combination with standard anti-neoplastic therapy. Summary incidence rates, relative risks, and 95% CIs were calculated using a fixed-effects or random-effects model, depending on the heterogeneity of the included studies. Findings 12294 patients with a variety of solid tumours from 17 randomised controlled trials were included in our analysis. The incidence of gastrointestinal perforation was 0.9% (95% Cl 0.7-1.2) among patients receiving bevacizumab, with a mortality of 21.7% (11.5-37.0). Patients treated with bevacizumab had a significantly increased risk of gastrointestinal perforation compared with patients treated with control medication, with a relative risk of 2.14 (95% Cl 1.19-3.85; p=0.011). Risk varied with bevacizumab dose and tumour type. Relative risks for patients receiving bevacizumab at 5 and 2.5 mg/kg per week were 2.67 (95% CI 1.14-6.26) and 1.61 (0.76-3.38), respectively. Higher risks were observed in patients with colorectal carcinoma (relative risk 3.10, 95% CI 1.26-7.63) and renal cell cancer (relative risk 5.67, 0.66-48.42). Interpretation The addition of bevacizumab to cancer therapy significantly increased the risk of gastrointestinal perforation compared with controls. The risk may vary with bevacizumab dose and tumour type. Further studies are recommended to investigate the use of bevacizumab in selected patients who have recovered from gastrointestinal perforation.

Keywords: Administration, Analysis, Bevacizumab, Bowel Perforation, Breast-Cancer, Cancer, Carcinoma, Cell Lung-Cancer, Clinical Trials, Combination, Control, Fluorouracil, Gastrointestinal, Incidence, Leucovorin, Medication, Meta-Analysis, Metastatic Colorectal-Cancer, Methods, Model, Mortality, Oncology, Pubmed, Randomized Phase-Iii, Relative Risk, Review, Risk, Science, Systematic, Systematic Review, Therapy, Treatment, Trial, Tumours, US, Vascular Endothelial Growth Factor, Web of Science

? Luckett, T., Goldstein, D., Butow, P.N., Gebski, V., Aldridge, L.J., McGrane, J., Ng, W. and King, M.T. (2011), Psychological morbidity and quality of life of ethnic minority patients with cancer: A systematic review and meta-analysis. *Lancet Oncology*, **12** (13), 1240-1248.

Full Text: [2011\Lan Onc12, 1240.pdf](2011/Lan%20Onc12,%201240.pdf)

Abstract: Background Ethnic minority is associated with higher cancer incidence and poorer survival than is being in the majority group. We did a systematic review and meta-analysis to assess whether psychological morbidity and health-related quality of life (HRQoL) were affected by minority status. Methods We searched Medline, AMED, PsycINFO, Embase, CENTRAL, CINAHL, PubMed, Sociological Abstracts, and Web of Science for English-language articles published between Jan 1, 1995, and October, 2009. Articles were eligible if they reported original data on anxiety, depression, distress (for psychological morbidity), or HRQoL in minority and majority cancer patients or survivors. Minority status was defined as being an immigrant or having an ethnic, linguistic, or religious background different to the majority of the population in the country where the research was done. We excluded African Americans and indigenous groups. Eligible articles were rated for quality of reporting, external validity, internal validity, sample size, and power. Each quality criterion was rated independently by two reviewers until inter-rater reliability was achieved. In a meta-analysis we compared mean scores adjusted for socioeconomic status and other sociodemographic and clinical variables, where available. Effect sizes greater than 0.5 and 95% CI that included 0.5 or -0.5 were deemed clinically important, with negative values indicating worse outcomes in minority patients. We assessed publication bias by estimating the number of potential unpublished studies and the number of non-signficant studies with p=0.05 required to produce a non-significant overall result. Findings We identified 21 eligible articles that included 18 datasets collected in the USA and one in each of Canada, Romania, and the UK. Ethnic minority groups were Hispanic, Asian or Pacific Islander, or Hungarian (one dataset). Overall, we found minority versus majority groups to have significantly worse distress (mean difference -0.37, 95% CI -0.46 to -0.28; p<0.0001), depression (-0.23, -0.36 to -0.11; p=0.0003), and overall HRQoL (-0.33, -0.58 to -0.07; p=0.013). Further analyses found disparities to be specific to Hispanic patients in the USA, in whom poorer outcomes were consistent with potentially clinically important differences for distress (effect size -0.37, 95% CI -0.54 to -0.20; p<0.0001), social HRQoL (-0.45, -0.87 to -0.03; p=0.035), and overall HRQoL (-0.49, -0.78 to -0.20; p=0.0008). Results were significantly heterogeneous for overall HRQoL and all domains. Tests for interaction, for adjusted versus unadjusted and comparisons of high-quality, medium-quality, and low-quality articles, were generally non-significant, which suggests no bias. We found no evidence of any substantive publication bias. Interpretation Hispanic cancer patients in the USA, but not other ethnic minority groups, report significantly worse distress, depression, social HRQoL, and overall HRQoL than do majority patients, of which all but depression might be clinically important. Heterogeneous results might, however, have limited the interpretation. Data for other minority groups and for anxiety are scarce. More studies are needed from outside the USA. Future reports should more clearly describe their minority group samples and analyses should control for clinical and sociodemographic variables known to predict outcomes. Understanding of why outcomes are poor in US Hispanic patients is needed to inform the targeting of interventions.

Keywords: African-American, African-Americans, Anxiety, Articles, Bias, Canada, Cancer, Control, Depression, Differences, Disparities, Distress, Ethnic Minority, Form Health Survey, Functional Assessment, Health-Related Quality of Life, Heterogeneous, Hispanic Ethnicity, Immigrant, Incidence, Interpretation, Interventions, Medline, Mental-Health, Meta Analysis, Meta-Analysis, Methods, Morbidity, Multiethnic Sample, Outcomes, Patients, Power, Prostate-Cancer, Psychological, Publication, Publication Bias, Pubmed, Quality, Quality of Life, Randomized Controlled-Trial, Reliability, Research, Review, Science, Social, Social Support, Socioeconomic Status, Stage Breast-Cancer, Survival, Systematic, Systematic Review, UK, US, USA, Validity, Web of Science

# Title: Land Degradation & Development

Full Journal Title: [Land Degradation & Development](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-145X/issues)

ISO Abbreviated Title:

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: Impact Factor

? Jordan, S.N., Mullen, G.J. and Courtney, R.G. (2009), Metal uptake in *Lolium perenne* established on spent mushroom compost amended lead-zinc tailings. *Land Degradation & Development*, **20** (3), 277-282.

Full Text: [2009\Lan Deg Dev20, 277.pdf](2009/Lan%20Deg%20Dev20,%20277.pdf)

Abstract: A greenhouse trial was performed to contrast the growth and metal accumulation in Lolium perenne established on pyritic tailings amended with varying applications of spent mushroom compost (SMC). The lead-zinc tailings were retrieved from a moderately vegetated land impoundment facility located at Gortmore, Silvermines, Co. Tipperary (Ireland) and SMC was incorporated at application rates of 0, 50, 100, 200 and 400 t ha-1. The grass species Lolium perenne was sown at an application rate of 200 kg ha-1 and the subsequent biomass determined after 42 and 84 days. For the most part, metal concentrations in Lolium perenne showed a significant linear response (p<0.05) to SMC application and generally decreased favourably with increasing SMC application (p<0.05). This phenomenon may be attributed to the vast biosorption capacity of SMC owing to the presence of phenolic, carboxyl and phenolic functional groups, the development of stable metal chelates by the organic matter present in SMC and/or by the biosorbing of toxic metals by fungal mycelium, however this reduction in metal uptake by Lolium perenne is most likely due to greater plant dry weight caused by the increasing SMC applications. In spite of this, Lolium perenne suffered severe toxicity resulting from the inherently high concentrations of total zinc (1443-5920 mg kg-1), lead (33-478 mg kg-1) and cadmium (1.4-49 mg kg-1) accumulated within the plant 84 days after seeding, the grass had adversely withered irrespective of SMC application. Therefore, a barrier break must be introduced in the tailings facility to prevent the uptake and accumulation of these lethal metal concentrations by plants. Only then should SMC and other suitable soil forming materials be utilized as growing media, as the incorporation of an organic amendment followed by direct seeding of a grass species is not economically or environmentally viable for permanent re-vegetation of the Gortmore tailings management facility (TMF).

# Title: Landbauforschung

Full Journal Title: Landbauforschung

ISO Abbreviated Title: Landbauforschung

JCR Abbreviated Title: Landbauforschung

ISSN:

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Subject Categories:

: Impact Factor

? Rahmann, G. (2011), Biodiversity and organic farming: What do we know? *Landbauforschung*, **61** (3), 189-208.

Full Text: [2011\Landbauforschung61, 189.pdf](2011/Landbauforschung61,%20189.pdf)

Abstract: The number of studies on organic farming and biodiversity increased significantly within the last years. Meanwhile organic farming has been recognised as a field with scientific relevance. About 19,000 publications were found in the Web of Science (www.isiknowledge.com) using Endnote (R) software with the wording “organic farming”, and out of these about 1,200 were published by German scientists (6 %). In total 766 publications of these papers contained also the word “biodiversity” (3.5 %). Half of them were published during the last five years, and are mostly authored by Europeans. A meta-data analysis of these 766 scientific papers has been carried out to answer the question whether organic farming has an advantage for biodiversity in comparison to conventional farming systems. 327 out of 396 relevant results found a higher degree of biodiversity in organic farming when compared to conventional farming. In 56 papers (14 %) no difference was verified, and in 13 contributions (3 %) organic farming yielded less biodiversity (7 of them for soil invertebrates). Thus it may be concluded that organic farming produces more biodiversity. Research gaps still exist for the understanding of functional biodiversity and ecosystem impact which comprise soil biota, landscape (ecosystem and habitat) and genetic biodiversity on agricultural land in natural habitats. In addition, more information is required about biodiversity of farming systems in non-European regions, particularly in the tropics and sub-tropics.

Keywords: Agri-Environment Schemes, Agri-Environmental Schemes, Agricultural Intensification, Analysis, Arbuscular Mycorrhizal Fungi, Biodiversity, Cereal Fields, Conventionally Managed Soils, Different Spatial Scales, Functional, Genetic, Impact, Information, Integration, Landscape Context, Life-Cycle Assessment, Long-Term Field Studies, Natural, Organic Farming, Papers, Plant Diversity, Publications, Research, Science, Segregation, Software, Soil, Web of Science, Weed Species-Diversity

# Title: Landslides

Full Journal Title: [Landslides](http://www.springerlink.com/content/110832/?p=ee63a3a7397048c2b9dc47f13d18fb5c&pi=0)

ISO Abbreviated Title: Landslides

JCR Abbreviated Title: Landslides

ISSN:

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Language:

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Subject Categories:

: Impact Factor

? Gokceoglu, C. and Sezer, E. (2009), A statistical assessment on international landslide literature (1945-2008). *Landslides*, **6** (4), 345-351.

Full Text: [2009\Landslides6, 345.pdf](file:///C:/Users/YSHo/AppData/Roaming/Microsoft/Bibliometric%20References/2009/Landslides6,%20345.pdf)

Abstract: In the present study, the analysis of the international landslide literature is aimed. The landslide is perhaps one of the most complex natural phenomena. Also, due to landslides, a considerable amount of loss of lives and economic losses is encountered throughout the world. Although a vast amount of landslide papers is published in international journals, a statistical assessment on this literature is not encountered. For this reason, this study is performed. For the assessment of the international landslide literature, the Science Citation Index Expanded (WOS; Web of Science) published by Institute of Scientific Information (now Thomson Scientific), USA for the period 1945-2008, is considered. A total of 3,468 publications are found and this data is stored into Oracle XE database and queried by using Structured Query Language and Procedural Language/Structured Query Language. In the following stages, some statistical analyses are performed and the possible trends are discussed.

Keywords: Assessment, Complex, Database, Earth Surface Process, Hazard, Landslide, Publications, Science, Science Citation Index, Scientometrics Assessment, Thomson Scientific

? Mikos, M. (2011), *Landslides*: A state-of-the art on the current position in the landslide research community. *Landslides*, **8** (4), 541-551.

Full Text: [2011\Landslides8, 541.pdf](2011/Landslides8,%20541.pdf)

Abstract: The international journal Landslides (ISSN 1612-510X), launched in 2004 and published by Springer Verlag, soon gained international recognition as the only specialized scientific journal in the world dedicated to different aspects of landslides, and as one of the leading world journals in the field of geological engineering. After 7 years, seven published volumes with 28 issues and 290 published papers on 2,794 pages, there is time to make a comparison with other related journals that also cover the field of landslide risk mitigation. The critical review of these seven publishing years was done using ISI Journal Citation Reports produced by Thomson Reuters, and available scientometric data from the ISI Web of Knowledge and SCOPUS. The data presented in this paper and the analysis shown may help the Editorial Board to further improve the journal into the direction of a high quality scientific journal with even higher impact on the international research community in the field of landslide risk mitigation.

Keywords: Analysis, Area, Buildings, Characteristic Curve, Citation, Citation Analysis, Fuzzy-Logic, GIS, h-Index, Immediacy Index, Impact, Impact Factor, ISI, Journal, Journal Citation Reports, Journal Relatedness, Journals, Knowledge, Landslides, Model, Papers, Publishing, Quality, Reports, Research, Reservoir, Review, Risk, Science Citation Index, Scientific Journal, Scopus, State of the Art, Susceptibility Analysis, Thomson Reuters, Velocity, Water, Web of Knowledge

# Title: Langenbeck’s Archives of Surgery

Full Journal Title: [Langenbeck’s Archives of Surgery](http://www.springerlink.com/content/100391/?p=7266680f8b89430aad061d7e869a79d0&pi=0)

ISO Abbreviated Title:

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Issues/Year:

Journal Country/Territory:

Language:

Publisher:

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Subject Categories:

: Impact Factor

? Rieder, S., Bruse, C.S., Michalski, C.W., Kleeff, J. and Friess, H. (2010), The impact factor ranking: A challenge for scientists and publishers. *Langenbeck’s Archives of Surgery*, **395**, S57-S61.

Full Text: [2010\Lan Arc Sur395, S57.pdf](2010/Lan%20Arc%20Sur395,%20S57.pdf)

Abstract: Introduction The Impact Factor (IF) has originally been designed as a bibliometric tool to estimate the relevance of a scientific journal and has as such gained widespread acceptance in the scientific community. It denominates the ratio of all citations received by a particular journal within 1 year and all original research or review articles published by that journal during the preceding 2 years. Discussion Recently, the IF is more and more frequently used to judge the importance of single articles or the scientific achievement of researchers themselves. These approaches are associated with a number of backlashes such as the inability of the IF to reflect citation rates of single articles, the lack of elimination of self-citations and the time frame within which the IF is calculated (i.e., the two preceding years). Thus, for the evaluation of single articles, citation rankings would be-though time consuming in their compilation-more adequate. For the assessment of the scientific output of individual researchers, the h-index is emerging as a valuable tool which reflects both the citation rate as well as the number of publications of a given researcher. Conclusion Although the IF is suitable for judging the overall importance of journals, IF rankings should be made solely within the respective subspecialty categorizations to avoid overrepresentation of larger research areas. In conclusion, the IF remains the widest accepted qualitative tool for the benchmarking of journals, though the assessment of individual scientific quality remains a challenging endeavor.

Keywords: Articles, Assessment, Association, Benchmarking, Bibliometric, Bibliometrics, Citation, Citation Analysis, Citations, Elimination, Evaluation, h Index, h-Index, IF, Impact, Impact Factor, Impact-Factor, Index, Journal, Journals, Number of Publications, Publications, Quality Assessment, Rankings, Research, Researchers, Review, Science, Scientific Journal, Scientific Output, Scientometrics, Self-Citation, Self-Citations

? Zhou, Y.M., Xu, D.H., Wu, L.P. and Li, B. (2011), Meta-analysis of anatomic resection versus nonanatomic resection for hepatocellular carcinoma. *Langenbeck’s Archives of Surgery*, **396** (7), 1109-1117.

Full Text: [2011\Lan Arc Sur396, 1109.pdf](2011/Lan%20Arc%20Sur396,%201109.pdf)

Abstract: Purpose The choice between anatomic resection (AR) versus nonanatomic resection (NAR) for hepatocellular carcinoma (HCC) is controversial. This study is a meta-analysis of the available evidence. Methods A systematic review and meta-analysis of trials comparing AR with NAR for HCC published from 1985 to 2009 in PubMed and Medline database, Cochrane database, Embase database, and Science Citation index were conducted. Overall survival, disease-free survival, and local recurrence rate were considered as primary outcomes. Pooled effect was calculated using either the fixed effects model or random effects model. Results Sixteen nonrandomized studies involving 2,917 patients were analyzed; 1,577 patients were in the AR group, and 1,340 were in the NAR group. Patients in the AR group were characterized by lower prevalence of cirrhosis and hepatitis virus infection, more favorable hepatic function, and larger tumor size compared with patients in the NAR group. AR provided a better 5-year overall survival than NAR (OR, 1.63; 95% CI, 1.15-2.32). Local recurrence (OR, 0.28; 95% CI, 0.16-0.50) and early (<= 2 years) recurrence (OR, 0.55; 95 CI, 0.34-0.89) were all significantly lower in the AR group. AR improved disease-free survival significantly at 3 years (OR, 2.09; 95% CI, 1.52-2.88) and 5 years (OR, 2.24; 95% CI, 1.85-2.72). No differences were found between the two groups with respect to postoperative morbidity, mortality, and length of hospital stay. Conclusions AR was superior to NAR in terms of better survival and preventing local recurrence for the treatment of HCC.

Keywords: Anatomic Resection, Carcinoma, Cirrhosis, Citation, Cochrane, Differences, Experience, Hepatectomy, Hepatic Resection, Hepatocellular Carcinoma, Hospital, Infection, Invasion, Liver Resection, Medline, Meta Analysis, Meta-Analysis, Methods, Model, Morbidity, Mortality, Nonanatomic Resection, Outcomes, Patients, Prevalence, Primary, Pubmed, Recurrence, Recurrence, Review, Science, Strategies, Subsegmentectomy, Survival, Survival, Systematic, Systematic Review, Treatment

# Title: Langmuir

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Materials Science, Multidisciplinary: Impact Factor 3.898, 25/241 (2009)

Notes: highly cited

? Angst, D.L. and Simmons, G.W. (1991), Moisture absorption characteristics of organosiloxane self-assembled monolayers. *Langmuir*, **7** (10), 2236-2242.

Full Text: [1991\Langmuir7, 2236.pdf](1991/Langmuir7,%202236.pdf)

Abstract: Monolayer films derived from octadecyltrichlorosilane (OTS) and dimethyloctadecylchlorosilane (DMODCS) were prepared on silicon dioxide surfaces under molecular self-assembly conditions. The hydration state of the thermal oxide surface was found to greatly influence the degree of surface coverage and packing of the monolayers. For OTS on hydrated thermal oxide, high-quality, close-packed monolayers were formed, as evident from contact angle, ellipsometry, and ATR-IR data. For OTS on dry oxide and for DMODCS on both dry and hydrated oxide surfaces, the monolayer coverage was significantly less. Spectroscopic adsorption isotherms for water on the OTS, DMODCS, and oxide surfaces were measured with a specially constructed attenuated total reflectance infrared (ATR-IR) vapor phase exposure test cell. This IR cell permits the detection of submonolayer amounts of water at low surface area oxide interfaces for the first time. Water adsorption on the unsilanized oxide was increased by prehydration of the surface. For the uncured silanized OTS surfaces, moisture adsorption to the surface was actually increased relative to either dry or partially hydrated unsilanized oxide surfaces, even though the outer surface was highly hydrophobic. Curing at 150-degrees-C of the tightly packed OTS monolayer was found to significantly decrease moisture adsorption. In contrast to the behavior observed for OTS, DMODCS treatment lowered the amount of moisture adsorbed to the surface even in the uncured state. These results suggest that water absorbed by the organosiloxane monolayers is bound to hydroxyl groups in the interfacial region.

Keywords: Adsorption, Adsorption Isotherms, Coverage, IR, Isotherms, Multilayers, Silicon Dioxide Films, Surface Area, Surfaces, Water, Wettability

Bhutani, M.M., Reddy, P.N., Mitra, A.K. and Kumari, R. (1992), Radiotracer investigation on sorption behavior of chromium(VI) on antimony trioxide: Kinetic and infrared study. *Langmuir*, **8** (8), 1974-1979.

Full Text: [L\Langmuir8, 1974.pdf](L/Langmuir8,%201974.pdf)

Abstract: The sorption of Cr(VI) ions on antimony trioxide has been investigated over a wide range of pH (0.5-10), concentration (10-6-10-2 M), and temperature (303-333 K) by using the radiotracer technique. The effect of pH on sorption of Cr(VI) on Sb2O3 is explained in the light of the deprotonation, hydroxyl ion association reaction on the oxide surface and its subsequent interaction with the tracer. The rate of sorption of Cr(VI) is faster in the beginning, becomes slower with a lapse of time, and finally approaches a plateau within ca. 15 min. Sorption is found to increase with an increase in concentration and decrease in temperature. The kinetics of the process essentially follows the first-order rate law and obeys the Freundlich isotherm. The value of the activation energy for the desorption process is found to be greater than that for the sorption process. The calculated thermodynamic parameters confirm the spontaneity and exothermic nature of sorption process and suggest some structural changes in the surface morphology. IR spectroscopy corroborates the existence of interaction between Cr(VI) species and the surface of antimony trioxide.

Keywords: Adsorption, Desorption, First Order, Ions, Isotherm, Kinetics, pH, Radiotracer Technique, Removal, Sorption, Thermodynamic, Thermodynamic Parameters, Tracer

Böhmer, M.R. and Koopal, L.K. (1992), Adsorption of ionic surfactants on variable-charge surfaces. 1. Charge effects and structure of the adsorbed layer. *Langmuir*, **8** (11), 2649-2659.

Full Text: [L\Langmuir8, 2649.pdf](L/Langmuir8,%202649.pdf)

Abstract: The adsorption of an anionic surfactant on a variable-charge surface has been studied by comparing results obtained for sodium p-3-nonylbenzenesulfonate (SNBS) on rutile with theoretical predictions based on the self-consistent field lattice theory (SCFA) by Scheutjens, Fleer, and Leermakers. Both the measured and the calculated isotherms show strong cooperative effects at low coverages and have shapes which are characteristic for the adsorption of anionic surfactants on metal oxides. The experimental and calculated adsorption isotherms at different salt concentrations have a common intersection point (cip) corresponding to surface charge neutralization. Before the cip the surfactants are adsorbed with their head groups in contact with the surface. After the cip bilayer formation starts. Surfactant ions effectively screen the surface charge, so that this charge increases upon surfactant adsorption. From the surface charge the minimal amount of surfactant adsorbed ‘head-on’ can be estimated. This amount depends mainly on the surface potential, which is fixed by the pH, and hardly on the concentration of indifferent electrolyte. On the other hand, the amount of surfactant at the solution side of the bilayer mainly depends on the salt concentration and hardly on the surface potential. Due to the different charge screening mechanisms at the inner and the outer sides of the adsorbed layer, the layers are asymmetrical.

Keywords: Statistical Thermodynamics, Association Colloids, Electrolyte Interface, Anionic Surfactants, Model, Alumina, Dependence, Particles, Hematite, Rutile

Böhmer, M.R. and Koopal, L.K. (1992), Adsorption of ionic surfactants on variable-charge surfaces. 2. Molecular architecture and structure of the adsorbed layer. *Langmuir*, **8** (11), 2660-2665.

Full Text: [L\Langmuir8, 2660.pdf](L/Langmuir8,%202660.pdf)

Abstract: The adsorption of alkylbenzenesulfonates on rutile is studied as a function of chain length and branching. The results are compared with theoretical predictions using a self-consistent field lattice theory for adsorption and or association. Both experiment and theory show that the adsorption increases with chain length and decreases if the point of attachment of the aliphatic chain to the hydrophilic part of the molecule is shifted from a terminal to a medial position. The measured and calculated results agree well with each other in the initial part and the upper part of the isotherm. Around the cmc the adsorbed layer resembles a bilayer membrane. In the intermediate part of the isotherm the predicted association is too strong, which is due to the neglect of inhomogeneities parallel to the surface. A simple model is proposed to estimate the average size of the adsorbed surfactant aggregates in this region. Branching decreases the aggregation number whereas an increase in chain length increases this number.

Keywords: Statistical Thermodynamics, Association Colloids, Aqueous-Solutions, Water Interface, Model, Micellization, Hematite, Rutile

Aranovich, G.L. (1992), The theory of polymolecular adsorption. *Langmuir*, **8** (2), 736-739.

Full Text: [L\Langmuir8, 736.pdf](L/Langmuir8,%20736.pdf)

Keywords: Physical Adsorption

Notes: highly cited

? Lvov, Y., Decher, G. and Mohwald, H. (1993), Assembly, structural characterization, and thermal-behavior of layer-by-layer deposited ultrathin films of poly(vinyl sulfate) and poly(allylamine). *Langmuir*, **9** (2), 481-486.

Full Text: [1993\Langmuir9, 481.pdf](1993/Langmuir9,%20481.pdf)

Abstract: We have recently introduced a new method of creating homogeneous ultrathin films on solid supports, which is based on the electrostatic attraction between opposite charges. Consecutively alternating adsorption of anionic and cationic polyelectrolytes from their aqueous solution leads to the formation of multilayer assemblies. The multilayer buildup is easily monitored by small angle X-ray scattering (SAXS) and a linear increase of the film thickness with the number of adsorbed layers is observed. In the present study we concentrate on the polyelectrolytes poly(vinyl sulfate) (PVS) and poly(allylamine) (PAH), discussing especially the influence of the adsorption conditions of PVS on the growth and the properties of the resulting films. A stable film growth was found to depend on two prerequisites for the PVS deposition: an adsorption time of at least 15 min and a maximum concentration of added sodium chloride of 0.2 mol/L. In the regime of stable growth the multilayer film is able to smooth the surface roughness of the underlying glass substrate from 18 A to a value of 4.5 A. The addition of small amounts of electrolyte to the PVS solution leads to an increase of the thickness of one layer pair from 13 A (at 0.0 mol of NaCl/L) to 34 angstrom (at 0.9 mol of NaCl/L). This behavior is similar to the well-known ‘‘rod-to-coil’’ transition of polyelectrolytes in solution and due to screening of electrostatic charges on the polymer chain. The films are stable up to temperatures of at least 160-degrees-C but seem to lose trapped water above 60-degrees-C.

Keywords: Langmuir-Blodgett-Films

Hu, X. and Do, D.D. (1993), Effect of surface energetic heterogeneity on the kinetics of adsorption of gases in microporous activated carbon. *Langmuir*, **9** (10), 2530-2536.

Full Text: [L\Langmuir9, 2530.pdf](L/Langmuir9,%202530.pdf)

Abstract: A model allowing for surface energetic heterogeneity is presented to describe the adsorption and desorption kinetics of gaseous adsorbates in large microporous particles. The effects of surface energetic heterogeneity on both sorption kinetics and equilibrium (rather than on equilibrium only) are studied. Parameters extracted from single component fittings are used to predict the multicomponent sorption dynamics. Single and multicomponent experimental data of sorption dynamics of ethane and propane in Ajax activated carbon, which are obtained by using a differential adsorption bed, are used to demonstrate the potential of the proposed model. It is found that the role of energetic heterogeneity is not important in the model fittings of adsorption kinetics of single component, but it plays a vital role in the predictions of desorption kinetics of single species and adsorption and desorption processes of multicomponent gases in microporous particles. This finding has a far reaching consequence as all adsorption systems of industrial interest involve interaction of many adsorbates.

Keywords: Adsorbed Gases, Diffusion, Mixtures, Isotherm, Model

Carrasco-Marín, F., López-Ramón, M.V. and Moreno-Castilla, C. (1993), Applicability of the Dubinin-Radushkevich equation to CO2 adsorption on activated carbons. *Langmuir*, **9** (11), 2758-2760.

Full Text: [L\Langmuir9, 2758.pdf](L/Langmuir9,%202758.pdf)

Abstract: The Dubinin-Radushkevich equation (DR) is generally applied to the CO2 adsorption data on activated carbons in order to find their micropore volume and also their apparent surface area. This equation is an adaptation of the more general Dubinin-Astakhov equation (DA) with n = 2. The value of n in the DA equation decreases with the percentage of burn-off of the activated carbon, and therefore, the DR equation can be appropriately applied to a few activated carbons with low to medium burn-off. For activated carbons with medium to high burn-off, the application of the DR equation to the CO2 adsorption isotherm leads to wrong conclusions. In these cases the experimental data are better fitted by the DA equation with a value of n lower than 2, which makes the apparent surface area obtained by the DA equation greater than that obtained by the DR equation and similar or higher to that obtained with N2 at 77 K by applying the BET equation.

Keywords: Microporous Carbons, Adsorbents, Systems, Air

Asano, K., Miyano, K. and Ui, H. (1993), Adsorption of a soluble dye polymer onto spread monolayers. *Langmuir*, **9** (12), 3587-3593.

Full Text: [L\Langmuir9, 3587.pdf](L/Langmuir9,%203587.pdf)

Abstract: We have studied in situ the adsorption of a soluble anionic dye polymer onto spread monolayers by means of reflection spectroscopy. We found that the adsorption is governed by the charge neutrality; the ratio of the adsorbed polymer unit and the cationic monolayer molecule is nearly 1:1 for the surface density in the range of 50-77 angstrom2/monolayer molecule. On the other hand, no adsorption occurs onto an anionic monolayer. We have also investigated the adsorption kinetics of the polymer. The rate of adsorption can be reproduced very well with a simple diffusion simulation.

Keywords: Langmuir-Blodgett-Films, Amphiphiles, Surface, Reflection, Kinetics, Light

Chen, F., Muralidharan, S. and Freiser, H. (1993), Equilibrium and kinetics of the extraction of Ni(II) by 8-Mercaptoquinoline in a highly dispersed two phase system. *Langmuir*, **9** (12), 3656-3659.

Full Text: [L\Langmuir9, 3656.pdf](L/Langmuir9,%203656.pdf)

Abstract: The interfacial activity of 8-mercaptoquinoline (QSH) and its complexation kinetics with Ni(II) in the toluene-water phase pair have been studied and compared to the oxygen analogs, 8-quinolinol and its derivatives. Unlike the 8-quinolinols, QSH exhibited substantial interfacial activity in its neutral form. The interfacial activity of QSH may stem from its zwitterion form QH+S-. The interfacial excess of QS-is 1-2 orders of magnitude larger, and its distribution constant between the aqueous phase and interface is an order to magnitude larger, than those of 8-quinolinates. The rate limiting step in the complexation of Ni(II) by QSH and QS-is the formation of the 1: 1 complex, NiQS+ as in the case of 8-quinolinols. The bulk rate constants for QSH and QS-are similar to the 8-quinolinols. As expected from the interfacial activity of QSH, it exhibited interfacial reactivity toward Ni(H), but with a smaller rate constant compared to the bulk value. The interfacial rate constant for QS-was only twice that of its value in the bulk aqueous phase, in marked contrast to the 8-quinolinates which exhibited increases by factors of 10-25.

Keywords: Nickel, 8-Quinolinols, Interface

Talbot, J., Jin, X. and Wang, N.H.L. (1994), New equations for multicomponent adsorption kinetics. *Langmuir*, **10** (6), 1663-1666.

Full Text: [L\Langmuir10, 1663.pdf](L/Langmuir10,%201663.pdf)

Abstract: We present a molecular theory for multicomponent adsorption kinetics which assumes that the transient configurations of adsorbed particles can be approximated by the corresponding equilibrium configurations at the same coverage. Rate equations are then derived from a scaled particle theory (SPT) equation of state for a two-dimensional fluid mixture of hard convex particles. The predictions of the theory are in excellent agreement with the results of a computer simulation of the competitive adsorption of two species of disks of different diameters.

Keywords: Andom-Sequential Adsorption, Statistical Rate Theory, Interfacial Transport, Mixtures, Disks, State

Chen, F., Freiser, H. and Muralidharan, S. (1994), Study of the extraction and back-extraction kinetics of Ni-1-phenyl-3-methyl-4-benzoyl-5-pyrazolone and the correlation between kinetics and centrifugal partition chromatographic efficiencies. *Langmuir*, **10** (7), 2139-2144.

Full Text: [L\Langmuir10, 2139.pdf](L/Langmuir10,%202139.pdf)

Abstract: The interfacial activity of 1-phenyl-3-methyl-4-benzoyl-5-pyrazolone (HL) and its complexation kinetics with Ni(II) in the chloroform-water phase pair have been studied. The interfacial activities are in the order NiL2 > L-> HL. The rate limiting step in the complexation of Ni(II) by L-is the formation of NiL+, and the interfacial rate constant is 4 times larger than the bulk value. The rate limiting step in the back-extraction (dissociation) of NiL2 is the reaction of NiL+ with proton, and the bulk and interfacial rate constants for this reaction are essentially the same. The dissociation reaction in neutral micelles formed by the surfactant Brij 35 occurs mainly at the aqueous-micellar interface with a rate constant that is similar to that at the CHCl3-H2O interface. The band widths of Ni(II) in centrifugal partition chromatography (CPC), with HL in the CHCl3 stationary phase, are mainly due to the slow kinetics of back-extraction of NiL2. The CPC inefficiency as measured by the quantity channel equivalent of a theoretical plate (CETP) bears a direct correlation to the half-lives of the back-extraction reaction. This correlation, for the first time, enables the determination of the interfacial areas generated, and hence the average size of the mobile phase droplets, in the CPC experiments.

Keywords: Quinolinols, Equilibria, Nickel(II), Interface, Systems

Hu, X. and Do, D.D. (1994), Effect of surface heterogeneity on the adsorption kinetics of gases in activated carbon: Pore size distribution vs energy distribution. *Langmuir*, **10** (9), 3296-3302.

Full Text: [L\Langmuir10, 3296.pdf](L/Langmuir10,%203296.pdf)

Abstract: The effect of surface heterogeneity on the adsorption dynamics of ethane and propane in activated carbon is studied in this article. Assuming the micropore size distribution, from which the adsorption energy distribution can be derived, is the sole source for system heterogeneity and the local equilibrium isotherm is described by a Langmuir equation, we have developed a heterogeneous pore and surface diffusion model and tested its model capability with experimental data of hydrocarbons obtained over a range of conditions. A gamma distribution is used to describe the micropore size distribution. Results of this model are compared with those obtained from a previously proposed model based on a uniform energy distribution.

Keywords: Adsorbed Gases, Structural Heterogeneity, Sorption Kinetics, Model Micropores, Diffusion, Particles, Solids

Chen, S.G. and Yang, R.T. (1994), Theoretical basis for the potential-theory adsorption-isotherms: The Dubinin-Radushkevich and Dubinin-Astakhov equations. *Langmuir*, **10** (11), 4244-4249.

Full Text: [L\Langmuir10, 4244.pdf](L/Langmuir10,%204244.pdf)

Abstract: An isotherm equation is derived for adsorption of gases and vapors on microporous and mesoporous solids from statistical mechanical principles. The adsorbed phase is assumed to be a two-dimensional fluid subjected to a force field represented by a mean potential (Phi). It is shown the heretofore empirical Dubinin-Astakhov (D-A) equation and Dubinin-Radushkevich (D-R) equation (i.e., the potential theory) are approximated forms of this isotherm. For adsorption in micropores and mesopores, the fractional adsorption (theta) is much greater than the relative pressure (P/P0); the general isotherm is thereby reduced to the D-A and D-R equations. From the approximated forms of the general isotherm, it is shown that the exponent; n in the D-A equation is related to the degree of pore filling at the reference state (eta(0)); as a consequence it depends on the adsorbate as well as the pore structure of the adsorbent. Moreover, the characteristic energy of adsorption (E) in the D-A and D-R equations is proportional to the mean potential (Phi). Thus, the dependence off on pore size can be obtained directly from first principles without resorting to empirical correlations. The low-pressure limit of the general isotherm is Henry’s law. It is shown that from Henry’s constant, i.e., one adsorption data point, it is possible to calculate the heat of adsorption.

Keywords: Size Distribution, Micropores, State, Adsorbents, Carbons, Model

Notes: highly cited

Guibal, E., Janssoncharrier, M., Saucedo, I. and Le Cloirec, P. (1995), Enhancement of metal-ion sorption performances of chitosan: Effect of the structure on the diffusion properties. *Langmuir*, **11** (2), 591-598.

Full Text: [L\Langmuir11, 591.pdf](L/Langmuir11,%20591.pdf)

Abstract: Chitosan is a well-known sorbent of biological diluted effluents. Uptake capacities and sorption rates are restricted by diffusion mechanisms. A grafting of specific functional groups onto a chitosan backbone allows sorption performances to be improved due to the appearance of new sorbing functions and by an improvement in diffusion properties. Scanning electron microscopy coupled with an X-ray energy dispersed analysis demonstrates that an uranium concentration gradient exists in the chitosan. polymer but disappears in the glutamate glucan polymer. Chitosan displays a surface controlled sorption mechanism, unlike glutamate glucan in which sorption occurs in the mass of the polymer. Microcrystalline chitosan produced for the sorption of uranyl ions shows diffusion constants comparable to those obtained with glutamate glucan by application of two single models of intraparticular diffusion. This simple technique of modification of the structure of the chitosan allows the uptake capacity and sorption kinetics to be increased. Recrystallization causes chitosan to behave in a way intermediate between raw and substituted forms of chitosan.

Keywords: Fully Deacetylated Chitosan, *Rhizopus-arrhizus*, Glutamate Glucan, Microcrystalline Chitosan, Uranium Biosorption, Surface-Diffusion, Adsorption, Chitin, Removal, Equilibrium

Patel, M., Pu, C.J.J. and Sharpe, L.R. (1995), Effects of adsorption of gaseous ambients on the photoluminescence intensity of a powdered Cds: Te phosphor. *Langmuir*, **11** (6), 2003-2008.

Full Text: [L\Langmuir11, 2003.pdf](L/Langmuir11,%202003.pdf)

Abstract: The photoluminescence, PL, intensity from powedered CdS: Te phosphor (similar to 450 ppm Te), pCdS: Te reversibly changes relative to nitrogen as a reference gas upon adsorption of sulfur dioxide, ammonia, oxygen, and moisture. Specifically, we have found that the PL of the pCdS: Te reversibly increases by as much as 60% when exposed to ammonia and decreases by 50% when exposed to sulfur dioxide. The PL intensity also decreases to a lesser degree when exposed to oxygen and moisture. Ar, He, H-2, N2O, CO, and CO2 gave no response or a response of less than a few percent. The changes in PL intensity are concentration dependent and at partial pressures below 0.2 atm follow the Langmuir adsorption isotherm model. At higher partial pressures there appear to be more complicated adsorption processes taking place that are discussed. Adduct formation constants derived from the Langmuir adsorption isotherm model at pressures below 0.2 atm range from 20 to 35 atm-1 for sulfur dioxide and 25-50 atm-1 for ammonia at room temperature. pCdS: Te shows promise as an optically coupled chemical sensor for incorporation into gas sensor arrays.

Keywords: Cadmium Sulfoselenide Electrodes, Photo-Electrochemical Cells, Beta-Diketonate Complexes, Adduct Formation, Luminescent Properties, Aniline Derivatives, Selenide Crystals, Sulfide Clusters, Single-Crystals, Semiconductor

Papelis, C., Brown, G.E., Parks, G.A. and Leckie, J.O. (1995), X-ray-absorption spectroscopic studies of cadmium and selenite adsorption on aluminum-oxides. *Langmuir*, **11** (6), 2041-2048.

Full Text: [L\Langmuir11, 2041.pdf](L/Langmuir11,%202041.pdf)

Abstract: To enhance our understanding of trace element partitioning at oxide-water interfaces, we studied the local coordination environment of cadmium(II) and selenite complexes sorbed on aluminum oxides, in situ, using X-ray absorption spectroscopy (XAS). The adsorbents included porous, high surface area transition aluminas (ALCOA CP-5 and C-33) and the minerals corundum (alpha-Al2O3) and gibbsite (gamma-Al(OH)3). Cadmium sorption densities ranged from 1.2 to 12.0 µmol/m2 and selenite sorption densities ranged from 1.2 to 4.6 µmol/m2. X-ray absorption fine structure (XAFS) analysis of the selenite spectra indicates that Se is coordinated to three O atoms at 1.69 Angstrom, regardless of substrate, and that the complexes are mononuclear. XAFS analysis of low sorption density cadmium complexes suggests that cadmium is coordinated to six oxygens at 2.33 Angstrom and that the complexes are mononuclear. Analysis of a high total cadmium concentration sample (10-3 M) gave O first neighbors at 2.35 Angstrom and Cd second neighbors at 3.84 Angstrom, suggesting the formation of a disordered cadmium hydroxide or cadmium hydroxocarbonate precipitate. Absence of Al second neighbors In the selenite and the low sorption density cadmium samples is probably caused by the low backscattering amplitude of Al and thermal and static disorder effects. These results, in combination with sorption isotherm data, suggest that, under the conditions studied, cadmium and selenite diffuse into the pores of the transition aluminas and sorb as mononuclear complexes. These results have significant implications for the fate of trace elements in subsurface environments and the remediation of waters and groundwaters.

Keywords: Fine-Structure Spectroscopy, Water Interfaces, Abinitio Calculations, Surface Complexes, Phase Functions, Amplitude

Dékány, I., Turi, L., Tombácz, E. and Fendler, J.H. (1995), Preparation of size-quantized CdS and ZnS particles in nanophase reactors provided by binary liquids adsorbed at layered silicates. *Langmuir*, **11** (6), 2285-2292.

Full Text: [L\Langmuir11, 2285.pdf](L/Langmuir11,%202285.pdf)

Abstract: Liquid sorption measurements of hexadecylpyridinium montmorillonite (HDPM) dispersions in ethanol (1)-cyclohexane (2) and methanol (1)-cyclohexane (2) binary mixtures established the formation of a 0.5- to 5-nm-thick alcohol (1)-rich adsorption layer at the organoclay complex interfaces. This adsorption layer was used as a nanophase reactor for the in situ generation of size-quantized cadmium sulfide-and zinc sulfide semiconductor particles from cadmium. (or zinc) acetate and equivalent amounts of H2S. The volumes of the nanophase reactor in ethanol (1)-cyclohexane (2) at 1: 2 = 0.05: 99.95 were determined, by adsorption excess isotherm and X-ray diffraction measurements, to be 0.692 cm3/(g of HDPM) and 0.746 cm3/(g of HDPM), respectively. Adsorption excess isotherm and X-ray diffraction measurements gave corresponding values of 0.170 cm3/(g of HDPM) and 0.231 cm3/(g of HDPM) in methanol (1)-cyclohexane (2) at 1: 2 = 0.01: 99.99. As expected, smaller sized semiconductor particles were generated in the smaller nanophase reactor, provided by the methanol-rich adsorption layer. Further reduction of semiconductor particles was accomplished by decreasing the concentration of their parent ions in the nanophase reactor. Incorporation of semiconductor nanocrystallites into HDPM manifested themselves in increased viscosity Information on the fractal dimensions of the semiconductor-clay organocomplex suspensions and that on the radius of gyration of the nanoparticles has been determined by Small-angle X-ray scattering measurements. The use of selectively adsorbed polar liquids at the solid binary polar-apolar liquid mixture interfaces as versatile nanophase reactors discussed.

Keywords: Alcohol-Benzene Mixtures, Surface Modification, Clay-Minerals, Adsorption, Sorption, Montmorillonite, Complexes, Colloids

Franses, E.I., Siddiqui, F.A., Ahn, D.J., Chang, C.H. and Wang, N.H.L. (1995), Thermodynamically consistent equilibrium adsorption isotherms for mixtures of different-size molecules. *Langmuir*, **11** (8), 3177-3183.

Full Text: [L\Langmuir11, 3177.pdf](L/Langmuir11,%203177.pdf)

Abstract: Simple and general differential criteria are derived for testing equilibrium adsorption isotherms for consistency with the laws of thermodynamics. The generalized Langmuir isotherm (L-model) for binary solutes of different sizes or adsorption capacities fails the test, as previously noted. A consistent isotherm is derived for the first time, by using the framework of the ideal adsorbed solution (IAS) theory of Myers and Prausnitz (*AIChE J.* 1965, *11*, 121). The scaled particle theory isotherms for circular disks are shown to be thermodynamically consistent and to lead to almost identical predictions as an IAS model based on a modified Langmuir isotherm. All models with ideal mixing in the adsorbed solution predict that at high coverages the larger molecules (those with smaller adsorption capacity) are substantially depleted from the surface for steric and entropic reasons. With increasing concentration, the models predict selectivity reversals in cases where the larger molecules are not much more surface active than the smaller molecules.

Li, J., Liang, K.S., Scoles, G. and Ulman, A. (1995), Counterion overlayers at the interface between an electrolyte and an omega-functionalized monolayer self-assembled on gold: An x-ray reflectivity study. *Langmuir*, **11** (11), 4418-4427.

Full Text: [L\Langmuir11, 4418.pdf](L/Langmuir11,%204418.pdf)

Abstract: In situ X-ray reflectivity measurements have been employed to study counterion overlayers at the interface between electrolyte solutions and monolayers of carboxylic acid terminated alkanethiols self-assembled on Au(III). The counterion densities at the interface are obtained by fitting the reflectivity data. We found that the density of Cd2+ depends strongly on the pH of the electrolyte solution. At high (> 6) pH, dense overlayers, with approximately one cadmium per carboxylic acid group, were observed. At pH > 8, multilayers of Cd(OH)2 start to grow. The isotherm in a large pH range can be successfully fitted by a modified BET multilayer adsorption model. Investigation of a variety of other cations (Pb2+, Ba2+ Ca2+, and Cs+) indicates that strong chemical interactions between the carboxylate groups and counterions are more important than purely electrostatic interactions in inducing dense counterion overlayers. The assembled hydrocarbon chains were found to preserve their ordered root 3 x root 3R30 degrees structure in the electrolyte solutions, though no indication of in-plane order in the counterion overlayer was obtained.

Keywords: Air-Water-Interface, Acid Monolayers, Langmuir Monolayers, Organic Monolayers, Double-Layer, Diffraction, Surface, Crystallization, Phases

Notes: highly cited

? Ravikovitch, P.I., ÓDomhnaill, S.C., Neimark, A.V., Schüth, F. and Unger, K.K. (1995), Capillary hysteresis in nanopores: Theoretical and experimental studies of nitrogen adsorption on MCM-41. *Langmuir*, **11** (12), 4765-4772.

Full Text: [1995\Langmuir11, 4765.pdf](1995/Langmuir11,%204765.pdf)

Abstract: Capillary hysteresis in cylindrical nanopores has been studied using MCM-41 as the prime example of a mesoporous material. These materials, due to their regular pore structure, can be considered to be candidates for reference adsorbents for standardizing adsorption measurements and methods for characterization of porous solids. They provide a unique opportunity for verification of theoretical models employed for predicting phase equilibrium in confined geometry. Three samples with monodisperse pore channels have been synthesized and examined using X-ray diffraction (XRD). Nitrogen adsorption isotherms were modeled using nonlocal density functional theory (NLDFT) in a wide range of pore sizes (18-80 Angstrom). Theoretical isotherms for pore channels with sizes corresponding to those identified by XRD were compared with experimental isotherms at different temperatures between 70 and 82 K. The latter have been measured independently on two different adsorption setups. The theoretical thermal dependence of the thermodynamic adsorption-desorption hysteresis predicted by NLDFT is confirmed by the experimental measurements. It is shown that at 77.4 K NLDFT quantitatively predicts equilibrium phase transitions in cylindrical channels of MCM-41. Theoretical and experimental results prove that the nitrogen hysteresis observed at temperatures below 77.4 K is associated with metastability of the adsorption branch of the isotherm. The absence of experimental hysteresis on samples with pore size of about 40 Angstrom at temperatures above 77.4 K cannot be explained by the capillary critical temperature for a given pore size being achieved as was assumed previously.

Keywords: Adsorption, Adsorption Isotherms, Behavior, Carbons, Density, Dependence, Equilibrium, Fluids, Isotherms, Mcm-41, Mesoporous Material, Model, Narrow Pores, Pore Structure, Pore-Size Distribution, Simple Liquids

McFadden, C.F., Cremer, S. and Gellman, A.J. (1996), Adsorption of chiral alcohols on ‘chiral’ metalsurfaces, *Langmuir*, **12** (10), 2483-2487.

Full Text: [L\Langmuir12, 2483.pdf](L/Langmuir12,%202483.pdf)

Abstract: Kink sites on high Miller index surfaces are either left-or right-handed and can be thought of as chiral, when the step lengths on either side of the kink site are unequal. A silver single crystal was oriented and cut to expose the Ag (643) surface on one side and the Ag (643) surface on the other side. A system is proposed for naming these surfaces as Ag (643)S and Ag (643)R, respectively, in analogy with the Cahn-Ingold-Prelog rules used in the nomenclature of organic stereoisomers. The left hand/right hand relationship of the two surfaces was manifested by the direction of the splitting of the low-energy electron diffraction (LEED) spots. The interaction of the enantiomers of a chiral alcohol ((R)-2-butanol and (S)-2-butanol) with each surface was studied using temperature-programmed desorption (TPD) measurements in order to ascertain the magnitude of the effect of surface chirality on the heats of adsorption. Desorption of the alcohols following exposure to the clean surfaces was molecular and exhibited first-order kinetics. No difference was observed between (R)-and (S)-2-butanol in either desorption temperature (225 K) sigma peak shape. Upon exposure to preoxidized surfaces, the alcohols deprotonated to form (R)-and (S)-2-butanoxide, both of which decomposed upon heating via β-hydride elimination. The decomposition product, 2-butanone, desorbed at 282 K. Again, no difference in the reaction kinetics of the enantiomeric alkoxides was observed on the two surfaces. From these results it can be concluded that the difference in (a) the heat of adsorption of the enantiomeric alcohols and (b) the difference in the energy barrier to β-hydride elimination for the enantiomeric alkoxides is less than 0.1 kcal/mol.

Campbell, J.L.E. and Anson, F.C. (1996), Factors responsible for the unusually strong adsorption of [Os (bpy)2 (Cl)L1]+ (L1 = 1, 2-bis (4-pyridyl)ethane) and related complexes on metal and graphite electrode surfaces. *Langmuir*, **12** (16), 4008-4014.

Full Text: [L\Langmuir12, 4008.pdf](L/Langmuir12,%204008.pdf)

Abstract: The extent and dynamics of the adsorption on gold and pyrolytic graphite electrodes of four complexes of Os(II) were compared with the previously reported adsorption of similar complexes on Pt (Acevedo, D., Abruña, H. D. *J. Phys. Chem.* 1991, 95, 9590). The complexes investigated were [Os (bpy)2 (Cl)L]+ with bpy = 2,2’-bipyridine and L = 1, 2-bis (4-pyridyl)ethane, 4-phenylpyridine, 4-(1-n-butylpentyl)pyridine, and pyridine. Spontaneous, strong adsorption of all four complexes occurred on graphite electrodes and, except for the complex with L = pyridine, on gold electrodes. The presence of a pendant pyridine site on ligand L is not required for strong adsorption to occur. Replacement of the [Os (bpy)2 (Cl)]+ center by RU (NH3)52+ also led to a strongly adsorbing complex. The adsorption appears to be driven by hydrophobic interactions of the organic ligands with the electrode surface and with each other as well as specific surface-ligand bond formation when a pendant pyridine group is present. Although the concentration dependence of the quantities of the complexes adsorbed could be fit to a Langmuir isotherm, the dynamics of the adsorption and desorption reactions were not consistent with Langmuirian adsorption. Stabilizing intermolecular electronic interactions among the adsorbed molecules are suggested as a possible explanation for the observed behavior.

Quiñones, I. and Guiochon, G. (1996), Isotherm models for localized monolayers with lateral interactions. Application to single-component and competitive adsorption data obtained in RP-HPLC. *Langmuir*, **12** (22), 5433-5443.

Full Text: [L\Langmuir12, 5433.pdf](L/Langmuir12,%205433.pdf)

Abstract: Single-component and competitive adsorption data of 2-phenylethanol and 3-phenylpropanol on ODS-silica with methanol-water as the mobile phase, which had been previously reported, were reinterpreted. These data were fitted to several isotherm models derived from statistical thermodynamics which consider lateral adsorbate-adsorbate interactions on homogeneous surfaces: the Fowler, Ruthven, and Moreau et al. models. The single-component Kiselev model for specific lateral interactions was extended to account for the competitive adsorption of binary mixtures and for the finite or infinite dimension of the adsorbed associates. These last models were tested using the same set of experimental data. A comparison was made regarding the ability of these models to predict mixed equilibria using only the identified parameters of the single-component isotherms. In this regard, the best results were obtained with the Kiselev model, which considers the formation of both binary and ternary associates on the surface.

Keywords: Liquid-Chromatographic Sorbents, Overloaded Elution Profiles, Band Profiles, Frontal Chromatography, Gradient Elution, Enantiomers, Silica, Prediction, Separation, Cellulose

? Dunne, J.A., Mariwals, R., Rao, M., Sircar, S., Gorte, R.J. and Myers, A.L. (1996), Calorimetric heats of adsorption and adsorption isotherms. 1. O2, N2, Ar, CO2, CH4, C2H6 and SF6 on silicalite. *Langmuir*, **12** (24), 5888-5895.

Full Text: [1996\Langmuir12, 5888.pdf](1996/Langmuir12,%205888.pdf)

Abstract: A Tian-Calvet type calorimeter is applied to the simultaneous determination of adsorption isotherms and heats of adsorption. This is the first of a series of studies of the effect of adsorbate size and polarity on the energetics of adsorption in zeolites. The adsorbate gases used is this study are quadrupolar (N2 and CO2) and nonpolar (Ar, O2, CH4, C2H6, and SF6). The heats of adsorption of both polar and nonpolar gases are either constant or increase with coverage, so silicalite may be classified as a relativity homogeneous adsorbent compared to X type zeolite, Reversibility was established by comparing adsorption and desorption isotherms. Reproducibility was studied by comparing runs for different samples of the same adsorbent, The average experimental error in loading is ±0.6%. The error in the isosteric heat of adsorption is ±2% for heats lar ger than 20 kJ/mol and ±5% for heats smaller than 20 kJ/mol.

Keywords: Neutron-Diffraction, Gas-Chromatography, Microcalorimetry, Zeolites, Components, Methane, Alkanes, Ethane

? Dunne, J.A., Rao, M., Sircar, S., Gorte, R.J. and Myers, A.L. (1996), Calorimetric heats of adsorption and adsorption isotherms. 2. O2, N2, Ar, CO2, CH4, C2H6, and SF6 on NaX, H-ZSM-5, and Na-ZSM-5 zeolites. *Langmuir*, **12** (24), 5896-5904.

Full Text: [1996\Langmuir12, 5896.pdf](1996/Langmuir12,%205896.pdf)

Abstract: Isosteric heats of adsorption and adsorption isotherms have been measured simultaneously in a calorimeter for a series of gases of increasing size and magnitude of quadrupole moment (Ar O2, N2, CH4, C2H6, SP6, CO2) on adsorbents of varying pore structure and ion type (NaX, H-ZSM-5, Na-ZSM-5), Adsorption isotherms have been checked for reversibility by desorption experiments. The average experimental error in loading is ±0.6%; the average uncertainty in the isoster-ic heat of adsorption is ±0.5 kJ/mol. Heats of adsorption of nonpolar molecules (CH4, C2H6, SF6) increase in the order NaX, silicalite, H-ZSM-5, Na-ZSM-5 at low coverage. Heats of adsorption of nonpolar molecules are almost identical on silicalite, H-ZSM-5, and Na-ZSM-5 at high coverage. Heats of adsorption of the quadrupolar molecule CO2 increase in the order silicalite, H-ZSM-5, Na-ZSM-5, NaX. The electric field adjacent to Na+ sites is 6.2 V/nm, on the basis of the difference between the heat of adsorption of CO2 in Na-ZSM-5 and the heat of adsorption of CO2 in silicalite.

Keywords: Molecular Statistical Calculation, Chromatography Pulse Technique, Exchanged ZSM-5 Zeolites, Atom-Atom Approximation, Carbon-Dioxide, Neutron-Diffraction, Methane, Hydrocarbons, Nitrogen, Cations

Fan, A.X., Somasundaran, P. and Turro, N.J. (1997), Adsorption of alkyltrimethylammonium bromides on negatively charged alumina. *Langmuir*, **13** (3), 506-510.

Full Text: [L\Langmuir13, 506.pdf](L/Langmuir13,%20506.pdf)

Abstract: A four-region model based on electrostatic and hydrophobic interactions adequately explains adsorption of anionic surfactants on positively charged solids such as alumina. In this study, cationic surfactants were used instead for adsorption on negatively charged alumina at pH 10 and at a constant ionic strength of 0.03 M NaCl. In this case, only three distinct regions were observed in the adsorption isotherms and there seemed to be a lack of adsorption region III. In order to elucidate the adsorption mechanisms involved, the electronic spin resonance and fluorescence techniques were used along with vacuum flotation technique. The results suggest that adsorption region III may still exist; the difficulty in detecting it from the adsorption isotherm is probably the result of similar slopes for regions II and III. and this may be attributed to the loose and interpenetrating solloid structure in the case of the cationic amine/negatively charged alumina system. This possibility is discussed with the help of the results of the spectroscopic and flotation studies.

Keywords: Gel Water Interface, Surfactant Adsorption, Ionic Surfactants, Adsorbed Layer, Cationic Surfactants, Dodecyl-Sulfate, Silica, Model, Probe

Dabrowski, A., Bogillo, V.I. and Shkilev, V.P. (1997), ‘Structure-activity’ relationships in adsorption and chemisorption of organic compounds on metal oxide surfaces. *Langmuir*, **13** (5), 936-944.

Full Text: [L\Langmuir13, 936.pdf](L/Langmuir13,%20936.pdf)

Abstract: The application of several physicochemical parameters of organic compound structures for description of their nonspecific and specific interactions at adsorption on the oxide surface as well as for chemisorption kinetics in these systems is discussed. An approach to calculate the distribution functions on the coefficients of linear equations, connecting the adsorption or chemisorption parameters on the heterogeneous surface with physicochemical parameters of adsorbates or reagents, is presented. It has been used for the description of some adsorption equilibria and chemisorption kinetics of organosilicon compounds on the SiO2 surfaces and for determination of the dispersive and specific components of the free surface energy of Si, Ti, and Al oxides.

Cerofolini, G.F. and Re, N. (1997), Kinetics of desorption from heterogeneous surfaces. *Langmuir*, **13** (5), 990-994.

Full Text: [L\Langmuir13, 990.pdf](L/Langmuir13,%20990.pdf)

Abstract: The desorption kinetics from heterogeneous surfaces contain information on energy heterogeneity. Mathematical methods for extracting the energy distribution function from desorption kinetics are developed. The overall desorption kinetics are described as weighted averages of the local desorption kinetics from each energetically homogeneous zone forming the surface. Whatever the local kinetics, the energy distribution is determined from the overall kinetics by using the condensation approximation. The method is applied to two situations: the time-logarithm law observed in a lot of systems of practical interest in catalysis, and the time-power law observed in many relaxation kinetics of macromolecules.

Keywords: Local Isotherm Approximations, Energy-Distribution, Adsorption, Myoglobin, Protein

Rudziński, W. and Aharoni, C. (1997), A simultaneous description of equilibria and kinetics of adsorption on flat heterogeneous solid surfaces: Single gas adsorption at low surface coverages. *Langmuir*, **13** (5), 1089-1094.

Full Text: [L\Langmuir13, 1089.pdf](L/Langmuir13,%201089.pdf)

Abstract: Based on the statistical theory of the rate of interfacial transport, a standard procedure is proposed for developing equations for adsorption kinetics and equilibria, corresponding to some model of a heterogeneous solid surface. By replacement of a certain function by another, in a kind of master equation, the isotherm equation is transformed into corresponding equation for adsorption kinetics, and vice versa. The detailed form of that master equation is related to the form of the adsorption energy distribution. The theoretical origin of the popular empirical equations for adsorption kinetics is reexamined and the range of their applicability is shown. The present theoretical treatment is limited to lower surface coverages where collective character of adsorption can be ignored, along with the readsorption kinetics.

Dobson, K.D., Connor, A. and McQuillan, A.J. (1997), Monitoring hydrous metal oxide surface charge and adsorption by STIRS. *Langmuir*, **13** (10), 2614-2616.

Full Text: [L\Langmuir13, 2614.pdf](L/Langmuir13,%202614.pdf)

Abstract: The first in situ infrared spectroscopic measurements of surface excess solvated ion concentrations in the electrical double layer resulting from metal oxide surface charge are reported. Enhanced concentrations of perchlorate and tetramethylammonium ions have been detected at the surface of a TiO2 gel film. Anew technique, surface titration by internal reflection spectroscopy (STIRS), has been used in which spectra are recorded after flow-induced, stepwise pH changes. A measured isoelectric point for TiO2 of 5 concurs with those from other methods. The perturbing effect of specific adsorption on the TiO2 surface charge is clearly indicated by the STIRS spectra of the system containing oxalate ion.

Karpovich, D.S. and Blanchard, G.J. (1997), Vapor adsorption onto metal and modified interfaces: Evidence for adsorbate penetration of an alkanethiol monolayer on gold. *Langmuir*, **13** (15), 4031-4037.

Full Text: [L\Langmuir13, 4031.pdf](L/Langmuir13,%204031.pdf)

Abstract: We have studied the adsorption of organic molecules from the vapor phase onto bare gold, n-octadecanethiol-modified, and 11-mercapto-1-undecanol-modified gold surfaces using a controlled atmosphere chamber with an ellipsometer and a quartz crystal microbalance for simultaneous in-situ determination of adsorbate thickness and mass. Our experimental data are fit by the BET adsorption isotherm, and results from these fits place limits on the ways in which the adsorbates can interact with the selected substrates. Ellipsometric data, in combination with the mass adsorption data, demonstrate that n-octadecanethiol self-assembled monolayers on gold experience penetration by adsorbates, where the 11-mercapto-1-undecanol-modified surfaces and the gold surface do not. We compare these findings to other literature reports that bear on the permeability of the alkanethiol/gold interface.

Lorenz, J.K., Kuech, T.F. and Ellis, A.B. (1998), Cadmium selenide photoluminescence as a probe for the surface adsorption of dialkyl chalcogenides. *Langmuir*, **14** (7), 1680-1683.

Full Text: [L\Langmuir14, 1680.pdf](L/Langmuir14,%201680.pdf)

Abstract: The band gap photoluminescence (PL) intensity of n-CdSe is reversibly enhanced by adsorption, from the gas phase, of two families of dialkyl chalcogenide compounds: (CH3)2E (E = S, Se, Te) and R2S (R = CH3, C2H5, n-C3H7, i-C3H7, and t-C4H9). A dead layer model was used to estimate adduct-induced reductions in depletion width thickness at saturation; values ranged from similar to 100 to 500 Angstrom. Binding constants of less than 10 atm-1 to as large as 500 atm-1 were estimated from fits to the Langmuir adsorption isotherm model. The magnitude of the PL responses and binding constants of the dialkyl sulfides increases with chain length for the straight-chain derivatives and correlates with trends in ionization potential and basicity. Branched-chain derivatives do not follow this correlation as strictly but still give substantial PL enhancements and binding constants. Varying the chalcogenide atom in the dimethyl chalcogenides has little effect on either the magnitude of the PL enhancements or the binding constants, which are relatively small. Steric and electronic factors contributing to these PL effects are discussed, as is the potential use of PL for on-line detection of these group VI precursor gases in the growth of materials by chemical vapor deposition processes.

Keywords: Vapor-Phase Epitaxy, Efficient Photoelectrochemical Oxidation, Self-Assembled Monolayers, II-VI-Compounds, Semiconductor, Thiols, Disulfides, Silicon, Sulfide

Ng, S.C., Zhou, X.C., Chen, Z.K., Miao, P., Chan, H.S.O., Li, S.F.Y. and Fu, P. (1998), Quartz crystal microbalance sensor deposited with Langmuir-Blodgett films of functionalized polythiophenes and application to heavy metal ions analysis. *Langmuir*, **14** (7), 1748-1752.

Full Text: [L\Langmuir14, 1748.pdf](L/Langmuir14,%201748.pdf)

Abstract: Two novel functionalized polythiophenes, poly[3-(6-hydroxyhexyl)thiophene] and poly(3-octanethio-2,2’-bithiophene), were used as selective coating materials for quartz crystal microbalance (QCM) sensors. These conductive polymers on admixture with stearyl alcohol were deposited on QCM devices by the Langmuir-Blodgett (LB) technique. These LB films exhibited a selective adsorption for the first-row transitions ions in the Irving-Williams order due to the complexation of metal ions with sulfur atoms in the polymers. These LB film coated QCM sensors were found applicable in detecting heavy metal ions in aqueous solution, which are major pollutants in wastewater. The coated QCM sensors can selectively adsorb heavy metal ions (Hg2+) from solution over a wide range from 0.1 to 100 ppm concentration by complexation with sulfur atoms in the polymers. The bound mercury could be removed by ethylenediaminetetraacetic acid (EDTA) solution. The presence of ferrous, lead, cobalt, and chromium cations in the solution did not interfere with the detection of mercury ions.

Keywords: Mass, Poly(3-Alkylthiophene), Chromatography, Detectors, Polymer, Copper, Lead

Ferro-García, M.A., Rivera-Utrilla, J., Bautista-Toledo, I. and Moreno-Castilla, C. (1998), Adsorption of humic substances on activated carbon from aqueous solutions and their effect on the removal of Cr(III) ions. *Langmuir*, **14** (7), 1880-1886.

Full Text: [L\Langmuir14, 1880.pdf](L/Langmuir14,%201880.pdf)

Abstract: The adsorption of different compounds such as gallic, tannic, and humic acids on an activated carbon at 298 K has been studied. The capacity of this carbon to adsorb gallic acid is much higher than for the other two acids, which has been explained on the basis of both their molecular size and ionization degree. The influence of dissolved Cr(NO3)3 On the adsorption of these acids has been investigated. The capacity of the carbon to adsorb gallic and tannic acids in the presence of Cr(III) is slightly higher than in the absence of this metal. The variation of the surface properties of the carbon, both porous texture and charge, with the adsorption of these humic substances also has been tested. The porous texture changes have been studied from the N2 adsorption isotherms and the changes in the carbon surface charge from the pH drift tests. The results indicate that the adsorption of these acids on the activated carbon brings about, to a greater or lesser extent, both pore blockage and an increase in the negative surface charge of the carbon. Finally, changes in the amount of Cr(III) adsorbed on the carbon as a function of the concentration of each of these three acids have been studied. A large decrease in the Cr(III) uptake is observed when these acids are present at low concentrations due to the pore blockage effect of the acid adsorbed on the carbon surface. When the acid concentration increases, the Cr(III) uptake also increases due to interactions of the Cr(III) cations with the negatively charged unbound functional groups of the adsorbed acid.

Keywords: Surface-Properties, Water-Treatment, Organic-Matter, Complexes, Acids

Yao, K., Taniguchi, M., Nakata, M., Takahashi, M. and Yamagishi, A. (1998), Nanoscale imaging of molecular adsorption of metal complexes on the surface of a hydrotalcite crystal. *Langmuir*, **14** (9), 2410-2414.

Full Text: [L\Langmuir14, 2410.pdf](L/Langmuir14,%202410.pdf)

Abstract: Atomic force microscopy (AFM) and scanning tunnel microscopy (STM) observations have been performed on the surfaces of a hydrotalcite (HT) crystAl ([Mg6Al2(OH)16](CO3)1/2.Cl.2H2O) and HT crystals ion-exchanged with [Fe (CN)6]3-and [Fe(CN)6]4-(denoted by HT-[Fe(CN)6]3-and HT-[Fe(CN)6]4-, respectively). The AFM image of a HT crystal surface in contact with an aqueous solution of 0.1 M Na2SO4 shows two-dimensional periodicity with the unit lattice of a = 0.31±0.02 nm, b = 0.31±0.02 nm, and alpha = 58±3 degrees. This corresponds to the lattice made by the external hydroxyl groups on a basal plane. No ion exchanged anion was observed by the AFM method, indicating that an external anion is so weakly bound to a surface that it is removed under the scanning operation of an AFM ti The STM image of the same crystal under air shows a two-dimensional lattice with a = 0.75±0.04 nm, b = 1.10±0.03 nm, and alpha = 70±3 degrees. One bright spot in the image exists at every 1.1 [Mg6Al2 (OH)16]2+ unit, leading to the conclusion that the spot represents a chloride ion adsorbed on a surface. The STM image of the same crystal at less negative bias voltage exhibits a different two-dimensional lattice with a = 0.62±0.03 nm, b = 0.62±0.03 nm, and alpha = 65±3 degrees. This is ascribed to the lattice made by the aluminum atoms at the octahedral sites inside a layer. The STM images of HT-[Fe(CN)6]3-and HT-[Fe(CN)6]4-crystals in contact with an aqueous solution of 0.1 M Na2SO4 show the two-dimensional lattices of a = 1.43±0.06 nm, b = 1.86±0.06 nm, and alpha = 90±4 degrees and a = 2.20±0.06 nm, b = 2.20±0.06 nm, and alpha = 75±3 degrees, respectively. These are ascribed to the molecular layers of [Fe(CN)6]3-and [Fe(CN)6]4-on a surface, respectively. The causes for the ordered molecular adsorption are discussed.

Tunik, L., Füredi-Milhofer, H. and Garti, N. (1998), Adsorption of sodium diisooctyl sulfosuccinate onto calcium oxalate crystals. *Langmuir*, **14** (12), 3351-3355.

Full Text: [L\Langmuir14, 3351.pdf](L/Langmuir14,%203351.pdf)

Abstract: The adsorption of diisooctyl sulfosuccinate (AOT) from high ionic strength solution onto well-defined calcium oxalate monohydrate (COM) and dihydrate (COD) crystals was studied. Adsorption at the COM/solution interface is characterized by a two-step (LS type) isotherm, starting at low equilibrium concentrations (5 mg dm-3). At c(eq) = 15-30 mg dm-3 it reaches a plateau which is followed by a relatively steep inflection (c(eq) = 30-50 mg dm-3) and a further slow increase of the adsorption as a function of increasing AOT concentration. In suspensions without surfactant the particles were negatively charged. Upon adsorption an initial slight decrease of the negative zeta-potential, coinciding with the first plateau, occurred which was followed by a sharp increase in concordance with the increasing surface concentration of the surfactant. In contrast, adsorption onto COD is characterized by a sigmoid isotherm. It commenced at 14 mg dm-3 of AOT and increased abruptly up to a plateau. The maximum adsorbed amount was about half the maximum amount adsorbed on COM, the corresponding adsorption densities in molecules per square nanometer being 7.45 for COD and 14.22 for COM, respectively. COD crystals suspended in electrolyte solution without surfactant were almost uncharged, and the negative zeta-potential increased in concordance with AOT adsorption. The results are discussed in accordance with literature data and by considering the ionic structure of the different crystal faces. We assume that the first adsorption step in the COM/surfactant system is due to electrostatic interactions causing head-on adsorption of the surfactant molecules at high-energy sites, while in the second step a bilayer is formed. In the COD/surfactant system the hydration layers covering the COD crystal faces are shielding them from electrostatic interactions. Consequently AOT adsorption at the COD/solution interface proceeds only through surface aggregation, resulting in a bilayer of intertwined surfactant molecules.

Keywords: Variable-Charge Surfaces, Ionic Surfactants, Adsorbed Layer, Anionic Surfactants, Aerosol-Ot, Crystallization, Whewellite, Model

Rudziński, W., Charmas, R., Piasecki, W., Thomas, F., Villieras, F., Prelot, B. and Cases, J.M. (1998), Calorimetric effects accompanying ion adsorption at the charged metal oxide/electrolyte interfaces: Effects of oxide surface energetic heterogeneity. *Langmuir*, **14** (18), 5210-5225.

Full Text: [L\Langmuir14, 5210.pdf](L/Langmuir14,%205210.pdf)

Abstract: A quantitative theoretical analysis of the enthaplic effects accompanying ion adsorption at the oxide/electrolyte interface, based on a model of energetically heterogeneous surface oxygens, is presented. The triple layer complexation model is accepted, along with the 2-pK charging mechanism. For the purpose of illustration a set of experimental data is subjected to that quantitative analysis including titration curves, radiometrically measured individual iostherms of ions, and calorimetric titration data for the alumina/NaCl electrolyte system. Two models of energetic heterogeneity were taken into consideration. One of them assumes that the binding-to-oxygen energies of the surface complexes vary but are highly correlated when going from one to another surface oxygen. The other model of surface heterogeneity assumes that these correlations are very small. Our numerical simultaneous analysis of the titration data, of the individual isotherms of Na+ and Cl-adsorption, and of the accompanying heat effects advocates strongly for the model of surface heterogeneity assuming small correlations to exist. A good simultaneous fit of all three kinds of experimental data is obtained, with a small uncertainty as for the values of the estimated adsorption parameters. A simultaneous fit of the measured enthalpic effects appears to be an especially strong criterion for a proper choice of adsorption parameters.

Charmas, R. (1998), Calorimetric effects of simple ion adsorption at the metal oxide electrolyte interfaces: An analysis based on the four layer complexation model. *Langmuir*, **14** (21), 6179-6191.

Full Text: [L\Langmuir14, 6179.pdf](L/Langmuir14,%206179.pdf)

Abstract: A comparative theoretical study of the heat accompanying ion adsorption at the oxide/electrolyte interface, predicted by both the triple layer model (TLM) and the four layer model (FLM) of oxide/electrolyte interface, is presented. The four layer model predicts that even small differences reported between PZC and IEP may affect strongly by the heat effects below PZC. The developed expressions are successfully applied to describe quantitatively heat effects accompanying ion adsorption at the TiO2/NaCl solution interface. An assumption that the inner capacitances are temperature dependent is essential for that successful quantitative description.

Dobruskin, V.Kh. (1999), Contribution of a repulsive potential in a micropore volume filling. A surface of micropore walls. *Langmuir*, **15** (2), 526-532.

Full Text: [L\Langmuir15, 526.pdf](L/Langmuir15,%20526.pdf)

Abstract: In the case of narrow micropores, a volume filling of the single micropore and a two-dimensional condensation on its walls occur at the same condensation pressure, and the local adsorption behavior may be modeled by the condensation approximation. Proceeding from (i) the accepted model of carbon heterogeneity, (II) the theory of adsorption on homogeneous surfaces considering lateral interactions, and (iii) the 10-4 potential function, the correlation between a micropore filling pressure, p, and a micropore reduced half-width, dire, is derived. This approach provides a correct description of equilibrium data in a range of p/p(s) approximate to 5×10-7 to 0.2 at 293 K and leads to reasonable distribution functions of micropore sizes and adsorption energies. The model contains a specific prediction that there is a minimum filling pressure, p(min), that corresponds to the maximum adsorption energy at d/r(0) = 1 and determines the lower boundary of the micropore volume filling. For benzene adsorption at 293 and 423 K, the p(min)/p(s) values are equal to 7.36×10-8 and 1.15×10-5, respectively. When p < p(min), only a submonolayer adsorption occurs on a micropore surface. The expression for the calculation of a micropore surface is derived, and the underlying assumption is discussed.

Keywords: Adsorption

Salame, I.I. and Bandosz, T.J. (1999), Experimental study of water adsorption on activated carbons. *Langmuir*, **15** (2), 587-593.

Full Text: [L\Langmuir15, 587.pdf](L/Langmuir15,%20587.pdf)

Abstract: Two carbons of different origins (wood and coal) were oxidized with nitric acid. The materials were characterized using sorption of nitrogen, Boehm titration, and potentiometric titration. The water adsorption isotherms were measured at various temperatures close to ambient (relative pressure from 0.001 to 0.3). From these isotherms heats of adsorption were calculated using virial equation. The results showed that the isosteric heats of water adsorption are affected by surface chemical heterogeneity only at low surface coverage. The shapes of heats obtained indicate strong water-water interactions as a result of adsorption on secondary sites and cluster formation. In all cases the limiting heat of adsorption equal to the heat of water condensation (45 kJ/mol) was obtained.

Keywords: Molecular Simulation, Sulfur-Hexafluoride, Surface-Chemistry, Vapor Adsorption, Proton Binding, Near-Ambient, Equation, Temperatures, Oxidation, Terms

Ritchie, S.M.C., Bachas, L.G., Olin, T., Sikdar, S.K. and Bhattacharyya, D. (1999), Surface modification of silica- and cellulose-based microfiltration membranes with functional polyamino acids for heavy metal sorption. *Langmuir*, **15** (19), 6346-6357.

Full Text: [L\Langmuir15, 6346.pdf](L/Langmuir15,%206346.pdf)

Abstract: Functionalized membranes represent a field with multiple applications. Examination of specific metal macromolecule interactions on these surfaces presents an excellent method for characterization of these materials. These interactions may also be exploited for heavy metal sorption from drinking and industrial water sources. Various low-capacity, silica-based ion-exchange and chelating sorbents (about 0.5 mmol of metal/g of resin) are available for treatment of such waters. Cellulosic membrane-based sorbents, functionalized with polyamino acids, present an excellent approach for high-capacity (3 - 14 mmol of metal/g of sorbent) metal sorption. Silica-based membrane sorbents possess metal sorption capacities approaching those of cellulosic-based membranes, with the added benefits of excellent acid and solvent resistance. Metal sorption capacities of silica-based membrane sorbents with various polyamino acids range from 0.6 mmol to 1.4 mmol of metal/g of sorbent. Ion exchange, chelation, and electrostatic interactions form the basis of metal sorption. Electrostatic interactions are greatly magnified in membrane-based sorbents, and are partly responsible for their high capacities. Regeneration of these sorbents has also been shown, including the possibility for selective desorption of metals.

Keywords: Nuclear-Magnetic-Resonance, Aqueous-Solution, Gel, Ions, Adsorption, Preconcentration, Transition, Separation, Complexes, Behavior

Hu, X., Qiao, S. and Do, D.D. (1999), Multicomponent adsorption kinetics of gases in activated carbon: Effect of pore size distribution. *Langmuir*, **15** (19), 6428-6437.

Full Text: [L\Langmuir15, 6428.pdf](L/Langmuir15,%206428.pdf)

Abstract: The heterogeneous structure of activated carbon is studied by using a pore size distribution concept. The pore size is related to the adsorbate-adsorbent interaction energy by the Lennard-Jones potential. The competition of different species for a given pore is considered via their own interaction strength with the local micropore. A pore and surface diffusion model taking into account the pore size distribution is proposed to investigate the effect of surface heterogeneity on the prediction of binary sorption kinetics. The results are compared with those previously obtained using a uniform energy distribution.

Kelly, C.A., Farzad, F., Thompson, D.W., Stipkala, J.M. and Meyer, G.J. (1999), Cation-controlled interfacial charge injection in sensitized nanocrystalline TiO2. *Langmuir*, **15** (20), 7047-7054.

Full Text: [L\Langmuir15, 7047.pdf](L/Langmuir15,%207047.pdf)

Abstract: The photophysical and photoelectrochemical properties of Ru(deeb)(bpy)2(PF6)2, where bpy is 2,2’-bipyridine and deeb is 4,4’-(COOEt)2-2,2’-bipyridine, anchored to nanocrystalline TiO2 (anatase) or ZrO2 films are reported. In neat acetonitrile (or 0.1 M tetrabutylammonium perchlorate) long-lived metal-to-ligand charge transfer (MLCT) excited states are observed on both TiO2 and ZrO2. Addition of LiClO4 results in a red shift in the MLCT absorption and photoluminescence, PL, spectra on both TiO2 and ZrO2, and a concentration-dependent quenching of the PL intensity on TiO2. The Li+-induced spectroscopic changes were found to be reversible by varying the electrolyte composition. Time-resolved absorption measurements demonstrate that the presence of lithium cations increases the quantum yield for interfacial charge separation with no discernible influence on the rate of charge recombination. A second-order kinetic model quantified charge recombination transients. A model is proposed wherein Li+ ion adsorption stabilizes TiO2 acceptor states resulting in energetically more favorable interfacial electron transfer. The generality of this model was explored with different electrolytes and sensitizers. In regenerative solar cells, the addition of Li+ increases both the efficiency and long wavelength sensitivity of the cell.

Keywords: Titanium-Dioxide Films, Flat-Band Potentials, Spectroscopic Determination, Photoelectrochemical Cells, Electron-Transport, Quantum Yields, State, Photosensitization, Conversion, Energetics

Qiao, S., Wang, K. and Hu, X. (2000), Using local IAST with micropore size distribution to predict multicomponent adsorption equilibrium of gases in activated carbon. *Langmuir*, **16** (3), 1292-1298.

Full Text: [L\Langmuir16, 1292.pdf](L/Langmuir16,%201292.pdf)

Abstract: A mathematical model is proposed to predict multicomponent adsorption equilibrium of gases in a heterogeneous activated carbon. The model, called MPSD-IAST, assumes a micropore size distribution (MPSD) to represent the energetic heterogeneity of adsorbent and uses the ideal adsorbed solution theory (IAST) to describe the local multicomponent adsorption equilibrium within a given pore. The overall adsorption isotherm is the integral of the local adsorbed-phase concentration over the complete pore size distribution range accessible to the adsorbate molecule. The adsorbate-adsorbent interaction energy is related to micropore size via the Lennard-Jones potential theory, and the size exclusion effect is taken into account in the competitive adsorption of different species for a given pore. TheMPSD-IASTmodel predictions are examined with the equilibrium data of mixed gases measured on two commercial activated carbons (Ajax and Norit). The results are compared with those obtained using a MPSD-EL model where the local adsorption isotherm is described by an extended Langmuir equation.

? Valyon, J., Onyestyak, G. and Rees, L.V.C. (2000), A frequency-response study of the diffusion and sorption dynamics of ammonia in zeolites. *Langmuir*, **16** (3), 1331-1336.

Full Text: [L\Langmuir16, 1331.pdf](L/Langmuir16,%201331.pdf)

Abstract: The dynamics of diffusion and sorption of NH3 was studied in zeolites Na-A, K-A, Na-X, H-Y, H-mordenite, and H-ZSM-5. The batch frequency-response (FR) technique was applied. The NH3 pressure was 133 Pa and the temperature was in the 373-873 K range. The FR spectrawere interpreted according to the model of the isotherm, batch-type FR system containing uniform, isotropic, and spherical sorbent particles. Results suggest that any one of the consecutive process steps of the ammonia transport between the gas and the sorbent can control the rate of the process under the near-equilibrium conditions of the measurement. The nature of the rate-controlling step depends on the structure, composition, and size of the sorbent particles. Diffusion in the macropores was found to determine the rate in commercial zeolite pellets and in large particles built of aggregated zeolite crystallites. When this rate-controlling process was eliminated by grinding the particles, either micropore diffusion or sorption became the slowest rate-controlling step. The dimensions of NH3 molecules and the free diameter of the pores of zeolite K-A are comparable. As a result, the diffusion resistance of the zeolitic micropores controls the NH3 mass transport. The other zeolite samples have wider channels and bind ammonia more strongly than K-A. Owing to the high NH3 coverage and activation energy of desorption, the adsorption-desorption process was much slower than the rate of diffusion. For H-zeolites, different parallel transports could be distinguished. A fast process, dominating at high near-equilibrium ammonia coverage, was assigned to sorption on Lewis acid sites, such as NH4+ ions. The slower processes, appearing mainly at lower coverage, can represent the direct interactions between the NH3 and the Bronsted acid sites. The FR method can be effectively used for most of the zeolites to characterize the dynamics of NH3 sorption.

KeyWords: Temperature-Programmed Desorption, Molecular-Sieves, Probe Molecules, Surface, AciditY, NMR, Sites, NH3

Jeunieau, L., Verbouwe, W., Rousseau, E., Van der Auweraer, M. and Nagy, J.B. (2000), Interaction of an oxa- and thiacarbocyanine dye and silver halide nanoparticles synthesized in a microemulsion system. *Langmuir*, **16** (4), 1602-1611.

Full Text: [L\Langmuir16, 1602.pdf](L/Langmuir16,%201602.pdf)

Abstract: Silver halide particles were synthesized in a water-in-oil microemulsion consisting of AOT (sodium bis 2-ethylhexylsulfosuccinate)/n-heptane/Water. The study of the interaction of an oxa- and a thiacarbocyanine with the particles suggested that only the thiacarbocyanine was adsorbed. To determine the site of adsorption of the thiacarbocyanine, the influence of the particle charge on the adsorption was investigated. The adsorption of the 1, 1’-sulfopropyl-5, 5’-dichloro-9-ethyl thiacarbocyanine occurs by the interaction between the ring sulfur atom and the silver ion in the case of silver bromide and by the interaction between the nitrogen atom and the chloride ion in the case of silver chloride. NMR experiments have shown the adsorption of water and methanol molecules on the particles. Finally, stationary and time-resolved fluorescence measurements indicate a quenching effect of the dye fluorescence by the particles, suggesting that the dye molecules could be suitable for the spectral sensitization.

Keywords: Reversed Micelles, Electron-Transfer, Cyanine Dyes, Water, Size, Particles, Aggregate, Dynamics, Bromide, State

Ravikovitch, P.I., Vishnyakov, A., Russo, R. and Neimark, A.V. (2000), Unified approach to pore size characterization of microporous carbonaceous materials from N2, Ar, and CO2 adsorption isotherms. *Langmuir*, **16** (5), 2311-2320.

Full Text: [L\Langmuir16, 2311.pdf](L/Langmuir16,%202311.pdf)

Abstract: Wepresent a unified approach to pore size characterization of microporous carbonaceous materials such as activated carbon and carbon fibers by nitrogen, argon, and carbon dioxide adsorption at standard temperatures, 77 K for N2 and Ar and 273 K for CO2. Reference isotherms of N2, Ar, and CO2 in a series of model slit-shaped carbon pores in the range from 0.3 to 36 nm have been calculated from the nonlocal density functional theory (NLDFT) using *validated parameters* of intermolecular interactions. Carbon dioxide isotherms have also been generated by the grand canonical Monte Carlo (GCMC) method based on the 3-center model of Harris and Yung. The validation of model parameters includes three steps: (1) prediction of vapor-liquid equilibrium data in the bulk system, (2) prediction of adsorption isotherm on graphite surface, (3) comparison of theNLDFTadsorption isotherms in pores to those ofGCMCsimulations, performed with the parameters of fluid-fluid interactions, which accurately reproduce vapor-liquid equilibrium data of the bulk fluid. Pore size distributions are calculated by an adaptable procedure of deconvolution of the integral adsorption equation using regularization methods.Thedeconvolution procedure implies the same grid of pore sizes and relative pressures for all adsorbates and the intelligent choice of regularization parameters. We demonstrate the consistency of our approach on examples of pore structure characterization of activated carbons from adsorption isotherms of different gases and from different models (NLDFT and GCMC). Since the CO2 isotherms measured up to 1 atm are not sensitive to pores wider then 1 nm, the NLDFT method for CO2 has been extended to high-pressure CO2 adsorption up to 34 atm. The methods developed are suggested as a practical alternative to traditional phenomenological approaches such as DR, HK, and BJH methods.

Gun’ko, V.M., Leboda, R., Marciniak, M., Grzegorczyk, W., Skubiszewska-Zieba, J., Malygin, A.A. and Malkov, A.A. (2000), CVD-titania/silica gel carbonized due to pyrolysis of cyclohexene. *Langmuir*, **16** (7), 3227-3243.

Full Text: [L\Langmuir16, 3227.pdf](L/Langmuir16,%203227.pdf)

Abstract: Titania/silica gels covered by a carbon layer using pyrolysis of cyclohexene at 973 K and containing different amounts of titania (C-TiO2), and carbon deposit (Cc) have been studied by means of pyrolysis kinetics, nitrogen adsorption/desorption, TEM, IR spectroscopy, differential thermogravimetry, and theoretical methods. The pyrolysis rate depends on the concentration and the characteristics of a titania phase, as anatase, which forms at a lower synthetic temperature in comparison with rutile, catalyzes this process more strongly than rutile does. The adsorbent mesoporosity decreases with increasing concentrations of titania and carbon covering the oxide surface mainly in mesopores, but in the case of C/SiO2, carbon can be also grafted onto the outer surface of silica. The microporosity (maximal for binary systems C/SiO2 or TiO2/SiO2), of carbon/titania/silica gels is relatively low and changes slightly with increasing deposit concentration. The influence of carbon on the specific surface area of the adsorbents is weaker than that of titania due to not only the difference in the morphology of these deposits per se but also the types of their distributions and contacts between grafted matters and substrate surfaces. Carbon deposit reduces the amount of adsorbed water to a greater extent than titania does. Theoretical modeling of C/TiO2/SiO2 and pyrolysis of cyclohexene has been performed using different quantum chemical methods and molecular mechanics.

Keywords: Polanyi-Dubinin Theory, Adsorption-Isotherm Equation, Surface Fractal Dimension, Microporous Carbon, H1-NMR Spectroscopy, Mineral Adsorbents, Semiempirical Methods, Polyfurfuryl Alcohol, Nitrogen Adsorption, Gas-Chromatography

Liu, A.G. and Gonzalez, R.D. (2000), Modeling adsorption of copper(II), Cadmium(II) and lead(II) on purified humic acid. *Langmuir*, **16** (8), 3902-3909.

Full Text: [L\Langmuir16, 3902.pdf](L/Langmuir16,%203902.pdf)

Abstract: In this study, a system consisting of Pb, Cu and Cd as typical heavy metal pollutants, and purified Aldrich humic acid as a representative of natural organic materials were selected as prototypes La model the environmental system. The effect of environmental factors such as pH, salinity, and concentration on the interaction between metals and humic acid were investigated in detail. The experimental results show that pH and ionic strength are: the most important variables in controlling metal adsorption on humic acid. The results also show a high complexation capacity of humic acid for the metals, especially Cu and Pb, The strength of binding of the three metals is in the sequence of Pb > Cu > Cd. A theoretical model featured by surface complexation reactions and double layer theory combined with the Poisson-Boltzmann equation was applied to simulate the experimental data. Titration data of humic acid with NaOH and Ba (OH)2 were used as concentrations of strong and weak acid groups on HA and the input; data for the model calculations. Intrinsic adsorption constants and capacitance are estimated based on literature values and optimized to obtain the best agreement between the experimental and the model results. The model was also used to predict surface properties such as the speciation of the metals adsorbed on humic acid. Good agreement between theoretical modeling results and experimental data suggests the applicability of the theoretical model to this system. Given these parameters, theoretical calculations obtained using the model proposed in this study can give a detailed picture of the actual environmental conditions. Also, the model calculations will help in the evaluation of the actual toxicity of heavy metal pollutants in the aquasystem.

Keywords: Natural-Waters, Heterogeneous Surfaces, Affinity Distributions, Complexation Reactions, Proton Binding, Fulvic-Acids, Substances, Ions, pH, Sorption

Notes: highly cited

? Zheng, J.W., Zhu, Z.H., Chen, H.F. and Liu, Z.F. (2000), Nanopatterned assembling of colloidal gold nanoparticles on silicon. *Langmuir*, **16** (10), 4409-4412.

Full Text: [2000\Langmuir16, 4409.pdf](2000/Langmuir16,%204409.pdf)

Abstract: A quasi-one-dimensional (quasi-1D) Au nanocolloids array has been fabricated on silicon by combining the techniques of atomic force microscopy (AFM)-based nanooxidation and chemical assembling of colloidal nanoparticles. The silicon substrate, modified with an octadecyltrichlorosilane (OTS) monolayer, was first subjected to a localized chemical oxidation by using conductive AFM to form silicon oxide lines. After further modification of the oxidized region with an aminopropyltriethoxylsilane (APTES) monolayer via selective chemical adsorption, the substrate was exposed to a colloidal suspension of gold for deposition of gold nanoparticles, It is found that the Au nanoparticles can be selectively immobilized onto the AFM tip-defined amino-terminating regions of the silicon surface, forming quasi-1D gold nanoparticle arrays. The patterned structure is highly controllable and reproducible, which, we believe, will contribute to studies of nanodevices and mesoscopic phenomena.

Keywords: Monolayers, Surfaces, Nanocrystals, Architecture, Temperature, Nucleation

Qiao, S., Wang, K. and Hu, X. (2000), Study of binary adsorption equilibrium of hydrocarbons in activated carbon using micropore size distribution. *Langmuir*, **16** (11), 5130-5136.

Full Text: [L\Langmuir16, 5130.pdf](L/Langmuir16,%205130.pdf)

Abstract: Adsorption equilibria of gases on Norit activated carbon were measured using a differential adsorber bed rig. The binary gas mixtures between three hydrocarbon gases, i.e., methane, ethane, and propane, were employed in the experiment as adsorbates. The experimental equilibrium data were used to examine the predictive capability of the multicomponent equilibrium model, which utilizes the concept of micropore size distribution and Lennard-Jones potential theory to describe the adsorption energetic heterogeneity on activated carbon. The effects of the minimum size of pores accessible to adsorbates and the constraint in the saturation adsorption capacity of the extended Langmuir equation on the prediction performance are investigated within the model.

Notes: highly cited

? Liu, J.Y., Cheng, L., Li, B.F. and Dong, S.J. (2000), Covalent modification of a glassy carbon surface by 4-aminobenzoic acid and its application in fabrication of a polyoxometalates-consisting monolayer and multilayer films. *Langmuir*, **16** (19), 7471-7476.

Full Text: [2000\Langmuir16, 7471.pdf](2000/Langmuir16,%207471.pdf)

Abstract: 4-Aminobenzoic acid (4-ABA) was covalently grafted on a glassy carbon electrode (GCE) by amine cation radical formation in the electrooxidation process of the amino-containing compound. X-ray photoelectron spectroscopy measurement proves the presence of 4-carboxylphenylamine monolayer on the GCE. The redox responses of various electroactive probes were investigated on the 4-ABA-modified GCE. Electron transfer to Fe(CN)(6)(3-) in solutions of various pHs was studied by both cyclic voltammetry and electrochemical impedance analysis on the modified electrode. Changes in the solution pH value result in the variation of the terminal group charge state, based on which surface pK(a) values are estimated. The 4-ABA-modified GCE was used as a suitable charged substrate to fabricate polyoxometalates-consisting (POM-consisting) monolayer and multilayer films through layer-by-layer assembly based on electrostatic attraction. Cyclic voltammetry shows the uniform growth of these three-dimensional multilayer films. Taking K10H3[Pr-(SiMo7W4O39)(2)]. H2O (abbreviated as Pr(SiMo7W4)(2)), for example, the preparation and electrochemical behavior of its monolayer and multilayer film had been investigated in detail. This modification strategy is proven to be a general one suitable for anchoring many kinds of POMs on the 4-ABA-modified GCE.

Keywords: Electrochemical-Behavior, Diazonium Salts, Modified Electrodes, Protein Adsorption, Ascorbic-Acid, Reduction, Complex, Gold, Permselectivity, Sensitivity

Ivanisevic, A., Ellis, A.B., Ashkenasy, G., Shanzer, A. and Rosenwaks, Y. (2000), Linker-enhanced binding of metalloporphyrins to cadmium selenide and implications for oxygen detection. *Langmuir*, **16** (20), 7852-7858.

Full Text: [L\Langmuir16, 7852.pdf](L/Langmuir16,%207852.pdf)

Abstract: Adsorption of trivalent metalloporphyrins from nitrogen-saturated chloroform solution onto etched n-CdSe crystals causes a profound reversible quenching of the semiconductor’s photoluminescence (PL). The PL responses due to the presence of (MDMPPCl)-D-III and MmTPPCl (DMPPCl = protoporphyrin IX dimethyl eater chloride; TPP = tetraphenylporphyrin; M = Fe, Mn) exhibit a concentration dependence that can be fit to the Langmuir adsorption isotherm model to yield binding constants of 104-105 M-1. The CdSe surface may be modified by adsorption from solution of specifically designed linker ligands (1-4). These ligands are able to bind to the semiconductor surface through one end and to ligate a heme analogue axially on the other end. Surfaces derivatized by each of the linkers showed concentration-dependent metalloporphyrin-induced PL changes, corresponding to roughly order-of-magnitude increases in binding constants to 105 to 106 M-1. Films of linker-metalloporphyrin complexes were coated onto the semiconductor substrates and characterized by X-ray photoelectron (XPS) spectroscopy. The linker-metalloporphyrin films can be used as transducers for dioxygen detection. Relative to a nitrogen ambient, the PL of CdSe samples coated with 1-3 is reversibly quenched by exposure to oxygen (binding constants of similar to 1-10 atm-1; detection limit of similar to 0.1 atm), while bare CdSe surfaces show no response to dioxygen. These coated CdSe samples were further characterized by contact potential difference (CPD) and time-resolved photoluminescence (TRPL), which suggest that oxygen-induced PL changes are due to variations in the electric field present in the semiconductor substrate.

Keywords: Chemical Sensor Arrays, Photoluminescent Properties, Dicarboxylic-Acids, Adduct Formation, Monolayers, Contact, Films, Reconstitution, Luminescence, Porphyrins

Notes: highly cited

Kadirvelu, K., Faur-Brasquet, C. and Le Cloirec, P. (2000), Removal of Cu(II), Pb(II), and Ni(II) by adsorption onto activated carbon cloths. *Langmuir*, **16** (22), 8404-8409.

Full Text: [L\Langmuir16, 8404.pdf](L/Langmuir16,%208404.pdf)

Abstract: The adsorption of three metal ions, Cu(II), Ni(II), and Pb(II), is performed by activated carbon cloths (ACC). Two adsorbents, CS 1501 (with more than 96% of micropore volume) and RS 1301 (with 32% of mesopore volume), are studied. Batch experiments are carried out to assess kinetic and equilibrium parameters. They allow kinetic data, transfer coefficients, and maximum adsorption capacities to be computed. These parameters show the fast external film transfer of metal ions on fibers, because of their low diameter (10 µm). Intraparticular diffusion coefficients are lower than those obtained with a granular activated carbon, but maximum adsorption capacities agree with literature values for GAC. They show the dependency of adsorption on metal ion size and ACC porosity, the largest cation Pb(II) being more adsorbed by the mesoporous cloth. The pH effect is studied, and pH adsorption edges are determined. They are short, only 2 pH units, and located below the precipitation edges. A decrease of equilibrium pH with an increase of metal ion concentration, coupled with a regeneration study of saturated ACC by HCl, lead us to propose an adsorption mechanism by ion-exchange between metal cations and H+ ions at the ACC surface. Carboxylic groups seem especially involved in this mechanism, and precipitation between metal ions could happen.

Keywords: Heavy-Metals, Single, Water, Fibers, Copper, Strength, Cadmium, Cd, pH

? Ismadji, S. and Bhatia, S.K. (2000), Investigation of network connectivity in activated carbons by liquid phase adsorption. *Langmuir*, **16** (24), 9303-9313.

Full Text: [2000\Langmuir16, 9303.pdf](2000/Langmuir16,%209303.pdf)

Abstract: The connectivity of the pore network is an important aspect of the structure of porous materials. In this paper we propose a simple percolation theory based method for the determination of pore network connectivity of microporous carbons, using liquid-phase adsorption isotherm data combined with a DFT based pore size distribution. Aqueous phase esters were used as model adsorptives in the experiments, and the isotherms interpreted by the pore filling approach. The Dubinin-Radushkevich equation was modified for nonideality of the bulk phase, which yielded improved correlation of the adsorption data. Based on the estimated saturation capacities, the network coordination number of the carbon adsorbent was determined by the proposed method. In addition, the critical molecular sizes of model esters used in this study, which are largely unknown, were also extracted, and the results quantitatively matched those obtained theoretically from simulation of the molecular structure of the esters.

Keywords: Activated Carbons, Adsorption, Adsorption Isotherm, Carbon, Connectivity, Isotherm, Isotherms, Liquid-Phase Adsorption, Mesopores, Microporous Carbons, Model, Network Connectivity, Nitrogen Sorption Measurements, Pore Filling, Pore-Size, Porous Solids, Simulation, Theory

Le Calvez, E., Blaudez, D., Buffeteau, T. and Desbat, B. (2001), Effect of cations on the dissociation of arachidic acid monolayers on water studied by polarization-modulated infrared reflection-absorption spectroscopy. *Langmuir*, **17** (3), 670-674.

Full Text: [L\Langmuir17, 670.pdf](L/Langmuir17,%20670.pdf)

Abstract: We report on the variation of the dissociation of a Langmuir monolayer of arachidic acid at the air/water interface as a function of the subphase pH and for several cations (Cd2+, Ca2+, Mg2+, and Na+) with the help of the polarization-modulated infrared reflection-absorption spectroscopy (PM-IRRAS) method. The infrared spectra give access to the relative concentration of acid and salt molecules and allow us to determine the influence of the subphase pH on the acid dissociation reaction for each cation. It is shown that Na+ obeys the purely electrostatic Gouy-Chapman theory quite well, whereas the behavior of Mg2+, and even more so that of Ca2+ and Cd2+, requires the introduction of some complexation constant to be understood.

Keywords: Lipid Monolayers, IR Spectroscopy, Interface, Surfactant, pH, Derivatives, Indicators, Spread, Probes, Pure

Chen, B.N., Hui, C.W. and McKay, G. (2001), Pore-surface diffusion modeling for dyes from effluent on pith. *Langmuir*, **17** (3), 740-748.

Full Text: [L\Langmuir17, 740.pdf](L/Langmuir17,%20740.pdf)

Abstract: A new pore-surface diffusion model (PSDM) for batch adsorption systems based on shrinking core theory has been developed. The new PSDM incorporates pore and surface diffusion into a variable effective diffusion coefficient, but the contributions from both pore and surface diffusion are evaluated independently. A further advantage of the new model is that it incorporates a time dependent surface diffusivity based on surface adsorbate concentration. The predicted results have been compared using four sets of experimental data for the batch adsorption of dyes on pith.

Keywords: Liquid-Phase Adsorption, External Mass-Transfer, Activated Carbon, Concentration-Dependence, Aqueous-Solutions, Basic Dye, Batch, Dyestuffs, Particles, Silica

Ismadji, S. and Bhatia, S.K. (2001), A modified pore-filling isotherm for liquid-phase adsorption in activated carbon. *Langmuir*, **17** (5), 1488-1498.

Full Text: [L\Langmuir17, 1488.pdf](L/Langmuir17,%201488.pdf)

Abstract: This article modifies the usual form of the Dubinin-Radushkevich pore-filling model for application to liquid-phase adsorption data, where large molecules are often involved. In such cases it is necessary to include the repulsive part of the energy in the micropores, which is accomplished here by relating the pore potential to the fluid-solid interaction potential. The model also considers the nonideality of the bulk liquid phase through the UNIFAC activity coefficient model, as well as structural heterogeneity of the carbon. For the latter the generalized adsorption integral is used while incorporating the pore-size distribution obtained by density functional theory analysis of argon adsorption data. The model is applied here to the interpretation of aqueous phase adsorption isotherms of three different esters on three commercial activated carbons. Excellent agreement between the model and experimental data is observed, and the fitted Lennard-Jones size parameter for the adsorbate-adsorbate interactions compares well with that estimated from known critical properties, supporting the modified approach. On the other hand, the model without consideration of bulk nonideality, or when using classical models of the characteristic energy, gives much poorer bts of the data and unrealistic parameter values.

Keywords: Dubinin-Radushkevich Equation, Micropore-Size Distribution, Benzene Vapor Adsorption, Slit-Like, Heterogeneity, Dimensions, Surface, Solids, Fibers

Stoeckli, F., López-Ramón, M.V. and Moreno-Castilla, C. (2001), Adsorption of phenolic compounds from aqueous solutions, by activated carbons, described by the Dubinin-Astakhov equation. *Langmuir*, **17** (11), 3301-3306.

Full Text: [L\Langmuir17, 3301.pdf](L/Langmuir17,%203301.pdf)

Abstract: It is shown that the adsorption of phenol and 3-chlorophenol from aqueous solutions, by basic active carbons and at an equilibrium solution pH below that of dissociation of the phenols, can be described by an equation of the DRK type with exponent n = 4. The principle of temperature invariance is fulfilled between 283 and 313 K, which means that predictions can be made on the basis of a characteristic energy, E-s, and of affinity coefficients, beta (s), relative to phenol. This approach presents an advantage over the traditional Langmuir isotherm. Moreover, the comparison of the limiting amounts adsorbed by the different carbons suggests that phenol and 3-chlorophenol are adsorbed in a monolayer as observed for carbon blacks, except in the case of activated carbons with a low degree of activation in which molecular-sieve effects can take place. Similar conclusions are obtained from the enthalpies of immersion into the aqueous solutions and their comparison with graphitized carbon blacks.

Keywords: Water-Adsorption, Bituminous Coal, Temperature, Adsorbents

Dantas, T.N.D., Neto, A.A.D., Moura, M.C.P., Neto, E.L.B. and Telemaco, E.D. (2001), Chromium adsorption by chitosan impregnated with microemulsion. *Langmuir*, **17** (14), 4256-4260.

Full Text: [L\Langmuir17, 4256.pdf](L/Langmuir17,%204256.pdf)

Abstract: Removal of chromium(III) from aqueous solutions by chitosan impregnated with a microemulsion was investigated. The modified chitosan showed a remarkable increase in chromium sorption capacity as compared to an untreated sample. Dynamic column experiments were performed to study the influence of pH, concentration, and the presence of others metal ions (copper and nickel) in the chromium solutions. The adsorption process is pH-dependent, and the amount of Cr(III) retained increases with increasing heavy metal initial concentration. It can be observed that the best bed efficiency was for copper, followed by chromium and then nickel. The nature of chromium(III) adsorption equilibrium at different temperatures (30, 40, and 50 degreesC) was investigated, and the Freundlich and Langmuir isotherm models were applied to fit the experimental data. The uptake process obeys the Langmuir isotherm. Following the adsorption step, the desorption process was carried out using several eluant solutions. The best results were obtained using strongly acidic solutions as eluants.

Keywords: Waste-Water, Aqueous-Solutions, Removal, Effluent, Cr(VI), Ions

Piñeiro, Á., Brocos, P., Amigo, A., Gracia-Fadrique, J. and Lemus, M.G. (2001), Extended Langmuir isotherm for binary liquid mixtures. *Langmuir*, **17** (14), 4261-4266.

Full Text: [L\Langmuir17, 4261.pdf](L/Langmuir17,%204261.pdf)

Abstract: A new model for describing the surface tension of binary liquid mixtures as a function of the bulk composition over the whole concentration range is presented. We first derive an equation relating surface and bulk volume fractions that generalizes the Langmuir isotherm so as to cover the entire range of concentrations. By combining this isotherm with a new mixing rule for nonideal solutions, we obtain an equation with two adjustable parameters, one measuring the lyophobicity of one component and the other accounting for the effect of molecular interactions. The model provides an excellent description of surface tension data for a wide variety of solutions with pi (0) = sigma (A) - sigma (B) values ranging from 2.2 to 51.0 mN/m.

Keywords: Surface-Tension, Equation

Calonder, C. and Van Tassel, P.R. (2001), Kinetic regimes of protein adsorption. *Langmuir*, **17** (14), 4392-4395.

Full Text: [L\Langmuir17, 4392.pdf](L/Langmuir17,%204392.pdf)

Abstract: We use single-mode, optical waveguide lightmode spectroscopy to measure the mass of protein adsorbed at the waveguide/liquid interface at a frequency and precision sufficient to achieve sets of adsorption rate data (d Gamma /dt, where Gamma is the adsorbed protein density) that clearly delineate distinct diffusion- and reaction-limited kinetic regimes. These data suggest that the adsorption can be modeled by combining a particle approach at the surface with a boundary layer approach above the surface. The rate-limiting mechanisms responsible for the observed kinetic regimes appear as ‘resistors’ in our transport/adsorption model.

Keywords: Der-Waals Contributions, Sequential Adsorption, Irreversible Adsorption, Conformational Change, Solid-Surfaces, Serum-Albumin, Model, Desorption, Macromolecules, Transition

? Frost, R.L., Mako, E., Kristof, J., Horvath, E. and Kloprogge, J.T. (2001), Modification of kaolinite surfaces by mechanochemical treatment. *Langmuir*, **17** (14), 4731-4738.

Full Text: Langmuir17, 4731

? Jia, Y.F., Xiao, B. and Thomas, K.K. (2002), Adsorption of metal ions on nitrogen surface functional groups in activated carbon. *Langmuir*, **18** (??), 470-478.

Full Text: Langmuir18, 470

Cheung, C.W., Porter, J.F. and McKay, G. (2002), Removal of Cu(II) and Zn(II) ions by sorption onto bone char using batch agitation. *Langmuir*, **18** (3), 650-656.

Full Text: [L\Langmuir18, 650.pdf](L/Langmuir18,%20650.pdf)

Abstract: The sorption rate of copper and zinc ions onto bone char around pH 5 has been studied using a batch agitation system. The calcium hydroxyapatite, which is the main composition in bone char, removes the metal ions by means of adsorption and ion exchange from the solutions. When the pH values of solutions are adjusted to pH 4 or below, the X-ray desorption patterns show the degrees of the crystalline of hydroxyapatite in the bone char reducing. Therefore, the sorption process for the metal ions removal from effluent is recommended to control around pH 5 or above to reduce the loss of the sorbent. In addition, the experimental data from the adsorption isotherms and batch kinetics studied were correlated using the Langmuir equation and a film-pore diffusion mass transport model. The Langmuir parameters were incorporated into the film-pore diffusion model to correlate the batch kinetic data. The constant pore diffusivities for the sorption of copper and zinc ions onto bone char are equivalent to 6.67×10-7 and 6.32×10-7 cm2/s, respectively. The film-pore diffusion model shows slight deviation to the experimental data when the solution is in high concentration or when the volume-to-mass ratio is low.

Keywords: Synthetic Hydroxyapatites, Adsorption, Immobilization, Diffusion

Pérez, P., Teijeiro, C. and Marín, D. (2002), Study on the adsorption properties of the drug mitomycin C by stripping voltammetry. *Langmuir*, **18** (5), 1760-1763.

Full Text: [L\Langmuir18, 1760.pdf](L/Langmuir18,%201760.pdf)

Abstract: The adsorption of the antineoplastic drug mitomycin C (MC) on the hanging mercury drop electrode (HMDE) surface by means of stripping voltammetry measurements is studied. With this technique, a cathodic peak is obtained at -0.47 V (vs Ag/AgCl) in phosphate buffer pH 7.1 after accumulation onto HMDE surface by applying -0.35V. Peak current variations with the accumulation time, MC concentration, and temperature are presented. The Langmiuir isotherm is employed for adjusting the experimental results, and the values of the Gibbs free energy, enthalpy, and entropy of adsorption are calculated, the adsorption process being entropically governed. The results and data presented can provide useful information on the mechanism of penetration across the cellular membrane, which is of clinical interest since MC exerts its antineoplastic activity by interaction with biological membranes.

Keywords: Membrane Interaction, Cyclic Voltammetry, Exchange Membrane, Dissolution, DNA

Paunov, V.N., Binks, B.P. and Ashby, N.P. (2002), Adsorption of charged colloid particles to charged liquid surfaces. *Langmuir*, **18** (18), 6946-6955.

Full Text: [L\Langmuir18, 6946.pdf](L/Langmuir18,%206946.pdf)

Abstract: In this paper we present a thermodynamic model for the adsorption of charged colloidal particles to air-water and oil-water interfaces from water-based suspensions and derive the equations for the respective particle adsorption isotherms. The effects of electrolyte concentration, surface charge density of both the particles and the air-water (oil-water) interface, particle contact angle, and particle volume fraction are studied in detail. The model is based on a detailed account of the interfacial free energy of particles and electric double layer formation, as well as collective effects related to the free energy of mixing of the particles with the liquid phases (water and oil) and surface charge displacement. The effect of particle size on the adsorption at the air-water and the oil-water interfaces is discussed. An analytical expression for the distribution coefficient of particles between oil and water has been derived and discussed in terms of the effects of electrolyte, contact angle, surface charge, and oil-water interfacial tension. The predictions of the model are in accord with relevant experimental data. The results are directly relevant for understanding the behavior of solid particles as emulsifier agents and foam stabilizers and in the process of antifoaming and liquid-liquid extraction of minerals.

Keywords: Oil-Water Interface, Foam Stability, Clay Particles, Phase, Extraction, Desorption, Emulsions, Mixtures, Systems

Ko, D.C.K., Tsang, D.H.K., Porter, J.F. and McKay, G. (2003), Applications of multipore model for the mechanism identification during the adsorption of dye on activated carbon and bagasse pith. *Langmuir*, **19** (3), 722-730.

Full Text: [L\Langmuir19, 722.pdf](L/Langmuir19,%20722.pdf)

Abstract: A solution to the intraparticle diffusion model has been developed on the basis of the pore structure of adsorbents. This global model incorporates the mechanism of external film mass transport, intraparticle macropore surface diffusion, and adsorption at the surface in the micropores limited by a first-order reaction kinetic rate constant. To assess the model, it has been applied to the adsorption of acid and basic dyes onto two adsorbents, active carbon and bagasse pith. The two adsorbents were selected because of their differences: active carbon has a large BET surface area and microporous structure, whereas bagasse pith has a small surface area and only a spongelike macropore structure. The branched pore model developed and tested is able to distinguish these physical-structural characteristic differences between the two adsorbents using two very different adsorbates.

Keywords: Surface-Diffusion-Model, Liquid-Phase Adsorption, Highly Porous Chitosan, Aqueous-Solutions, Concentration-Dependence, Organic Solutes, Reactive Dyes, Mass-Transfer, Acid Dyes, Equilibria

Zhao, G.X.S., Lee, J.L. and Chia, P.A. (2003), Unusual adsorption properties of microporous titanosilicate ETS-10 toward heavy metal lead. *Langmuir*, **19** (6), 1977-1979.

Full Text: [L\Langmuir19, 1977.pdf](L/Langmuir19,%201977.pdf)

Abstract: Microporous titanosilicate ETS-10 was synthesized by using TiF4 as, the Ti source and characterized by using X-ray iffraction, Fourier transform infrared and Raman spectroscopies, and nitrogen adsorption. The adsorption properties of heavy metal ion Pb2+ on the ETS-10 sample were studied by measuring the adsorption kinetics and equilibria using a batch-type method. It has been observed that the adsorption rate of Pb2+ on ETS-10 is extremely rapid: less than 5 s is required to attain maximum adsorption capacity in a 10 mmol/L solution with a batch factor of 200 mL/g. The kinetic data can be fitted very well by a pseudo-second-order model, whereas the equilibrium data are better fitted to the Langmuir isotherm than to the Freundlich isotherm. The maximum adsorption capacity of Pb2+ on ETS-10 as predicted by the Langmuir equation is 1.12 mmol/g. This is the highest adsorption capacity of Pb2+ on zeolites that has been observed so far.

Ho, K.Y., McKay, G. and Yeung, K.L. (2003), Selective adsorbents from ordered mesoporous silica. *Langmuir*, **19** (7), 3019-3024.

Full Text: [L\Langmuir19, 3019.pdf](L/Langmuir19,%203019.pdf)

Abstract: Ordered mesoporous silica adsorbents were prepared by grafting amino- and carboxylic-containing functional groups onto MCM-41 for the removal of Acid blue 25 and Methylene blue dyes from wastewater. The amino-containing OMS-NH2 adsorbent has a large adsorption capacity and a strong affinity for the Acid blue 25. It can selectively remove Acid blue 25 from a mixture of dyes (i.e., Acid blue 25 and Methylene blue). The OMS-COOH is a good adsorbent for Methylene blue displaying excellent adsorption capacity and selectivity for the dye. The better selectivity of the OMS-based adsorbents means longer operating life and less maintenance. Furthermore, these adsorbents can be regenerated by simple, washing with alkaline or acid solution to recover both the adsorbents and the adsorbed dyes.

Keywords: Molecular-Sieves, Pore Diffusion, MCM-41, Adsorption, Acid, Trimethylsilylation, Stabilization, Epoxidation, Oxidation, Isotherms

? McAloney, R.A., Dudnik, V. and Goh, M.C. (2003), Kinetics of salt-induced annealing of a polyelectrolyte multilayer film morphology. *Langmuir*, **19** (9), 3947-3952.

Full Text: [2003\Langmuir19, 3947.pdf](2003/Langmuir19,%203947.pdf)

Abstract: The layer-by-layer (LBL) adsorption of polyelectrolytes onto charged surfaces from aqueous solutions produces multilayered surface structures. A multilayer film of polydiallyldimethylammonium chloride (PDDA) and polystyrenesulfonic acid, sodium salt (PSS), prepared using 1.0 M NaCl in the polymer solutions, has a vermiculate morphology with roughness greater than 30 nm. Atomic force microscopy (AFM) investigations show that the morphology of the films can be annealed by the introduction of salt solutions of various concentrations. Roughness measurements taken at various times after immersion in salt solution indicate that the decrease in surface roughness is consistent with second-order kinetics. A model is proposed to explain the morphology annealing that relies on the presence of salt ions that free up polymer-polymer contacts, allowing new ones to form. The formation of new polymer-polymer contacts results in a new film morphology.

Keywords: Adsorption, Afm, Aqueous Solutions, Chloride, Devices, Force, Immersion, Investigations, Ions, Kinetics, Layers, Model, Morphology, Multilayer, NaCl, Nanoassemblies, Nanoparticles, Orientation, Polyelectrolytes, Polymer, Polymers, Salt, Second Order, Second Order Kinetics, Second-Order, Second-Order Kinetics, Sensor, Sodium, Solution, Solutions, Surface, Surface Roughness, Surfaces, Thin-Films

Cheung, C.W., Ko, D.C.K., Porter, J.F. and McKay, G. (2003), Binary metal sorption on bone char mass transport model using LAST. *Langmuir*, **19** (10), 4144-4153.

Full Text: [L\Langmuir19, 4144.pdf](L/Langmuir19,%204144.pdf)

Abstract: The binary sorption of Cu-Cd, Cd-Zn, and Cu-Zn onto bone char has been studied using an equilibrium and batch agitation system. The sorption capacities and the selectivity of metal ions onto bone char follows the order Cu2+ > Cd2+ > Zn2+, which is in the reverse order of the hydrated ionic radii. The binary sorption equilibria were predicted by the ideal adsorbed solution theory (IAST) on the basis of single component isotherm data using a Langmuir or Langmuir-Freundlich isotherm. The overall performance of the IAST provides a reasonable curve fitting to the experimental data. The single component film-pore diffusion model was extended to the multicomponent systems to correlate the batch kinetic data by incorporating the shrinking core model and the LAST. All the diffusivities in the binary systems are similar to or less than the pore diffusivities in single component systems.

Keywords: Activated Carbon, Heavy-Metals, Waste-Water, Adsorption-Isotherms, Single-Isotherm, Dye Adsorption, Ion-Exchange, Removal, Copper, Peat

Hui, C.W., Chen, B.N. and McKay, G. (2003), Pore-surface diffusion model for batch adsorption processes. *Langmuir*, **19** (10), 4188-4196.

Full Text: [L\Langmuir19, 4188.pdf](L/Langmuir19,%204188.pdf)

Abstract: A new pore-surface diffusion model (PSDM) for batch adsorption systems has been developed. The new PSDM incorporates pore and surface diffusion into a variable effective diffusion coefficient, but the contributions from both pore and surface diffusion are evaluated independently. This model is compared with two previous models, which were based on a ‘lumped’ effective diffusion coefficient, for which rapid analytical solutions have been developed. A further advantage of the new model is that it incorporates a time dependent surface diffusivity based on surface adsorbate concentration. Previous rapid analytical solutions to the effective pore diffusion models have assumed a constant time independent surface adsorbate concentration. The three models have been compared using four sets of experimental data for the batch adsorption of dyes onto wood and peat.

Keywords: 2 Dissolved Organics, Activated Carbon Columns, Adsorption, Basic Dye, Bovine Serum-Albumin, Competitive Adsorption, Concentration-Dependence, Dyes, Heavy-Metal Accumulation, Humic-Acid, Ion-Exchange, Mass-Transfer, Peat, Wood

Wong, Y.C., Szeto, Y.S., Cheung, W.H. and McKay, G. (2003), Equilibrium studies for acid dye adsorption onto chitosan. *Langmuir*, **19** (19), 7888-7894.

Full Text: [L\Langmuir19, 7888.pdf](L/Langmuir19,%207888.pdf)

Abstract: The ability of chitosan as an adsorbent for the removal of acid dyestuff, namely, acid green 25, acid orange 10, acid orange 12, acid red 18, and acid red 73, from aqueous solution has been studied. The experimental equilibrium data for the single component dye-chitosan systems have been analyzed using the linearized forms of Langmuir, Freundlich, and Redlich-Peterson isotherms. The Langmuir isotherm was found to provide the best theoretical correlation of the experimental data for the adsorption of all five acid dyes. On the basis of the Langmuir analysis, the monolayer adsorption (saturation) capacities were determined to be 645.1, 922.9, 973.3, 693.2, and 728.2 mg of dye per gram of chitosan for acid green 25, acid orange 10, acid orange 12, acid red 18, and acid red 73, respectively. The differences in adsorption capacities may be due to the effect of molecular size and the number of sulfonate groups of each dye. The results demonstrated that monovalent and/or smaller dye molecules have superior adsorption capacities due to an increase in the dye/chitosan ratio in the system. The smaller dye molecules are able to undertake a deeper penetration of dye into the internal pore structure of the chitosan particles.

Keywords: Waste Red Mud, Agricultural By-Products, Activated Carbon, Natural Adsorbents, Textile Effluents, Color Removal, Fullers Earth, Solid-Waste, Metal-Ions, Congo Red

Chen, J.P. and Wu, S.N. (2004), Acid/base-treated activated carbons: Characterization of functional groups and metal adsorptive properties. *Langmuir*, **20** (6), 2233-2242.

Full Text: [L\Langmuir20, 2233.pdf](L/Langmuir20,%202233.pdf)

Abstract: Surface modification of activated carbons by various physicochemical methods directs an attractive approach for improvement of heavy metal uptake from aqueous solutions. Activated carbons were modified with HCl and HNO3 optionally followed by NaOH. The effects of surface modifications on the properties of the carbons were studied by the specific surface area, carbon pH, and total acidity capacity as well as by scanning electron microscopy, X-ray photoelectron spectroscopy, and Fourier transform infrared spectroscopy. The modifications bring about substantial variation in the chemical properties whereas the physical properties remain nearly unchanged. NaOH causes an increase in the content of hydroxyl groups, while the HCl treatment results in an increase in the amount of single-bonded oxygen functional groups such as phenols, ethers, and lactones. The HNO3 modification generates a large number of surface functional groups such as carbonyl, carboxyl, and nitrate groups. The HNO3 modification significantly increases the copper adsorption, while the HCl treatment slightly reduces the copper uptake. Most of the copper ions are adsorbed rapidly in the first 2 h; the adsorption equilibrium is established in around 8 h. An intraparticle diffusion model successfully describes the kinetics of copper adsorption onto the carbons.

Keywords: Surface-Chemistry, Phosphoric-Acid, Organic-Compounds, Nitric-Acid, Fibers, Oxygen, Ions, Enhancement, Powder, Blacks

? Liu, Y.C. and Juang, L.C. (2004), Electrochemical methods for the preparation of gold-coated TiO2 nanoparticles with variable coverages. *Langmuir*, **20** (16), 6951-6955.

Full Text: [2004\Langmuir20, 6951.pdf](2004/Langmuir20,%206951.pdf)

Abstract: We report here the first electrochemical methods to prepare elemental Au(0)-coated TiO2 nanoparticles with controllable coverages. First, Au substrates were cycled in a deoxygenated aqueous solution containing 0.1 N HCl and 1 mM TiO2 nanoparticles from -0.28 to +1.22 V versus Ag/AgCl at 500 mV/s with different numbers of scans. The durations at the cathodic and anodic vertexes were 10 and 5 s, respectively. After this process, positively charged Au-coated TiO2 nanoparticles were formed in the solutions. Then a cathodic overpotential of 0.6 V from the open circuit potential of ca. 0.82 V versus Ag/AgCl was applied under sonication to synthesize elemental Au(0)-coated TiO2 nanoparticles. The coverage of Au shells in the elemental Au-coated TiO2 nanoparticles is varied from 10% to 95% by increasing the number of scans from 10 to 50 in preparing the positively charged Au-coated TiO2 nanoparticles. The extremely high coverage of 95% in this study is notable, as compared with other methods to prepare Au-coated TiO2 nanoparticles.

Keywords: Activation, Adsorption, Au Nanoparticles, Catalysts, Coverage, Enhanced Raman-Scattering, Fabrication, Films, Nanocomposites, Polypyrrole, Spectroscopy, Tio2, Tio2 Nanoparticles

? Gao, Y., Wahi, R., Kan, A.T., Falkner, J.C., Colvin, V.L. and Tomson, A.B. (2004), Adsorption of cadmium on anatase nanoparticles-effect of crystal size and pH. *Langmuir*, **20** (22), 9585-9593.

Full Text: [L\Langmuir20, 9585.pdf](L/Langmuir20,%209585.pdf)

Abstract: The adsorption and desorption of Cd2+ to large and nanometer-scale anatase crystals have been studied to determine the relationship between heavy metal adsorption properties and anatase particle size. A solvothermal method was used to synthesize very fine anatase nanocrystals with average grain sizes ranging from 8 to 20 nm. On a surface area basis, it was found that large and nanometer-scale anatase particles had similar maximum Cd2+ adsorption capacities, while their adsorption slopes differed by more than 1 order of magnitude. The particle-size effect on adsorption is constant over a pH range of 4-7.5. The desorption of Cd2+ from both particle sizes is completely reversible. The adsorption data have been modeled by the Basic Stern model using three monodentate surface complexes. It is proposed that intraparticle electrostatic repulsion may reduce the adsorption free energy significantly for nanometersized particles.

Keywords: Surface Complexation Models, Acid-Base Reactions, Heavy-Metal Ions, Sol-Gel Process, Titanium-Dioxide, TiO2 Anatase, Solution Interface, Aqueous-Solutions, Particle-Size, Ground-Water

? Choy, K.K.H., Porter, J.F. and McKay, G. (2004), Single and multicomponent equilibrium studies for the adsorption of acidic dyes on carbon from effluents. *Langmuir*, **20** (22), 9646-9656.

Full Text: [2004\Langmuir20, 9646.pdf](2004/Langmuir20,%209646.pdf)

Abstract: The ability of activated carbon to adsorb three acidic dyes, namely, Acid Blue 80 (AB80), Acid Red 114 (AR114), and Acid Yellow (AY117), from wastewater has been studied at 20degreesC. The three single-component systems and the three binary equilibrium systems have been measured experimentally. The three single component isotherms were analyzed using the Langmuir, Freundlich, Redlich-Peterson, and Sips equations. The Redlich-Peterson equation gave the lowest errors using the sum of the squares of the errors closely followed by the Sips and Langmuir equations; the Freundlich fits were significantly worse. The three bisolute experimental equilibrium sets of data were analyzed by incorporating the previous four single-component isotherm equations into the ideal adsorbed solution theory (IAST). The solution methods for each of the four isotherm equations are presented in the paper, and the predicted results for the three bisolute systems, using the four isotherm equations, are compared. For the three bisolute systems (AB80 + AR114, AB80 + AY117, and AR114 + AY117), the Redlich-Peterson isotherm gives the best correlation with the experimental isotherm data.

Keywords: Dilute Aqueous-Solutions, Adsorbed Solution Theory, Activated Carbon, Competitive Adsorption, Solute Adsorption, Organic-Compounds, Gas-Adsorption, Prediction, Sorption, Mixtures

Collins, S.E., Baltanás, M.A. and Bonivardi, A.L. (2005), Hydrogen chemisorption on gallium oxide polymorphs. *Langmuir*, **21** (3), 962-970.

Full Text: [L\Langmuir21, 962.pdf](L/Langmuir21,%20962.pdf)

Abstract: The chemisorption of H2 over a set of gallia polymorphs (alpha-, beta-, and gamma-Ga2O3) has been studied by temperature-programmed adsorption equilibrium and desorption (TPA and TPD, respectively) experiments, using in situ transmission infrared spectroscopy. Upon heating the gallium oxides above 500 K in 101.3 kPa of H2, two overlapped infrared signals developed. The 2003- and 1980-cm-1 bands were assigned to the stretching frequencies of H bonded to coordinatively unsaturated (cus) gallium cations in tetrahedral and octahedral positions [v(Ga(t)-H) and v(Ga(o)-H), respectively]. Irrespective to the gallium cation geometrical environment, (i) a linear relationship between the integrated intensity of the whole v(Ga-H) infrared band versus the Brunauer-Emmett-Teller surface area of the gallia was found and (II) TPA and TPD results revealed that molecular hydrogen is dissociatively chemisorbed on any bulk gallium oxide polymorph following two reaction pathways. An endothermal, homolytic dissociation occurs over surface cus-gallium sites at T > 450 K, giving rise to Ga-H(I) bonds. The heat and entropy of this type I hydrogen adsorption were determined by the Langmuir’s adsorption model as Deltah(I) = 155±25 kJ mol-1 and Deltas(I) = 0.27±0.11 kJ mol-1 K-1. In addition, another exothermic, heterolytic adsorption sets in already in the low-temperature region. This type of hydrogen chemisorption involves surface Ga-O-Ga species, originating GaO-H and Ga-H(II) bonds which can only be removed from the gallia surface after heating under evacuation at T > 650 K. The measured desorption energy of this last, second-order process was equal to 77±10 kJ mol-1. The potential of the H2 chemisorption as a tool to measure or estimate the specific surface area of gallia and to discern the nature and proportion of gallium cation coordination sites on the surface of bulk gallium oxides is also analyzed.

Keywords: Situ Infrared-Spectroscopy, High-Temperatures, Zinc Oxide, Adsorption Equilibrium, Surface-Chemistry, Absorption-Spectroscopy, FTIR Spectroscopy, Matrix-Isolation, Carbon-Monoxide, Reducing Gases

Notes: highly cited

? Wang, X.C., Yu, J.C., Ho, C.M., Hou, Y.D. and Fu, X.Z. (2005), Photocatalytic activity of a hierarchically macro/mesoporous titania. *Langmuir*, **21** (6), 2552-2559.

Full Text: [2005\Langmuir21, 2552.pdf](2005/Langmuir21,%202552.pdf)

Abstract: Light-harvesting macroporous channels have been successfully incorporated into a mesoporous TiO2 framework to increase its photocatalytic activity. This bimodal porous material was characterized by X-ray diffractometry in both low-angle and wide-angle ranges, N-2 adsorption-desorption analysis, scanning and transmission electron microscopy, FT-IR, and diffuse reflectance spectroscopy. Ethylene photodegradation in gas-phase medium was employed as a probe reaction to evaluate the photocatalytic reactivity of the catalysts. The results reveal that sintering temperature significantly affects the structural stability and photocatalytic activity of titania. The catalyst which calcined at 350 degrees C possessed an intact macro/mesoporous structure and showed photocatalytic reactivity about 60% higher than that of commercial P25 titania. When the sample was calcined at 500 degrees C, the macroporous structure was retained but the mesoporous structure was partly destroyed. Further heating at temperatures above 600 degrees C destroyed both macro- and mesoporous structures, accompanied by a loss in photocatalytic activity. The high photocatalytic performance of the intact macro/mesoporous TiO2 may be explained by the existence of macrochannels that increase photoabsorption efficiency and allow efficient diffusion of gaseous molecules.

Keywords: Mesoporous Molecular-Sieves, Heterogeneous Photocatalysis, Mesostructured Titania, Framework Structures, Mechanism, Oxides, Degradation, Surfaces, Benzene, Systems

? Deng, S.B. and Ting, Y.P. (2005), Fungal biomass with grafted poly(acrylic acid) for enhancement of Cu(II) and Cd(II) biosorption. *Langmuir*, **21** (13), 5940-5948.

Full Text: [L\Langmuir21, 5940.pdf](L/Langmuir21,%205940.pdf)

Abstract: The biomass of Penicillium chrysogenum was modified by graft polymerization of acrylic acid (AAc) on the surface of ozone-pretreated biomass. The sorption capacity for copper and cadmium increased significantly as a large number of carboxyl groups were present on the biomass surface, especially when the carboxylic acid group was converted to carboxylate ions using NaOH. When modeled using the Langmuir isotherm, the sorption capacities were 1.70 and 1.87 mmol g-1 for copper and cadmium, respectively. The loaded biosorbent was regenerated using HCl solution and used repeatedly over five cycles with little loss of uptake capacity beyond the second cycle. The sorption of the two metals was time-dependent, and the kinetics fitted the pseudo-second-order equation well. The Freundlich, Langmuir, Temkin, and Dubinin-Redushkevich isotherms were used to model the metal sorption isotherms, and the thermodynamic parameters calculated show that the sorption was spontaneous and endothermic under the condition applied and that the biomass has similar sorption affinities for the two metals. Fourier transform infrared and X-ray photoelectron spectroscopy reveal that carboxyl, amide, and hydroxyl groups on the biomass surface were involved in the sorption of copper and cadmium and ion exchange and complexation dominated the sorption process.

Keywords: Aminated Polyacrylonitrile Fibers, Divalent Metal-Ions, Adsorption, Sorption, Removal, Surface, Copper, Lead, Cadmium, Nickel

? Brown, D.G. and Al Nuaimi, K.S. (2005), Nonionic surfactant sorption onto the bacterial cell surface: A multi-interaction isotherm. *Langmuir*, **21** (24), 11368-11372.

Full Text: [2005\Langmuir21, 11368.pdf](2005/Langmuir21,%2011368.pdf)

Abstract: The adsorption of linear polyoxyethylene (POE) alcohol surfactants of the form CxEy onto the surface of a Sphingomonas sp. has been examined. For this study, the alkyl chain length W was fixed at 12 and the POE chain length (y) was varied, with y = 4, 7, 9, 10, and 23 ethylene oxide units. Langmuirian isotherms were observed for C12E4 and C12E23, and more complex isotherms were observed for the three intermediate POE chain length surfactants, with C12E7 and C12E9 exhibiting strong S-shaped isotherms. All isotherms showed plateaus near the critical micelle concentration (CMC) with the plateau decreasing with increasing POE chain length. A simple multi-interaction isotherm is proposed that models the sorption isotherm as the sum of two interactions. The first interaction describes monolayer adsorption, whereas the second interaction describes lateral interactions between sorbed surfactant molecules and the formation of surface aggregates. Varying ratios of these two interactions as a function of POE chain length gives rise to the variety of observed isotherm shapes. Results of the isotherm analysis suggest that lateral interactions dominate for surfactants with low POE chain lengths, and the lateral interactions decrease as the POE chain length is increased.

Keywords: Solid-Liquid Interface, Micellar Phase, Triton X-100, Fluorescence Decay, Porous-Media, Adsorption, Transport, Silica, Bioavailability, Phenanthrene

? Valix, M., Cheung, W.H. and McKay, G. (2006), Roles of the textural and surface chemical properties of activated carbon in the adsorption of acid blue dye. *Langmuir*, **22** (10), 4574-4582.

Full Text: [2006\Langmuir22, 4574.pdf](2006/Langmuir22,%204574.pdf)

Abstract: This study has demonstrated the use of empirical modeling in resolving the effects of individual carbon properties on acid blue dye adsorption. Acid blue dye adsorption tests were conducted on activated carbons prepared from bagasse by physical (CO2) and chemical (ZnCl2, MgCl2 and CaCl2) techniques. Empirical models based on the carbon textural (surface area and pore size) properties and the surface chemistry inferred from heteroatom (C,H, N, and S) concentration and carbon surface pH were used to resolve the effects of individual carbon properties on acid blue dye adsorption. This form of analysis was conducted to optimize carbon preparation properties, forming the foundation for tailor-making adsorbents from bagasse suitable for acid dye adsorption. A series of statistical analyses (partial F-tests to establish the parameter significance) measured variants including the mean square error, r(2) and adjusted r(2), normality, and randomness of residuals, and formed the basis for testing the adequacy of these models. The empirical models suggest that a combination of suitable pore structure and distinct basic surface chemistry generated by sulfur- and nitrogen-based groups, which were also elucidated by Fourier transform infrared spectroscopy, is necessary to promote acid dye adsorption.

Keywords: Sites, Removal, Bagasse

? Das, S.K., Bhowal, J., Das, A.R. and Guha, A.K. (2006), Adsorption behavior of Rhodamine B on *Rhizopus oryzae* biomass. *Langmuir*, **22** (17), 7265-7272.

Full Text: [2006\Langmuir22, 7265.pdf](2006/Langmuir22,%207265.pdf)

Abstract: The removal of a carcinogenic dye rhodamine B (C.I. 45170) from wastewater by biomass of different moulds and yeasts is described. Among all of the fungal species tested, the biomass of Rhizopus oryzae MTCC 262 is found to be the most effective. Dye adsorption reaches maximum with the biomass harvested from the early stationary phase of growth. The optimum temperature and pH for adsorption are observed to be 40°C and 7.0, respectively. The adsorption rate is very fast initially and attains equilibrium after 5 h. The adsorption isotherm follows the Langmuir isotherm model satisfactorily within the studied dye concentration range. Of the different metabolic inhibitors tested, 2,4-ditrophenol (DNP) and N,N’-dicyclohexylcarbodiimide (DCCD) decrease dye adsorption by similar to 30% suggesting the role of energy metabolism in the process. Spectrophotometric study indicates that the removal of rhodamine B by R. oryzae biomass involves an adsorption process. Scanning (SEM) and transmission (TEM) electron microscopic investigations have been carried out to understand the probable mechanism of the dye-biomass interaction.

Keywords: Hazardous Organic Pollutants, Pseudomonas-Aeruginosa, Aqueous-Solutions, Coir Pith, Acid Dye, Removal, Biosorption, Decolorization, Waste, Metal

? Ribeiro, W., Mata, J.L. and Saramago, B. (2007), Effect of concentration and temperature on surface tension of sodium hyaluronate saline solutions. *Langmuir*, **23** (13), 7014-7017.

Full Text: [2007\Langmuir23, 7014.pdf](2007/Langmuir23,%207014.pdf)

Abstract: The effect of concentration and temperature on the surface tension of sodium hyaluronate (NaHA) saline solutions was investigated using the technique of the shape of pendant drops. The decay rate of the surface tension with the increase of NaHA concentration was well-described by the empirical Hua-Rosen equation. Adsorption at the air-liquid interface was estimated using the Gibbs equation. The temperature dependence of a dilute solution and a semidilute entangled solution was numerically fitted with a second-order polynomial equation. The surface behavior of the NaHA saline solutions was interpreted in terms of their known viscoelastic properties.

Keywords: Adsorption, Air, Water Interface, Behavior, Concentration, Concentration-Dependence, Decay, Dependence, Interface, Polyelectrolyte Solutions, Properties, Rate, Second Order, Sodium, Solutions, Surface, Surface Tension, Temperature, Temperature Dependence, Temperature-Dependence, Water

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Full Text: [2007\Langmuir23, 7594.pdf](2007/Langmuir23,%207594.pdf)

Abstract: Organic/inorganic hybrid multilayer films with noncentrosymmetrically orientated azobenzene chromophores were fabricated by the sequential deposition of ZrO2 layers by a surface sol-gel process and subsequent layer-by-layer (LbL) adsorption of the nonlinear optical (NLO)-active azobenzene-containing polyanion PAC-azoBNS and poly(diallyldimethylammonium chloride) (PDDA). Noncentrosymmetric orientation of the NLO-active azobenzene chromophores was achieved because of the strong repulsion between the negatively charged ZrO2 and the sulfonate groups of the azobenzene chromophore in PAC-azoBNS. Regular deposition of ZrO2/PAC-azoBNS/PDDA multilayer films was verified by UV-vis absorption spectroscopy and quartz crystal microbalance measurements. Both UV-vis absorption spectroscopy and transmission second harmonic generation (SHG) measurements confirmed the noncentrosymmetric orientation of the azobenzene chromophores in the as-prepared ZrO2/PAC-azoBNS/PDDA multilayer films. The square root of the SHG signal (I2 omega(1/2)) increases with the increase of the azobenzene graft ratio in PAC-azoBNS as the number of deposition cycles of the ZrO2/PAC-azoBNS/PDDA films remains the same, while the second-order susceptibility chi((2))(zzz) of the film decreases with the increase of the azobenzene graft ratio. Furthermore, the present method was successfully extended to realize the noncentrosymmetric orientation of azobenzene chromophores in multilayer films when small organic azobenzene compounds with carboxylic acid and/or hydroxyl groups at one end and sulfonate groups at the other end were used. The present method was characterized by its simplicity and flexibility in film preparation, and it is anticipated to be a facile way to fabricate second-order nonlinear optical film materials.

Keywords: Nonlinear-Optical Properties, Langmuir-Blodgett-Films, Sol-Gel Process, Large Electrooptic Responses, Self-Assembled Multilayers, Thin-Films, 2nd-Harmonic Generation, Polyelectrolyte Multilayers, Electrostatic Interactions, Thermal-Stability

? Lazaridis, N.K., Kyzas, G.Z., Vassiliou, A.A. and Bikiaris, D.N. (2007), Chitosan derivatives as biosorbents for basic dyes. *Langmuir*, **23** (14), 7634-7643.

Full Text: [2007\Langmuir23, 7634.pdf](2007/Langmuir23,%207634.pdf)

Abstract: The scope of this study was to prepare and evaluate chitosan derivatives as biosorbents for basic dyes. This was achieved by grafting poly (acrylic acid) and poly (acrylamide) through persulfate induced free radical initiated polymerization processes and covalent cross- linking of the prepared materials. Remacryl Red TGL was used as the cationic dye. Equilibrium sorption experiments were carried out at different pH and initial dye concentration values. The experimental equilibrium data for each adsorbent- dye system were successfully fitted to the Langmuir, Freundlich and pH- dependent Langmuir- Freundlich sorption isotherms. Thermodynamic parameters of the adsorption process such as ΔG°, ΔH°, and ΔS° were calculated. The negative values of free energy reflected the spontaneous nature of adsorption. The typical dependence of dye uptake on temperature and the kinetics of adsorption indicated the process to be chemisorption. The grafting modifications greatly enhanced the adsorption performance of the biosorbents, especially in the case of powdered cross- linked chitosan grafted with acrylic acid, which exhibited a maximum adsorption capacity equal to 1.068 mmol/g. Kinetic studies also revealed a significant improvement of sorption rates by the modifications. Diffusion coefficients of the dye molecule were determined to be of the order 10-13-10-12 m2/s. Furthermore, desorption experiments affirmed the regenerative capability of the loaded material.

Keywords: Activated Carbon, Reactive Dye, Waste-Water, Graft-Copolymerization, Aqueous-Solutions, Methylene-Blue, Adsorption, Removal, Sorption, Adsorbents

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Full Text: [2008\Langmuir24, 4791.pdf](2008/Langmuir24,%204791.pdf)

Abstract: In this study, three different chitosan inicrosphere derivatives were prepared as sorbents for basic dyes. Preparation was succeeded by a novel cross-linking method based oil ionic gelation with tripolyphosphate and subsequent covalent cross-linking with glutaraldheyde in order to address the large amount of swelling of the powdered form of the respective derivatives. Basic blue 3G (dye) was selected as the sorbate, and chitosan microsheres grafted with acrylamide and acrylic acid were used as biosorbents. Techniques such as FTIR spectroscopy, SEM, and swelling measurements facilitated the evaluation of the materials. Sorption-desorption experiments over the whole pH range were carried out to reveal the optimum value of sorption-desorption. The Langmuir isotherm model was used to fit the equilibrium experimental data, giving a maximum sorption capacity of 0.808 mmol/g at 338 K. An intraparticle diffusion model was employed to fit the kinetic data, and the resulting diffusion coefficients were in the range of (1-10)×10-11 m2/s. Thermodynamic analysis showed that the sorption process was spontaneous and endothermic with an increased randomness. In addition, sorption experiments were realized with a mixture of three basic dyes at various concentrations of sorbents.

Keywords: Controlled-Release, Ionic-Strength, Drug-Delivery, In-Vitro, Adsorption, Hydrogels, pH, Microspheres, Equilibrium, Temperature

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Full Text: [2008\Langmuir24, 6424.pdf](2008/Langmuir24,%206424.pdf)

Abstract: The selection of a proper sorbent for a given application is a complex problem. The design and efficiency of adsorption processes require an equilibrium adsorption model. Linear transformation is one of the methods available to estimate the adjustable parameters of isotherm models but possesses limitations compared to nonlinear regressions. A different approach to calculate predicted equilibrium isotherm values leading to an alternative nonlinear regression is presented in this paper and compared with usual regression methods. Adsorption isotherm data of gaseous THT onto three activated carbon materials constitute an experimental basis for the discussion. Assessment of the goodness-of-fit of the Langmuir model is supported by different selected test functions. The new nonlinear approach did not obtain the best results for each test function, but raises questions about the inherent combined error in regression procedures.

Keywords: Nonlinear Methods, Michaelis-Menten, Dye Adsorption, Isotherm, Sorption, Langmuir, Single, Constants, Prediction, Cloth

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Full Text: [2008\Langmuir24, 11625.pdf](2008/Langmuir24,%2011625.pdf)

Abstract: So far, the first- and second-order kinetic equations have been most frequently employed to interpret adsorption data obtained under various conditions, whereas the theoretical origins of these two equations still remain unknown. Using the Langmuir kinetics as a theoretical basis, this study showed that the Langmuir kinetics can be transformed to a polynomial expression of d theta(t)/dt = k(1)(theta(e) - theta(t)) + k(2)(theta(e) - theta(t))(2), a varying-order rate equation. The sufficient and necessary conditions for simplification of the Langmuir kinetics to the first- and second-order rate equations were put forward, which suggested that the relative magnitude of theta(e) over k(1)/k(2) governs the simplification of the Langmuir kinetics. In cases where k(1)/k(2) is greater than theta(e) or k(1)/k(2) is very close to theta(e) adsorption kinetics would be reasonably described by the first-order rate equation, whereas the Langmuir kinetics would be reduced to the second-order equation only at k(1)/k(2) << theta(e). It was further demonstrated that both theta(e) and k(1)/k(2) are the function of initial adsorbate concentration (C-0) at a given dosage of adsorbent, indicating that simplification of the Langmuir kinetics indeed is determined by C-0. Detailed C-0-depedent boundary conditions for simplifying the Langmuir kinetics were also established and were verified by experimental data.

Keywords: Activated Carbon, Aqueous-Solution, Methylene-Blue, Equilibrium, Biosorption, Sorption, Interface, Removal, Dye

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Full Text: [2008\Langmuir24, 11669.pdf](2008/Langmuir24,%2011669.pdf)

Abstract: The kinetics of solute adsorption at the solid/solution interface has been studied by statistical rate theory (SRT) at two limiting conditions, one at initial times of adsorption and the other close to equilibrium. A new kinetic equation has been derived for initial times of adsorption on the basis of SRT. For the first time a theoretical interpretation based on SRT has been provided for the modified pseudo-first-order (MPFO) kinetic equation which was proposed empirically by Yang and Al-Duri. It has been shown that the MPFO kinetic equation can be derived from the SRT equation when the system is close to equilibrium. On the basis of numerically generated points (t, q) by the SRT equation, it has been shown that we can apply the new equation for initial times of adsorption in a larger time range in comparison to the previous q vs root t linear equation. Also by numerical analysis of the generated kinetic data points, it is shown that application of the MPFO equation for modeling of whole kinetic data causes a large error for the data at initial times of adsorption. The results of numerical analysis are in perfect agreement with our theoretical derivation of the MPFO kinetic equation from the SRT equation. Finally, the results of the present theoretical study were confirmed by analysis of an experimental system.

Keywords: Solute Adsorption, Theoretical Description, Activated Carbon, Gas-Adsorption, Transport, Models, Sorption

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Full Text: [2009\Langmuir25, 2294.pdf](2009/Langmuir25,%202294.pdf)

Abstract: The temperature-dependent adsorption on hydroxyapatite (HAP) of the Tb complexes of two macrocyclic DOTA-like ligands containing HAP-binding phosphonate groups was studied by a radiotracer method using Tb-160 as the label. One ligand (DOTP) contains four separate phosphonate groups, while the second ligand (BPPED) contains a single bisphosphonate group coupled via a phosphinate spacer group. The equilibrium isotherms were fitted by models according to Langmuir, Freundlich, Langmuir-Freundlich, Toth, and Dubinin-Radushkevich, with the Langmuir-Freundlich and the Toth models resulting in the best fits. These models take into account the energetic surface heterogeneity of HAP for the binding of the complexes, which was confirmed by the dependence of the reversibility of the adsorption on the complex concentration. The affinity of the Tb-BPPED complex toward the HAP surface was substantially higher than that of the Tb-DOTP complex. Thermodynamic parameters obtained from the temperature-dependence of the adsorption and the Van’t Hoff relation showed that the adsorption of both complex types is endothermic and entropy-driven, due to dehydration of the complex and the HA-P surface during adsorption. The kinetics of the adsorption were very fast, and of the tested models (pseudo-first-order, pseudo-second-order, intraparticle diffusion, and Elovich) only the Elovich model described the experimental data suitably. The activation energy of the adsorption was calculated by application of an Arrhenius-type relation, showing chemisorption for both complex types. Adsorption rates were reduced when HAP with larger particle size was used.

Keywords: Activation, Activation Energy, Adsorption, Application, Binding, Bisphosphonates, Chemisorption, Concentration, Constants, Contrast, Data, Dehydration, Dependence, Diffusion, Elovich, Elovich Model, Endothermic, Energetic Surface Heterogeneity, Energy, Equilibrium, Equilibrium Isotherms, Experimental, Freundlich, Group, Heterogeneity, Hydroxyapatite, Inhibition, Intraparticle, Intraparticle Diffusion, Isotherms, Kinetics, Langmuir, Langmuir-Freundlich, Ligand, Ligands, Model, Models, Particle Size, Proteins, Pseudo First Order, Pseudo Second Order, Pseudo-First-Order, Pseudo-Second-Order, Radiotracer, Rates, Reversibility, Size, Solids, Spacer, Surface, Surface Heterogeneity, Thermodynamic, Thermodynamic Parameters, Thermodynamics, Toth

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Full Text: [2009\Langmuir25, 2309.pdf](2009/Langmuir25,%202309.pdf)

Abstract: Adsorption is one of the most popular methods for reducing pollutants or separation of gases. Therefore it is important to introduce new and extended isotherm equations for binary systems. In the previous adsorption isotherms for binary systems, it is assumed that an adsorbate occupies one site in lattice sites. However, the adspecies may occupy more than one site in the lattice. Here we propose an adsorption isotherm for binary systems where the adsorbates occupy more than one site. The new isotherm equation for multisite occupancy of binary mixtures was derived based on statistical thermodynamics, The present new adsorption isotherm provides information about the structure of molecules in adsorbed form. Finally, the results of the present theoretical study were confirmed by analysis of two experimental systems.

Keywords: Activated Carbon, Adsorption, Competitive Adsorption, Gas-Adsorption, Heterogeneous Solid-Surfaces, Kinetic-Models, Solid, Solution Interfaces, Solute Adsorption, Statistical Rate Theory, Theoretical Description, Thermodynamics

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Full Text: [2009\Langmuir25, 3538.pdf](2009/Langmuir25,%203538.pdf)

Abstract: Adsorption and desorption kinetics at the solid/solution interface have been monitored using attenuated total reflection infrared (ATR-IR) spectroscopy to evaluate this approach as an alternative to equilibrium (adsorption isotherm) measurements of adsorption affinity. The adsorption and desorption kinetics of oxalate ion to anatase TiO2 have been measured by using aqueous 1 x 10-4 mol L-1 oxalic acid solutions at pH 4 and thin films of TiO2 particles deposited on an internal reflection prism. The adsorption kinetics were obtained from the absorbance versus time behavior of major adsorbed oxalate infrared absorptions with flow of oxalic acid solution followed by flow of solution not containing oxalic acid to measure the desorption kinetics. Regression analysis of the desorption data based on Langmuir kinetics yielded three distinct pseudo-first-order rate constants with desorption half-lives of 300, 14, and 2 min, indicating the presence of three adsorbed oxalate species of different adsorption affinities. The most slowly desorbing and most strongly bound adsorbate species is likely to be a bidentate chelating oxalate ion from comparisons with the IR spectra of coordination compounds involving oxalate ligands. Regression analysis of the adsorption data was unable to yield the corresponding pseudo-first-order adsorption constants and prevented the calculation from kinetics data of Langmuir adsorption affinity constants. Measurement of adsorption and desorption kinetics by ATR-IR spectroscopy is expected to provide a relatively rapid means of assessing the presence of species of different adsorption affinities in systems in which their spectra are not well differentiated.

Keywords: Adsorption-Kinetics, Cetyl Pyridinium Chloride, Channel Flow Cell, Infrared-Spectroscopy, Ion Adsorption, Oxalate Ion, Particle Films, Pressure-Jump Relaxation, Spectra, Surface-Plasmon Resonance

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Full Text: [2009\Langmuir25, 5286.pdf](2009/Langmuir25,%205286.pdf)

Abstract: Hierarchical morphologies in metal oxides are advantageous for many applications, including controlled drug release, photocatalysis, catalysis, synthetic biomaterials, and adsorption and separation technologies. In this study, agarose gel has been used as a template to prepare zirconium titanium mixed oxide pellets with bimodal porosity. Sol-gel chemistry conducted within the agarose gel produced “coral-like” interconnected networks of oxide nanoparticles with controllable quantities of zirconium and titanium. The materials were characterized using N-2 sorption, extended X-ray absorption fine structure, X-ray diffraction, TEM, SEM, zeta potential, and thermogravimetric analysis (to measure surface hydroxyl group density). The oxides were then tested for the adsorption of vanadyl and vanadate to determine which Zr mole fraction exhibited the highest capacity and fastest kinetics. The material containing 25 mol % Zr exhibited the highest surface area (322±8 m2/g) of the compositions investigated and also displayed a superior adsorption rate and capacity. Vanadate adsorption occurred with faster kinetics than did vanadyl adsorption. A comparative study demonstrated that the macro/meso pore structure had improved transport properties over a monomodal mesopore structure of similar Zr/Ti composition. The faster vanadate adsorption kinetics is attributed to enhanced surface accessibility in a hierarchical material.

Keywords: Adsorption, Binding-Sites, Kinetics, Leach Resistant Ceramics, Metal-Oxides, Organically Modified Silicates, Part 2, Photocatalytic Activity, Thin-Films, TiO2 Anatase, Waste Form Ceramics, X-Ray-Diffraction

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Full Text: [2009\Langmuir25, 10515.pdf](2009/Langmuir25,%2010515.pdf)

Abstract: The integration of hydrophobic and hydrophilic drugs in the polymer microcapsule offers the possibility of developing a new drug delivery system that combines the best features of these two distinct classes of material. Recently, we have reported the encapsulation of an uncharged water-insoluble drug in the polymer membrane. The hydrophobic drug is deposited using a layer-by-layer (LbL) technique, which is based on the sequential adsorption of oppositely charged polyelectrolytes onto a charged substrate. In this paper, we report the encapsulation of two different drugs, which are invariably different in structure and in their solubility in water. We have characterized these dual drug vehicular capsules by confocal laser scanning microscopy, atomic force microscopy, visible microscopy, and transmission electron microscopy. The growth of a thin film on a flat substrate by LbL was monitored by UV-vis spectra. The desorption kinetics of two drugs from the thin Film was modeled by a second-order rate model.

Keywords: Adsorption, Atomic Force Microscopy, Block-Copolymer Vesicles, Capsules, Complex-Formation, Composites, Delivery, Desorption, Desorption Kinetics, Developing, Drug, Drug Delivery, Drug Delivery System, Drugs, Electron Microscopy, Encapsulation, Force, Growth, Integration, Kinetics, Laser, Mechanisms, Membrane, Microcapsule, Microcapsules, Model, Multilayer Films, Polyelectrolyte Capsules, Polyelectrolytes, Polymer, Polymer Vesicles, Release, Second Order, Second-Order, Sodium Dodecyl-Sulfate, Solubility, Structure, Temperature, Thin Film, Transmission, Water

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Full Text: [2009\Langmuir25, 10980.pdf](2009/Langmuir25,%2010980.pdf)

Abstract: Intercalation compounds were obtained by introduction of guest methyl orange (MO) into the interlayer space of host Mg/Al and Ni/Al layered double hydroxides (LDHs). Three synthesis methods of organic anion-LDH intercalation compounds, i.e., coprecipitation, reconstruction of the M-II(Al)O mixed oxides, and anion exchange of LDH were compared. The former Method gives rise to a highly organized MO-intercalated Mg/Al LDH with an interlayer spacing of 2.43 rim and up to seven (001) reflection orders. Reconstruction or the mixed oxide by intercalation with MO in the restored LDH was only achieved with Mg(Al)O. In this case. a competitive adsorption of MO on the external Surface Of the crystals was also seen. On the other hand, intercalation compounds exhibiting interlayer spacing of 2.43 run were obtained with both Mg- and Ni-containing LDH using the anionic exchange method. The equilibrium and kinetic adsorption properties of the compounds were analyzed by UV-visible spectroscopy in anionic exchange experiments. According to the pseudo-second-order adsorption model, the amounts of adsorbed MO reach 3.82 and 2.83 mequiv/g for Mg- and Ni-containing LDHs, respectively, which are close to their respective anionic exchange capacity. The adsorption rates are on the same order of magnitude for the two LDHs (0.10-0.44 g mmol-1 min-1), the equilibrium being reached in less than 60 min. The decomposition of MO by combustion of the organic moieties under an oxidizing atmosphere is delayed in Mg-containing MO-LDH hybrids when compared to the free MO molecule, showing that the thermal stability of MO species is enhanced after intercalation. In Ni-containing LDH, the main decomposition step of MO occurs 300°C below that of Mg-containing LDH. This was rationalized in terms of a catalysis by the Ni-containing oxides formed during the thermal treatment. So these materials exhibit several advantage useful for the development of eco-friendly processes for the removal of dyes from effluents of textile, plastic, and paper industries.

Keywords: Adsorption, Adsorption Properties, Anion-Exchange Intercalation, Assemblies, Atmosphere, Binding, Capacity, Catalysis, Characterization, Chromophores, Combustion, Competitive, Competitive Adsorption, Coprecipitation, Decomposition, Development, Dye, Dyes, Effluents, Equilibrium, Experiments, Host, Hydrotalcite-Like Compounds, Kinetic, Kinetic Adsorption, Layered Double Hydroxides, Methods, Methyl Orange, Methyl-Orange, Mo, Model, Nickel, Organic, Oxide, Oxides, Pseudo Second Order, Pseudo-Second-Order, Rates, Reconstruction, Reflection, Removal, Species, Spectroscopy, Stability, Synthesis, Thermal Stability, Thermal Treatment, Thermal-Decomposition, Treatment

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Full Text: [2009\Langmuir25, 11874.pdf](2009/Langmuir25,%2011874.pdf)

Abstract: A method is presented for the preparation of zirconium titanate mixed oxides in bead form having hierarchical pore structure. This method entailed the use of both preformed polyacrylonitrile (PAN) polymer beads and surfactants as templates. The templates were removed by calcination at temperatures below about 500°C, resulting in mixed oxide beads with trimodal pore size distributions and interconnected pores. The pore size distributions as determined using nitrogen adsorption-desorption showed clear maxima at 4.5 and 45 nm length scales and also clear evidence of microporosity. The macroporous framework morphology was a replica of the PAN beads with radial structure. The mesoporous framework possessed wormhole-like pores with pore size of about 6 nm that was consistent with the F-127 triblock copolymer template used. The mixed oxide beads exhibited surface areas of 215 and 185 m2/g after calcination at 500 and 600ºC. Thermal stability up to 650ºC is unprecedented for bulk systems. The adsorption properties were characterized using uranyl as the target cation and the mass transport in the beads with the present hierarchical architectures has been shown to be exceptional. The beads were functionalized with 4-amino,1-hydroxy,1,1-bis-phosphonic acid (HABDP) and aminotris-Methylene phosphonic acid (ATMP) and the adsorption properties for the extraction of uranyl sulfate complexes from acidic solution examined. Of the two molecules investigated, ATMP functionalization resulted in the best extraction efficiency with equilibrium uptake of about 90% of uranium available in solution between pH 1 and 2. The beads could potentially be utilized as catalysts, catalyst supports, adsorbents, and separation materials.

Keywords: Adsorbents, Adsorption, Adsorption Properties, Adsorption-Desorption, Beads, Calcination, Catalyst, Cation, Composite Adsorbent, Copolymer, Efficiency, Equilibrium, Evidence, Extraction, Framework, Length, Macroporous, Macroporous Structures, Mass Transport, Mesoporous, Metal-Oxides, Microporosity, Morphology, Nitrogen, Oxide, Oxides, pH, Photocatalytic Properties, Polymer, Porosity, Porous Silica, Preparation, Scales, Separation, Silica Particles, Size, Solution, Sorption Complexes, Spheres, Stability, Structure, Sulfate, Surface, Surface Areas, Surfactants, Synthesis, Systems, Template, Templates, Transport, Uptake, Uranium

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Full Text: [2010\Langmuir26, 802.pdf](2010/Langmuir26,%20802.pdf)

Abstract: A novel two-resistance model for description of the sorption kinetics by porous particles has been proposed. The model takes into account two kinetic steps of different kinds which are involved in the overall sorption process rate: (i) the rate of solute diffusion in pores of the sorbent particles having uniform sizes and characterized by the homogeneous intraparticle diffusion coefficient and (II) the rate of a direct adsorption/desorption process on the surface, described by applying the statistical rate theory (SRT) approach. Two different kinds of sorbent particles geometry are considered: the spherical and the plane particles, having their dimension characterized by radius and thickness, respectively. The meaning of the parameters which influence the sorption kinetics has been discussed. The results make it possible to judge which conditions have to be fulfilled to consider only one kinetic step and, thus, to simplify the theoretical description of a given system. The conclusion has been drawn that the concave character of kinetic sorption isotherms plotted in the function of the square root of time is of a general nature and is connected with the situation when at least two different processes are involved in controlling the sorption kinetics.

Keywords: Adsorption, Adsorption, Desorption, Approach, Diffusion, Diffusion Coefficient, Function, General, Intraparticle Diffusion, Isotherms, Kinetic, Kinetic Sorption, Kinetics, Model, Particles, Porous Particles, Sorbent, Sorption, Sorption Isotherms, Sorption Kinetics, Sorption Process, Statistical Rate Theory, Surface, Theory

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Full Text: [2010\Langmuir26, 9617.pdf](2010/Langmuir26,%209617.pdf)

Abstract: The scope of the present work is the study of the adsorption behavior of two dyes of different nature/class on several chitosan derivatives. The adsorbents used were grafted with different functional groups (carboxyl, amido, sulfonate, N-vinylimidazole) to increase their adsorption capacity and cross-linked to improve their mechanical resistance. This complete kinetic analysis was realized at 25, 45, and 65ºC to observe the effect of temperature on adsorption rates for each adsorbent adsorbate system. Activated carbon was also used as an adsorbent for reference/comparison. The experimental equilibrium data were successfully fitted to the Langmuir-Freundlich (L-F) isotherms, presenting high correlation coefficients (R-2 similar to 0.998). A detailed pore-surface diffusion with local adsorption-desorption model has been developed to describe the adsorption kinetics in chitosan adsorbents. The existence of kinetic data in several temperatures assists ill recognizing the diffusion mechanism in the adsorbent particles. The findings on diffusion mechanisms and the corresponding coefficients, from using the model to match the experimental data, are compatible with the expected adsorbent-dye interactions based on their chemical structure.

Keywords: Activated Carbon, Adsorbent, Adsorbents, Adsorption, Adsorption Behavior, Adsorption Capacity, Adsorption Kinetics, Adsorption-Desorption, Analysis, Anionic Dyes, Aqueous-Solutions, Basic-Dyes, Behavior, Capacity, Carbon, Chemical, Chitosan, Chitosan Derivatives, Competitive Adsorption, Correlation, Cross-Linked, Data, Diffusion, Dilute-Solutions, Dye, Dyes, Equilibrium, Experimental, Functional Groups, Grafted, Isotherms, Kinetic, Kinetic Analysis, Kinetic Data, Kinetics, Langmuir-Freundlich, Liquid-Phase Adsorption, Local, Mechanism, Mechanisms, Metal-Ions, Model, Particles, Rates, Reactive Dyes, Resistance, Scope, Sorption, Structure, Temperature, Work

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Full Text: [2010\Langmuir26, 15229.pdf](2010/Langmuir26,%2015229.pdf)

Abstract: In the article, a new integrated kinetic Langmuir equation (IKL) is derived. The IKL equation is a simple and easy to analyze but complete analytical solution of the kinetic Langmuir model. The IKL is compared with the nth-order, mixed 1,2-order, and multiexponential kinetic equations. The impact of both equilibrium coverage theta(eq) and relative equilibrium uptake is, on kinetics is explained. A newly introduced Langmuir batch equilibrium factor f(eq), that is the product of both parameters theta(eq)u(eq) is used to determine the general kinetic behavior. The analysis of the IKL equation allows us to understand fully the Langmuir kinetics and explains its relation with respect to the empirical pseudo-first-order (PM, i.e., Lagergren), pseudo-second-order (PSO), and mixed 1,2-order kinetic equations, and it shows the conditions of their possible application based on the Langmuir model. The dependence of the initial adsorption rate on the system properties is analyzed and compared to the earlier published approximate equations.

Keywords: Activated Carbon, Adsorption, Adsorption Rate, Adsorption-Kinetics, Analysis, Application, Aqueous-Solutions, Batch, Behavior, Chemical-Reactions, Coverage, Equilibrium, General, Impact, Kinetic, Kinetic Equations, Kinetics, Lagergren, Langmuir, Langmuir Equation, Langmuir Model, Mesoporous Carbons, Model, Pseudo First Order, Pseudo Second Order, Pseudo-First-Order, Pseudo-Second-Order, Reactive Dyes, Solid, Solution Interfaces, Solution, Sorption, Statistical Rate Theory, Theoretical Development, Uptake

? Zhou, S.Q. (2010), Free energy density functional for adsorption of fluids in Nanopores. *Langmuir*, **26** (22), 17037-17047.

Full Text: [2010\Langmuir26, 17037.pdf](2010/Langmuir26,%2017037.pdf)

Abstract: A classical free energy density functional, which is isomorphic to a usual effective hard sphere model + mean field approximation for tail contribution, is proposed for treatment of real fluids in inhomogeneous states. In the framework of the classical density functional theory (DFT). the present functional is applied to two representative model fluids, namely, a Lennard-Jones fluid and a hard core attractive Yukawa fluid, subject to influence of various external fields. A comprehensive comparison with simulation results and a detailed analysis show that the present functional holds simultaneously all of the desirable properties inherent in an excellent Functional, such as high accuracy, computational simplicity, consistency with a hard wall sum rule, nonrecourse to use of adjustable parameter(s) and weighted densities, reproduction of bulk second-order direct correlation function (DCF) in bulk limit, and applicability to subcritical fluid phenomena.

Keywords: Adsorption, Analysis, Approximation, Comparison, Contribution, Density, Density Functional, Density-Functional, Equation, Field, Hard-Sphere Fluid, High-Pressure Adsorption, Liquids, Mixture, Model, Phase-Behavior, Properties, Second-Order, Simulation, State, Supercritical Gases, Theory, Treatment

? Yu, Q.A., Chen, H., Zhang, Y.X., Yuan, L., Zhao, T.L., Li, X. and Wang, H.W. (2010), pH-reversible, high-capacity binding of proteins on a substrate with nanostructure. *Langmuir*, **26** (23), 17812-17815.

Full Text: [2010\Langmuir26, 17812.pdf](2010/Langmuir26,%2017812.pdf)

Abstract: In this letter, a pH-switchable system for protein adsorption and release is introduced. By combining the pH sensitivity of poly(methacrylic acid) (poly(MAA) chains and the nanoeffects of 3D nanostructured silicon nanowire arrays (SiNWAs), a poly(MAA)-modified SiNWAs material showed an extremely high capacity for binding lysozyme at pH 4 (an similar to 80-fold increase compared with that of smooth Si-poly(MAA)). Moreover, similar to 90% of the adsorbed lysozyme was released from SiNWAs-poly(MAA) by increasing the pH from 4 to 9, without a loss of enzyme activity.

Keywords: Polyelectrolyte Brushes, Responsive Surfaces, Adsorption, Systems, Immobilization, Interfaces, Films

? Liu, H., Zhu, J.Y. and Chai, X.S. (2011), In situ, rapid, and temporally resolved measurements of cellulase adsorption onto lignocellulosic substrates by UV-vis spectrophotometry. *Langmuir*, **27** (1), 272-278.

Full Text: [2011\Langmuir27, 272.pdf](2011/Langmuir27,%20272.pdf)

Abstract: This study demonstrated two in situ UV-vis spectrophotometric methods for rapid and temporally resolved measurements of cellulase adsorption onto cellulosic and lignocellulosic substrates during enzymatic hydrolysis. The cellulase protein absorption peak at 280 nm was used for quantification. The spectral interferences from light scattering by small fibers (fines) and particulates and from absorptions by lignin leached from lignocelluloses were corrected using a dual-wavelength technique. Wavelengths of 500 and 255 nm were used as secondary wavelengths for correcting spectral interferences from light scattering and absorption of leached lignin. Spectral interferences can also be eliminated by taking the second derivative of the measured spectra of enzymatic hydrolysate of cellulose or lignocelluloses. The in situ measured cellulase adsorptions in cellulose and lignocellulose suspensions by these two spectrophotometric methods showed general agreement with batch sampling assayed by the Bradford method. The in situ methods not only eliminated tedious batch sampling but also can resolve the kinetics of the initial adsorption process. The measured time-dependent cellulase adsorptions were found to follow pseudo-second-order kinetics.

Keywords: Absorption, Adsorption, Batch, Cellulose, Fibers, General, Hydrolysis, In Situ, Interferences, Kinetics, Light Scattering, Lignin, Lignocellulose, Methods, Protein, Pseudo Second Order, Pseudo Second Order Kinetics, Pseudo-Second-Order, Pseudo-Second-Order Kinetics, Pulp, Quantification, Sampling, Scattering, Small, Time-Dependent, Wood

? Ide, A., Drisko, G.L., Scales, N., Luca, V., Schiesser, C.H. and Caruso, R.A. (2011), Monitoring bisphosphonate surface functionalization and acid stability of hierarchically porous titanium zirconium oxides. *Langmuir*, **27** (21), 12985-12995.

Full Text: [2011\Langmuir27, 12985.pdf](2011/Langmuir27,%2012985.pdf)

Abstract: To take advantage of the full potential of functionalized transition metal oxides, a well-understood non-silane based grafting technique is required. The functionalization of mixed titanium zirconium oxides was studied in detail using a bisphosphonic acid, featuring two phosphonic acid groups with high surface affinity. The bisphosphonic acid employed was coupled to a UV active benzamide moiety in order to track the progress of the surface functionalization in situ. Using different material compositions, altering the pH environment, and looking at various annealing conditions, key features of the functionalization process were identified that consequently will allow for intelligent material design. Loading with bisphosphonic acid was highest on supports calcined at 650°C compared to lower calcination temperatures: A maximum capacity of 0.13 mmol g-1 was obtained and the adsorption process could be modeled with a pseudo-second-order rate relationship. Heating at 650°C resulted in a phase transition of the mixed binary oxide to a ternary oxide, titanium zirconium oxide in the srilankite phase. This phase transition was crucial in order to achieve high loading of the bisphosphonic acid and enhanced chemical stability in highly acidic solutions. Due to the inert nature of phosphorus-oxygen-metal bonds, materials functionalized by bisphosphonic acids showed increased chemical stability compared to their nonfunctionalized counterparts in harshly acidic solutions. Leaching studies showed that the acid stability of the functionalized material was improved with a partially crystalline srilankite phase. The materials were characterized using nitrogen sorption, X-ray powder diffraction, and UV-vis spectroscopy; X-ray photoelectron spectroscopy was used to study surface coverage with the bisphosphonic acid molecules.

Keywords: Adsorption, Hybrid Materials, Leach Resistant Ceramics, Mesoporous Thin-Films, Metal-Oxides, Organic-Inorganic Materials, Organophosphorus Coupling Molecules, Performance Liquid-Chromatography, pH, Self-Assembled Monolayers, Stationary Phases, Waste Form Ceramics

# Title: Language Resources and Evaluation

Full Journal Title: Language Resources and Evaluation

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Stamatatos, E. and Koppel, M. (2011), Plagiarism and authorship analysis: Introduction to the special issue. *Language Resources and Evaluation*, **45** (1), 1-4.

Keywords: Attribution, Authorship, Plagiarism

? Clough, P. and Stevenson, M. (2011), Developing a corpus of plagiarised short answers. *Language Resources and Evaluation*, **45** (1), 5-24.

Abstract: Plagiarism is widely acknowledged to be a significant and increasing problem for higher education institutions (McCabe 2005; Judge 2008). A wide range of solutions, including several commercial systems, have been proposed to assist the educator in the task of identifying plagiarised work, or even to detect them automatically. Direct comparison of these systems is made difficult by the problems in obtaining genuine examples of plagiarised student work. We describe our initial experiences with constructing a corpus consisting of answers to short questions in which plagiarism has been simulated. This corpus is designed to represent types of plagiarism that are not included in existing corpora and will be a useful addition to the set of resources available for the evaluation of plagiarism detection systems.

Keywords: Corpus Creation, Education, Higher Education, Language Resources, Paraphrase, Plagiarism, Plagiarism Detection

? Potthast, M., Barron-Cedeno, A., Stein, B. and Rosso, P. (2011), Cross-language plagiarism detection. *Language Resources and Evaluation*, **45** (1), 45-62.

Abstract: Cross-language plagiarism detection deals with the automatic identification and extraction of plagiarism in a multilingual setting. In this setting, a suspicious document is given, and the task is to retrieve all sections from the document that originate from a large, multilingual document collection. Our contributions in this field are as follows: (1) a comprehensive retrieval process for cross-language plagiarism detection is introduced, highlighting the differences to monolingual plagiarism detection, (2) state-of-the-art solutions for two important subtasks are reviewed, (3) retrieval models for the assessment of cross-language similarity are surveyed, and, (4) the three models CL-CNG, CL-ESA and CL-ASA are compared. Our evaluation is of realistic scale: it relies on 120,000 test documents which are selected from the corpora JRC-Acquis and Wikipedia, so that for each test document highly similar documents are available in all of the six languages English, German, Spanish, French, Dutch, and Polish. The models are employed in a series of ranking tasks, and more than 100 million similarities are computed with each model. The results of our evaluation indicate that CL-CNG, despite its simple approach, is the best choice to rank and compare texts across languages if they are syntactically related. CL-ESA almost matches the performance of CL-CNG, but on arbitrary pairs of languages. CL-ASA works best on “exact” translations but does not generalize well.

Keywords: Assessment, Cross-Language, Evaluation, Information-Retrieval, Plagiarism, Plagiarism Detection, Retrieval Model, Similarity

? Stein, B., Lipka, N. and Prettenhofer, P. (2011), Intrinsic plagiarism analysis. *Language Resources and Evaluation*, **45** (1), 63-82.

Abstract: Research in automatic text plagiarism detection focuses on algorithms that compare suspicious documents against a collection of reference documents. Recent approaches perform well in identifying copied or modified foreign sections, but they assume a closed world where a reference collection is given. This article investigates the question whether plagiarism can be detected by a computer program if no reference can be provided, e.g., if the foreign sections stem from a book that is not available in digital form. We call this problem class intrinsic plagiarism analysis; it is closely related to the problem of authorship verification. Our contributions are threefold. (1) We organize the algorithmic building blocks for intrinsic plagiarism analysis and authorship verification and survey the state of the art. (2) We show how the meta learning approach of Koppel and Schler, termed “unmasking”, can be employed to post-process unreliable stylometric analysis results. (3) We operationalize and evaluate an analysis chain that combines document chunking, style model computation, one-class classification, and meta learning.

Keywords: Authorship, Authorship Attribution, Authorship Verification, Classification, Learning, One-Class Classification, Plagiarism, Plagiarism Detection, Readability, Research, Stylometry, Survey, Verification

# Title: Laryngo-Rhino-Otologie

Full Journal Title: Laryngo-Rhino-Otologie

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Grajewski, S., Quarcoo, D., Uibel, S., Scutaru, C., Groneberg, D. and Spallek, M. (2010), A scientometric analysis of leukoplakia and erythroplakia. *Laryngo-Rhino-Otologie*, **89** (4), 210-215.

Abstract: Background: The oral leukoplakia and erythroplakia is one of the most common epithelial precursor lesions of the oral squamous cell carcinoma. Transformation rates are approximately 0.9-17% in 10 years for leukoplakia and in 14-50% for the erythroplakia. Despite the clinical relevance of these lesions, currently exists no detailed bibliometric analysis. Methods: The present study combines classical bibliometric tools with novel scientometric and visualizing techniques in order to analyse and categorize research in the field of leukoplakia and erythroplakia. Results: All studies related to leukoplakia and erythroplakia and listed in the ISI database since 1900 were identified by the use of defined search terms. The bibliometric analysis of the collected data shows a continuous increase in quantitative marker such as the number of publications and cooperation and qualitative markers, such as citations and H-index. The combination with density equalizing mapping revealed a distinct global structure of research and citing activity. Radar chart techniques were used to illustrate bi- and multilateral cooperations and institution research collaborations. Discussion: The present study demonstrates the first scientometric approach that visualizes research activities in the area of leukoplakia and erythroplakia. It provides data that can be used for geografical context and research networks.

Keywords: Bibliometric, Bibliometric Analysis, Citations, Database, Density Equalizing Mapping, Erythroplakia, Erythroplasia, Global, Impact Factors, ISI, ISI Database, Leukoplakia, Mapping, Networks, Number of Publications, Occupational-Health, Publications, Quantitative, Radar, Radar Chart, Research, Research Output, Scientometric, Scientometry, Techniques, Tools

? Durr, S., Tietze, R., Lyer, S. and Alexiou, C. (2012), Nanomedicine in otorhinolaryngology - future prospects. *Laryngo-Rhino-Otologie*, **91** (1), 6-12.

Full Text: 2012\Lar Rhi Oto91, 6.pdf

Abstract: Background: Nanotechnology becomes more and more important in the world of today. Equally, it does generally in medicine and of course specifically in otorhinolaryngology. Essentially, there are the following fields: Diagnostics, new therapies and agents, drug delivery and medical implants. Material and Methods: An extensive literature research on nanomedicine in otorhinolaryngology was carried out in the standard online medical reference databases “PubMed/Medline” and “Web of Science”. Furthermore, we are giving an overview of the work of the Department of Otorhinolaryngology, Head and Neck Surgery, Section of Experimental Oncology and Nanomedicine (SEON), University Hospital Erlangen. Results: A lot of new and innovative studies on nanotechnology in diagnostics and therapy were recovered. Depending on the variety in otorhinolaryngology, there are numerous versatile approaches, according to the different areas. The main part is engaged in drug delivery. Conclusions: The efforts to exploit the potential of nanotechnology in otorhinolaryngology are multifaceted, innovative and seminal. The best perspective of success is attributed to nanoparticulate drug delivery systems.

Keywords: Databases, Delivery-System, Drug, Drug Delivery, Gold Nanoparticles, Hospital, Hyperbranched Polylysine, Implants, Inner-Ear, Literature, Loaded Nanoparticles, Locoregional Cancer-Treatment, Magnetic Drug Targeting, Magnetic Nanoparticles, Medical, Medicine, Methods, Nanomedicine, Nanoparticles, Nanotechnology, Oncology, Otorhinolaryngology, Overview, Oxide Nanoparticles, Prostate-Cancer, Research, Squamous-Cell Carcinoma, Success, Surgery, Therapy, University

# Title: Laryngoscope

Full Journal Title: Laryngoscope

ISO Abbreviated Title: Laryngoscope

JCR Abbreviated Title: Laryngoscope

ISSN: 0023-852X

Issues/Year: 12

Journal Country/Territory: United States

Language: English

Publisher: Lippincott Williams & Wilkins

Publisher Address: 530 Walnut St, Philadelphia, PA 19106-3621

Subject Categories:

Medicine, Research & Experimental: Impact Factor 1.384, / (2002)

? Bhattacharyya, N. and Shapiro, N.L. (2000), Increased female authorship in otolaryngology over the past three decades. *Laryngoscope*, **110** (3), 358-361.

Full Text: [2000\Laryngoscope110, 358.pdf](2000/Laryngoscope110,%20358.pdf)

Abstract: Objective: To identify changing trends in female authorship and publication in the otolaryngology literature. Methods: All articles published in the four major otolaryngology journals in each of the years 1978, 1988, and 1998 were reviewed The authorship panel of each article was examined for number of authors, gender, educational degree category, and subspecialty area of publication. Data were analyzed for trends in female authorship and the association of gender with the other design variables. Results: A total of 2, 463 articles were analyzed. The average percentage of female authorship increased from 4.1% in 1978 to 8.7% in 1988 and 12.4% in 1998, and the percentage of articles with a female ‘first author’ increased from 3.2% to 7.4% and 11.4% for the same years, respectively. Each of these increases was statistically significant (P <.001). The weighted rank of female authorship also increased from 0.063 to 0.164 and 0.243 for the same years, respectively (P <.001). With respect to subspecialty publication, women were first authors of 14.7% of articles concerning pediatric otolaryngology but accounted for 9.9% or less of the first authors in the other subspecialty areas (P <.001). Female authors were also much more likely to be nonphysicians (P <.001) than men. Conclusions: There has been a significant trend toward increased female authorship in the otolaryngology literature. A significant portion of this is accounted for by nonphysician female authors, and female authorship tends to be concentrated in pediatric otolaryngology.

Keywords: Statistics, Periodical Publications, Bibliometrics, Order

? Wei, W.I., Tuen, H.H., Ng, R.W.M. and Lam, L.K. (2003), Safe tracheostomy for patients with severe acute respiratory syndrome. *Laryngoscope*, **113** (10), 1777-1779.

Abstract: Objectives/Hypothesis. Severe acute respiratory syndrome (SARS) caused by coronavirus has become an epidemic affecting many regions worldwide. Fourteen percent to 20% of patients require endotracheal intubation and ventilator support. Some of these patients may require tracheostomy subsequently. This procedure, when performed without protection, may lead to infection of the medical and nursing staff taking care of the patient. Study Design: Based on clinical information of three patients. Methods: The authors carried out an emergency tracheostomy and changed the tracheostomy tube for one patient and performed elective tracheostomy in another two patients. Results. No medical or nursing staff member was infected after carrying out the procedure while taking all the precautions and wearing the appropriate protective apparel. Conclusion: The authors have prepared guidelines for performing a safe tracheostomy under both elective and emergency conditions. Surgeons who might be involved in performing the tracheostomy should become familiar with these guidelines and the appropriate protective apparel.

Keywords: Hong-Kong

? Chester, A.C. and Sindwani, R. (2007), Symptom outcomes in endoscopic sinus surgery: A systematic review of measurement methods. *Laryngoscope*, **117** (12), 2239-2243.

Full Text: 2007\Laryngoscope117, 2239.pdf

Abstract: Objective: To determine the type and prevalence of measurement methods used to analyze symptom outcomes after endoscopic sinus surgery (ESS). Data Sources: Data were derived from PUBMED, MEDLINE, EMBASE, Web of Science, Cochrane databases, Google Scholar, and manual searches. Study Selection: All English-language studies consisting of more than 10 adult patients from January 1980 to December 2006 reporting ESS symptom outcome results were reviewed. Studies of radical surgery and studies involving patients with significant comorbidities were excluded. Results: The ESS symptom outcome results of 29,333 patients were reported in 204 studies. Symptom outcome was determined by survey instruments in 47 (23.0%) studies and individual symptom scoring in 63 (31%) studies. of 18 validated instruments used, almost two thirds of studies that reported results by survey measures used the following three instruments: Chronic Sinusitis Survey (12 studies), Sinonasal Outcome Test-20(11 studies), and Medical Outcomes study 36-Item Short-Form Health Survey (10 studies). The percentages of studies that reported specific results of the 1997 American Academy of Otolaryngology-Head Neck Surgery Rhlinosinusitis Task Force (RSTF) chronic rhinosinusitis symptom criteria varied as follows: facial pain/pressure, 35%; facial congestion/fullness,, 10%; nasal obstruction/ blockage, 42%; nasal discharge/purulence/discolored postnasal discharge, 47%; hyposmia/anosmia, 35%; fever, 2%; halitosis, 4%; fatigue, 11%; dental pain, 3%; cough, 10%; and ear pain/pressure/fullness, 6%. Conclusions: ESS symptom outcome is assessed inconsistently by numerous measures. Individual reporting of all RSTF chronic rhinosinusitis symptom criteria, as recommended by the RSTF and by subsequent consensus’ conferences, is rarely noted. Many RSTF symptom criteria are seldom studied.

Keywords: Adult, Adult Chronic Rhinosinusitis, Cochrane, Databases, Definition, Embase, Endoscopic, Fatigue, Fever, Google Scholar, Health, Measurement, Medline, Outcome, Outcomes, Pain, Prevalence, Pubmed, Review, Science, Sinus, Sources, Surgery, Survey, Symptoms, Systematic, Systematic Review, Validity, Web of Science

? Chester, A.C., Sindwani, R., Smith, T.L. and Bhattacharyya, N. (2008), Fatigue improvement following endoscopic sinus surgery: A systematic review and meta-analysis. *Laryngoscope*, **118** (4), 730-739.

Full Text: 2008\Laryngoscope118, 730.pdf

Abstract: Background: Fatigue is a common symptom of chronic rhinosinusitis (CRS), yet the response of fatigue to endoscopic sinus surgery (ESS) has not been systematically evaluated. Methods: Studies published in any language were retrieved by searching MEDLINE, EMBASE, Web of Science, Cochrane databases, and additional Web-based sources (from 1980-2007); by examining bibliographies of retrieved articles; and by contacting investigators in the field. Studies consisting of more than 10 adult patients analyzing the response of fatigue, vitality, energy, or malaise following ESS were included. Two authors independently evaluated studies for inclusion, rated the methods, and summarized relevant data using a standardized protocol. Results: Using within-subject comparisons, 28 identified observational studies noted substantial improvement in fatigue after ESS. A subgroup analysis of 11 studies measuring outcomes using the 36-Item Short Form Health Survey (SF-36) demonstrated a moderate-sized combined effect of 0.47 (95% confidence interval, 0.38-0.56; I-2 = 0%), corresponding to a mean standard deviation improvement of 9.7 +/- 3.4 units on the SF-36 vitality domain scores. In studies measuring outcomes using symptom rating scores, the preoperative severity scores and improvement after surgery for fatigue were similar to the respective values for other pooled CRS symptoms. Conclusions: All 28 studies described substantial improvement in fatigue following ESS based on presurgery and postsurgery comparisons. A subgroup analysis of 11 studies reporting results by the SF-36 vitality domain scores demonstrated a moderate-sized combined effect. Preoperative fatigue severity scores and improvement noted after surgery were similar to the respective values for other pooled CRS symptoms.

Keywords: Adult, Analysis, Asthma, Authors, Chronic Rhinosinusitis, Clinical-Outcomes, Cochrane, Databases, Diagnosis, Embase, Endoscopic, Fatigue, Health, Impact, Medline, Meta-Analysis, Methods, Observational, Observational Studies, Outcomes, Protocol, Quality of Life, Quality-of-Life, Review, Rhinosinusitis, Science, Sf-36, Sinus, Surgery, Surgical-Treatment, Symptom Outcomes, Symptoms, Systematic, Systematic Review, Validity, Web of Science

? Hoare, D.J., Kowalkowski, V.L., Kang, S.J. and Hall, D.A. (2011), Systematic review and meta-analyses of randomized controlled trials examining tinnitus management. *Laryngoscope*, **121** (7), 1555-1564.

Full Text: 2011\Laryngoscope121, 1555.pdf

Abstract: Objectives/Hypothesis: To evaluate the existing level of evidence for tinnitus management strategies identified in the UK Department of Health’s Good Practice Guideline. Study Design: Systematic review of peer-reviewed literature and meta-analyses. Methods: Searches were conducted in PUBMED, Cambridge Scientific Abstracts, Web of Science, and EMBASE (earliest to August 2010), supplemented by hand searches in October 2010. Only randomized controlled trials that used validated questionnaire measures of symptoms (i.e., measures of tinnitus distress, anxiety, depression) were included. Results: Twenty-eight randomized controlled trials met our inclusion criteria, most of which provide moderate levels of evidence for the effects they reported. Levels of evidence were generally limited by the lack of blinding, lack of power calculations, and incomplete data reporting in these studies. Only studies examining cognitive behavioral therapy were numerous and similar enough to perform meta-analysis, from which the efficacy of cognitive behavioral therapy (moderate effect size) appears to be reasonably established. Antidepressants were the only drug class to show any evidence of potential benefit. Conclusions: The efficacy of most interventions for tinnitus benefit remains to be demonstrated conclusively. In particular, high-level assessment of the benefit derived from those interventions most commonly used in practice, namely hearing AIDS, maskers, and tinnitus retraining therapy needs to be performed.

Keywords: Antidepressants, Anxiety, Assessment, Behavioral Treatment, Clinical-Trial, Cognitive Behavioral Therapy, Depression, Distress, Drug, Efficacy, Embase, Good Practice Guidelines, Hand, Internet, Interventions, Literature, Management, Meta-Analysis, Methods, Practice, Psychometric Properties, Pubmed, Questionnaire, Randomized Controlled Trial, Randomized Controlled Trials, Retraining Therapy, Review, Science, Symptoms, Systematic, Systematic Review, Therapy, Tinnitus, Tinnitus Retraining Therapy, UK, UK Department of Health, Web of Science

# Title: Laser Focus World

Full Journal Title: Laser Focus World

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Nandakumar, P. (2009), SRS microscopy was discovered and reported earlier than cited. *Laser Focus World*, **45** (12), 9.

Full Text: [2009\Las Foc Wor45, 9.pdf](2009/Las%20Foc%20Wor45,%209.pdf)

Keywords: Raman-Scattering Microscopy, Sensitivity

# Title: Laser Physics

Full Journal Title: Laser Physics

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Ana, P.A., Bachmann, L. and Zezell, D.M. (2006), Lasers effects on enamel for caries prevention. *Laser Physics*, **16** (5), 865-875.

Abstract: The aim of this study was to ascertain whether laser irradiation is able to reduce caries incidence. For this purpose, the effects of laser on enamel and on fluoride uptake were discussed. Current literature regarding the preventive effect of laser irradiation on dental hard tissue has been reviewed. An evaluation of the results of the available in vitro and in vivo studies on the efficacy of anticaries and induced changes on enamel by laser irradiation were also performed. Articles were selected using the MEDLINE, Web of Science, EMBASE, and Cochrane databases, and the results of these studies were described. The most common lasers employed for caries prevention on enamel are Nd:YAG; CO2; Er: AG; Er, Cr:YSGG; and argon. The percentage of inhibition of dental caries varied from 30 to 97.2%, and the association with fluoride has demonstrated the best results on inhibition of caries development. Laser irradiation under specific conditions can change the crystallographic properties of apatite crystals, increasing the acid resistance of lased enamel. The combined treatment of laser irradiation with fluoride propitiates an expressive fluoride uptake, reducing the progression of carieslike lesions, and this treatment is more effective than laser or fluoride alone. Available data suggest that lasers combined with fluoride is a promising treatment in caries prevention.

Keywords: Acquired Acid Resistance, Argon-Laser, Articles, Carbon-Dioxide Laser, Co2, Co2-Laser Irradiation, Cochrane, Databases, Development, Efficacy, Er-Yag Laser, Evaluation, Fluoride, Fluoride Retention, Human Dental Enamel, Human Tooth Enamel, In Vivo, In-Vivo, Incidence, Induced, Literature, Nd-Yag, Prevention, Resistance, Science, Treatment, Web of Science

# Title: Lasie

Full Journal Title: Lasie

ISO Abbreviated Title: Lasie

JCR Abbreviated Title: Lasie

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Warning, P. and Emerson, P. (1995), Cocitation analysis: using bibliometrics to bring academics and information professionals together. *Lasie*, **25**, (4-5), 84-89.

Abstract: Cocitation analysis is a bibliometric technique that is little known among academics and little used by information professionals. As a marriage of technical skills and subject knowledge, it is a potential area for collaborative research between academics and librarians. The authors have utilised computing technology to reduce the labour intensive requirements of the process. Cocitation studies facilitate understanding of the research trends in the discipline under scrutiny.

Keywords: Analysis, Bibliometric, Bibliometrics, Collaborative Research, Information, Knowledge, Labour, Potential, Research, Technology, Trends, Understanding

# Title: Latin American Journal of Pharmacy

Full Journal Title: [Latin American Journal of Pharmacy](http://www.latamjpharm.org/previous.php)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Marona, H.R.N., Lopes, C.C.G O. and Cardoso, S.G. (2003), Non-aqueous titration of gatifloxacin in pharmaceutical formulations using perchloric acid. *Latin American Journal of Pharmacy*, **22** (4), 339-408.

Full Text: [2003\Lat Ame J Pha22, 339.pdf](2003/Lat%20Ame%20J%20Pha22,%20339.pdf)

Abstract: An inexpensive, simple, precise and rapid method for the determination of fluoroquinolone gatifloxacin in tablets is described. The procedure is based on the use of volumetric dosage in a non-aqueous medium in glacial acetic acid with 0.1 M perchloric acid. The method validation yielded good results and included the precision, recovery and accuracy. It was also found that the excipients in the commercial tablet preparation did not interfere with the assay.

# Title: Latin American Research Review

Full Journal Title: Latin American Research Review

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Wood, B. (1968), Self-plagiarism and foreign policy. *Latin American Research Review*, **3** (3), 184-191.

Full Text: [1960-80\Lat Ame Res Rev3, 184.pdf](1960-80/Lat%20Ame%20Res%20Rev3,%20184.pdf)

# Title: Law Library Journal

Full Journal Title: Law Library Journal

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Schriek, R. (1991), Most-cited united-states courts of appeals cases from 1932 until the late 1980s. *Law Library Journal*, **83** (2), 317-331.

Full Text: [1991\Law Lib J83, 317.pdf](1991/Law%20Lib%20J83,%20317.pdf)

Keywords: United States

? Justiss, L.K. (1993), A bibliometric study of Texas law reviews. *Law Library Journal*, **85** (2), 407-408.

Full Text: [1993\Law Lib J85, 407.pdf](1993/Law%20Lib%20J85,%20407.pdf)

Keywords: Bibliometric

# Title: Law and Policy

? Rees, J. (1997), Development of communitarian regulation in the chemical industry. *Law and Policy*, **19** (4), 477-528 (52).

Abstract: This study explores the development of communitarian regulation in the American chemical industry by focusing on the history and challenges facing Responsible Care, the leading example of regulation by an industry association on the environmental scene today.

# Title: Lead in the Enviroment and Its Significance to Man

Great Britain, inter-departmental working group on heavy metals (1974), *Lead in the* *Environment and Its* *Significance to* *Man: A Report of an Inter-Departmental Working Group on Heavy Metals*, London: H.M.S.O.

# Title: Lead Pollution, Causes and Control

Chapman and Hall, London

Harrison, R.M. and Laxen, D.P.H. (1981), *Lead Pollution*, *Causes and Control*, Chapman and Hall, London.

# Title: Learned Publishing

Full Journal Title: [Learned Publishing](http://www.ingentaconnect.com/content/alpsp/lp;jsessionid=gmthq2hqldfqf.alice)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0953-1513

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Donovan, S.K. (2008), Points of view - On accuracy in references. *Learned Publishing*, **21** (1), 74-75.

Full Text: [2008\Lea Pub21, 74.pdf](2008/Lea%20Pub21,%2074.pdf)

Keywords: Accuracy, Citation Practices, Disciplines, Discouraging Verification, References

? Davis, P.M. (2009), Reward or persuasion? The battle to define the meaning of a citation. *Learned Publishing*, **22** (1), 5-11.

Full Text: [2009\Lea Pub22, 5.pdf](2009/Lea%20Pub22,%205.pdf)

Abstract: The history and development of the Science Citation Index (SCI) is an example of the power of users in defining and influencing the development of a new technology. The SCI was developed as a tool for the historian of science for the purpose of tracing the history of ideas, but it was appropriated by users for purposes for which it was unintended - as a tool for evaluating the literature, individuals, institutions, and countries. The development of a citation tool gave rise to a debate over what is actually measured by citation. The citation-as-reward camp views citations as indicators of quality and impact, whereas the citation-as-persuasion camp views citations as no more than rhetorical devices. While neither view call fully explain how authors use citations, citation-as-reward prevails as the dominant interpretation.

Keywords: Citation, Citations, History, Impact, Indicators, Model, Nations, Quality, SCI, Science, Science Citation Index, Tool

? Zhang, H. (2010), CrossCheck: An effective tool for detecting plagiarism. *Learned Publishing*, **23** (1), 9-14.

Full Text: [2010\Lea Pub23, 9.pdf](2010/Lea%20Pub23,%209.pdf)

Abstract: The plagiarism detection service CrossCheck has been used since October 2008 as part of the paper reviewing process for the Journal of Zhejiang University - Science (A & B). Between October 2008 and May 2009 662 papers were CrossChecked; 151 of these (around 22.8% of submitted papers) were found to contain apparently unreasonable levels of copying or self-plagiarism, and 25.8% of these cases (39 papers) gave rise to serious suspicions of plagiarism and copyright infringement. Four types of copying or plagiarism were identified, in an attempt to reach a consensus on this type of academic misconduct. (C) Zhang Yuehong 2010.

Keywords: Plagiarism, Self-Plagiarism

? Meddings, K. (2010), Credit where credit’s due: Plagiarism screening in scholarly publishing. *Learned Publishing*, **23** (1), 5-8.

Full Text: [2010\Lea Pub23, 5.pdf](2010/Lea%20Pub23,%205.pdf)

Abstract: Plagiarism is not a new problem in academic publishing, but in the age of the Internet and digital publishing it would appear that it may be a growing one. Not only is there more literature available, but it has never been easier to search online databases, publisher websites, and institutional repositories. And as the content and its availability grows, so the ability of the reviewer to have read everything in their field diminishes, and detecting unoriginal content becomes harder. In response to this problem, CrossRef has launched CrossCheck (http://www.crossref.org/crosscheck.html), a plagiarism detection service for scholarly publishers. (C) Kirsty Meddings 2010.

Keywords: Databases, Digital Publishing, Literature, Plagiarism, Plagiarism Detection, Publishing, Scholarly Publishing, Screening

? Liu, X.L. and Wang, M.Y. (2010), Self-citation in Chinese biomedical journals. *Learned Publishing*, **23** (2), 93-100.

Full Text: [2010\Lea Pub23, 93.pdf](2010/Lea%20Pub23,%2093.pdf)

Abstract: We investigated the self-citation rates of 884 Chinese biomedical journals, including 185 general medicine journals, 96 preventive medicine journals, 103 Chinese traditional medicine journals, 66 basic medicine journals, 370 clinical medicine journals, and 64 pharmaceutical journals. The average self-citation rates of these journals for the years 2005-2007 were 0.113±0.124, 0.099±0.098 and 0.092±0.089, respectively, i.e. a downward trend year by year. The upper limits of normal values of self-citation rates for the same period were 0.316, 0.260 and 0.238, respectively. A significant difference was found in self-citation rate between biomedical journals of different subjects. 52 Chinese biomedical journals had no self-citation in 2007. The total citation frequency and impact factor of these 52 biomedical journals were 263 and 0.206, respectively, which were very much lower than the average levels of all Chinese biomedical journals in 2007. A self-citation rate higher than the upper limit was considered as excessive self-citation: 62 (7.01%), 68 (7.69%) and 66 (7.47%) biomedical journals showed excessive self-citation in the years 2005-2007, respectively. However, a certain amount of self-citation is reasonable and necessary.

Keywords: Citation, Impact Factor, Impact Factors, Journals, Medicine, Science, Self-Citation, Trend

? Griffin, C. (2010), The Journal of Bone & Joint Surgery’s CrossCheck experience. *Learned Publishing*, **23** (2), 132-135.

Full Text: [2010\Lea Pub23, 132.pdf](2010/Lea%20Pub23,%20132.pdf)

Abstract: This case study reports on the results of implementing the Cross Check plagiarism software. In the first six months, slightly less than 2% of submissions were refused on the grounds of unacceptable duplication. 3% were returned to authors for rephrasing, paraphrasing or adding citations. Most authors complied. Tools such as Cross Check are a valuable resource. Our goal is to educate our authors, not punish them.

Keywords: Authors, Citations, Plagiarism

? Singleton, A. (2010), Bibliometrics and citation analysis; from the Science Citation Index to Cybermetrics. *Learned Publishing*, **23** (3), 267-268.

Full Text: [2010\Lea Pub23, 267.pdf](2010/Lea%20Pub23,%20267.pdf)

Keywords: Bibliometrics, Citation, Science, Science Citation Index

? Craig, I.D. (2010), Measuring academic research: How to undertake a bibliometric study. *Learned Publishing*, **23** (3), 270-271.

Full Text: [2010\Lea Pub23, 270.pdf](2010/Lea%20Pub23,%20270.pdf)

Keywords: Bibliometric, Research

? Saunders, J. (2010), Plagiarism and the law. *Learned Publishing*, **23** (4), 279-292.

Full Text: [2010\Lea Pub23, 279.pdf](2010/Lea%20Pub23,%20279.pdf)

Abstract: Plagiarism is a much older concept than copyright. In this article we consider the distinction between the two and the various types of plagiarism. There are not always legal implications from an act of plagiarism, but there can be, and they can range much wider than copyright law. There are clearly risks for publishers in dealing with alleged or actual plagiarism, but most of these can be managed with prudent forethought. We illustrate some ways in which this can be achieved. (C) Joss Saunders 2010.

Keywords: Plagiarism

? Ahmed, H.S., Hadi, A. and Choudhury, N. (2010), Authorship conflict in Bangladesh: An exploratory study. *Learned Publishing*, **23** (4), 319-325.

Full Text: [2010\Lea Pub23, 319.pdf](2010/Lea%20Pub23,%20319.pdf)

Abstract: This study aimed to explore the causes, types, and consequences of authorship conflicts among the researchers of selected research institutions in Dhaka, Bangladesh; and to suggest ways to reduce conflicts. A sample of 100 researchers was given a semi-structured questionnaire; 45 subjects responded. The responses were confidential and anonymous. Over two-thirds of the respondents were aware of authorship conflicts, and one-third had actually faced conflicts with their co-authors. Of them, four faced conflicts with their juniors, while 13 faced conflicts with their seniors or supervisors. The primary causes of such conflicts appear to be unethical claims of authorship, violation of authorship order, and deprivation of authorship. In most cases, the victims became frustrated and had to give up, and avoided a direct clash to safeguard their job. Four respondents claimed to have been victimized for raising their voice. Conflict was never resolved in seven cases. To reduce conflicts, respondents suggested that authorship should be decided before the study begins, order of authorship must be determined according to contribution, and a standard code of authorship should be followed strictly. Authorship conflicts arise among researchers mostly due to what they regard as unethical practice of their co-authors, supervisors, and department heads in the absence of any formal authorship policy in the institutions. A standard code of authorship, sensitization of researchers to the problem through open discussions and advocacy, and formation of a grievance redress committee are suggested to minimize such conflicts. Although the sample size was small, some of the specific recommendations will be appropriate in many other cases. [GRAPHICS] (C) Hasan Shared Ahmed, Abdullahel Hadi and Nuzhat Choudhury 2010.

Keywords: Advocacy, Authorship, Bangladesh, Contribution, Deprivation, Faculty, Policy, Practice, Primary, Questionnaire, Recommendations, Research, Research Institutions, Researchers, Views, Voice

? Sanni, S.A. and Zainab, A.N. (2011), Evaluating the influence of a medical journal using Google Scholar. *Learned Publishing*, **24** (2), 145-154.

Full Text: [2011\Lea Pub24, 145.pdf](2011/Lea%20Pub24,%20145.pdf)

Abstract: This study shows how a journal’s influence can be calculated by using citations obtained from Google Scholar and other methods even though the journal is not covered by any citation databases. Influence is measured in terms of foreign contributions, ‘equivalent’ immediacy scores of recent articles, and the calculation of citations and ‘equivalent’ impact factor. A total of 580 articles published in the Medical Journal of Malaysia (KM) between 2004 and 2008 served as the sample. Very few foreign authors contributed to MJM (12.5%), implying its low regional acceptance as a channel for research communication. Immediacy scores for each year indicate citations were received by recently published articles. A total of 1,164 citations were received by 446 of the 580 articles and the main citing sources were journals (1,083) with reasonable is index and impact factor. Yearly impact scores ranged between 0.367 and 0.616. Higher impact factor scores were obtained by older articles. (C) S.A. Sanni and A.N. Zainab 2011.

Keywords: Acceptance, Authors, Bibliometric Analysis, Calculation, Citation, Citation Analysis, Citations, Communication, Databases, Factor Scores, Immediacy, Impact, Impact Factor, Impact Factor Scores, Index, Information, Internationalization, Journal, Journals, Malaysia, Medical, Medical Journal of Malaysia, Methods, MJM, Recent, Regional, Research, Science, Scopus, Sources, Web

? Davis, P.M. (2011), Do discounted journal access programs help researchers in sub-Saharan Africa? A bibliometric analysis. *Learned Publishing*, **24** (4), 287-298.

Full Text: [2011\Lea Pub24, 287.pdf](2011/Lea%20Pub24,%20287.pdf)

Abstract: Prior research has suggested that providing free and discounted access to the scientific literature to researchers in low-income countries increases article production and citation. Using traditional bibliometric indicators for institutions in sub-Saharan Africa, we analyze whether institutional access to TEEAL (a digital collection of journal articles in agriculture and allied subjects) increases: (i) article production; (ii) reference length; and (iii) number of citations to journals included in the TEEAL collection. Our analysis is based on nearly 20,000 articles containing half a million references published between 1988 and 2009 at 70 institutions in 11 African countries. We report that access to TEEAL does not appear to result in higher article production, although it does lead to longer reference lists (an additional 2.6 references per paper) and a greater frequency of citations to TEEAL journals (an additional 0.4 references per paper), compared to non-subscribing institutions. We discuss how traditional bibliometric indicators may not provide a full picture of the effectiveness of free and discounted literature programs. (C) Philip M. Davis 2011.

Keywords: Africa, African Countries, Analysis, Bibliometric, Bibliometric Analysis, Bibliometric Indicators, Biology, Citation, Citations, Database, Effectiveness, Frequency, Impact, Journal, Journals, Lead, Literature, Low-Income Countries, Nations, Online, Research, Researchers, Science, Strategies, Sub-Saharan Africa, Teeal, Traditional

# Title: Leather Science and Engineering

Full Journal Title: Leather Science and Engineering

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1004-7964

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Xu, L., Zhou, R.Q. and Shi, B. (2006), Hydrolysis dynamics of calf collagen components by pepsin. *Leather Science and Engineering*, **16** (1), 29-32.

Full Text: [2006\Lea Sci Eng16, 29.pdf](2006/Lea%20Sci%20Eng16,%2029.pdf)

Abstract: The effects of pepsin offer and temperature on hydrolysis kinetic of calf collagen compo nents were investigated. The results indicated that in the range 15 - 40°C, the hydrolysis process was facilitated by the increase of enzyme offer and temperature. Meanwhile, the hydrolysis mechanism the course of limited hydrolysis of inner - enzyme, and the dynamic model of hydrolysis can be expressed as: *C* (- N H2) = *b-* 1·ln[ 1 + *a*·*b*·*t* ]. Where t he dynamic parameter a varies with the conditions of hydrolysis and the relation between value a and hydrolysis conditions needs to be f urther investigated. The dynamic parameterb, the value around 6.0, is a hydrolysis dynamic constant of calf collagen components by pep sin.

Keywords: Collagen, Enzyme, Hydrolysis, Dynamic

# Title: Lebensmittel-Wissenschaft & Technologie

Full Journal Title: Lebensmittel-Wissenschaft & Technologie

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Iglesias, H.A. and Chirife, J. (1977), Effect of fat-content on water sorption isotherm of air dried minced beef. *Lebensmittel-Wissenschaft & Technologie*, **10** (3), 151-152.

? B Iglesias, H.A. and Chirife, J. (1977), Effect of heating in dried state on moisture sorption isotherm of beef. *Lebensmittel-Wissenschaft & Technologie*, **10** (5), 249-250.

? Chirife, J., Boquet, R. and Iglesias, H.A. (1979), Mathematical-description of water sorption isotherm of foods in the high range of water activity. *Lebensmittel-Wissenschaft & Technologie*, **12** (3), 150-152.

# Title: Lecture Notes in Computer Science

Full Journal Title: [Lecture Notes in Computer Science](http://www.springerlink.com/content/105633/)

ISO Abbreviated Title:

JCR Abbreviated Title: Lect Notes Comput Sci

ISSN: 0302-9743

Issues/Year: 44

Journal Country/Territory: United States

Language: English

Publisher: Springer-Verlag Berlin

Publisher Address: Heidelberger Platz 3, D-14197 Berlin, Germany

Subject Categories:

Computer Science, Theory & Methods: Impact Factor 0.415, / (2001)

? Bitirim, Y., Tonta, Y. and Sever, H. (2002), Information retrieval effectiveness of Turkish search engines. *Lecture Notes in Computer Science*, *Advances in Information Systems*, **2457**, 93-103.

Full Text: [2002\Lec Not Com Sci2457, 93.pdf](2002/Lec%20Not%20Com%20Sci2457,%2093.pdf)

Abstract: This is an investigation of information retrieval performance of Turkish search engines with respect to precision, normalized recall, coverage and novelty ratios. We defined seventeen query topics for Arabul, Arama, Netbul and Superonline. These queries were carefully selected to assess the capability of a search engine for handling broad or narrow topic subjects, exclusion of particular information, identifying and indexing Turkish characters, retrieval of hub/authoritative pages, stemming of Turkish words, correct interpretation of Boolean operators. We classified each document in a retrieval output as being ‘relevant’ or ‘nonrelevant’ to calculate precision and normalized recall ratios at various cut-off points for each pair of query topic and search engine. We found the coverage and novelty ratios for each search engine. We also tested how search engines handle meta-tags and dead links. Arama appears to be the best Turkish search engine in terms of average precision and normalized recall ratios, and the coverage of Turkish sites. Turkish characters (and stemming as well) still cause bottlenecks for Turkish search engines. Superonline and Netbul make use of the indexing information in metatag fields to improve retrieval results.

Keywords: World-Wide-Web

? Trinitis, C., Schulz, M. and Karl, W. (2002), A comprehensive electric field simulation environment on top of SCI. *Lecture Notes in Computer Science*, *Rough Sets and Current Trends in Computing*, **2474**, 114-121.

Full Text: [2002\Lec Not Com Sci2474, 114.pdf](2002/Lec%20Not%20Com%20Sci2474,%20114.pdf)

Abstract: A key aspect in the design process of high voltage gear is the exact simulation of the electrostatic and/or electromagnetic field distribution for three dimensional problems. However, such simulation runs are quite compute- and communication-intensive. Therefore, clusters of commodity PCs, equipped with high-speed interconnection technologies, are becoming increasingly important as target platforms, due to their excellent cost-performance ratio.

This paper gives a status report on the results that were obtained on such a Linux-based cluster platform (connected via Fast Ethernet and SCI) installed at ABB Corporate Research using POLOPT, a state-of-theart parallel simulation environment for electrostatic and electromagnetic three dimensional problems from High Voltage Engineering. For electrostatic and electromagnetic field simulations in practical High Voltage Engineering, high efficiency was obtained. In addition, a unified execution environment based on MPI has been developed for the POLOPT environment.

Keywords: Electric Field Simulation, Commodity Clusters, Parallel Efficiency, High Voltage Engineering, SCI

? Buzydlowski, J.W., White, H.D. and Lin, X. (2002), Term co-occurrence analysis as an interface for digital libraries. *Lecture Notes in Computer Science*, *Visual Interfaces to Digital Libraries*, **2539**, 133-144.

Full Text: [2002\Lec Not Com Sci2539, 133.pdf](2002/Lec%20Not%20Com%20Sci2539,%20133.pdf)

Abstract: We examine the relationship between term co-occurrence analysis and a user interface for digital libraries. We describe a current working implementation of a dynamic visual information retrieval system based on co-cited author maps that assists in browsing and retrieving records from a large-scale database, ten years of the Arts & Humanities Citation Index, in real time. Any figure in the arts or humanities, including scholars and critics, can be mapped, and the maps are live interfaces for retrieving co-citing documents.

Keywords: Information-Retrieval, Networks

? Skovvang, M., Elbaek, M.K. and Hertzum, M. (2005), Personometrics: Mapping and visualizing communication patterns in R&D projects. *Lecture Notes in Computer Science*, *Information Context: Nature, Impact, and Role*, **3507**, 141-154.

Full Text: [2005\Lec Not Com Sci3507, 141.pdf](2005/Lec%20Not%20Com%20Sci3507,%20141.pdf)

Abstract: People such as R&D engineers rely on communication with their colleagues to acquire information, get trusted opinion, and as impetus for creative discourse. This study investigates the prospects of using bibliometric citation techniques for mapping and visualizing data about the oral communication patterns of a group of R&D engineers. Representatives of the R&D engineers find the resulting maps - we term them personometric maps rich in information about who knows what and potentially useful as tools for finding people with specific competences. Maps of old projects are seen as particularly useful because old projects are important entry points in searches for information and the maps retain information indicative of people’s competences, information that is otherwise not readily available. Face-to-face communications and communications via phone, email, and other systems are more ephemeral than scholarly citations, and (semi -)automated means of data collection are critical to practical application of personometric analyses.

Keywords: Citation, Cocitation, Documents, Knowledge, Networks, Science

? Schneider, J.W. and Borlund, P. (2005), A bibliometric-based semi-automatic approach to identification of candidate thesaurus terms: Parsing and filtering of noun phrases from citation contexts. *Lecture Notes in Computer Science*, *Information Context: Nature, Impact, and Role*, **3507**, 226-237.

Full Text: [2005\Lec Not Com Sci3507, 226.pdf](2005/Lec%20Not%20Com%20Sci3507,%20226.pdf)

Abstract: The present study investigates the ability of a bibliometric based semi-automatic method to select candidate thesaurus terms from citation contexts. The method consists of document co-citation analysis, citation context analysis, and noun phrase parsing. The investigation is carried out within the specialty area of periodontology. The results clearly demonstrate that the method is able to select important candidate thesaurus terms within the chosen specialty area.

Keywords: Cocitation, Design, Documents

? Lu, C.C., Jen, W.Y. and Chang, W.P. (2007), Trends in computer crime and cybercrime research during the period 1974-2006: A bibliometric approach. *Lecture Notes in Computer Science*, *Intelligence and Security Informatics*, **4430**, 244-250.

Full Text: [2007\Lec Not Com Sci4430, 244.pdf](2007/Lec%20Not%20Com%20Sci4430,%20244.pdf)

Abstract: The aim of this study is to explore trends in computer crime and cybercrime research from 1974 to 2006. All publications for this analysis were drawn from the ISI Web of Science, the Science Citation Index (SCI), and the Social Science Citation Index (SSCI). The ISI Web of Science is considered a powerful and relatively accurate tool in bibliometric studies. About 292 papers related to computer crime and cybercrime were published during this period. The greatest number of these papers was written in English, and the annual output increased significantly after 2003. In the period under study, most papers originated in the USA. Approximately 57% of the publications were articles, and 72% of these articles had single authors. More bibliometric analyses are described in this study, which shows a high scientific production of articles on computer crime and cybercrime publications.

? Lim, C.H. and Lee, C.K. (2007), ICADL: The prolific contributors. *Lecture Notes in Computer Science*, *Asian Digital Libraries. Looking Back 10 Years and Forging New Frontiers*, **4822**, 514-515.

Full Text: [2007\Lec Not Com Sci4822, 514.pdf](2007/Lec%20Not%20Com%20Sci4822,%20514.pdf)

Abstract: This paper identifies the prolific authors at the International Asian Conference on Digital Libraries (ICADL) from 2002 to 2006. To provide a holistic picture, three methods of counting were used, namely whole counting, fractional counting, and first author counting.

Keywords: Counting, Fractional Counting, International, Scientometrics, Whole Counting

# Title: Legal Medicine

Full Journal Title: [Legal Medicine](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=6637&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=4a7365fcc1b6e80753a79bd86cece99d)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Ikematsu, K., Tsuda, R., Kondo, T., Kondo, H., Ozawa, K., Ogawa, S. and Nakasono, I. (2003), The expression of a novel stress protein `150-kDa oxygen regulated protein’ in sudden infant death. *Legal Medicine*, **5** (1), 15-19.

Full Text: [L\Leg Med5, 15.pdf](L/Leg%20Med5,%2015.pdf)

Abstract: The oxygen regulated protein 150-kDa (ORP-150) is only induced in hypoxic conditions. We performed an immunohistochemical and morphometrical study on the expression of ORP-150 in the brains of sudden infant death (SID) victims. The cerebral cortexes of 18 infants were used for this study. Each tissue section was incubated with anti-ORP-150 polyclonal antibodies and the number of ORP-150 positive cells was counted. In the cluster analysis, the 18 cases were classified into three groups (A–C groups). Group A was composed of six sudden infant death syndrome (SIDS) cases and its mean value of ORP-150 positive cells was 66.75±3.44, Group B (six severe respiratory infectious disease such as pneumonia and bronchitis including sepsis): 39.50±2.52 and Group C (five SIDS and one severe respiratory infectious disease): 16.00±2.92, respectively. These results might reflect chronic hypoxic condition before death, because ORP-150 is only induced when a hypoxic condition exist, but not acute hypoxia. and chronic hypoxic state is likely to be antecedent to SIDS. Therefore, immunohistochemical analysis of OPR-150 in the brain of SID cases may be very useful to differentiate between SIDS and acute asphyxia.

Keywords: Oxygen Regulated Protein 150-kDa, Chronic Hypoxia, Stress Protein, Sudden Infant Death, Sudden Infant Death Syndrome, Forensic Autopsy

# Title: LEMLID: 2008 Northeast Asia Logistics Engineering and Modern Logistics Industry Development, Proceedings

Full Journal Title: LEMLID: 2008 Northeast Asia Logistics Engineering and Modern Logistics Industry Development, Proceedings

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Rong, Z., Hua, H.J. and Hao, Y. (2008), Research on visualization of the literature evolution of reverse logistics. *LEMLID: 2008 Northeast Asia Logistics Engineering and Modern Logistics Industry Development, Proceedings*, 102-108.

Abstract: This paper uses the theories of traditional bibliometrics and scientometrics and the technology of modern statistics and computer application to do visualization analysis on the internal structure of the literatures in the reverse logistics field so as to make contribution in terms of methodology to the knowledge system of the reverse logistics. This paper applies CiteSpace software into the visualization analysis about the literature data in the reverse logistics field from year 1997 to 2007 in SCI and SSCI, and carries out preliminary discussion on the key literatures and the hot topics of the reverse logistics. It can supply the research path and the research direction for the researcher of reverse logistics according the above mentioned theories and method.

Keywords: Bibliometrics, Citespace, Evolution, Information Visualization, Knowledge, Knowledge Domain, Literature Evolution, Models, Networks, Recovery, Research, Reverse Logistics, SCI, Scientometrics, SSCI, Statistics, Visualization

# Title: Leonardo

Full Journal Title: [Leonardo](http://www.jstor.org/action/showPublication?journalCode=leonardo)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? (1980), Arts and Humanities Citation Index Aandhci – Institute for Scientific Information. *Leonardo*, **13** (1), 81-82.

Full Text: [1960-80\Leonardo13, 81.pdf](1960-80/Leonardo13,%2081.pdf)

# Title: Leprosy Review

Full Journal Title: Leprosy Review

ISO Abbreviated Title: Lepr. Rev.

JCR Abbreviated Title: Leprosy Rev

ISSN: 0305-7518

Issues/Year: 4

Journal Country/Territory: England

Language: English

Publisher: Lepra

Publisher Address: Fairfax House, Causton Road, Colchester, England CO1 1PU

Subject Categories:

Dermatology & Venereal Diseases Infectious Diseases Pathology Tropical Medicine: Impact Factor

? Neville, J. (1988), After multidrug therapy (MDT): Who is responsible for continuing care. *Leprosy Review*, **59** (1), 1-3.

# Title: Letras de Deusto

Full Journal Title: Letras de Deusto

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Montejogurruchaga, L. (1988), Self-citation in Otero, Blas works. *Letras de Deusto*, **18** (42), 161-169.

# Title: Letters in Applied Microbiology

Full Journal Title: [Letters in Applied Microbiology](http://www.blackwell-synergy.com/servlet/useragent?func=showIssues&code=lam)

ISO Abbreviated Title: Lett. Appl. Microbiol.

JCR Abbreviated Title: Lett Appl Microbiol

ISSN: 0266-8254

Issues/Year: 12

Journal Country/Territory: England

Language: English

Publisher: Blackwell Science Ltd

Publisher Address: PO Box 88, Osney Mead, Oxford OX2 0NE, Oxon, England

Subject Categories:

Biotechnology & Applied Microbiology Microbiology: Impact Factor

Pinto, B., Pierotti, R., Canale, G. and Reali, D. (1999), Characterization of ‘faecal streptococci’ as indicators of faecal pollution and distribution in the environment. *Letters in Applied Microbiology*, **29** (4), 258-263.

Full Text: [L\Let App Mic29, 258.pdf](L/Let%20App%20Mic29,%20258.pdf)

Abstract: The recent revision of the taxonomy of ‘faecal streptococci’ prompted us to verify the importance of identifying the species of this group of cocci. During a study carried out to assess the hygienic quality of environmental samples from a variety of sources, we isolated 198 strains named faecal streptococci on the basis of conventional international tests (EVA broth multiple tube test) used for Public Health purposes. The predominant species were *Enterococcus* faecalis (39%) and Ent. *faecium* (29%), followed by Ent. durans/hirae, Ent. casseliflavus/gallinarum, Ent. raffinosus, with a different prevalence of the species depending on the source. Eighty-four per cent of isolates were true faecal species. Only one isolate was identified as belonging to the Streptococcus genus. The authors stress the opportunity to identify the species. This may help to clarify the ecological and epidemiological characteristics of intestinal enterococci and streptococci in the environment, in drinking and recreational waters and their meaning as indicators of faecal pollution. All isolates were tested for their susceptibility to some antimicrobial agents widely used in medical therapy and the pattern was compared with the pattern of isolates from clinical specimens.

Keywords: Vancomycin-Resistant *Enterococcus*, Fecal Streptococci, Identification, Infection, Animals, Durans, Farm

Akhtar, N., Iqbal, J. and Iqbal, M. (2003), Microalgal-luffa sponge immobilized disc: A new efficient biosorbent for the removal of Ni(II) from aqueous solution. *Letters in Applied Microbiology*, **37** (2), 149-153.

Full Text: [L\Let App Mic37, 149.pdf](L/Let%20App%20Mic37,%20149.pdf)

Abstract: Abstract n. akhtar, j. iqbal and m. iqbal. 2003. Aims:

The aim was to develop a new, efficient and cost-effective biosorbent for the removal of heavy metals from aqueous solution. Methods and Results:

A new biosorbent was developed by immobilizing a unicellular green microalga *Chlorella sorokiniana* within luffa sponge discs and used for the removal of metal ions from aqueous solution. Microalgal-luffa sponge immobilized discs (MLIDs) removed Ni(II) very rapidly, with 97% of equilibrium loading being reached in 5 min. MLIDs were tested for their potential to remove Ni(II) from aqueous solution in fixed-bed column bioreactor. The regenerated MLIDs retained 92.9% of the initial binding capacity for Ni(II) up to five cycles of reuse. Conclusions:

In this study for the first time, *C. sorokiniana* biomass immobilized within luffa sponge disc was successfully used as a metal biosorbent for the removal of Ni(II). It appears that MLIDs can be used as an effective biosorbent for efficient removal of Ni(II) or other metals from aqueous solution. Significance and Impact of the Study:

MLIDs biosorption system was shown to have good biosorption properties with respect to Ni(II). Efficient metal removal ability of MLIDs, low cost and simplicity of the technique used for the preparation of MILDs could provide an attractive strategy for developing high-affinity biosorption system for heavy metal removal.

? Vimont, A., Vernozy-Rozand, C. and Delignette-Muller, M.L. (2006), Isolation of E-coli O157: H7 and non-O157 STEC in different matrices: Review of the most commonly used enrichment protocols. *Letters in Applied Microbiology*, **42** (2), 102-108.

Full Text: [2006\Let App Mic42, 102.pdf](2006/Let%20App%20Mic42,%20102.pdf)

Abstract: Aims: To review and characterize the enrichment protocols used for detecting all Shiga-Toxin producing Escherichia coli (STEC) from different matrices. Methods and Results: Firstly, the frequency distribution of the factors characterizing the enrichment protocols is described; secondly, a multiple correspondence analysis is performed to display profiles of association of these factors, and thirdly, published results concerning the relative performances of the protocols are summarized. Trypticase Soy Broth (TSB) is reported as the most frequently used enrichment broth. More often, one antibiotic is added in enrichment broths and these broths are incubated for a duration of 16-24 h at 35-37°C. It also appears that the incubation temperature does not seem to be related to the type of serogroup looked for and that antibiotics are used regardless of the matrix analysed. Finally, results relating to the enrichment protocol efficacy are rare and differ from one study to another. Conclusions: Statistical studies must be conducted so as to assess the efficacy of the main enrichment protocols investigated in this study. Significance and Impact of the Study: This study reviews the most commonly used enrichment protocols and highlights the lack of results as to their relative efficacy.

Keywords: Analysis, Bibliometric Study, Dairy, Distribution, Efficacy, Enrichment, Enrichment Protocol, Escherichia Coli, Food, Ground-Beef, Immunomagnetic Separation, MCA, Meat, O157: H7, PCR, Prevalence, Profiles, Recovery, Review, Reviews, Salmonella, Shiga-Toxin, Temperature

? Kim, M.K., Singleton, I., Yin, C.R., Quan, Z.X., Lee, M. and Lee, S.T. (2006), Influence of phenol on the biodegradation of pyridine by freely suspended and immobilized *Pseudomonas putida* MK1. *Letters in Applied Microbiology*, **42** (5), 495-500.

Full Text: [2006\Let App Mic42, 495.pdf](2006/Let%20App%20Mic42,%20495.pdf)

Abstract: Aims: To study the effect of co-contaminants (phenol) on the biodegradation of pyridine by freely suspended and calcium alginate immobilized bacteria.

Methods and Results: Varying concentrations of phenol were added to free and calcium alginate immobilized Pseudomonas putida MK1 (KCTC 12283) to examine the effect of this pollutant on pyridine degradation. When the concentration of phenol reached 0.38 g l-1, pyridine degradation by freely suspended bacteria was inhibited. The increased inhibition with the higher phenol levels was apparent in increased lag times. Pyridine degradation was essentially completely inhibited at 0.5 g l-1 phenol. However, immobilized cells showed tolerance against 0.5 g l-1 phenol and pyridine degradation by immobilized cell could be achieved.

Conclusions: This works shows that calcium alginate immobilization of microbial cells can effectively increase the tolerance of P. putida MK1 to phenol and results in increased degradation of pyridine.

Significance and Impact of the Study: Treatment of wastewater stream can be negatively affected by the presence of co-pollutants. This work demonstrates the potential of calcium alginate immobilization of microbes to protect cells against compound toxicity resulting in an increase in pollutant degradation.

Keywords: Biodegradation, Immobilization, Phenol, Pseudomonas Putida, Pyridine, Saccharomyces-Cerevisiae, Calcium-Alginate, Pimelobacter Sp, Degradation, Bacterium, Tolerance, Ethanol, Cells, Soil

# Title: Lettres Romanes

Full Journal Title: Lettres Romanes

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Bolle, L. (1985), Barthes, Roland by Barthes, Roland or the autonym + self-portrait or self-citation. *Lettres Romanes*, **39** (1-2), 9-16.

# Title: Leukemia Research

Full Journal Title: [Leukemia Research](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5108&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=22171a8ba13ad23c703d39b78a41e96c)

ISO Abbreviated Title: Leuk. Res.

JCR Abbreviated Title: Leukemia Res

ISSN: 0145-2126

Issues/Year: 12

Journal Country/Territory: England

Language: English

Publisher: Pergamon-Elsevier Science Ltd

Publisher Address: The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England

Subject Categories:

Oncology: Impact Factor 2.115, / (2002)

Nagata, C., Shimizu, H., Hirashima, K., Kakishita, E., Fujimura, K., Niho, Y., Karasawa, M., Oguma, S., Yoshida, Y. and Mizoguchi, H. (1991), Hair dye use and occupational exposure to organic solvents as risk factors for myelodysplastic syndrome. *Leukemia Research*, **23** (1), 57-62.

Full Text: [L\Leu Res23, 57.pdf](L/Leu%20Res23,%2057.pdf)

Abstract: To investigate the relationships of personal hair dye use and environmental factors to myelodysplastic syndromes (MDS), we conducted a case-control study in Japan. A total of 111 MDS cases and 830 controls randomly selected from the residents in the same prefecture of cases using telephone directories responded to a health questionnaire. The odds ratio (OR) for ever having used hair dye was 1.99 (95% confidence interval (CI) 1.17–3.38) and there were statistically significant trends in risk with increasing duration and number of hair dye use. Occupational exposure to organic solvents was marginally associated with the risk of MDS (OR=1.99; 95% CI 0.97–4.10).

Keywords: MDS, Myelodysplastic Syndrome, RA, Refractory Anemia, RAEB, Refractory Anemia With Excess of Blasts, OR, odds ratio, CI, Confidence Interval, Hair Dyes, Organic Solvents, Myelodysplastic Syndrome, Smoking, Case-Control Study

# Title: Libraries & Culture

Full Journal Title: [Libraries & Culture](http://muse.jhu.edu/journals/libraries_and_culture/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Drabinski, E. (2009), Documentation: A history and critique of attributions, commentary, glosses, marginalia, notes, bibliographies, works-cited lists, and citation indexing and analysis. *Libraries & the Cultural Record*, **44** (4), 501-502.

Full Text: 2009\Lib Cul Rec44, 501.pdf

Keywords: Bibliographies, Citation, History

# Title: Libraries & Culture

Full Journal Title: [Libraries & Culture](http://muse.jhu.edu/journals/libraries_and_culture/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Wertheimer, A.B. (2005), Quantifying the “goodness” of library history research: A bibliometric study of the ‘Journal of Library History, Libraries & Culture’. *Libraries & Culture*, **40** (3), 267-284.

Full Text: [2005\Lib Cul40, 267.pdf](2005/Lib%20Cul40,%20267.pdf)

Abstract: Library historians use primarily qualitative research methods, unlike most in LIS, who adopt social science research methods. This contrast becomes problematic when evaluating the goodness of historical research. This article briefly explores this conflict and crosses the methodological divide by adapting both bibliometrics and qualitative approaches to examine four volumes from the Journal of Library History (1967, 1977) and its successor, Libraries & Culture (1987, 1997), in order to observe transitions. The sample, 497 citations from 53 articles, was tabulated by age, self-citation, and other factors to examine the goodness of historical research.

Keywords: Affiliation, Authorship, Bibliometric, Bibliometric Study, Bibliometrics, Citation, Communication, Faculty, Information-Science, LIS, Patterns, Productivity, Research, Science Research, US

? Astrom, F. and Pettersson, L. (2006), Mapping activities of artists in the past: A bibliometric study of the library of the Scandinavian Association in Rome until 1870. *Libraries & Culture*, **41** (2), 219-232.

Full Text: [2006\Lib Cul41, 219.pdf](2006/Lib%20Cul41,%20219.pdf)

Abstract: The purpose of this study is to conduct a bibliometric analysis of the library collection at the Scandinavian Association in Rome. Data were gathered from the library catalog and then submitted to frequency and co-occurrence analyses. By examining keywords, authors, and the language of the books found in the library, we were able to draw conclusions about its role as a social rather than an academic institution, with the additional function of helping the SAR members find their way around in the city of Rome and to its historical sites. The bibliometric analyses proved useful in analyzing the function of the library and, to some extent, the general context of the library and the association. At the same time, they cannot be said to be useful for creating cognitive maps such as those being made in analyses of scientific fields.

Keywords: Academic, Analysis, Bibliometric, Bibliometric Analysis, Bibliometric Study, Co-Word, Function, General, Historical, Intellectual Structure, Language, Made, Role, SAR, Sites, Social

# Title: Library Acquisitions: Practice & Theory

Full Journal Title: [Library Acquisitions: Practice & Theory](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5958&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=eea8511bacfc25a842eb642d71716562)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Nisonger, T.E. (1994), A methodological issue concerning the use of Social Sciences Citation Index Journal Citation Reports impact factor data for journal ranking. *Library Acquisitions: Practice & Theory*, **18** (4), 447-458.

Full Text: [L\Lib Acq Pra The18, 447.pdf](L/Lib%20Acq%20Pra%20The18,%20447.pdf)

Abstract: Following a brief introduction of citation-based journal rankings as potential serials management tools, the most frequently used citation measure––impact factor––is explained. This paper then demonstrates a methodological bias inherent in averaging Social Sciences Citation Index Journal Citation Reports (SSCI JCR) impact factor data from two or more consecutive years. A possible method for correcting the bias, termed adjusted impact factor, is proposed. For illustration, a set of political science journals is ranked according to three different methods (crude averaging, weighted averaging, and adjusted impact factor) for combining SSCI JCR impact factor data from successive years. Although the correlations among the three methods are quite high, one can observe noteworthy differences in the rankings that could impact on collection development decisions.

Keywords: Journal Ranking, Journal Citation Reports, Impact Factor, Political Science Journals

Altmann, K.G. and Gorman, G.E. (1998), The usefulness of impact factors in serial selection: A rank and mean analysis using ecology journals. *Library Acquisitions: Practice & Theory*, **22** (2), 147-159.

Full Text: [L\Lib Acq Pra The22, 147.pdf](L/Lib%20Acq%20Pra%20The22,%20147.pdf)

Abstract: This paper investigates the usefulness of ISI Journal Impact Factors in making serial selection and deselection decisions. It shows that Impact Factors do not remain relatively constant from year to year; specifically, the rank order of 56 ecology titles was found to vary considerably over time. The median year-to-year variation in Impact Factors was found to be 21.9%, and the average variability of Impact Factors over a five-year period was 13.2%. The study also found a considerable degree of overlap in the average Impact Factor of serials in the ISI’s Ecology category. These findings cast doubt on the usefulness of relying on a single year’s JCR (Journal Citation Reports) to make informed selection/deselection decisions.

# Title: Library Collections Acquisitions & Technical Services

Full Journal Title: [Library Collections Acquisitions & Technical Services](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=6263&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=9bc31243e070e8b6de4231c8bc1556e3)

ISO Abbreviated Title: Libr. Collect Acquis. Tech. Serv.

JCR Abbreviated Title: Libr Collect Acquis

ISSN: 464-9055

Issues/Year: 4

Journal Country/Territory: England

Language: English

Publisher: Pergamon-Elsevier Science Ltd

Publisher Address: The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England

Subject Categories:

Information Science & Library Science: Impact Factor 0.333, / (2002)

Black, S. (1999), An assessment of social sciences coverage by four prominent full-text online aggregated journal packages. *Library Collections Acquisitions & Technical Services*, **23** (4), 411-419.

Full Text: [1999\Lib Col Acq Tec Ser23, 411.pdf](1999/Lib%20Col%20Acq%20Tec%20Ser23,%20411.pdf)

Abstract: The cost effectiveness and quality of full-text journals are analyzed for four prominent online aggregated journal packages: EBSCOhost Academic Search FullTEXT, UMI Proquest Direct Periodicals Research II, IAC’s Expanded Academic ASAP, and H.W. Wilson’s OmniFile. Price data from EBSCO’s Librarians’ Handbook are used to assess the total and average value of social sciences journals in each package. Quality of social sciences journals coverage is compared based on citation impact factors as recorded in Journal Citation Reports––Social Sciences Edition.

Keywords: Citation Impact Factor Analysis, Cost Effectiveness, Full-Text, Online Journals, Social Sciences Journals

Tonta, Y. (2001), Collection development of electronic information resources in Turkish university libraries. *Library Collections Acquisitions & Technical Services*, **25** (3), 291-298.

Full Text: [2001\Lib Col Acq Tec Ser25, 291.pdf](2001/Lib%20Col%20Acq%20Tec%20Ser25,%20291.pdf)

Abstract: The number of information sources available through both printed and electronic media are ever increasing. Even libraries with sizable collection development budgets are having difficulties in coping with this increase. Yet with the development of new technologies, the possibilities of innovative interlibrary cooperation projects emerge: libraries combining their efforts through various consortia are trying to get access to electronic information sources more economically. In this paper, we briefly review the state-of-the-art of Turkish university libraries and summarize the efforts to set up a university library consortium to provide consortial access to electronic information sources and services. We discuss some of the causes which are delaying the establishment of such a consortium. (C) 2001 Elsevier Science Ltd. All rights reserved.

? Nisonger, T.E. (2001), Report on the 8th international conference on scientometrics and informetrics in Sydney, Australia. *Library Collections Acquisitions & Technical Services*, **25** (4), 485-488.

Full Text: [2001\Lib Col Acq Tec Ser25, 485.pdf](2001/Lib%20Col%20Acq%20Tec%20Ser25,%20485.pdf)

? Gracza, T. and Somoskovi, E. (2008), Research papers in the crosshairs: Newer viewpoints on the development of library resources. *Library Collections Acquisitions & Technical Services*, **32** (1), 42-45.

Full Text: [2008\Lib Inf Sci Res32, 42.pdf](2008/Lib%20Inf%20Sci%20Res32,%2042.pdf)

Abstract: A large number of the libraries’ selection of research papers are based on the quality and quantity of the papers selected. Most recently, a new mode for this type of selection appeared in the field of scientometrics. The Hirsch index provides new viewpoints to meet the criteria regarding the quality of journals. An understanding and use of the Hirsch index provides assistance to those librarians who wish to expand their libraries’ selection, find it important to maintain a higher quality, and want to develop the standards of their library. (C) 2008 Elsevier Inc. All rights reserved.

Keywords: Bibliometric Methods, Development, Hirsch Index, Impact Factor, Index, Journals, Libraries, Library Collection, Papers, Quality, Ranking, Research, Scientists, Scientometrics, Standards

# Title: Library Development

Full Journal Title: [Library Development](http://e48.cnki.net/KNS50/Navi/item.aspx?NaviID=1&BaseID=TSGJ&NaviLink=%e5%9b%be%e4%b9%a6%e9%a6%86%e5%bb%ba%e8%ae%be)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1004-325X

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? 柴雅凌, 郝飞, 刘宁, (2006), SCIRUS science search engine challenges GOOGLE. Library Development, **4**, 30-32.

Full Text: [2006\Lib Dev4, 30.pdf](2006/Lib%20Dev4,%2030.pdf)

Abstract: The information sources and search method of Scirus are briefly introduced, the characteristics of Scirus are expounded emphatically. Scirus’s functions which are the selection of information sources, information filter, individuation retrieval, using bibliometric identifiers, offering of subject words list online, marking and saving the search results and so on surpass Google. The article evaluates Scirus performance, considers Scirus to satisfy user’s requirements. Its design concepts are the developing di..

Keywords: Scirus, Google, Individuation, Information Filter, Bibliometric Identifier

# Title: Library Hi Tech

Full Journal Title: [Library Hi Tech](http://www.emeraldinsight.com/Insight/viewContainer.do?containerType=JOURNAL&containerId=11298)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Aguillo, I. (2009), Measuring the institution’s footprint in the web. *Library Hi Tech*, **27** (4), 540-556.

Full Text: [2009\Lib Hi Tec27, 540.pdf](2009/Lib%20Hi%20Tec27,%20540.pdf)

Abstract: Purpose - The purpose of this paper is to provide an alternative, although complementary, system for the evaluation of the scholarly activities of academic organizations, scholars and researchers, based on web indicators, in order to speed up the change of paradigm in scholarly communication towards a new fully electronic twenty-first century model. Design/methodology/approach - In order to achieve these goals, a new set of web indicators has been introduced, obtained mainly from data gathered from search engines, the new mediators of scholarly communication. Findings - It was found that three large groups of indicators are feasible to obtain and relevant for evaluation purposes: activity (web publication); impact (visibility) and usage (visits and visitors). As a proof of concept, a Ranking Web of Universities has been built with Webometrics data. There are two relevant findings: ranking results are similar to those obtained by other bibliometric-based rankings; and there is a concerning digital divide between North American and European universities, which appear in lower positions when compared with their USA and Canada counterparts. Research limitations/implications - Cybermetrics is still an emerging discipline, so new developments should be expected when more empirical data become available. Practical implications - The proposed approach suggests the publication of truly electronic journals, rather than digital versions of printed articles. Additional materials, such as raw data and multimedia files, should be included along with other relevant information arising from more informal activities. These repositories should be Open Access, available as part of the public web, indexed by the main commercial search engines. It is expected that these actions could generate larger web-based audiences, reduce the costs of publication and access and allow third parties to take advantage of the knowledge generated, without sacrificing peer review, which should be extended (pre- and post-) and expanded (closed and open). Originality/value - A full taxonomy of web indicators is introduced for describing and evaluating research activities, academic organizations and individual scholars and scientists. Previous attempts for building such classification were incomplete and did not take into account feasibility and efficiency.

Keywords: Academic Staff, Academic Web, Articles, Classification, Electronic Journals, Electronic Publication, Evaluation, Groups, Impact, Indicators, Information, Journals, Link Analysis, Paradigm, Patterns, Peer Review, Publication, Ranking, Rankings, Research, Review, Scholarly Communication, Science, Search Engines, Site Interlinking, Universities, USA, Visibility, Webometrics, Worldwide Web

? Hayati, Z. and Didegah, F. (2010), International scientific collaboration among Iranian researchers during 1998-2007. *Library Hi Tech*, **28** (3), 433-446.

Full Text: [2010\Lib Hi Tec28, 433.pdf](2010/Lib%20Hi%20Tec28,%20433.pdf)

Abstract: Purpose - The paper aims to investigate the rate of Iranian researchers collaboration with their colleagues in other countries in science citation index (SCI). In addition, it seeks to investigate the visibility of publications by Iranian researchers, and particularly the visibility of papers resulting from international collaboration. Design/methodology/approach - The paper employs the survey research method to answer research questions. Any publication recorded in the SCI database from 1998 to 2007 with at least one Iranian author was recognized and transferred to a database in Excel. The total records were 33,813. This number mostly includes articles, letters, notes, and reviews. Findings - The results showed that Iranian researchers have had scientific collaboration with 115 countries, and that their numbers have increased between 1998 and 2007. The results also showed that the number of domestic articles per year was 2-3.5 times more than international ones. Investigating international collaboration in different subject areas revealed that geosciences had the biggest number of publications co-authored internationally. Iran’s main partners were the USA, Canada, and UK, respectively. European researchers were the main counterparts of Iranian researchers. In addition, Iranian researchers had mostly co-published with their colleagues in advanced countries. Among Iranian universities and research institutions, the University of Tehran had the highest collaboration at the international level. The results revealed that the average number of citations received by international co-authored publications was more than those received by domestic co-authored publications. Originality/value - The paper shows the situation of international collaboration among Iranian researchers and the impact of publications resulting from international collaboration.

Keywords: Author, Chemistry, Citation, Citations, Co-Authorship, Cooperation, International Collaboration, International Cooperation, Iran, Model, Patterns, Publication, Publications, Qualitative Research, Quality, Referencing, Research, Researchers, SCI, Science, Scientific Collaboration

# Title: Library and Information

Full Journal Title: [Library and Information](http://e48.cnki.net/KNS50/Navi/item.aspx?NaviID=1&BaseID=BOOK&NaviLink=%e5%9b%be%e4%b9%a6%e4%b8%8e%e6%83%85%e6%8a%a5)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1003-6938

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Ma, Y.L., Cao, F. and Wang, S.J. (2006), Document analysis of invent patents in gansu province. Library and Information, **5,** 75-79.

Full Text: [2006\Lib Inf5, 75.pdf](2006/Lib%20Inf5,%2075.pdf)

Abstract: The temporal and spatial distributions and main technical fields of invent patents in Gansu province from 2000 to 2005 were bibliometrically analyzed in order to provide basis of information and decision-making for s&t management and patent strategy. The results showed that Lanzhou city had more patents than other cities, accounting for 78. 8% of whole invent patents in Gansu province, and main owners of patents were research institutes, accounting for 42. 4% of whole patents, and priority technological fields wer..

Keywords: Invent Patent, Distribution, Bibliometric, Gansu Province

# Title: Library & Information Science Research

Full Journal Title: [Library & Information Science Research](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=6577&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=097dafe71097c975358dee69e32659b7)

ISO Abbreviated Title: Libr. Infor. Sci. Res.

JCR Abbreviated Title: Libr Inform Sci Res

ISSN: 0740-8188

Issues/Year: 4

Journal Country/Territory: United States

Language: English

Publisher: Elsevier Science Inc

Publisher Address: 360 Park Ave South, New York, NY 10010-1710

Subject Categories:

Information Science & Library Science: Impact Factor 0.735, 20/55 (2003); Impact Factor 0.957, 16/55 (2005) SSCI

? Mcghee, P.E., Skinner, P.R., Roberto, K., Ridenour, N.J. and Larson, S.M. (1987), Using online databases to study current research trends - An online bibliometric study. *Library & Information Science Research*, **9** (4), 285-291.

Keywords: Bibliometric, Research

? Lockett, M.W. and Khawam, Y.J. (1990), Referencing patterns in C-and-RL and JAL, 1984-1986 - A bibliometric analysis. *Library & Information Science Research*, **12** (3), 281-289

Keywords: Bibliometric, Bibliometric Analysis, Citation Analysis, College, Information-Science, Journals, Research-Libraries

? Budd, J. (1991), Scholarly Communication and Bibliometrics - Borgman,Cl. *Library & Information Science Research*, **13** (2), 163-165

Keywords: Bibliometrics, Communication

? Shaw, D. (1993), Citation errors in library literature: A study of 5 library-science journals. *Library & Information Science Research*, **15** (2), 185-198.

Full Text: 1993\Lib Inf Sci Res15, 185.pdf

Abstract: Five core library science journals were examined to study the accuracy of citations in library literature. A total of 1,094 references from 131 articles were verified directly by comparing the published citation with the original publication. In 193 references, 223 errors were detected. A review of citations at manuscript stage was also carried out for one of the journals. The results of the study show that library and information professionals, in spite of their awareness of difficulties posed by inaccurate citations, are prone to making such mistakes themselves. The article emphasizes a need for greater awareness among LIS professionals of keeping their citations error free, and suggests other aspects of the subject for further study.

Keywords: Bibliographic Citations, References, Accuracy

? Vanfleet, C. (1993), Evidence of communication among public librarians and library and information-science educators in public-library journal literature. *Library & Information Science Research*, **15** (3), 257-274.

Full Text: 1993\Lib Inf Sci Res15, 257.pdf

Abstract: An analysis of journal articles appearing in five journals over a 2-year period suggests that public librarians and library and information science (LIS) educators who publish in these journals communicate with each other through this formal information-dissemination system. Public librarians and LIS educators demonstrated a preference for providing explicit references rather than implicit references or supplemental readings. LIS educators more frequently provided references, and included a greater number of references per article. Public librarians and LIS educators provided references most frequently to “others.” LIS educators included significantly more references to LIS educators than to public librarians. There was no significant difference in the frequency with which public librarians cited LIS educators and public librarians. Results demonstrate that LIS science educators and public librarians use the national public library journal literature as an interactive communication system.

Keywords: Analysis, Bibliometrics, Citation Analysis, Communication, Dissemination, Information, Information Dissemination, Information Science, Journal, Journal Articles, Journals, Knowledge, Library and Information Science, LIS, Literature, National, Practitioners, Preference, Public, References, Research Articles, Science

? Harsanyi, M.A. (1993), Multiple authors, multiple problems bibliometrics and the study of scholarly collaboration - A literature-review. *Library & Information Science Research*, **15** (4), 325-354.

Full Text: 1993\Lib Inf Sci Res15, 325.pdf

Abstract: This literature review covers multiple authorship as it relates to research on scholarly publishing within library and information science. The article examines the research on collaboration in other disciplines and considers the methodological impact of various ways of allotting “credit” for multi-authored works and the relationships between multiple authorship and other publication variables, such as quality and impact. Given the complex relationship between collaboration and productivity, the concomitant use of nonbibliometric methods of studying collaboration, as well as the application of meta-analysis, is suggested.

Keywords: Academic Librarians, Application, Authorship, Bibliometrics, Citation Measures, Collaboration, Disciplines, Faculty, Impact, Information, Information Science, Information-Science Literature, Library and Information Science, Literature, Literature Review, Meta-Analysis, Metaanalysis, Methods, Multiauthored Papers, Patterns, Productivity, Productivity Differences, Publication, Publishing, Quality, Relationship, Relationships, Research, Review, Science, Scientific Collaboration, Single, Variables

Shaw, D. (1994), International librarianship: A bibliometric analysis of the field: Bliss, Nonie Janet Ph.D. Dissertation, School of Library and Information Studies, Texas Woman’s University, 1991. (UMI Order Number 9219635) Reviewed by Katherine W. McCain, College of Information Studies, Drexel University, Philadelphia, Pennsylvania 19104. *Library & Information Science Research*, **16** (2), 177-180.

Full Text: [1994\Lib Inf Sci Res16, 177.pdf](1994/Lib%20Inf%20Sci%20Res16,%20177.pdf)

Keywords: Bibliometric, Bibliometric Analysis

? Davenport, E. (1996), Proceedings of the fifth biennial conference of the international society for scientometrics and informetrics - Koenig, M, Bookstein, A. *Library & Information Science Research*, **18** (1), 90-92.

Full Text: [1996\Lib Inf Sci Res18, 90.pdf](1996/Lib%20Inf%20Sci%20Res18,%2090.pdf)

Keywords: Informetrics, Scientometrics

Jacsó, P. (1998), Analyzing the journal coverage of abstracting/indexing databases at variable aggregate and analytic levels. *Library & Information Science Research*, **20** (2), 133-151.

Full Text: [1998\Lib Inf Sci Res20, 133.pdf](1998/Lib%20Inf%20Sci%20Res20,%20133.pdf)

Abstract: Several studies have attempted to reveal the real scope, completeness, and consistency of journal coverage across time in abstracting/indexing publications. Online and CD-ROM databases make easier the collection of posting information for journals to determine the traits of their coverage but do not eliminate entirely the tedium of manual methods. Difficulties are compounded when multiple databases are used to compare the journal coverage and overlap of several databases for an extended time period. This article discusses the use of advanced search commands and the Journal Name Finder database of DIALOG, to simplify the collection and processing of posting information for 42 prestigious library and information science (LIS) serials between 1966 and 1996 in six databases. It presents the major types of deficiencies in journal coverage that may yield very incomplete search results and may distort the results of bibliometric and scientometric studies. The methodology allows the creation of various subsets by the versatile combination of journal titles, time periods and databases, and encourages longitudinal data collection and comparison of variously aggregated datasets. It can be used for profiling the journal coverage in the evaluation of databases in support of bibliometric research, database acquisition, and licensing decisions.

Nilsen, K. (1998), Social science research in Canada and government information policy: The statistics Canada example. *Library & Information Science Research*, **20** (3), 211-234.

Full Text: [1998\Lib Inf Sci Res20, 211.pdf](1998/Lib%20Inf%20Sci%20Res20,%20211.pdf)

Abstract: This research on government information policy’s effects on use and users of government information considered social scientists’ use of information from Canada’s central statistical agency, Statistics Canada. Using a triangulated methodology, the investigation focused on Canadian mid-1980s federal cost-recovery and restraint initiatives which applied to government information. The case study revealed Statistics Canada’s response to the initiatives. Bibliometric research objectively documented policy effects on use of statistics sources, examining Canadian social science journal articles in five disciplines. Textual examination revealed use of Canadian and foreign governmental and nongovernmental statistics sources over the years surrounding policy implementation. An author survey supplemented bibliometric findings. Higher prices and increased electronic data dissemination by Statistics Canada were confirmed, however bibliometric analysis indicated no significant change over time in use of statistics sources. Survey respondents expressed unhappiness with the price increases, but did not change sources used. Many (in 1995) still used paper products rather than electronic ones, a finding which provides baseline data but which does not reflect the more recent explosion in Internet use.

Akin, L. (1998), Methods for examining small literatures: Explication, physical analysis, and citation patterns. *Library & Information Science Research*, **20** (3), 251-270.

Full Text: [1998\Lib Inf Sci Res20, 251.pdf](1998/Lib%20Inf%20Sci%20Res20,%20251.pdf)

Abstract: Three methods––explication, physical analysis, and citation patterns––are used to dissect a small literature: the information overload research from library studies. Explication is an exercise in critical reading and the trilevel explication used here examines overt research structure, backward citation chaining, and within- text inquiry. Overt structure seeks standard research characteristics. Backward citation chaining follows the abstract cognitive train of thought and a within-text inquiry analyzes textual anatomy according to implicit cues: syntactic, semantic, and pragmatic. Physical examination considers the text as artifact and inventories physical properties: publishing entity, co-authorship, literature age, or the amount of explanatory materials. Citation patterns follow bibliometric tenets and identify core researchers, co-authorship, linking citations, overall citing behavior, and the degree of peer- and self-citing. Crossdiscipline comparisons arise from a similar analysis of the overload research from consumer science and psychology/psychiatry. Conclusions arise from the literature itself and result in simple evidentiary statements.

Tang, R. and Thelwall, M. (2003), US academic departmental Web-site interlinking in the United States disciplinary differences. *Library & Information Science Research*, **25** (4), 437-458.

Full Text: [2003\Lib Inf Sci Res25, 437.pdf](2003/Lib%20Inf%20Sci%20Res25,%20437.pdf)

Abstract: This article explores disciplinary differences in academic Web-site interlinking using the university departments of chemistry, psychology, and history. Research has suggested that Web-link counts are related to research productivity and geographic distance between source and target, but no previous Webometric studies have comparatively analyzed academic departments from different disciplines. This study shows large differences in Web use by discipline for both Web-site size and the extent of interlinking, with the history department making little use of the Web and the chemistry department the most. There are significant correlations between in-links and research impact for the psychology and chemistry departments, with a stronger association for the psychology department. There was little evidence, however, of a geographic trend in interlinking. (C) 2003 Elsevier Inc. All rights reserved.

Keywords: Association, Chemistry, Correlations, Evidence, History, Impact, Productivity, Psychology, Research, Research Productivity, Rights, Size, Source, Trend, United States, University, US

Onyancha, O.B. and Ocholla, D.N. (2004), A comparative study of the literature on HIV/AIDS in Kenya and Uganda: A bibliometric study. *Library & Information Science Research*, **26** (4), 434-447.

Full Text: [2004\Lib Inf Sci Res26, 434.pdf](2004/Lib%20Inf%20Sci%20Res26,%20434.pdf)

Abstract: Through descriptive informetrics, HIV/AIDS research on Uganda and Kenya are compared by country, by publication type and date, by institutional affiliation, by publishing sources, by size of publications, by gender, and by nature of research collaboration. Research funding plays major role in the creation of relevant research centers in these countries and in financing research projects and research affiliates. Most publications are coauthored and focus on women, and a large proportion of HIV/AIDS documents are published outside Africa. The study recommends further research on the rest of Africa, on research collaboration, and on comparison of various population categories. The refinement of piloted research methodology and funding will be crucial for further research.

Keywords: Affiliation, AIDS Literature, Bibliometric, Bibliometric Study, Collaboration, Financing, Informetrics, Latin-America, Population, Publication, Publications, Publishing, Research, Size

Chu, H.T. (2005), Taxonomy of inlinked Web entities: What does it imply for webometric research? *Library & Information Science Research*, **27** (1), 8-27.

Full Text: [2005\Lib Inf Sci Res27, 8.pdf](2005/Lib%20Inf%20Sci%20Res27,%208.pdf)

Abstract: Hyperlinks from other Web sites are, in some respect, similar to bibliographical citations. Link analysis, like citation analysis in bibliometrics, has emerged as a research area of webometrics in recent years. But why are links made and where do they point? A sample of inlinked Web entities (i.e., Web pages or Web sites) was randomly selected from a group of academic institutions’ Web sites. The inlinked sites, along with the hyperlink data and outlinking sites, were analyzed and categorized to form a taxonomy of inlinked sites. Based on this taxonomy, a list of reasons for hyperlinking, grouped in four top-level categories (teaching/learning, research, service, and home page), was identified. Compared with bibliographical citations, hyperlinks were made for a different set of reasons. Hyperlinking also has fewer dimensions, less complexity, and little negative implication. On the whole, almost 50% of all the inlinks examined were created for pointing to resource or directory information provided at the target Web sites. In addition, nearly three fourths (73%) of all the inlinked sites analyzed in this study were linked to for reasons relating to service or home page while less than one third (27%) of the links were made out of research or teaching/learning motivations. Yet, teaching and research are the two major criteria traditionally used for evaluating academic institutions. These findings, although by no means conclusive, suggest that evaluative link-based studies should not only consider link counts but also reasons for hyperlinking in order to ensure the validity of such research.

Keywords: Analysis, Behavior, Bibliometrics, Citation, Citation Analysis, Citations, Citer Motivations, Classification, Communication, Hyperlinks, Information, Links, Reasons, Research, Social-Sciences, Taxonomy, Validity, Webometrics, World-Wide-Web

? Swygart-Hobaugh, A.J. (2004), A citation analysis of the quantitative/qualitative methods debate’s reflection in sociology research: Implications for library collection development. *Library Collections Acquisitions & Technical Services*, **28** (2), 180-195.

Full Text: [2004\Lib Inf Sci Res28, 180.pdf](2004/Lib%20Inf%20Sci%20Res28,%20180.pdf)

Abstract: This study examines how the social sciences’ debate between qualitative and quantitative methods is reflected in the citation patterns of sociology journal articles. Citation analysis revealed that quantitative articles were more likely to cite journal articles than monographs, while qualitative articles were more likely to cite monographs than journals. Quantitative articles cited other articles from their own quantitative-dominated journals but virtually excluded citations to articles from qualitative journals, while qualitative articles cited articles from the quantitative-dominated journals as well as their own qualitative-specialized journals. Discussion and conclusions include this study’s implications for library collection development. (C) 2004 Elsevier Inc. All rights reserved.

Keywords: Analysis, Books, Careers, Citation, Citation Analysis, Citations, Journals, Own-Language Preference, Patterns, Print, Qualitative Debate, Research, Sciences, Self-Citation, Serials

Tonta, Y. and Al, U. (2006), Scatter and obsolescence of journals cited in theses and dissertations of librarianship. *Library & Information Science Research*, **28** (2), 281-296.

Full Text: [2006\Lib Inf Sci Res28, 281.pdf](2006/Lib%20Inf%20Sci%20Res28,%20281.pdf)

Abstract: This article analyzes the bibliometric features (the number of pages, completion years, the fields of subject, the number of citations, and their distribution by types of sources and years) of 100 theses and dissertations completed at the Department of Librarianship of Hacettepe University between 1974 and 2002. Almost a quarter (24%) of all dissertations were on university libraries, followed by public libraries (9%). Doctoral dissertations were, on average, twice as long as master’s theses and contained 2.5 times more citations. Monographs received more citations (50%) than journal articles did (42%). Recently completed theses and dissertations contained more citations to electronic publications. Fourteen (or 3.2% of all) journal titles (including Türk Kütüphaneciliği, College & Research Libraries, and Journal of the American Society for Information Science) received almost half (48.9%) of all citations. Eighty percent of journal titles were cited infrequently. No correlation was found between the frequency of citations of the most frequently cited journals and their impact factors. Cited journal titles in master’s and doctoral theses and dissertations overlapped significantly. Similarly, journal titles cited in dissertations also overlapped significantly with those that were cited in the journal articles published in the professional literature. The distribution of citations to foreign journal titles fit Bradford’s Law of Scattering. The mean half-life of all cited sources was 9 years. Sources cited in master’s dissertations were relatively more current. Single authorship was the norm in cited resources. Coupled with in-library use data, findings of the present study can be used to identify the core journal titles in librarianship as well as to evaluate the existing library collections to decide which journal titles to keep, discard, or relegate to off-site storage areas.

Keywords: Authorship, Bibliometric, Biomedical Literature 1988-1997, Citation Analysis, Citations, Core, Faculty, Impact, Impact Factors, Journal Articles, Journals, Librarianship, Libraries, Library, Literature, Obsolescence, Professional, Publications, References, Research, Science, Social-Science Publications, University

Patra, S.K. and Chand, P. (2007), HIV/AIDS research in India: A bibliometric study. *Library & Information Science Research*, **29** (1), 124-134.

Full Text: [2007\Lib Inf Sci Res29, 124.pdf](2007/Lib%20Inf%20Sci%20Res29,%20124.pdf)

Abstract: This article looks at the growth over time of Indian AIDS research output based on bibliographic data from PubMed and Web of Science. Authorship distribution was examined using Lotka’s law. Bradford’s law of scattering was used to identify core journals. The study identifies active institutions and statewide distributions of Indian AIDS research output. The yearly analysis of data shows that there is a rapid growth of literature from 1992 onwards. Still, in an international sense, relative productivity of India is low and requires more focused research and development.

Keywords: AIDS, AIDS Literature, Analysis, Authorship, Bibliometric, Bibliometric Study, Bradford’s Law, Core, Development, Growth, Journals, Law, Literature, Lotka’s Law, Productivity, PUBMED, Research, Research and Development, Research Output, Science, Web of Science

? Kousha, K. and Thelwall, M. (2007), The Web impact of open access social science research. *Library & Information Science Research*, **29** (4), 495-507.

Full Text: [2007\Lib Inf Sci Res29, 495.pdf](2007/Lib%20Inf%20Sci%20Res29,%20495.pdf)

Abstract: For a long time, Institute for Scientific Information (ISI) journal citations have been widely used for research performance monitoring of the sciences. For the social sciences, however, the Social Sciences Citation Index (R) (SSCI (R)) can sometimes be insufficient. Broader types of publications (e.g., books and non-ISI jounals) and informal scholarly indicators may also be needed. This article investigates whether the Web can help to fill this gap. The authors analyzed 1530 citations from Google (TM) to 492 research articles from 44 open access social science journals. The articles were published in 2001 in the fields of education, psychology, sociology, and economics. About 19% of the Web citations represented formal impact equivalent to journal citations, and 11% were more informal indicators of impact. The average was about 3 formal and 2 informal impact citations per article. Although the proportions of formal and informal online impact were similar in sociology, psychology, and education, economics showed six times more formal impact than informal impact. The results suggest that new types of citation information and informal scholarly indictors could be extracted from the Web for the social sciences. Since these form only a small proportion of the Web citations, however, Web citation counts should first be processed to remove irrelevant citations. This can be a time-consuming process unless automated. (C) 2007 Elsevier Inc. All rights reserved.

Keywords: Access, Citation, Citation Counts, Citations, Economics, Education, First, Impact, Indicators, Information, Institute for Scientific Information, ISI, Journal, Journal Citations, Journals, Monitoring, Open, Open Access, Performance, Psychology, Publications, Research, Research Performance, Rights, Science, Science Journals, Science Research, Sciences, Small, Social, Social Sciences, Sociology, SSCI

? Shaw, D. and Vaughan, L. (2008), Publication and citation patterns among LIS faculty: Profiling a “typical professor”. *Library & Information Science Research*, **30** (1), 47-55.

Full Text: [2008\Lib Inf Sci Res30, 47.pdf](2008/Lib%20Inf%20Sci%20Res30,%2047.pdf)

Abstract: Research on publication and citation patterns generally focuses on prolific or highly cited authors or on highly ranked programs. This study investigates the work and influence of a cross-section of library and information science (LIS) researchers at various stages of their academic lives, using a random sample of faculty members at programs accredited by the American Library Association. The analysis shows that the number of publications increases steadily as faculty rank advances. Assistant professors publish more conference papers and fewerjournal articles, a pattern that is reversed with associate and full professors. Researchers used Web of Science (R) and Google (TM) Scholar to deter-mine the influence of the publications. Web of Science reported no citations for most LIS faculty publications. With its broader scope, Google Scholar located more citations and revealed that the works of professors are cited significantly more frequently than publications by assistant or associate professors. When faculty profiles are compared by type of program, faculty members at schools granting doctoral degrees publish significantly more than their counterparts at schools where there is no doctoral program or where the doctoral degree is offered jointly with other academic units. When the comparison is made across ranks, full professors publish significantly more than faculty members at other ranks. There is no significant difference between assistant and associate professors. (C) 2007 Elsevier Inc. All rights reserved.

Keywords: Articles, Citation, Citations, Comparison, Counts, Elsevier, Google Scholar, Information Science, Information-Science Faculty, Library, LIS, Number of Publications, Programs, Publication, Publications, Rankings, Research, Researchers, Scholarly Productivity, Science, Web of Science

? Johns, S. and Marinko, R. (2008), Holdings of peace research journals in academic library collections. *Library & Information Science Research*, **30** (3), 185-194.

Full Text: [2008\Lib Inf Sci Res30, 185.pdf](2008/Lib%20Inf%20Sci%20Res30,%20185.pdf)

Abstract: Peace movements have shaped national and international culture for decades. Although the Cold War is over, conflict-resolution issues continue to dominate headlines and the news. Peace literature holdings are vital to a relatively young but growing peace and conflict studies curricula. This study uses the list of serials abstracted by Peace Research Abstracts journal to examine the holdings rates of peace-oriented journal titles in the Association of Research Libraries (ARL) member libraries. Holdings rates are examined by library, title, and subject category. Their impact on scholars, researchers, and students is discussed. Findings reveal generally strong holdings rates among ARL libraries. The broad nature of peace research, however, results in greater variation in holdings among certain important sub-topics of the literature. (c) 2008 Elsevier Inc. All rights reserved.

Keywords: Author, Bias, Books, Fiction Titles, Impact, Journal, Journals, Literature, Public-Libraries, Research, Researchers, Students, Subject Category

? Shachaf, P. and Shaw, D. (2008), Bibliometric analysis to identify core reference sources of virtual reference transactions. *Library & Information Science Research*, **30** (4), 291-297.

Full Text: [2008\Lib Inf Sci Res30, 291.pdf](2008/Lib%20Inf%20Sci%20Res30,%20291.pdf)

Abstract: As the use of electronic reference sources becomes commonplace, virtual reference services are expanding in scope, modes, and popularity. Simultaneously. reference practices are evolving as well. One concept that may be challenged by these trends is the notion of the core reference collection. What are the sources that form this core collection, and what are its characteristics? Are similar sources used to answer users’ questions in virtual and traditional reference? How do core collections of public and academic libraries differ? An analysis of 1851 e-mail and chat reference transactions from public and academic libraries reveals that the notion of a core reference collection persists in the world of virtual reference services. In both types of libraries, responses to patrons showed a skewed bibliographic distribution: librarians used a small group of sources to answer most of the questions. Almost all sources used were electronic. Academic libraries tended to make greater use of fee-based sources, but public libraries more often used sources freely-available on the Web. (C) 2008 Elsevier Inc. All rights reserved.

Keywords: Academic, Age, Analysis, Bibliometric, Bibliometric Analysis, Characteristics, Collection, Digital Reference, Distribution, Email, Framework, Group, Library, Notion, Practices, Public, Questions, Reference, Reference Service, Reference Services, Rights, Scope, Services, Small, Sources, Trends, World

? Mukherjee, B. (2009), The hyperlinking pattern of open-access journals in library and information science: A cited citing reference study. *Library & Information Science Research*, **31** (2), 113-125.

Full Text: [2009\Lib Inf Sci Res31, 113.pdf](2009/Lib%20Inf%20Sci%20Res31,%20113.pdf)

Abstract: Using 17 open-access journals published without interruption between 2000 and 2004 in the field of library and information science. this study compares the pattern of cited/citing hyperlinked references of Web-based scholarly electronic articles under various citation ranges in terms of language, file format, source and top-level domain. While the patterns of cited references were manually examined by counting the live hyperlinked-cited references, the patterns of citing references were examined by using the cited by tag in Google Scholar. The analysis indicates that although language, top-level domain, and file format of citations did not differ significantly for articles under different citation ranges, sources of citation differed significantly for articles in different citation ranges. Articles with fewer citations mostly cite less-scholarly sources such as Web pages, whereas articles with a higher number of citations mostly cite scholarly sources such as journal articles, etc. The findings suggest that 8 out of 17 OA journals in LIS have significant research impact in the scholarly communication process. (C) 2009 Elsevier Inc. All rights reserved.

Keywords: Articles, Availability, Citation, Citation Analysis, Citations, Electronic Journals, Impact, Information, Information Science, Journal, Journals, Open Access, Research, Web Citations

? Thelwall, M. (2009), Bibliometrics and citation analysis: From the Science Citation Index to Cybermetrics. *Library & Information Science Research*, **31** (4), 268-269.

Full Text: [2009\Lib Inf Sci Res31, 268.pdf](2009/Lib%20Inf%20Sci%20Res31,%20268.pdf)

Keywords: Bibliometrics

? Mages, W.K. and Garson, D.S. (2010), Get the cite right: Design and evaluation of a high-quality online citation tutorial. *Library & Information Science Research*, **32** (2), 138-146.

Full Text: 2010\Lib Inf Sci Res32, 138.pdf

Abstract: As part of a library initiative to foster information literacy, promote academic integrity. and prevent inadvertent plagiarism, a high-quality online tutorial was designed to teach Students to cite sources properly The development of this tutorial, APA Exposed Everything You Always Wanted to Know About APA Format but Were Afraid to Ask, was a collaborative endeavor among research and instruction librarians, learning technology specialists, and an instructor This study employs a mixed-methods research approach that combines the use of multiple data sources - an online survey, website visitor-tracking software, e-mail correspondence, and a Google search - to evaluate the quality and efficacy of the tutorial. Analyses of online Survey data indicate 98% of survey respondents found the tutorial useful or very useful All of the respondents reported the tutorial improved their understanding of APA style. In addition, 93% of respondents said they planned to use this tutorial as a reference resource in the future and 99% said they would recommend the tutorial to others. The online tutorial received an average of 1055 visits per month The findings of this study indicate that there is a need for high-quality online citation instruction and that the tutorial meets this need Providing effective citation instruction online not only benefits tutorial participants but also research and instruction librarians as they can now allocate limited library resources to areas of instruction other then proper citation techniques. (C) 2010 Elsevier Inc. All rights reserved.

Keywords: Academic Integrity, Avoid Plagiarism, Citation, Development, Information Literacy, Instruction, Learning, Literacy, Plagiarism, Research, Students, Survey, Tutorial

? Blessinger, K. and Hrycaj, P. (2010), Highly cited articles in library and information science: An analysis of content and authorship trends. *Library & Information Science Research*, **32** (2), 156-162.

Full Text: [2010\Lib Inf Sci Res32, 156.pdf](2010/Lib%20Inf%20Sci%20Res32,%20156.pdf)

Abstract: Thirty-two highly cited articles that were influential to scholarly communication in library and information science (LIS) in the latter part of the twentieth century are identified and examined journal distributions, major subject themes, and authorship characteristics of these articles are discussed and compared to the majority of scholarly articles published in LIS during the same time period. (C) 2010 Elsevier Inc All rights reserved.

Keywords: Authorship, Highly Cited Articles, History, Impact Factor, Information, Information Science, Journal, LIS Faculty, Publication Patterns, Scholarly Productivity, US Academic Librarians

? Sugimoto, C.R. (2011), Collaboration in information and library science doctoral education. *Library & Information Science Research*, **33** (1), 3-11.

Full Text: [2011\Lib Inf Sci Res33, 3.pdf](2011/Lib%20Inf%20Sci%20Res33,%203.pdf)

Abstract: Coauthorship is increasing across all areas of scholarship. Despite this trend, dissertations as sole-authored monographs are still revered as the cornerstone of doctoral education. As students learn the norms and communicative behaviors of their field during their doctoral education, do they also learn collaborative behaviors? This study investigated this issue through triangulation of 30 interviews, 215 questionnaires, and bibliometric analyses of 97 CVs in the field of library and information science (LIS). The findings demonstrate that collaboration occurs in about half of advisee/advisor relationships and is primarily understood as research dissemination outside the dissertation. Respondents reported that the dissertation was not and should not be considered a collaborative product. The discussion also includes a commentary about grant funding and the implications for this on models of academic scholarship and research production. (C) 2010 Elsevier Inc. All rights reserved.

Keywords: Acknowledgment, Analyses, Bibliometric, Bibliometric Analyses, Citation, Collaboration, Education, Field, Funding, Information, Information Science, Interviews, Journal Literature, Library and Information Science, LIS, Models, Multiple Authorship, Networks, Norms, Patterns, Productivity, Publication, Questionnaires, Research, Rights, Scholarship, Science, Social-Sciences, Students, Systems, Trend

? Nikzad, M., Jamali, H.R. and Hariri, N. (2011), Patterns of Iranian co-authorship networks in social sciences: A comparative study. *Library & Information Science Research*, **33** (4), 313-319.

Full Text: [2011\Lib Inf Sci Res33, 313.pdf](2011/Lib%20Inf%20Sci%20Res33,%20313.pdf)

Abstract: Collaboration in science is a process in which two or more authors share their ideas, resources and data to create a joint work. This research compares coauthorship networks of Iranian articles in library and information science (LIS), psychology (PSY), management (MNG), and economics (ECO) in the ISI Web of Knowledge database during 2000-2009, and uses network analysis for the visualization of coauthorship networks. Data include all articles with at least one Iranian author and indexed in ISI’s Social Science Citation Index (SSCI) for the fields of US, PSY, MNG, and ECO. Indicators such as the Collaborative Index (CI), Degree of Collaboration (DC) and Collaboration Coefficient (CC) were calculated for each discipline. Results show that two or three authors were the most common number of authors per paper, and authors of PSY tended to have more multi-authored articles, compared to the other disciplines. LIS had the lowest rank regarding CC. MNG had the densest coauthorship network. and PSY had the sparsest. Iranian authors in the field of PSY mostly collaborated with those in the U.S.. while LIS and MNG authors tended to collaborate with U.K. authors, and ECO authors tended to collaborate with Canadians. (C) 2011 Elsevier Inc. All rights reserved.

Keywords: Analysis, Articles, Author, Authors, Chemistry, Citation, Citation Rates, Co-Authorship, Co-Authorship Networks, Coauthorship, Collaboration, Comparative Study, Economics, Impact, Indicators, Information, Information Science, ISI, Joint, Knowledge, LIS, Management, Multiple Authorship, Network, Quality, Research, Science, Science Citation Index, Sciences, Scientific Collaboration, Single, Social, Social Sciences, SSCI, US, Visualization, Web of Knowledge

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? Mayumi, I. (1984), Citation behavior in literary research: Citation context analysis in Shakespeare studies. *Library and Information Science*, **22**, 119-128.

? Saito, Y. (1985), The diffusion process of knowledge in the specialty based on citation networks. *Library and Information Science*, **23**, 1-16.

Keywords: Diffusion

? Kishida, K. (1988), Mathematical formulations of Bradford’s law derived from relationships among bibliometric laws. *Library and Information Science*, **26**, 55-65

Keywords: Bibliometric

? Kishida, K. (1990), On the usefulness of a model of frequency-distribution of book circulation as a basis for quantitative approaches to collection development. *Library and Information Science*, **28**, 145-159.

Abstract: Recently some models for frequency distribution of book circulation have been developed. These library circulation models have the Potential capability of being a basis for quantitative approaches to collection development. Namely, these models describe the use of books more subtlely than other models, so we can obtain an improvement to quantitative methods for collection development by applying a model of the frequency distribution of book circulation to it.

In this paper, firstly, it is shown that the model for frequency distribution of book circulation contains rich information on the use of books. By discussing some mathematical forms of obsolescence, it is shown that Brooke’s utility, Morse’s circulation model and Bradford’s law are represented by the model for frequency distribution of book circulation. Particularly Burrell’s non-stationary Poisson process model is used as an example of a model for frequency distribution of book circulation. Secondly, by applying this model to Morse’s queuing theory method for multiple copies and Trueswell’s method for the weeding of books, these methods are extended. This implies the applicability of the model for frequency distribution of book circulation to quantitative methods for collection development.

Keywords: Library

? Sawai, K. (1994), A study on how colemans book on diffusion of new drugs has been cited in subsequent published articles. *Library and Information Science*, **32**, 105-122.

Abstract: The author has became interested in why the book ‘Medical Innovation: A Diffusion Study’ by Coleman et al. (New York, Bobbs-Merill, 1966) is still cited in various articles even today, almost 30 years after its publication. Accordingly, the author conducted a survey on articles which quoted his book published in 1966.

The author used Science Citation Index, the Social Science Citation Index and the Arts & Humanities Citation Index to conduct this survey. The results of the survey suggested that this book has been cited in a total of 336 articles all over the world as of 1994. Based on these 336 articles, the author quantitatively investigated annual changes in the number of articles citing this book, the number of articles according to subject, the number of articles according to year and subject, the areas of study in which the book has been cited, the name of scientific journals in which this book has been cited, and the distribution of the nationalities of the authors citing this book.

As a result, the author was able to draw the following conclusions:

1. The annual changes in number of articles citing Coleman’s publications during the past 28 years first peaked in 1971, with secondary peaks in 1979 and 1985. Although the number of articles citing this book subsequently decreased, it has tented to increase in recent years, again peaking in 1993, and tented to continue to increase even now.

2. Coleman’s book has been cited most frequently in the following four areas: medicine (72 articles, 21.4%), sociology (67 articles, 19.9%), business (48 articles, 14.3%), and medical sociology (20 articles, 6.0%). Articles in these areas account for about 60% of all articles citing this book. It has also been frequently cited in articles in the field of library and information science (19 articles, 5.7%) and health policy (15 articles, 4.5%). Articles in these six areas have accounted for about 70% of the total. In addition, there have been citations in 12 articles in the field of psychology, 7 in pharmacology, 7 in communications and 7 in mathematical sociology. Articles in ten fields, these four and the above mentioned six, have accounted for about 80% of the total.

3. The first year the book was cited according to each subject area are as followed: marketing, 1967 (the year following publication); pharmacology, sociology, and library and information science, 1968; medicine, 1969; mathematical sociology, education and rural sociology, 1970; nursing, health policy and business, 1971. The initial citation of this book in eleven fields above occurred within five years after publication. The areas in which the first citation of this book was late were geography (1978) and anthrolopology (1982).

4. The content of Coleman’s study can be roughly divided into 1) diffusion, 2) decision making and 3) communication network. His study has been cited from different angles depending on the subject of the article. The diffusion and communication network angles have been cited in diverse subject areas, while studies citing his book from the decision making angle have been limited to three subjects, medicine, health policy, and medical sociology.

5. Coleman has been cited in as many as 176 different source journals, suggesting that his publication has influenced a broad range of studies. Judging from the journals, it seems to have been cited in journals with high standards.

6. Among the authors citing Coleman, affiliations of 278 researchers from as many as 22 countries could be identified. Scholars in the United States and European countries were found to be most interested in Coleman. Although the number of articles was small, he has also been cited by scholars from the so-called Third World, including Brazil, Nigeria, Ethiopia, India, Singapore and Korea.

This study suggests that, although its value may vary among from subject to subject, Coleman’s ‘Medical Innovation’ is still attracting attentions as a thought-provoking study in the fields of medicine, medical sociology, mathematical sociology and other interdisciplinary areas throughout the world.

Keywords: Information

? Kishida, K. (1995), Quantitative approaches to library management: A critical review. *Library and Information Science*, **33**, 39-69.

Abstract: Many quantitative studies have been made to solve some problems of library management, which includes selection of periodicals, weeding of old materials, purchasing of added copies and etc. Also, bibliometric studies of which application area is intended to be the library management are considered to be included into such quantitative studies. This paper reviews their research results, and discusses limits or drawbacks of quantitative methods proposed by them. In particular, we focus on several topics as follows: 1) ranking of periodicals by citation or use data, 2) Bradoford’s law, 3) deselecting periodicals, 4) obsolescence of monographs and volumes of periodicals, 5) method for weeding of monographs proposed by R. W. Trueswell, 6) stochastic model of library circulation, such as one based on a theory of Poisson process

Keywords: Bibliometric, Bibliometric Studies, Binomial-Distribution, Bradford Law, Circulation Model, Citation, Citation Analysis, Impact Factors, Journal Selection, Methods, Obsolescence, Periodicals, Physics, Public-Libraries, Research, SCI, Scientific Literature

? Koizumi, M. (2011), Theories of strategic management in American libraries: From the 1960s to the 2000s. *Library and Information Science*, **65**, 37-82.

Full Text: 2011\Lib Inf Sci65, 37.pdf

Abstract: Purpose: This paper clarifies the characteristics of theories on the strategic management of libraries in the United States, focusing on: 1) how strategic management concepts have been applied to operations or tasks in libraries, 2) the degree to which strategic management theories have an impact on them, and 3) whether library staff place a high value on the results of applying the theories. Methods: First, a set of strategic management theories to be investigated was selected from standard textbooks of business administration and library management. Second, for each theory in the set, bibliography and bibliographic databases, Library Literature, LISA and LISTA, were searched in order to identify documents discussing it. Third, cases studies and bibliometric analysis were attempted based on the documents. In case studies, some actual cases of applying the theories to library management were extracted from documents, and how the theories were implemented in library operations and how they were evaluated by library staff were analyzed. On the other hand, in bibliometric analysis, the numbers of documents were counted by year, and chronological trends of popularity of the theories in libraries were empirically clarified. Results: The cases studies show that library managers in the US are particularly concerned about ‘planning’ and ‘evaluation’. However, in most cases, it would have been difficult to progress from planning to practice. Also, library managers tend to select theories on administrative organization rather than those oriented toward the external environment. Although most management theories were not adequately implemented in the cases, only theories on core competence would have been accepted positively and incorporated adequately into practice in libraries. The bibliometric analysis clarified that the impact of management strategy theories is increasing each year, and new theories are being applied in library situations more quickly.

Keywords: Analysis, Bibliographic, Bibliographic Databases, Bibliography, Bibliometric, Bibliometric Analysis, Case Studies, Consumer Perceptions, Databases, Environment, Evaluation, Hand, Impact, Libraries, Library Management, Literature, Management, Measuring Service Quality, Methods, Practice, Scale, Strategy, Textbooks, Theories, Theory, Trends, University, US

# Title: Library and Information Service

Full Journal Title: [Library and Information Service](http://c.wanfangdata.com.cn/periodical-tsqbgz.aspx)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0252-3116

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Fang, X.S. (2001), A statistical analysis on papers and authors delivered in *Library and Information Service* in 1999. *Library and Information Service*, **??** (??), ??-??.

Full Text: Lib Inf Ser

Abstract: Applying bibliometric statistical methods to count and analyse the papers and authors delivered in *Library and Information Service* in 1999, the characteristics of those papers and authors are expounded.

Keywords: Bibliometric Application Library and Information Service Papers’ Analysis Authors’ Analysis Statistical Analysis

? Yang, T. (2004), An analysis on the Web impact factors of fifty universities’ websites in China. *Library and Information Service*, **??** (??), ??-??.

Abstract: This paper makes an analysis on the Web impact factors of different domains of fifty universities’ Websites in China in two ways: one uses the Web pages in the Website as denominators and other uses the research personnel in the university.

Keywords: Webometrics Web Impact Factor Bibliometric University Evaluation

? Yao, G.H. (2006), Quantitative analysis of foreign literatures on webometric studies. *Library and Information Service*, **??** (??), ??-??.

Abstract: Webometrics is a new branch of informetrics emerging since ~e mid-1990s. It merges modern information and networkteehniques into the traditional theories of bibliometrics, scientometrics and informetrics, therefore, is significantly worthy for researeh.However, the amount of related research materials about Webometrics has been limited so far. Using 75 foreign articles on Webometriestudies since 1996, the paper statistically classifies the papers from the aspects of article numbers, regions and institutions..

Keywords: Webometrics, Quantitative Analysis, Bibliometric Analysis of Literature

? Chen, X., Zheng, J.M and Hua, W.N. (2006), Bibliometric analysis on references in LISA database. *Library and Information Service*, **50** (1), 54-58.

Full Text: [2006\Lib Inf Ser50, 54.pdf](2006/Lib%20Inf%20Ser50,%2054.pdf)

Abstract: Based on 5209 research articles on references and consulting retrieved from the database of LISA from 1969 to 2004, this paper makes an all-round quantitative analysis from such aspects as chronological distribution, lingual distribution, publication types, peer review journals, core journals, primary authors, contents, and subjects, etc., which gives us general pictures of this research topic, its on-going research situation and its developing trends.

Keywords: Reference Consultant Lisa Literature Research Quantitative Analysis Library

? Fan, Q.Q., Feng, Y.J. and Dong, W.Y. (2006), Ouantitative analysis of research on image retrieval in China from 1993 to 2004. *Library and Information Service*, **50** (5), 107-110.

Full Text: [2006\Lib Inf Ser50, 107.pdf](2006/Lib%20Inf%20Ser50,%20107.pdf)

Abstract: The research of the image retrieval in China has undergone three stages. By a bibliometric method, this article makes a statistical analysis to the literature quantities, core authors, journals and the distribution of the themes of research papers on the subject of image retrieval in China from 1993 to 2004. On this basis, the whole situation and the development trend are revealed and the existing problems during the research are exposed in the paper.

Keywords: Image Retrieval Image Search Quantitative Analysis Bibliometric

? Liu, X.W. and Jin, S.Y. (2006), A research review on information literacy in China Since 1995: Statistics and analysis of research articles on information literacy. *Library and Information Service*, **50** (5), 132-136.

Full Text: [2006\Lib Inf Ser50, 132.pdf](2006/Lib%20Inf%20Ser50,%20132.pdf)

Abstract: By the means of methods of bibliometric, statistics and analysis of research articles on information literacy(IL) from 1995 to 2004, this paper summaries IL research from the four aspects, which include the development of IL definition, theory and practice of IL evaluation, the relationship between IL and information institution, and the correlation between IL and focuses of library science. Then the paper puts forward some problems which need be considered in the future research.

Keywords: Information Literacy Information Literacy Education Information Literacy Standard

? Jin, J., Wu, Y.H., and Liang, Z.P. (2007), A summary of bibliometric study on international science and technology cooperation. *Library and Information Service*, **51** (3), 61-67.

Full Text: [2007\Lib Inf Ser51, 61.pdf](2007/Lib%20Inf%20Ser51,%2061.pdf)

Abstract: By means of bibliometric research on international science and technology (S&T) cooperation published in Scientometrics during the last three decades, the paper explores scientific methods to analyze international S&T cooperation. The authors argue that bibliometric research on co-authorship is an effective analytical tool for studying international S&T cooperation, which can provide historical facts and evidences, as well as statistical data about decision-making in international scientific coo

Keywords: science citation index （SCI） co-authorship bibliometrics international science and technology cooperation

? Zhou, Y.M. and Wang, L.L. (2007), Bibliometric analysis of insurance literatures published during the period of 2001-2005. *Library and Information Service*, **51** (3), 137-139.

Full Text:[2007\Lib Inf Ser51, 137.pdf](2007/Lib%20Inf%20Ser51,%20137.pdf)

Abstract: Using the statistical data and the statistics of CNKI, this paper makes a metrological analysis on the papers on insurance which have been published on the core journals from 2001 to 2005. The result shows that research papers on insurance have greatly increased in quantity, with fixed authors on certain kinds of journals and a fixed group of writers. Then the paper also reveals that the research on insurance need be expanded and the research methods ought to be updated so as to adjust to the fast developme..

Keywords: Insurance Literature Metrological Analysis Core Journal

# Title: Library and Information Services

Full Journal Title: Library and Information Services

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0373-4447

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Koizumi, M. (2011), Theories of strategic management in American libraries: From the 1960s to the 2000s. *Library and Information Science*, **65**, 37-82.

Full Text: 2011\Lib Inf Sci65, 37.pdf

Abstract: Purpose: This paper clarifies the characteristics of theories on the strategic management of libraries in the United States, focusing on: 1) how strategic management concepts have been applied to operations or tasks in libraries, 2) the degree to which strategic management theories have an impact on them, and 3) whether library staff place a high value on the results of applying the theories. Methods: First, a set of strategic management theories to be investigated was selected from standard textbooks of business administration and library management. Second, for each theory in the set, bibliography and bibliographic databases, Library Literature, LISA and LISTA, were searched in order to identify documents discussing it. Third, cases studies and bibliometric analysis were attempted based on the documents. In case studies, some actual cases of applying the theories to library management were extracted from documents, and how the theories were implemented in library operations and how they were evaluated by library staff were analyzed. On the other hand, in bibliometric analysis, the numbers of documents were counted by year, and chronological trends of popularity of the theories in libraries were empirically clarified. Results: The cases studies show that library managers in the US are particularly concerned about ‘planning’ and ‘evaluation’. However, in most cases, it would have been difficult to progress from planning to practice. Also, library managers tend to select theories on administrative organization rather than those oriented toward the external environment. Although most management theories were not adequately implemented in the cases, only theories on core competence would have been accepted positively and incorporated adequately into practice in libraries. The bibliometric analysis clarified that the impact of management strategy theories is increasing each year, and new theories are being applied in library situations more quickly.

Keywords: Analysis, Bibliographic, Bibliographic Databases, Bibliography, Bibliometric, Bibliometric Analysis, Case Studies, Consumer Perceptions, Databases, Environment, Evaluation, Hand, Impact, Libraries, Library Management, Literature, Management, Measuring Service Quality, Methods, Practice, Scale, Strategy, Textbooks, Theories, Theory, Trends, University, US

# Title: Library and Information Services in Astronomy III (Lisa III)

Full Journal Title: Library and Information Services in Astronomy III (Lisa III)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mata-Acosta, V., Jimenez-Fragozo, M.E. and Gorbea-Portal, S. (1998), Bibliometric behavior of the Revista Mexicana de Astronomia y Astrofisica (1989-1995). *Library and Information Services in Astronomy III (Lisa III)*, **153**, 185-193.

Abstract: The bibliometric behavior of the RevMexAA (1989-1995) and its impact on the specialized scientific community are studied by means of the scientific content published in this Journal.

Keywords: Bibliometric, Impact

# Title: Library and Information Services in Astronomy IV

Full Journal Title: Library and Information Services in Astronomy IV

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Stevens-Rayburn, S. and Bouton, E.N. (2002), How to succeed in astronomy without having to use a telescope, or a Librarian’s guide to high impact papers? in *Library and Information Services in Astronomy IV*, (eds by Corbin, B., Bryson, E. and Wolf, M.), 185-192, Czech Republic.

Full Text: [2002\Lib Inf Ser Ast IV185.pdf](2002/Lib%20Inf%20Ser%20Ast%20IV185.pdf)

Abstract: We have undertaken a study of High Impact Papers in astronomy from a subset of ISI’s 2001 database, covering papers published 1991-1999 and cited 1991-2000. The intent of the study was to measure the relative impact of papers based on data gathered from multiple telescopes as opposed to those from a specific telescope. The results have been somewhat surprising in that high citation rates are not as frequently tied to direct observational material as they are to theories, data compilations (either laboratory astrophysics or observational surveys), and reviews. We explore these observations, and suggest caveats in the use of citation information, based on differing counts for the same papers from ISI and the ADS.

Grothkopf, U. and Treumann, A. (2002), Towards an automated retrieval of publications based on telescope observations. in *Library and Information Services in Astronomy IV*, (eds by Corbin, B., Bryson, E. and Wolf, M.), 193-198, Czech Republic.

Full Text: [2002\Lib Inf Ser Ast IV193.pdf](2002/Lib%20Inf%20Ser%20Ast%20IV193.pdf)

Abstract: We analyze papers based on VLT observations regarding (a) the information provided about facilities used and (b) possible retrieval through ADS. The following topics are looked at:

\* Where in the papers do authors report on the facilities used and how detailed is this information? Can it be used to measure scientific output of observatories, telescopes, instruments and observing programs?

\* Which percentage of relevant papers is retrieved through ADS, how many irrelevant papers are picked up, and why?

\* How can automated retrieval of papers be improved and which factors remain problematic?

We conclude that the currently available retrieval options are not sufficiently reliable to abandon manual literature screening. The implementation of dedicated LATEX-tags in the macros of core astronomy journals and a speci\_c search option through ADS would probably improve the procedure considerably and help to move towards (mainly or entirely) automated retrieval of papers.

Crabtree, D.R. and Bryson, E.P. (2002), Observatory publications and citations. in *Library and Information Services in Astronomy IV*, (eds by Corbin, B., Bryson, E. and Wolf, M.), 199-206, Czech Republic.

Full Text: [2002\Lib Inf Ser Ast IV199.pdf](2002/Lib%20Inf%20Ser%20Ast%20IV199.pdf)

Abstract: Observatories have historically tracked the number of publications based on data obtained with their telescope(s). The number of publications, or productivity, is used to measure the progress of an observatory in the early years and then later for comparison with similar observatories. The funding agencies are very interested in understanding how their investment is performing. In this paper we use citation counts to measure the impact of observatory publications and show some examples of how publication and citation statistics can be used strategically by observatories and other organizations.

Filippova, E. (2002), Bibliometric investigations at the special astrophysical observatory RAS. in *Library and Information Services in Astronomy IV*, (eds by Corbin, B., Bryson, E. and Wolf, M.), 207-213, Czech Republic.

Full Text: [2002\Lib Inf Ser Ast IV207.pdf](2002/Lib%20Inf%20Ser%20Ast%20IV207.pdf)

Abstract: Bibliometric data for the Special Astrophysical Observatory are presented. Statistics and analysis of issues being brought out at SAO are given. Statistical data on publication of SAO research papers from the day of foundation of the observatory through 2000 are presented. The numbers of papers that appeared in domestic and foreign scientfic issues are compared. An attempt is made to analyze the correlation of the number of scientfic papers with the research of the observatory and also with the economical situation in Russia. It can be seen that the steady rise in publications observed from 1968 to 1991 gave way to an abrupt fall during the first (1991{1995} and second (1998) crises in our country.

Gomez, M. (2002), A bibliometric study to manage a journal collection in an astronomical library: Some results. in *Library and Information Services in Astronomy IV*, (eds by Corbin, B., Bryson, E. and Wolf, M.), 214-222, Czech Republic.

Full Text: [2002\Lib Inf Ser Ast IV214.pdf](2002/Lib%20Inf%20Ser%20Ast%20IV214.pdf)

Abstract: The evaluation of the use of library collections is a fundamental tool for the development of a relevant and cost-effective collection. Bibliometrics offiers several methods to measure the level of use of collections. In this paper, we present the first results of a bibliometric analysis of the references cited in the articles published by authors of the Instituto de Astrofisisica de Canarias during the last decade. We have determined which kinds of publications and which journals are mainly used. We also have studied the ages of the cited journals and their cost-effectiveness. Additionally, to see if the advent of the WWW in the mid 1990s has inuenced the reading or citing practices of the authors, we have compared two sets of data: articles published over the period 1991-3 that we define as the pre-WWW period and articles published over the period 1997-9 defined as the WWW period.

Kurtz, M.J., Eichhorn, G., Accomazzi, A., Grant, C.S., Thompson, D.M., Bohlen, E.H. and Murray, S.S. (2002), The NASA astrophysics data system: Obsolescence of reads and cites. in *Library and Information Services in Astronomy IV*, (eds by Corbin, B., Bryson, E. and Wolf, M.), 223-230, Czech Republic.

Full Text: [2002\Lib Inf Ser Ast IV223.pdf](2002/Lib%20Inf%20Ser%20Ast%20IV223.pdf)

Abstract: The obsolescence of an article, how its use declines as it ages, has long been a central element of bibliometric studies. Normally this is determined using the citations to an article. We determine this function using the reads an article receives and then compare this with the function determined from a citation study. There are both similarities and differences. The similarities are strong enough that the normative theory of citations must be true in the mean.

# Title: Library and Information Services in Astronomy V: Common Challenges, Uncommon Solutions

Full Journal Title: Library and Information Services in Astronomy V: Common Challenges, Uncommon Solutions

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Madrid, J.P. and Macchetto, F.D. (2007), A method to measure the scientific output of the Hubble Space Telescope. *Library and Information Services in Astronomy V: Common Challenges, Uncommon Solutions*, **377**, 79-85.

Abstract: We present how a metrics program was developed for the Hubble Space Telescope and how we use publication statistics to monitor, evaluate and improve the scientific output of Hubble’s different programs and observing modes. We highlight important results of this project such as number of papers, citation counts, and high-impact papers. Any facility wishing to monitor its productivity and impact can follow the steps presented here. We also propose the adoption of a standard method to classify the astronomical literature, as this could greatly ease the collection of telescope bibliographies. A collaboration among observatories, and a more automated, perhaps centralized, creation of telescope bibliographies should be considered by the community. This will become possible with the advent of database identifiers and new computing techniques. This effort would result in an improvement of the measured scientific output of observing facilities.

Keywords: Citation, Literature, Productivity, Publication, Standard, Statistics

? Grothkopf, U. and Stevens-Rayburn, S. (2007), Introducing the h-index in telescope statistics. *Library and Information Services in Astronomy V: Common Challenges, Uncommon Solutions*, **377**, 86-92.

Abstract: This paper analyzes the performance of observatories based on the so-called h-index, a new, easy-to-use parameter that quantifies scientists’ research impact and relevance. Compared to other bibliometric criteria, like total number of publications or citations, the h-index is less biased. Using NASA’s Astrophysics Data System (ADS), we investigate the performance of selected observatories, taking into account their specific number of years of operation.

Keywords: AD, Bibliometric, Citations, h Index, h-Index, Impact, Publications, Research, Statistics

? Isaksson, E. (2007), Bibliometric evaluation of Finnish astronomy. *Library and Information Services in Astronomy V: Common Challenges, Uncommon Solutions*, **377**, 111-114.

Abstract: Finnish astronomy publishing provides us with an interesting data sample. It is small but not too small: approximately one thousand articles have been published in a decade. There are only four astronomy institutes to be compared. An interesting paradox also emerges in the field: while Finnish science assessments usually value highly the impact of scientific publishing, no serious evaluations using real bibliometric data have been made. To remedy this, a comprehensive ten-year database of refereed papers was collected and analyzed.

Keywords: Bibliometric, Bibliometric Data, Database, Evaluation, Impact, Papers, Publishing, Science

? Robert, N. (2007), Scientometric indicators and meaning of the signature in astronomy: A French case study. *Library and Information Services in Astronomy V: Common Challenges, Uncommon Solutions*, **377**, 115-118.

Abstract: We have built a corpus of articles from the Astronomical Data System and have established that there is an increase in both the number of articles and the number of authors per article. We have analyzed this corpus and attempted to build a typology.

Keywords: Authors, Indicators

? Pepe, A. and Yeomans, J. (2007), Protocols for scholarly communication. *Library and Information Services in Astronomy V: Common Challenges, Uncommon Solutions*, **377**, 147-154.

Abstract: CERN, the European Organization for Nuclear Research, has operated an institutional preprint repository for more than 10 years. The repository contains over 850,000 records of which more than 450,000 are full-text OA preprints, mostly in the field of particle physics, and it is integrated with the library’s holdings of books, conference proceedings, journals and other grey literature. In order to encourage effective propagation and open access to scholarly material, CERN is implementing a range of innovative library services into its document repository: automatic keywording, reference extraction, collaborative management tools and bibliometric tools. Some of these services, such as user reviewing and automatic metadata extraction, could make up an interesting testbed for future publishing solutions and certainly provide an exciting environment for e-science possibilities. The future protocol for scientific communication should guide authors naturally towards OA publication, and CERN wants to help reach a full open access publishing environment for the particle physics community and related sciences in the next few years.

Keywords: Access, Authors, Bibliometric, Cern, Journals, Literature, Management, Open Access, Publication, Publishing, Research, Scholarly Communication, Sciences, Scientific Communication

# Title: Library Journal

Full Journal Title: [Library Journal](http://proquest.umi.com/pqdlink?Ver=1&Exp=01-27-2015&RQT=318&PMID=29304&clientId=39645&cfc=1); [Library Journal](http://web.ebscohost.com/ehost/detail?vid=1&hid=9&sid=aa0508a7-bec6-4585-90bc-63f359414555%40sessionmgr10&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=a9h&jid=LIJ)

ISO Abbreviated Title: Libr. J.

JCR Abbreviated Title: Libr J

ISSN: 0363-0277

Issues/Year: 20

Journal Country/Territory: United States

Language: English

Publisher: Bowker Magazine Group Cahners Magazine Division

Publisher Address: 249 W 17th St, New York, NY 10011

Subject Categories:

Information Science & Library Science: Impact Factor 0.205,/(2002)

? Raisig, L.M. (1960), Assembly-line processing at west-point. *Library Journal*, **85** (7), 1343-1345.

? Vaillanc, P.M. (1974), Understanding scientific literatures - Bibliometric approach - Donohue, JC. *Library Journal*, **99** (15), 2045.

? Line, M.B. (1987), The importance of bibliometrics. *Library Journal*, **112** (18), 10.

Full Text: Lib J112, 10.pdf

? Wallace, D.P. (1987), A solution in search of a problem - Bibliometrics and libraries. *Library Journal*, **112** (8), 43-47.

Keywords: Bibliometrics

Tenopir, C. (2001), The power of citation searching. *Library Journal*, **126** (18), 39-40.

Full Text: [2001\Lib J126, 39.pdf](2001/Lib%20J126,%2039.pdf)

Abstract: The interface for Web of Science is friendlier, and the system offers features that are geared specifically to citation searching. Unlike the ISI SciSearch Dialog file of the ISI citation indexes, which provides citation counts only for a first author in an article, Web of Science provides at least partial citation counts for second, third, and other coauthors. When the cited reference comes from one of the journals indexed by ISI, all authors are searchable.

? Battenfield, R.L. (2011), Stop plagiarism: A guide to understanding and prevention. *Library Journal*, **136** (1), 110.

Full Text: 2011\Lib J136, 110.pdf

Keywords: Plagiarism

# Title: Library Management

Full Journal Title: [Library Management](http://www.emeraldinsight.com/Insight/viewContainer.do;jsessionid=0A63AE03D19DDB4B267EA03B2717B8F0?containerType=JOURNAL&containerId=121)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Iivonen, M., Nygren, U., Valtari, A. and Heikkila, T. (2009), Library collections contribute to doctoral studies. Citation analysis of dissertations in the field of economics and administration. *Library Management*, **3**, 185-203.

Full Text: [2009\Lib Man3, 185.pdf](2009/Lib%20Man3,%20185.pdf)

Abstract: Purpose – This paper aims to analyse the impact of university libraries by investigating the availability of the references of dissertations in the university’s own library, special attention being given to the electronic availability of cited works. Design/methodology/approach – Citation analysis was used. Ten dissertations of economics and administration from two Finnish universities were analysed. The dissertations were completed in 2005-2006. The comparison of the availability of references in two different universities – i.e. a large, multidisciplinary university and a small, specialised university – was carried out. Findings – The availability of the references of dissertations was good in both universities. A large number of references, especially journal articles, were already available electronically. The university libraries have a significant role in contributing to doctoral studies because they offer access to adequate information resources. Research limitations/implications – The sample is quite limited: only two Finnish universities and ten dissertations were included in the data. The good availability of references might result from doctoral students’ unwillingness to search outside sources. However, doctoral students do not cite all sources that they read. The impact of the library on doctoral studies could be even bigger than can be shown by citation analysis. Practical implications – The paper indicates that citation analysis is a good tool in promoting the library’s impact. Originality/value – The paper emphasises that the impact of libraries can be demonstrated by presenting the visibility of their collections in dissertations. Because of the rapid change of information environment, the study considered the availability of electronic sources of dissertations. An interesting comparison between two different universities was carried out.

Keywords: Collections Management, Doctorates, Electronic Media, Finland, Reference Services

# Title: Library Quarterly

Full Journal Title: [Library Quarterly](http://www.journals.uchicago.edu/LQ/index.html); [Library Quarterly](http://www.jstor.org/action/showPublication?journalCode=libraryq&cookieSet=1)

ISO Abbreviated Title: Libr. Q.

JCR Abbreviated Title: Libr Quart

ISSN: 0024-2519

Issues/Year: 4

Journal Country/Territory: United States

Language: English

Publisher: Univ Chicago Press

Publisher Address: 1427 E 60th St, Chicago, IL 60637-2954

Subject Categories:

Information Science & Library Science: Impact Factor 0.500, / (2002)

? Purdy, G.F. (1957), Scientific serials - Characteristics and lists of most cited publications in mathematics, physics, chemistry, geology, physiology, botany, zoology, and entomology - Brown, CH. *Library Quarterly*, **27** (4), 343-344.

Full Text: 1960-80\Lib Qua27, 343.pdf

Keywords: Characteristics, Chemistry, Mathematics, Physics, Publications, Serials

? Bookstein, A. (1976), Bibliometric distributions. *Library Quarterly*, **46** (4), 416-423.

Full Text: [1960-80\Lib Qua46, 416.pdf](1960-80/Lib%20Qua46,%20416.pdf)

Abstract: Abstract: One of the more surprising findings in the information sciences is the recurrence of a small number of frequency distributions. In this paper, these distributions are described, and a point of view is adopted that allows us to understand them as being different versions of a single distribution. The empirical distributions are shown to be special cases of a single theoretic distribution. It is found that when random fluctuations are introduced, the distributions are not strongly influenced.

? Frost, C. (1979), The use of citations in literary research: Preliminary classification of citation functions. *Library Quarterly*, **49** (4), 399-414.

Full Text: [1960-80\Lib Qua49, 399.pdf](1960-80/Lib%20Qua49,%20399.pdf)

? Garfield, E. (1980), Is information retrieval in the arts and humanities inherently different from that in science? The effect that ISI®‘s citation index for the arts and humanities is expected to have on future scholarship. *Library Quarterly*, **50** (1), 40-57.

Full Text: [1960-80\Lib Qua50, 40.pdf](1960-80/Lib%20Qua50,%2040.pdf)

? McCain, K.W. (1986), The paper trails of scholarship - mapping the literature of genetics. *Library Quarterly*, **56** (3), 258-271.

Full Text: [1986\Lib Qua56, 258.pdf](1986/Lib%20Qua56,%20258.pdf)

Abstract: This article outlines a methodological approach to developing bibliometric models of the sources used in different types of humanities scholarship. It identifies five types of scholarship: description of primary sources, editing of primary sources, historical studies, criticism, and theory. It illustrates the approach through an analysis of sources used in fifty-four monographs in literary studies and art scholarship. The article shows how the five types use combinations of sources that differ in format, age, and subject.

Keywords: Online Searching Project, Citation Characteristics, Literary Monographs, Fine-Arts, Information, User, English, French

? Mccain, K.W. (1991), Core journal networks and cocitation maps: New bibliometric tools for serials research and management. *Library Quarterly*, **61** (3), 311-336.

Full Text: [1991\Lib Qua61, 311.pdf](1991/Lib%20Qua61,%20311.pdf)

Keywords: Citation Analysis, English, Genetics, Intellectual Space, Library, Mapping Authors, Scientific Journals, Selection

? Sandstrom, P.E. (1994), An optimal foraging approach to information-seeking and use. *Library Quarterly*, **64** (4), 414-449.

Full Text: [1994\Lib Qua64, 414.pdf](1994/Lib%20Qua64,%20414.pdf)

Abstract: This article explores optimal foraging theory, derived from evolutionary ecology, for its potential to clarify and operationalize studies of scholarly communication. This approach assumes that scholars make strategic decisions in exploiting their information environments and that these decisions can be modeled mathematically. Specific parallels between the worlds of subsistence foragers and scholarly information seekers are drawn in the areas of prey choice and diet breadth, time allocation and patch choice, and group formation and settlement. Recommendations of hypotheses to test the models are offered, along with a discussion of the place of ethnographic and bibliometric techniques in modeling processes of scholarship.

Keywords: Behavior, Bibliometric, Bibliometrics, Citation, Documents, Invisible-Colleges, Model, Needs, Retrieval, Scholarship, Science

? Hoerman, H.L. and Nowicke, C.E. (1995), Secondary and tertiary citing: A study of referencing behavior in the literature of citation analysis deriving from the ortega hypothesis of cole and cole. *Library Quarterly*, **65** (4), 415-434.

Full Text: [1995\Lib Qua65, 415.pdf](1995/Lib%20Qua65,%20415.pdf)

Abstract: This study examines a complex network of documents and citations relating to the literature of the Ortega Hypothesis (as defined by Jonathan R. Cole and Stephen Cole), demonstrating the tenacity of errors in details of and meaning attributed to individual citations. These errors provide evidence that secondary and tertiary citing occurs in the literature that assesses individual influence through the use of citations. Secondary and tertiary citing is defined as the inclusion of a citation in a reference list without examining the document being cited. The authors suggest that, in the absence of error, it is difficult to determine the amount of secondary and tertiary citing considered normative. Therefore, to increase understanding of the relationship between citations and patterns of influence, it is recommended that large-scale studies examine additional instances of citation error.

Keywords: Cum Laude Doctorates, Bibliographic Citations, Bibliometric Indicators, Intellectual Influence, Science, Performance, Articles, Errors

? Budd, J.M. and Seavey, C.A. (1996), Productivity of US library and information science faculty: The Hayes study revisited. *Library Quarterly*, **66** (1), 1-20.

Full Text: [1996\Lib Qua66, 1.pdf](1996/Lib%20Qua66,%201.pdf)

Abstract: The present study is a replication of the paper written by Robert Hayes in 1983. Both studies employ the Social Sciences Citation Index (SSCI) to obtain indications of library and information science publishing and citation activity. The present study extends the examination of publishing and citation for the period 1981-92, although it includes some differences from Hayes’s study. For instance, while Hayes examined only associate and full professors, all ranks are included here. This project examines, as did the Hayes paper, both individual productivity (as defined by numbers of papers published and indexed in SSCI and numbers of citations received) and productivity by school. The rankings are presented and per capita publications and citations are calculated. Comparison within the twelve-year period and with the Hayes paper are offered in the text wherever possible.

Keywords: Citation, Citations, Examination, Faculty, Indications, Information, Information Science, Library and Information Science, Papers, Productivity, Publications, Publishing, Rankings, Replication, Science, SSCI, US

? Garfield, E. (1996), When to cite. *Library Quarterly*, **66** (4), 449-458.

Full Text: [1996\Lib Qua66, 449.pdf](1996/Lib%20Qua66,%20449.pdf)

Abstract: Although the Modern Language Association and other style manuals describe in exquisite detail ‘how’ to cite the literature, explicit tutorials on ‘when’ to cite are nonexistent. Most journals provide instructions to authors but also fail to give explicit guidance on when to cite. In spite of numerous studies of citation behavior and the wide recognition by editors of the need to acknowledge intellectual debts, authors and referees need explicit reminders as to when formal references or acknowledgments are appropriate. Since referencing is both subjective and culturally based, there can be no absolutes about when to cite. Hence, it is unlikely that algorithmic documentation of texts can ever meet the competing requirements for relevance, selectivity, and comprehensiveness. What is common wisdom in one domain may be new or unique in another. A three-year experiment involving graduate students demonstrated the varying perceptions of the need for documentation of terminology, ideas, methods, and so forth. A tentative tutorial is suggested for journal editors that should be modified in each scholarly context.

Keywords: Citation Analysis

? White, M.D. and Wang, P.L. (1997), A qualitative study of citing behavior: Contributions, criteria, and metalevel documentation concerns. *Library Quarterly*, **67** (2), 122-154.

Full Text: [1997\Lib Qua67, 122.pdf](1997/Lib%20Qua67,%20122.pdf)

Abstract: This qualitative study of the citing motivations of twelve agricultural economists (faculty and doctoral students) identifies several factors they considered in making citing decisions: the contributions of the document to their research, the criteria they apply to the documents, and metalevel documentation concerns. The article reports citing behavior derived from a larger empirical, longitudinal study tracing document use during research projects and thus includes behavior related to decisions both to cite and not to cite. An important finding is the existence of metalevel concerns that influence a decision to cite a document, in addition to situational factors related to its actual use during research.

Keywords: Citation Behavior, Citer Motivations, Classification, Information-Science, Social-Sciences

? Borko, H. (1999), Proceedings of the Sixth Conference of the International Society for Scientometrics and Informetrics. *Library Quarterly*, **69** (3), 390-392.

Full Text: [1999\Lib Qua69, 390.pdf](1999/Lib%20Qua69,%20390.pdf)

Keywords: Informetrics, Scientometrics

? Armento, G. (1999), Evaluating the MLA International Bibliography for social science content: What information can be found? *Library Quarterly*, **69** (4), 476-500.

Full Text: [1999\Lib Qua69, 476.pdf](1999/Lib%20Qua69,%20476.pdf)

Abstract: An evaluation of the Modern Language Association of America International Bibliography of Books and Articles on the Modem Languages and Literatures (MLAIB) was undertaken to determine whether it might index large pools of social science research. It was compared with eleven social science periodical indexes and bibliographies for journal title overlap. The MLAIB was found to have 700 journal titles (21.8 percent) cross-listed in one or more of the social science test indexes. These 700 titles contained 10,987 entries from 1986 to 1997. Using nine subject categories provided by the “Subject Category Listing” of the Social Sciences Citation Index Journal Citation Reports, the most heavily indexed cross-listed social science journal titles were grouped together. From periodical titles in each category, every fifth or tenth online journal entry was examined for its title, descriptor, or abstract content. Descriptors gathered from seven of the comparison social science indexes were also searched in the MLAIB. Qualitative evaluation of the results found clusters of social science content in the subjects of linguistics, language policy, psychology, learning disorders, education, folklore, anthropology, history, and culture studies.

Keywords: Anthropology, Bibliographies, Comparison, Culture, Education, Evaluation, History, Index, Information, Journal, Journal Citation Reports, Learning, Periodical, Policy, Psychology, Research, Science, Science Research, Social

? Budd, J.M. (2000), Scholarly productivity of US LIS faculty: An update. *Library Quarterly*, **70** (2), 230-245.

Full Text: [2000\Lib Qua70, 230.pdf](2000/Lib%20Qua70,%20230.pdf)

Abstract: This study is the third in a series that examines some measures of productivity applied to faculty in Library and Information Science (LIS) programs in the United States accredited by the American Library Association. The Social Sciences Citation Index (SSCI) is used to generate publication and citation data. The time period covered is 1993-98. The data are analyzed according to both individual productivity and program productivity. Tables are presented to list the individuals ranked by the measures. Additional tables present ranked lists of programs according to total and per capita publications and total and per capita citations. Programs are then ranked by die criteria just mentioned along with the perceptions of programs as reported in the most recent U.S. News and World Report survey.

Keywords: Citation, Citations, Criteria, Data, Faculty, LIS, Productivity, Publication, Publications, SSCI, Survey, United States, US

? Wiberley, Jr., S.E. (2003), A methodological approach to developing bibliometric models of types of humanities scholarship. *Library Quarterly*, **73** (2), 121-159.

Full Text: [2003\Lib Qua73, 121.pdf](2003/Lib%20Qua73,%20121.pdf)

Abstract: This article outlines a methodological approach to developing bibliometric models of the sources used in different types of humanities scholarship. It identifies five types of scholarship: description of primary sources, editing of primary sources, historical studies, criticism, and theory. It illustrates the approach through an analysis of sources used in fifty-four monographs in literary studies and art scholarship. The article shows how the five types use combinations of sources that differ in format, age, and subject.

Keywords: Online Searching Project, Citation Characteristics, Literary Monographs, Fine-Arts, Information, User, English, French

? Young, A.P. (2006), Library quarterly, 1956-2004: An exploratory bibliometric analysis. *Library Quarterly*, **76** (1), 10-18.

Full Text: [2006\Lib Qua76, 10.pdf](2006/Lib%20Qua76,%2010.pdf)

Abstract: Library Quarterly’s seventy-fifth anniversary invites an analysis of the journal’s bibliometric dimension, including contributor attributes, various author rankings, and citation impact. Eugene Garfield’s HistCite software, linked to Thomson Scientific’s Web of Science, as made available by Garfield, for the period 1956-2004, was used as the core database for analysis in this essay. A brief comparison of Library Quarterly contributor citation impact and that of College & Research Libraries is also provided. Library Quarterly continues to attract a roster of highly productive, international scholars.

Keywords: Analysis, Bibliometric, Bibliometric Analysis, Brief, Core, Deans, Directors, Impact, Journals, Made, Software, Web of Science

? Tang, R. and Thelwall, M. (2008), A hyperlink analysis of U.S. public and academic libraries’ Web sites. *Library Quarterly*, **78** (4), 419-435.

Full Text: [2008\Lib Qua78, 419.pdf](2008/Lib%20Qua78,%20419.pdf)

Abstract: This article reports on patterns of links from and to the Web sites of 100 U. S. academic and public libraries with regard to the originating and targeted URL domain categories. Libraries, grouped into small and large by their collection size, were found to have numbers of inlinks proportional to their size, but public libraries, and particularly the smaller ones, hosted relatively fewer outlinks. While public libraries link largely to and attract links mainly from the .com and .org domains and U. S. regional sites, academic libraries link to a variety of domains, including. edu, .com, .org, and some overseas sites. Academic libraries also draw inlinks mainly from. edu and. com sites. The results reveal that there is little interaction between public libraries in the United States and U. S. universities, and this calls attention to the need for more collaboration between the two types of organizations.

Keywords: Analysis, Bibliometrics, Collaboration, Design, Impact Factors, Information, Interaction, Internet, Libraries, Links, Search Engines, Systems, Universities, University, Webometrics

? Astrom, F. (2010), The visibility of information science and library science research in bibliometric mapping of the LIS Field. *Library Quarterly*, **80** (2), 143-159.

Full Text: [2010\Lib Qua80, 143.pdf](2010/Lib%20Qua80,%20143.pdf)

Abstract: The relation between information science and library science has been debated for decades, and even attempts at utilizing methods generally acknowledged as robust for the purpose of mapping research fields have yielded results with large variations. Therefore, a set of citation analyses was performed, comparing the results of analyses on information science and library science separately but also as a joint library and information science (LIS) field. Although there are large differences, not the least in the author-level analyses, the patterns in the citation data support the concept of a joint LIS field with information science and library science being the two main subfields; many of the variations in the analyses are caused by the interdisciplinary nature of LIS, reflected in, for example, variations in citation practices in the different subfields.

Keywords: Author Cocitation Analysis, Bibliometric, Citation, Documentation, Field, Information Science, Intellectual Structure, LIS, Mapping, Research, Science

# Title: Library Resources & Technical Services

Full Journal Title: [Library Resources & Technical Services](http://vnweb.hwwilsonweb.com/hww/Journals/getIssues.jhtml?sid=HWW:OMNIS&id=01866); [Library Resources & Technical Services](http://web.ebscohost.com/ehost/detail?vid=1&hid=9&sid=669252cc-978e-47b3-a617-9b8104a640b0%40sessionmgr12&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=a9h&jid=0Y8)

ISO Abbreviated Title: Libr. Resour. Tech. Ser.

JCR Abbreviated Title: Libr Resour Tech Ser

ISSN: 0024-2527

Issues/Year: 4

Journal Country/Territory: United States

Language: English

Publisher: Amer Library Assoc

Publisher Address: 50 E Huron St, Chicago, IL 60611

Subject Categories:

Information Science & Library Science: Impact Factor 0.455, 24/55 (2001); Impact Factor 0.237, 40/55 (2002) SSCI

? Calhoun, J.C. (1995), Serials citations and holdings correlation. *Library Resources & Technical Services*, **39** (1), 53-77.

Full Text: 1995\Lib Res Tec Ser39, 53.pdf

Abstract: A survey reveals both advocates and opponents of citation analysis use in the management of academic journal collections, both a theoretical time parameter and a practical proportional extent that need to be established for journal literature, and several instances of comparativist methodology that seek to enhance citation analysis use with journals. A relational database file is compiled from three well-known abstracting and indexing services to model an academic journal collection and examine the use, need, and methodology that the survey has revealed. The record structure of the file is described, and then the file is indexed by the domains of the abstracting and indexing services in an attempt to develop a technique of interchangeability between Of the percentile expression of subject category rank in the domains and the percentile expression of union holdings rank in the file. Alternatives that involve service-domain cocitations and a fourth domain of most-borrowed titles are discussed briefly; and then the file, now including the fourth domain. of most-borrowed titles, is indexed by publisher so that the subject category rank for each serial publication can be averaged to establish a principle of uniformity that is a necessary precondition for the technique. The study concludes with several examples based on the cumulative advantage process and the 70/30 Rule associated with the core of the model.

Keywords: Analysis, Bibliometrics, Citation, Citation Analysis, Citations, Core, Database, Distributions, English, Humanities, Indexing, Journals, Lists, Literary Monographs, Literature, Management, Publication, Rule, Scholarship, Serials, Survey

? Bensman, S.J. (1996), The structure of the library market for scientific journals: The case of chemistry. *Library Resources & Technical Services*, **40** (2), 145-??.

Abstract: In this paper, the author analyzes the skewed distributions of price and scientific value that constitute the structure of the library market for scientific journals, using chemistry as a test ease. A numerical index constructed from a survey of Louisiana State University chemistry faculty and total citations taken from the Science Citation Index Journal Citation Reports were utilized as measures of scientific value. Methodological problems arise from the skewed distributions customary in library research. The major findings are (1) that scientific value does not play a role in the pricing of scientific journals and (2) that little relationship consequently exists between scientific value and the prices charged libraries for scientific journal. Libraries have the opportunity to implement a massive restructuring of their serials collections. A software package named the Serials Evaluator is described. Under development at Louisiana State University, it is software for the automated selection of journals for cancellation and remote access through document delivery.

Keywords: Impact Factors, Price, Science

? Frame, B. (1996), The citation maze: A beginner’s guide. *Library Resources & Technical Services*, **40** (4), 370-374.

Full Text: Lib Res Tec Ser40, 370.pdf

Abstract: The variety of ways in which citations can be used in libraries is broad, sometimes confusing, and often poorly understood. Citation studies can, however, be classified into four general types: (1) Bibliometric studies conducted to determine which journals in a given field are the most important to scholars in that field, (2) Citation counting in order to assess an author’s eminence, scholarly or otherwise, (3) Studies designed to describe or map the literature of a particular subject, and (4) The use of citations as a direct means of collection evaluation.

Keywords: Bibliometric, Citation, Citations, Collection, Evaluation, Journals, Libraries, Library, Lists, Literature

? Black, S. (2001), Using citation analysis to pursue a core collection of journals for communication disorders. *Library Resources & Technical Services*, **45** (1), 3-9.

Full Text: [2001\Lib Res Tec Ser45, 3.pdf](2001/Lib%20Res%20Tec%20Ser45,%203.pdf)

Abstract: A citation analysis from a purposive sample of two leading journals is employed to build a tentative core collection of journals in communication disorders. A core collection is defined for this study as those journals that provide 80% of the sample’s article citations. The bibliometric concept of “success-breeds-success” is reviewed, and its application to this sample of journals is quantified. The special problems of defining a core collection in a multidisciplinary field are discussed. Data is also provided on the types of publications cited and the age distribution of cited journals.

Keywords: Analysis, Bibliometric, Citation, Citation Analysis, Citations, Core, Journals, Publications

# Title: Library Review

Full Journal Title: [Library Review](http://www.emeraldinsight.com/Insight/viewContainer.do?containerType=Journal&containerId=278)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mahapatra, G. (1994), Indian library and information science journals: A bibliometric analysis of the rate of citations and their characteristics. *Library Review*, **43** (3), 41-46.

Full Text: [1994\Lib Rev43, 41.pdf](1994/Lib%20Rev43,%2041.pdf)

Abstract: A bibliometric analysis of 1,456 articles appearing in Indian Library and Information Science journals between 1975 and 1985 revealed that the average rate of citations per article in the field was quite low. Books and journals were identified as the major categories of documents referred to in these articles and both were positively related. It is concluded that the increase in journal citations and rate of citations between 1975 and 1985 indicates that Indian Library and Information Science journals are now publishing a higher number of research-oriented articles in comparison with earlier years.

Keywords: India, Information, Librarianship, Research

# Title: Library Science

Full Journal Title: Library Science

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Bhavani, V. (1982), Publication activities of Indian scientists: A survey. *Library Science*, **19** (??), 54-68.

# Title: Library Science with a Slant to Documentation and Information Studies

Full Journal Title: Library Science with a Slant to Documentation and Information Studies

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Vaishnav, A. and Deo, V. (1993), Literature of computerised library and information services: A bibliometric study. *Library Science with a Slant to Documentation and Information Studies*, **30**, (2), 45-53.

Abstract: A database consisting of 25,669 items was analysed to study the growth of literature and subject-wise growth, while a database of 15287 items was analysed to study authorship trends, author’s publishing outlets, journal literature, its distribution and application of Bradford’s law. Maximum literature is covered in the area of computerised information storage and retrieval, cataloguing, information services, etc. Financial management and classification are evolving subjects, while computerised citation indexes, printed catalogues, etc., seem to be decaying. Works were found to be contributed in a highly individual manner at the initial stage (88.44%) while at the stage of maturity, the tendency of increasing co-operation and teamwork is becoming popular. Lotka’s law, in its original form as an inverse square law, does not apply to this set of data but it does apply in its generalised form with a calculated value of exponent alpha =4.65. The K-S statistical test was carried out applied to test the applicability of the generalised form of Lotka’s law. The difference in the estimated and observed values has been found to be highly insignificant. The data under study does not exactly fit the Bradford’s law of scattering.

Keywords: Application, Authorship, Bibliometric, Bibliometric Study, Citation, Citation Indexes, Classification, Cooperation, Data, Database, Distribution, Growth, Information, Information Services, Information Storage and Retrieval, Journal, Law, Literature, Management, Publishing, Scattering, Services, Storage, Teamwork, Trends, Value

# Title: Library Trends

Full Journal Title: [Library Trends](http://puboff.lis.uiuc.edu/biblio/trends.html); [Library Trends](http://proquest.umi.com/pqdlink?RQT=318&UserId=ipauto&Passwd=ipauto&PMID=23866)

ISO Abbreviated Title: Libr. Trends

JCR Abbreviated Title: Libr Trends

ISSN: 0024-2594

Issues/Year: 4

Journal Country/Territory: United States

Language: English

Publisher: Gslis Publications

Publisher Address: 501 E Daniel St, Champaign, IL 61820-6211

Subject Categories:

Information Science & Library Science: Impact Factor 0.684, 14/55 (2001)

? Brookes, B.C. (1973), Numerical methods of bibliometric analysis. *Library Trends*, **22** (1), 22-23.

? Potter, W.G. (1981), Bibliometrics - introduction. *Library Trends*, **30** (1), 5-7.

? Potter, W.G. (1981), Lotka’s law revisited. *Library Trends*, **30** (1), 21-39.

? Drott, M.C. (1981), Bradford’s law: Theory, empiricism and the gaps between. *Library Trends*, **30** (1), 41-52.

? Wyllys, R. (1981), Empirical and theoretical bases of Zipf’s law. *Library Trends*, **30** (1), 53-64.

? Hubert, J.J. (1981), General bibliometric-models. *Library Trends*, **30** (1), 65-81.

? Smith, L.C. (1981), ‘Citation analysis’. *Library Trends*, **30** (1), 83-106.

? Tague, J. et al. (1981). The law of exponential growth: Evidence, implications and forecasts. *Library Trends*, **30** (1), 125-149.

? Schrader, A.M. (1981), Teaching bibliometrics. *Library Trends*, **30** (1), 151-159.

? Lancaster, F.W., Bushur, S. and Low, Y.M. (1993), Kochen Influence Examined Bibliometrically. *Library Trends*, **41** (4), 549-566.

Abstract: Examines the influence of manfred kochen, who was instrumental in the early planning of this issue off library trends, through a review of the various publications that have cited his work.

Keywords: Planning, Publications, Review, Trends, Work

? Narin, F. and Olivastro, D. (1993), Patent citation cycles. *Library Trends*, **41** (4), 700-709.

Full Text: 1993\Lib Tre41, 700.pdf

Abstract: A BASIC DESCRIPTION OF PATENT CITATION cycles is provided for 1, 100 major companies and organizations covered by the TECH-LINE(SM) database. The average U.S. patent has five to six ‘references cited-U.S. patent documents.’ The properties of these patent citations are shown to vary widely from one technology to another. For example, patents in Office Computing and Accounting, a relatively hot area, are cited almost three times as frequently as patents in Organic Chemicals, a less active area of patenting. Similarly, technology cycle times vary widely-from five to six years in fast moving electronics areas to twelve to fifteen years in some of the slow moving areas of mechanical technology. Citations to earlier patents peak at patents three to five years old, rather similar to the peak citation time for scientific literature. Since these citation peaks and cycle times are relatively short, and represent the difference between current art and prior art, this indicates, in one sense, that the technological lifetime of an invention may be much shorter than its legal and commercial life times.

Keywords: Chemicals, Citation, Citations, Current, Life, Lifetime, Organic, Organic Chemicals, Organizations, Patent Citations, Patents, Properties, Science, SPR, Technology

? Smiraglia, R.P. (2002), The progress of theory in knowledge organization. *Library Trends*, **50** (3), 330-349.

Full Text: [2002\Lib Tre50, 330.pdf](2002/Lib%20Tre50,%20330.pdf)

Abstract: We understand “Theory” To be a system of testable explanatory statements derived from research. In knowledge organization, the generation of theory has moved from an epistemic stance of pragmatism (Based on observation of the construction of retrieval tools), To empiricism (Based on the results of empirical research). In the nineteenth century, panizzi (1841), Cutter (1876), and dewey (1876), Developed very pragmatic tools (I.E., Catalogs and classifications), Explaining as they did so the principles by which their tools were constructed. By 1950, key papers at a university of chicago graduate library school conference on “Bibliographic organization” Recorded the role of bibliographic organization in civilization (Clapp, 1950) and deemed classification the basis of bibliographic organization (Shera, 1950). In 1961, the international conference on cataloguing principles in paris brought together key thinkers on the design of catalogs. Wilson (1968) Expounded a system for bibliographic apparatus, and provided the framework for empirical theoretical development. In 2000, svenonius asserted that knowledge organization is accomplished through a bibliographic language (Or, more properly through a complex set of bibliographic languages), With semantics, syntax, pragmatics, and rules to govern their implementation. Logical positivism notwithstanding, rationalist and historicist stances have begun to come to the fore of late through the promulgation of qualitative methods, most notably those employed in classification, user-interface design, and bibliometric research.

Keywords: Bibliometric, Bibliometric Research, Cataloguing, Classification, Database, Development, Information-Science, Knowledge, Languages, Library, Papers, Research, Semantics, System, Theory

? Bar-Ilan, J. and Peritz, B.C. (2002), Informetric theories and methods for exploring the Internet: An analytical survey of recent research literature. *Library Trends*, **50** (3), 371-392.

Full Text: [2002\Lib Tre50, 371.pdf](2002/Lib%20Tre50,%20371.pdf)

Abstract: The internet, and more specifically the world wide web, is quickly becoming one of our main information sources. Systematic evaluation and analysis can help us understand how this medium works, grows, and changes, and how it influences our lives and research. New approaches in informetrics can provide an appropriate means towards achieving the above goals, and towards establishing a sound theory. This paper presents a selective review of research based on the internet, using bibliometric and informetric methods and tools. Some of these studies clearly show the applicability of bibliometric laws to the internet, while others establish new definitions and methods based on the respective definitions for printed sources. Both informetrics and internet research can gain from these additional methods.

Keywords: Analysis, Bibliometric, Citation Analysis, Evaluation, Impact Factors, Information-Science, Informetrics, Internet, Library, Literature, Networks, Page, Research, Resources, Scholarly Communication, Search Engines, Survey, Theory, Web, World-Wide-Web

? McKechnie, L. and Pettigrew, K.E. (2002), Surveying the use of theory in library and information science research: A disciplinary perspective. *Library Trends*, **50** (3), 406-417.

Full Text: [2002\Lib Tre50, 406.pdf](2002/Lib%20Tre50,%20406.pdf)

Abstract: A content analysis of 1,160 library and information science (Lis) Articles published in six lis journals between 1993 and 1998 was conducted to examine the use of theory in lis research. Overall, 34.2 Percent of articles incorporated theory in either the title, abstract, or text for a total of 1,083 theory incidents or an average of .93 Incidents per article. Articles dealing with topics from the humanities (E.G., Information policy, history) Had the highest rate of theory use with 1.81 Incidents per article, followed by social science papers (E.G., Information behavior, management) With .98 Incidents per article and science articles (E.G., Bibliometrics, information retrieval) With .75 Theory incidents per article. These findings imply that differences exist in the use of theory in lis that are associated with the broad disciplinary content of the research. These differences may arise from variant conceptions of and approaches to the use of theory in the research traditions of the humanities, social sciences, and sciences. It is suggested that the multidisciplinary background of lis researchers provides a rich but still underutilized opportunity for the use and development of theory within lis.

Keywords: Analysis, Bibliometrics, Content Analysis, Development, History, Humanities, Information Retrieval, Information Science, Journals, Library and Information Science, Management, Needs, Papers, Research, Research Articles, Science, Science Research, Sciences, Social Sciences, Theory

? Rousseau, R. (2002), Journal evaluation: Technical and practical issues. *Library Trends*, **50** (3), 418-439.

Full Text: [2002\Lib Tre50, 418.pdf](2002/Lib%20Tre50,%20418.pdf)

Abstract: This essay provides an overview of journal evaluation indicators. It highlights the strengths and weaknesses of different indicators, together with their range of applicability. The definition of a ‘Quality journal’, Different notions of impact factors, the meaning of ranking journals, and possible biases in citation databases are also discussed. Attention is given to using the journal impact in evaluation studies. The quality of a journal is a multifaceted notion. Journals can be evaluated for different purposes, and hence the results of such evaluation exercises can be quite different depending on the indicator(S) Used. The impact factor, in one of its versions, is probably the most used indicator when it comes to gauging the visibility of a journal on the research front. Generalized impact factors, over periods longer than the traditional two years, are better indicators for the long-term value of a journal. As with all evaluation studies, care must be exercised when considering journal impact factors as a quality indicator. It seems best to use a whole battery of indicators (Including several impact factors) and to change this group of indicators depending on the purpose of the evaluation study. Nowadays it goes without saying that special attention is paid to e-journals and specific indicators for this type of journal

Keywords: Bibliometric Data, Citation, Impact Factors, Index, Information-Science, Journal Impact, Journals, Library, Obsolescence, Publication, Publications, Reliability, Research, Science Citation Database, Scientific Journals

Glanzel, W. (2002), Coauthorship patterns and trends in the sciences (1980-1998): A bibliometric study with implications for database indexing and search strategies. *Library Trends*, **50** (3), 461-473.

Full Text: [2002\Lib Tre50, 461.pdf](2002/Lib%20Tre50,%20461.pdf)

Abstract: THE PRESENT STUDY AIMS AT describing both the common and the distinguishing features of coauthorship trends and patterns in selected science fields. The relation between coauthorship schemes and other bibliometric features, such as publication activity and citation impact are analyzed. I show that, while copublication activity has grown considerably, the extent of coauthorship and its relation with productivity and citation impact largely varies among fields. Besides universally valid tendencies, subject specific features can be found.

Keywords: International Scientific Collaboration, Multilateral Co-Authorship

Moed, H.F., Luwei, M. and Nederhof, A.J. (2002), Towards research performance in the humanities. *Library Trends*, **50** (3), 498-520.

Full Text: [2002\Lib Tre50, 498.pdf](2002/Lib%20Tre50,%20498.pdf)

Abstract: THIS PAPER DESCRIBES A general methodology for developing bibliometric performance indicators. Such a description provides a framework or paradigm for application-oriented research in the field of evaluative quantitative science arid technology studies, particularly in the humanities arid social sciences. It is based on our study of scholarly output in the field of Law at the four major universities in Flanders, the Dutch speaking part of Belgium. The study illustrates that bibliometrics is much more than conducting citation analyses based on the indexes produced by the Institute for Scientific Information (ISI), since citation data do not play a role in the study. Interaction with scholars in the fields under consideration arid openness in the presentation of the quantitative outcomes are the basic features of the methodology. Bibliometrics should be used as air instrument to create a mirror. While not a direct reflection, this study provides a thorough analysis of how scholars in the humanities and social sciences structure their activities and their research output. This structure can be examined empirically from the point. of view of its consistency and the degree of consensus among scholars. Relevant issues can be raised that are worth considering in more detail in followup studies, arid conclusions from our empirical materials may illuminate such issues. We argue that the principal aim of the development and application of bibliometric indicators is to stimulate a debate among scholars in the field under investigation on the nature of scholarly quality, its principal dimensions, and operationalizations. This aim provides a criterion of ‘productivity’ of the development process. We further contend that librarians are not infrequently requested to provide assistance in collecting data related to research performance assessments, and that the methodology described in the paper aims at offering a general framework for such activities, and can be used by librarians as a line of action whenever they become involved.

Keywords: Bibliometric Indicators, Behavioral-Sciences, Law Reviews, Journals, Productivity, Quality

Vinkler, P. (2002), The institutionalization of scientific information: A scientometric model (ISI-S model). *Library Trends*, **50** (3), 553-569.

Full Text: [2002\Lib Tre50, 553.pdf](2002/Lib%20Tre50,%20553.pdf)

Abstract: A SCIENTOMETRIC MODEL (ISI-S model) is introduced for describing the institutionalization process of scientific information. The central concept of ISI-S is that the scientific information published may develop with time through permanent evaluation and modification processes toward a cognitive consensus of distinguished authors of the respective scientific field or discipline. ISI-S describes the information and knowledge systems of science as a global network of interdependent information and knowledge clusters that are dynamically changing by their content and size. ISI-S assumes sets of information with short- or long-term impact and information integrated into the basic scientific knowledge or common knowledge. The type of the information sources (e.g., lecture, journal paper, review, monograph, book, textbook, lexicon) and the length of the impact are related to the grade of institutionalization. References are considered as proofs of manifested impact. The relative and absolute development of scientific knowledge seems to be slower than the increase of the number of publications.

Keywords: Growth, Citation, Impact, Obsolescence, Publication, Science

Tenopir, C. (2003), Electronic publishing: Research issues for academic librarians and users. *Library Trends*, **51** (4), 614-635.

Full Text: [2003\Lib Tre51, 614.pdf](2003/Lib%20Tre51,%20614.pdf)

Abstract: INCREASED RELIANCE ON ELECTRONIC RESOURCES requires examination of the roles of librarians in several key ways. This paper addresses the need for further research into three important areas of electronic publishing. How is the change to digital information sources affecting the scholarly work of college and university students? Previous research shows that students rely on Web and online resources and ask for less help from librarians. We do not know, however, how these changes will affect the learning and scholarly work of college and university students. Research is also needed to determine how the differences between separate article and full journal databases affect the way research is done. What are the implications for scholarship of decisions being made about what publishers publish and what librarians purchase? Finally, are librarians-as intermediaries to the search process-still necessary in a digital age? Online systems are designed to be used independently but that may not always yield the best results.

Keywords: Undergraduate Citation Behavior, Information-Retrieval Systems, Transaction Log Analysis, Reference Interview, Digital Reference, Online Catalog, Search, Web, Experience, Questions

? Jacso, P. (2008), Testing the calculation of a realistic h-index in Google Scholar, Scopus, and Web of Science for F.W. Lancaster. *Library Trends*, **56** (4), 784-815.

Full Text: [2008\Lib Tre56, 784.pdf](2008/Lib%20Tre56,%20784.pdf)

Abstract: This paper focuses on the practical limitations in the content and software of the databases that are used to calculate the h-index for assessing the publishing productivity and impact of researchers. To celebrate F. W. Lancaster’s biological age of seventy-five, and “scientific age” of forty-five, this paper discusses the related features of Google Scholar, Scopus, and Web of Science (WoS), and demonstrates in the latter how a Much more realistic and fair h-index call be computed for F. W. Lancaster than the one produced automatically. Browsing and searching the cited reference index of the 1945-2007 edition of WoS, which in my estimate has over a hundred million 11 orphan references” that have no counterpart master records to be attached to, and “stray references” that cite papers which do have master records but cannot be identified by the matching algorithm because of errors of omission and commission in the references of the citing works, can bring tip hundreds of additional cited references given to works of an accomplished author but are ignored in the automatic process of calculating the h-index. The partially manual process doubled the h-index value for F. W. Lancaster front 13 to 26, which is a much more realistic value for an information scientist and Professor of his statute.

Keywords: Scientific-Research Output, Hirsch-Type Indexes, Bibliometric Indicators, Citation Analysis, Journals, Information, Databases, Ranking, Authors, Counts

? Young, A.P. (2008), Aftermath of a prediction: F.W. Lancaster and the paperless society. *Library Trends*, **56** (4), 843-858.

Full Text: [2008\Lib Tre56, 843.pdf](2008/Lib%20Tre56,%20843.pdf)

Abstract: Professor Lancaster’s audacious prediction of a paperless society by the end of the twentieth century is examined from multiple perspectives. Rationales for the prognostication, textual and contextual; reception by the profession; and impact on the literature of library and information science are reviewed. Bibliometric data is introduced in support of the extensive citation links to Lancaster’s core writings. The accuracy of Lancaster’s prediction and the leavening insights of the collateral literature are considered.

Keywords: Library, Technology

? Qin, J. (2008), F.W. Lancaster: A bibliometric analysis. *Library Trends*, **56** (4), 954-967.

Full Text: [2008\Lib Tre56, 954.pdf](2008/Lib%20Tre56,%20954.pdf)

Abstract: F. W. Lancaster, as the most cited author during the 1970s to early 1990s, has broad intellectual influence in many fields of research in library and information science. This bibliometric study collected citation data For Lancaster’s publications from 1972 to 2006 and analyzed the data in terms of the time and space and disciplinary breadth of his intellectual influence. The result shows that. Lancaster has established in extraordinary record of both productivity and citedness. Six of his works, according to the criteria for citation classic, have been cited so extensively over a longtime span that they qualify its citation classics in library and information science. Although much of the citation data, especially those in non-English publications, are not covered in citation databases, the bibliometric depiction nonetheless provides a good picture of Lancaster’s contribution to and influence in library and information science.

Keywords: Information-Science Faculty, Research Productivity, Library

# Title: Libri

Full Journal Title: [Libri](http://bubl.ac.uk/archive/journals/libri/index.html); [Libri](http://www.reference-global.com/loi/libr)

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Information Science & Library Science: Impact Factor 0.153, / (2001) SSCI

? Munchpetersen, E. (1981), Bibliometrics and fiction. *Libri*, **31** (1), 1-21.

Keywords: Bibliometrics

? Lawani, S.M. (1981), Bibliometrics - Its theoretical foundations, methods and applications. *Libri*, **31** (4), 294-315.

Keywords: Bibliometrics

? Peritz, B.C. (1984), On the careers of terminologies - the case of bibliometrics. *Libri*, **34** (3), 233-242.

Keywords: Bibliometrics

? Ikpaahindi, L. (1985), An overview of bibliometrics - its measurements, laws and their applications. *Libri*, **35** (2), 163-177.

Keywords: Bibliometrics

? Deglas, F. (1986), Fiction and bibliometrics - analyzing a publishing houses stocklist. *Libri*, **36** (1), 40-64.

Keywords: Bibliometrics

? Raptis, P. (1992), Authorship characteristics in 5 international library-science journals. *Libri*, **42** (1), 35-52.

Abstract: This bibliometric study contributes a useful basis for compling a profile of authorship characteristics in international library and information journals. Five journals were studied for details of the authors given in them. These details include sex, affiliation, rank, and the author’s country. The study is based on such printed materials as articles, book reviews, letters, and editorials found in five English language international librarianship journals. The citations, references, and bibliographies were also studied. The geographic distribution, the age and the type of cited documents the authors used in writing articles were explored.

Keywords: Authors, Authorship, Bibliographies, Bibliometric, Bibliometric Study, Book Reviews, Citations, Information-Science, Journals, Librarianship, Reviews

? Sengupta, I.N. (1992), Bibliometrics, informetrics, scientometrics and librametrics - an overview. *Libri*, **42** (2), 75-98.

Abstract: Bibliometrics, informetrics, scientometrics and librametrics are four measuring techniques in library and information science. These are analogous, or rather synonymous, terms with intermingled aims and objectives and as such they need some elucidation. This paper discusses their scope, application, development and potential in solving various problems pertaining to library and information sciences.

Keywords: Bibliometrics, Biochemical Literature, Bradford Distribution, Citation Networks, Development, Growth, Indicators, Information Science, Informetrics, Journals, Law, Lectin Literature, Library and Information Science, Periodicals, Science, Science Citation, Sciences, Scientometrics

? Lancaster, F.W., Zeter, M.J. and Metzler, L. (1992), Ranganathan influence examined bibliometrically. *Libri*, **42** (3), 268-281.

Abstract: A bibliometric analysis of the citations to Ranganathan’s writings over the period 1956-1990, using Social Sciences Citation Index and Science Citation Index, indicates that this influence has not diminished over the years. His books are more frequently cited than his articles. Citations to the Prolegomena to Library Classification, (95), Colon Classification (69) Classified Catalogue Code (32) and Five Laws of Library Science (28) account for more than a third of the total citations (630). Ranganathan has been cited in a wide range of diverse contexts. The Five Laws are seen by several authors as the basic philosophical framework of librarianship. Facet analysis and subject structuring get substantial reference, including in computer generation of thesaurus, deep structure indexing systems and expert systems design. In discussions on rules and codes for cataloguing, the Classified Catalogue Code and canons have received substantial notice. History of library development in India, professional associations, reference service, and library administration, are among the other topics in which Ranganathan’s contributions are cited. References are also made to his ideas on quantitative methods in library work.

Keywords: Structure Indexing System, Classification Edition 7, Colon Classification, Information-Retrieval, Alphabetic Classaurus, Public-Libraries, Expert Systems, India, Book, Construction

Zhang, H.Q. (1995), Basic literature of acupuncture in MEDLINE: A bibliometric analysis. *Libri*, **45** (2), 113-122.

Abstract: This bibliometric study analyzes the references of articles on acupunctures searched by the MEDLINE during the period from 1988 to 1992. The 1457 articles distributed in 382 periodicals were illustrated in order to identify reasonably a hierarchical ranking of periodicals according to the number of articles and to evaluate objectively a distribution of countries where those articles were contributed and languages in which those articles were written. Over this period, the numbers of authors ranged from one to 10+ and the mean number of authors is 2.68.

Keywords: Information, Authorship, Management, Science, Growth, Laws

Osareh, F. (1996), Bibliometrics, citation analysis and co-citation analysis: A review of literature I. *Libri*, **46** (3), 149-158.

Abstract: Although the coinage of the term Bibliometrics is fairly recent, its usage and practice can be traced back to the 1890’s. Bibliometrics has been used vastly as a quantitative method for evaluating the literature in different disciplines, particularly in the last two decades. This article is intended to review bibliometrics and one of its major methods citation analysis in two different parts: the first part of this article aims to present a background of the bibliometrics and citation analysis. The applications of citation analysis are also studied in this part In the second part of this article: document and author co-citation analysis as well as journal-by-journal and country-by-country citation analysis are studied. Mapping science as an application of co-citation analysis is also studied. finally the Limitations, problems and reliability and validity of citation analysis as a research method will be considered.

Keywords: Scholarly Communication, Science, Documents, Tool

Osareh, F. (1996), Bibliometrics, citation analysis and co-citation analysis: A review of literature II. *Libri*, **46** (4), 217-225.

Abstract: This article is the second part of an article entitled Bibliometrics, Citation analysis and Co-citation analysis: A Review of Literature. In this part of the article document and author cocitation, journal-by-journal and country-by country citation analysis are studied. Mapping science as an application of cocitation analysis is also studied. Finally the Limitations, problems and reliability and validity of citation analysis as a research method will be considered.

Keywords: Scientific Literatures, Intellectual Structure, Publication Output, Science, Cocitation, Performance, Countries, Space, Specialties, Disciplines

? Bonitz, M. (1997), The scientific talents of nations. *Libri*, **47** (4), 206-213.

Full Text: Libri47, 206.pdf

Abstract: The recently discovered “Matthew effect for countries” (MEG) is a measurable phenomenon in the world-wide system of scientific communication. This system is of interest for scientometrics, sociology of science, as well as for research policy. Its functioning is based largely on citing mechanisms, involving the citation activity and choices of individual scientists, scientific institutions and whole scientific nations. The Science Citation Index is an appropriate means for studying and assessing the scientific power of nations. The MEC states that a minority of countries, expecting a high number of citations per scientific paper, is gaining even more citations than expected, while the majority of countries, expecting only a low number of citations per scientific paper, is gaining even fewer citations than expected. “Relative national loss/gain of citations” is a measure that describes the extent a country is affected by the MEG. Countries belonging to the “losers” - the majority that experiences a loss of citations - can be assigned to a “Left World”, the “winners” - those few countries which gain extra citations - to a “Right World” in which the top scientific nations are found. The results that establish the existence of a MEC are based on the investigation of 44 countries which produce altogether about 2,5 million scientific papers and 9,5 million citations over five years. In this study the MEC is confronted with the entire gospel parable of the entrusted talents (ST. MATTHEW 25, 14-30). A detailed correspondence of essential aspects of the bibliometric MEC on the one hand and the Biblical gospel parable, on the other is observed.

Keywords: Bibliometric, Citation, Citation Index, Citations, Countries, Nations, Papers, Research, Research Policy, Science, Science Citation Index, Scientific Communication, Scientific Institutions, Scientometrics, Sociology Of Science, System

Garfield, E. (1998), From citation indexes to informetrics: Is the tail now wagging the dog? *Libri*, **48** (2), 67-80.

Full Text: [1998\Libri48, 67.pdf](1998/Libri48,%2067.pdf)

Abstract: This article provides a synoptic review and history of citation indexes and their evolution into research evaluation tools including a discussion of the use of bibliometric data for evaluating U.S. institutions (academic departments) by the National Research Council (NRC). The review covers the origin and uses of journal impact factors, validation studies of citation analysis, information retrieval and dissemination (current awareness), citation consciousness, historiography and science mapping, Citation Classics, (R) and the history of contemporary science. Retrieval of information by cited reference searching is illustrated, especially as it applies to avoiding duplicated research. The fifteen-year cumulative impacts of journals and the percentage of uncitedness, the emergence of scientometrics, old boy networks, and citation frequency distributions are discussed. The paper concludes with observations about the future of citation indexing

Keywords: Bibliometric, Citation, Citation Analysis, Co-Citation, Departments, Documents, Evaluation, Impact, Information Retrieval, Journal Impact, Journals, Model, Research

Rowlands, I. (1999), Patterns of scholarly communication in information policy: A bibliometric study. *Libri*, **49** (2), 59-70.

Full Text: [1999\Libri49, 59.pdf](file:///C:/Users/YSHo/AppData/Roaming/Microsoft/Bibliometric%20References/1999/Libri49,%2059.pdf)

Abstract: This paper reports on a bibliometric investigation into the structure and dynamics of the information policy journal literature. The unit of analysis is a document test collection of 771 articles published between 1972 and 1996. This test collection was compiled from records in the multidisciplinary database Social Sciences Citation Index(R). The investigation focuses on patterns of growth, knowledge accumulation, ageing and obsolescence, documentary scatter and knowledge production. It concludes that the structure and dynamics of the information policy journal literature diverges in several respects from typical social science literatures. Information policy is characterised by very rapid growth, high immediacy (in Price’s sense), rapid reception and ageing processes and relatively low documentary scatter. These findings are put in the context of related work in bibliometrics and in the sociology of science wherever possible.

Keywords: Authorship, Bibliometrics, Citation Analysis, Cocitation Analysis, Library, Science

Wormell, I. (2000), Libri’s golden jubilee in a bibliometric mirror. *Libri*, **50** (2), 75-94.

Full Text: Libri50, 75.pdf

Abstract: For the celebration of the 50-year jubilee of Libri - International Journal of Libraries and Information Services, an extensive bibliometric analysis has been carried out to present some qualitative and quantitative data about the journal’s position in the information market and its contribution to the professional developments in the field of library and information science. The study is based on the methodology for online citation analysis developed by the Centre for Informetric Studies in Copenhagen, to facilitate a deeper understanding of journal evaluation procedures and, consequently, the evaluation of the research published in it. Highlighted features are: Libri as represented in the databases; authorship characteristics; users of the journal; export of knowledge; citation pattern; synchrone and diachrone analysis of the citation impact; citation half life; top ten most cited Libri articles; special issues published in the 1990s. The aim of the presented metric analyses is not only to provide a historical overview of the visibility and impact of an independent, international journal, but also to show an advanced method for journal evaluation and to promote the use of online citation analysis. Data presented in the 15 figures provide useful information about some properties of a scientific journal, which until now have not been highlighted in the form of scientific investigations analysing the importance and influence of a journal in a given field

Keywords: Articles, Authorship, Bibliometric, Bibliometric Analysis, Citation, Citation Analysis, Citation Impact, Contribution, Databases, Evaluation, Impact, Information Science, International, Research, Science, Scientific Journal, Visibility

? Jin, B.H. and Rousseau, R. (2001), An introduction to the barycentre method with an application to China’s mean centre of publication. *Libri*, **51** (4), 225-233.

Full Text: [2001\Libri51, 225.pdf](2001/Libri51,%20225.pdf)

Abstract: We explain the barycentre method and show how to apply it in a practical situation. A country’s mean centre of publication, or publication barycentre, is defined and its evolution is studied in the case of China’s centre of publication. Data for this application are taken from the Chinese Science Citation Database (CSCD). It is shown that China’s publication barycentre slowly moves to the south and that it approaches the population barycentre. Tentative explanations for this southward movement, based on economic and educational considerations, are given. It is observed that inequality in publication between administrative units (regions) decreases slowly.

Keywords: Citation, Database, Publication

? Osareh, F. and Wilson, C.S. (2002), Collaboration in Iranian scientific publications. *Libri*, **52** (2), 88-98.

Full Text: [2002\Libri52, 88.pdf](2002/Libri52,%2088.pdf)

Abstract: This study looks at international collaboration in Iranian scientific publications through the ISI Science Citation Index(R) (SCI) for the years 1995-1999, inclusive. These results are compared to and contrasted with the earlier findings for the periods covering 1985-1994 (Osareh & Wilson 2000). The results of Iran’s increasing productivity over a 15-year period are presented. Iran doubled its output in the first two five-year periods and increased 2.8-fold from the second to the third five-year period. The rise in Iran’s scientific publication output is due mainly to factors such as the ending of the war, better economic conditions, recent changes in the Iranian government’s policy, basic changes in the political environment brought about by the Reformers, expansion of the Iranian presses for national publications, and the recent return of a large number of students trained overseas through government scholarships, External changes also account for the increased productivity, e.g., the acceptance of three Iranian source journals by the SCI, increased access to international databases through the Internet and better electronic communication facilities for international collaboration. One of the most important and significant factors that caused this dramatic rise seems to be the government’s research policies in the last few years, Since 1999, the Iran Science, Research and Technology Ministry, has encouraged researchers to publish their non-Farsi language articles in highly ranked international scientific journals, for example, by giving prizes to researchers who publish their articles in ISI-ranked journals.

Keywords: Articles, Citation, Collaboration, Databases, Impact, International Collaboration, Internet, Iran, ISI, Journals, Publication, Publication Output, Publications, Research, Researchers, SCI, Science, Scientific Journals, Scientific Publication, Scientific Publications

? Guerrero-Bote, V.P., Reyes-Barragán, M.J., de Moya-Anegón, F. and Herrero-Solana, V. (2002), Methods for the analysis of the uses of scientific information: The case of the University of Extremadura (1996-7). *Libri*, **52** (2), 99-109.

Full Text: [2002\Libri52, 99.pdf](2002/Libri52,%2099.pdf)

Abstract: The present study is an institutional domain analysis from the perspective of the information requirements of the scientific-technical area of the University of Extremadura in order to optimise access to and availability of scientific publications. The data were the international publications of the University, their authors and the departments to which they belonged and their reference lists obtained from the SCI (ISI Science Citation Index (R)). The results are presented and a methodological analysis is made using various statistical techniques (cluster analysis, factorial analysis, and multidimensional scaling) to determine the structure of the departmental relationships in the institution, and the outputs of Kohonen neural networks to display the relationships between journals and departments.

Keywords: Author Cocitation, Citation, Co-Citation, Domain Analysis, ISI, Journals, Map, Publications, Retrieval, SCI, Science, Science Citation Index, Scientific Information, Scientific Publications

? Thompson, J.W. (2002), The death of the scholarly monograph in the humanities? Citation patterns in literary scholarship. *Libri*, **52** (3), 121-136.

Full Text: [2002\Libri52, 121.pdf](file:///C:/Users/YSHo/AppData/Roaming/Microsoft/Bibliometric%20References/2002/Libri52,%20121.pdf)

Abstract: A significant effect of the crisis in academic publishing is the decline in publication and purchase of the scholarly monograph in the humanities. As library collections of monographs in the humanities continue to shrink, humanities scholars are clearly confronting difficult challenges in performing and publishing their research. Analysis of viable solutions to the publishing crisis in general, and in the humanities in particular, requires concrete information about the current state of academic publishing. The purpose of this study is to provide some insight, through citation analysis, into current patterns of scholarly publishing in the field of nineteenth-century British and American literary studies. Emerging and shifting publication formats, currency in secondary materials, and existing core groups of authors, works, journals, and publishers were evaluated.

By extending a sample selection method developed by Yeva Lindholm-Romantschuk and Julian Warner, this study examined 6,708 citations from both monographs and periodicals. The citations were first classified as references to primary or secondary materials. Citations to primary materials were tabulated according to publication format. For citations to secondary materials, the following aspects were identified and recorded: author, date, journal title (if applicable), publisher (if applicable), and publication format. The analysis showed that scholars in this field still generally fit the traditional profile of humanities scholars, using a large number of primary sources, drawing upon secondary sources from a broad age spectrum, and relying heavily on the monograph format for both primary and secondary materials. Electronic publishing is not generally considered a viable alternative to print publishing. Articles form an important aspect of literary research, but are not substitutes for monographs. Groups of core works and authors were not identifiable in this sample. However, significant core groups of journals and publishers do exist in this discourse community, and publishing is dominated by university presses. Because the sample was not randomized, the results of the study are not generalizable. However, the results map part of the territory of current scholarly communication in the humanities, provide information to illuminate further discussion of solutions to the publishing crisis in this field, and indicate areas for further research.

Keywords: Collections, Philosophy, Library, Arts

? Faba-Perez, C., Guerrero-Bote, V.P. and De Moya-Anegon, F. (2004), Methods for analysing web citations: A study of web-coupling in a closed environment. *Libri*, **54** (1), 43-53.

Full Text: [2004\Libri54, 43.pdf](file:///C:/Users/YSHo/AppData/Roaming/Microsoft/Bibliometric%20References/2004/Libri54,%2043.pdf)

Abstract: To reveal the structure of the relationships that establish themselves on the World Wide Web, one needs to apply tools that faithfully represent the virtual environment. Some of the most interesting relationships are those that are brought to light by web-coupling (the Web analogue of bibliographic coupling). We here propose an analysis of this type based on the common links that are generated within a closed web environment, using multivariate statistics (principal component analysis, and multidimensional scaling) and a connection-based technique (Kohonen’s self-organizing maps). The results show that it is possible to use the common links of web spaces in order to reveal the structures and the underlying relationships in a thematic closed environment.

Keywords: Analysis, Author Cocitation, Bibliographic Coupling, Bibliometrics, Citations, Internet, Map, Motivations, Self-Organizing Maps, Statistics, Web, Webometrics, World Wide Web, World-Wide-Web

? Uçak, N.Ö. and Al, U. (2009), The differences among disciplines in scholarly communication a bibliometric analysis of theses. *Libri*, **59** (3), 166-179.

Full Text: [2009\Libri59, 166.pdf](2009/Libri59,%20166.pdf)

Abstract: The purpose of this paper is to express the differences and similarities of inter-disciplinary scholarly communications through the citation analysis of theses. For this purpose, a total of 29,289 citations from 391 theses between years 1968-2007 were investigated using citation analysis. Samples were chosen according to layer-sampling techniques from 16 disciplines of four basic subject areas (social sciences, pure science, engineering, and arts and humanities). It has been found out that the characteristics of citations of the theses differ among academic disciplines. The study finds that literature obsolescence, language of resources, journal or monograph use, number of citations and authors are related to the disciplines and vary according to the subject areas.

Keywords: Bibliometric Analysis, Citation Analysis, Citations, Collections, Dissertation Citation, Journals, Library, Monographs, Obsolescence, Philosophy, Psychology, References, Social Sciences

# Title: Life Science Journal-Acta Zhengzhou University Overseas Edition

Full Journal Title: [Life Science Journal-Acta Zhengzhou University Overseas Edition](http://www.sciencepub.net/life/)

ISO Abbreviated Title:

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Subject Categories:

: Impact Factor

? Itodo, A.U., Abdulrahman, F.W., Hassan, L.G., Maigandi, S.A. and Itodo, H.U. (2010), Prediction of herbicide sorption kinetics using GCMS quantitation. *Life Science Journal-Acta Zhengzhou University Overseas Edition*, **7** (3), 29-36.

Full Text: [2010\Lif Sci J-Act Zhe Uni Ove Edi7, 29.pdf](2010/Lif%20Sci%20J-Act%20Zhe%20Uni%20Ove%20Edi7,%2029.pdf)

Abstract: Economically Viable adsorption technique based on sorbate removal by phosphoric acid (H3PO4) poultry droppings (PD) was proposed to improve the ecological system. Two ways activation schemes generated activated carbons was applied to herbicide uptake and evaluated with three (3) kinetic models. GC/MS quantitation experiment based on external standard method was performed to demonstrate up to 89.216% atrazine removal. The kinetic equilibrium study showed that a 300 minute sorbate - sorbent interaction gave 19.293 out of 25 gdm(3) adsorption (being a 77.172% adsorption). This is only 5.140, 1.992, 1.432 and 0.632% higher than the 60, 120, 180 and 240 minutes interaction with 72.032, 75.180, 75.740 and 76.540% atrazine removal respectively. The pseudo-second order kinetics was observed to be more suitable in predicting the adsorption rate by the sorbate wherein the initial adsorption rate, h was estimated as 0.3646 g.mg-1 min-1. A time dependent physisorption phenomenon was evidenced. The major results support the conclusion that the sorted agro-waste has the potential to serve as extractants adsorbents in remediation process. [Life Science Journal 2010;7(3):29-36]. (ISSN: 1097-8135).

Keywords: Activated Carbons, Activation, Adsorbents, Adsorption, Adsorption Kinetics, Adsorption Rate, Agrowaste, Atrazine, Equilibrium, Experiment, Gcms, H3PO4, Herbicide, Interaction, Kinetic, Kinetic Models, Kinetics, Models, Pd, Phosphoric Acid, Potential, Poultry, Poultry Droppings, Pseudo Second Order, Pseudo Second Order Kinetics, Pseudo-Second Order, Pseudo-Second Order Kinetics, Pseudo-Second-Order, Quantitation, Rate, Remediation, Removal, Sorbate, Sorbent, Sorption, Sorption Kinetics, Standard, Support, Time-Dependent, Uptake

# Title: Life Sciences

Full Journal Title: [Life Sciences](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5109&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=fe18fd810c1e145d67261bbd3eb20959)

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Pharmacology & Pharmacy: Impact Factor 1.758, 63/186 (2001)

Nolan, C.J., Bestervelt, L.L., Mousigian, C.A., Maimansomsuk, P., Cai, Y. and Piper, W.N. (1991), Chronic ethanol consumption depresses hypothalamic-pituitary-adrenal function in aged rats. *Life Sciences*, **49** (25), 1923-1928.

Full Text: [L\Lif Sci49, 1923.pdf](L/Lif%20Sci49,%201923.pdf)

Abstract: In separate experiments, nine (n = 20) and fifteen (n = 12) month old rats were treated with either 6% ethanol or 12% sucrose (to balance caloric intake) in the drinking water to examine the effect of chronic ethanol consumption on the hypothalamic-pituitary-adrenal axis of aged rats. Rats were maintained on these treatment regimens for thirty days and were killed by decapitation. Blood was collected and plasma concentrations of adrenocorticotropin (ACTH) and corticosterone were determined by radioimmunoassay. Adrenal glands were cleaned, quartered and used to test in vitro responsiveness to ACTH. Anterior pituitary glands from all 15 month old rats and one half of the nine month old rats were collected, frozen and extracted for measurement of tissue ACTH concentration. The remaining anterior pituitary glands from the nine month old rats were challenged with corticotropin releasing hormone (CRH) to test in vitro responsiveness. In nine month old rats, chronic ethanol consumption decreased plasma ACTH and corticosterone (P less than 0.05). Pituitary ACTH concentrations were unchanged in treated nine month old rats, but the amount of pituitary ACTH released in response to CRH was decreased (P less than 0.05) in rats consuming ethanol. In vitro responsiveness of the adrenal gland to ACTH in nine month old rats consuming ethanol was unchanged (P greater than 0.05). Plasma ACTH and corticosterone concentrations were also decreased in 15 month old rats chronically consuming ethanol (P less than 0.05). No differences were noted in responsiveness of the adrenal gland or in the amount of pituitary ACTH due to ethanol consumption in 15 month old rats (P greater than 0.05). The results of these experiments indicate that chronic ethanol consumption decreases hypothalamic-pituitary-adrenal function in aged rats.

Keywords: Dexamethasone Suppression, Release Invitro, Stress, Endorphin, Secretion, Exposure, Alcohol

# Title: Light Scattering in Solids IX

Full Journal Title: Light Scattering in Solids IX

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ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Cardona, M. and Merlin, R. (2007), Light *Scattering in Solids* IX. *Light Scattering in Solids IX*, **108**, 1-15.

Full Text: [2007\Lig Sca Sol IX108, 1.pdf](2007/Lig%20Sca%20Sol%20IX108,%201.pdf)

Abstract: We briefly review the contents of this as well as previous volumes of the series Light Scattering in Solids, and present a, chronological account of the International Conference on Raman spectroscopy (ICORS). A bibliometric study of early publications on the Raman effect is also presented together with a succint historical outline of the discovery of the effect and information recently made available about the Nobel Prize awarded to Sir Chandrasekhar Venkata Raman in 1930.

Keywords: Bibliometric, Bibliometric Study, Diffusion, Discovery, Liquids, Publications, Radiation

# Title: Light Scattering in Solids IX Topics in Applied Physics

Full Journal Title: Light Scattering in Solids IX Topics in Applied Physics

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Cardona, M. and Merlin, R. (2007), Light scattering in solids IX: 1992–2001. *Light Scattering in Solids IX Topics in Applied Physics*, **108**, 1-15.

Full Text: Lig Sca Sol IX Top App Phy108, 1

Abstract: We briefly review the contents of this as well as previous volumes of the series Light Scattering in Solids, and present a, chronological account of the International Conference on Raman spectroscopy (ICORS).

A bibliometric study of early publications on the Raman effect is also presented together with a succint historical outline of the discovery of the effect and information recently made available about the Nobel Prize awarded to Sir Chandrasekhar Venkata Raman in 1930.

Keywords: Bibliometric, Bibliometric Study, Diffusion, Discovery, Historical, Information, IX, Liquids, Made, Publications, Radiation, Raman Spectroscopy, Review, Spectroscopy

# Title: Likars’ka Sprava

Full Journal Title: Likars’ka Sprava

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Zapesochnyi, A. and Tsybenko, M.V. (1998), Trends in development of research on radiation medicine on the basic of scientificometric analysis of information flows. *Likars’ka Sprava*, **0** (2), 166-168.

Keywords: Analysis, Development, Information, Medicine, Radiation, Research

# Title: Limnology

Full Journal Title: [Limnology](http://www.springerlink.com/content/101782/?p=04dcc2dd7ef24c73adde58aef888ec6d&pi=0)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Carneiro, F.M., Nabout, J.C. and Bini, L.M. (2008), Trends in the scientific literature on phytoplankton. *Limnology*, **9** (2), 153-158.

Full Text: [2008\Limnology9, 153.pdf](2008/Limnology9,%20153.pdf)

Abstract: The use of scientometric techniques can assist in evaluating the importance of a subject, author or article, and also emphasize the trends and contributions of a discipline, scientist or research group, institution or country regarding world-wide scientific and technological advances. We applied scientometric analysis to papers in the Thomson ISI database, in order to understand temporal trends in phytoplankton research. From the years 1991 through 2005, the number of articles on this topic increased. We found 19,681 articles containing the word “phytoplankton” in the title, keyword and/or abstract. Principal components analysis (PCA) was used to summarize changes in the focus of papers published from 1991 to 2005. The keywords gradually changed, in the earliest years indicating descriptive study, whereas in recent years (2000 and after), the keywords became more diversified and related to aspects of technology, genetics, evolution and public health.

Keywords: Advances, Analysis, Changes, Country, Database, Evolution, Genetics, Health, ISI, ISI Database, Literature, Papers, PCA, Phytoplankton, Public, Public Health, Research, Scientific Literature, Scientometric, Techniques, Technology, Temporal, Trends

# Title: Limnology and Oceanography

Full Journal Title: [Limnology and Oceanography](http://uk.jstor.org/journals/00243590.html)

ISO Abbreviated Title: Limnol. Oceanogr.

JCR Abbreviated Title: Limnol Oceanogr

ISSN: 0024-3590

Issues/Year: 8

Journal Country/Territory: United States

Language: English

Publisher: Amer Soc Limnology Oceanography

Publisher Address: 5400 Bosque Blvd, Ste 680, Waco, TX 76710-4446

Subject Categories:

Limnology Oceanography: Impact Factor

Pomeroy, L.R., Smith, E.E. and Grant, C.M. (1965), The exchange of phosphate between eatuarine water and sediments. *Limndology and Oceanogrphy*, **10** (2), 167-172.

Full Text: [L\Lim Oce10, 167.pdf](L/Lim%20Oce10,%20167.pdf)

Abstract: The exchange of phosphate between water and sediments of Doboy Sound, Georgia, was studied experimentally with freshly collected core samples and suspensions of surface sediment, using 32P as a tracer. The exchange consists of a two-step ion exchange between clay minerals and water, plus an exchange between interstitial microorganisms and water. The exchange tends to maintain a concentration of phosphate in the water of one μmole of phosphate/liter. In undisturbed sediments the biological exchange is trivial, but in suspended sediments the biological exchange moves nearly as much phosphate as does the exchange with clay minerals. The rates of exchange and the exchange capacity of the sediments are large enough to be significant ecologically, maintaining phosphate at a level favorable for continued production of plant populations.

Li, W.K.W. (1983), Consideration of errors in estimating kinetic parameters based on Michaelis-Menten formalism in microbial ecology. *Limnology and Oceanography*, **28** (1), 185-190.

Full Text: [L\Lim Oce28, 185.pdf](L/Lim%20Oce28,%20185.pdf)

Abstract: When microbial heterotrophic activity appears to conform to Michaelis-Menten kinetics, it is usual to estimate parameters of the model from linearly transformed, but unweighted, data. Theoretical error analysis indicates that if the uncertainties associated with untransformed data are homogeneous within a given experiment, it is inappropriate to fit transformed data in the usual manner. In such cases, an alternative method is proposed whereby untransformed and unweighted data are directly fit to an equivalent nonlinear equation. Results from experiments in the eastern Canadian arctic illustrate this alternative method of estimating kinetic parameters. A comparison of the two methods based on goodness-of-fit and precision of parameter estimates shows the alternative method to be more satisfactor.

# Title: Linear Algebra and Its Applications

Full Journal Title: Linear Algebra and Its Applications

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Farebrother, R.W., Gross, J., Hauke, J., Kala, R., Liski, E., Liu, X.J., Markiewicz, A., Migdalek, W., Pukelsheim, F., Pukkila, T., Puntanen, S., Rao, C.R., Styan, G.P., Szulc, T., Tian, Y.G., Trenkler, G., Volaufova, J., Yanai, H. and Zhang, F.Z. (2005), Some comments on the life and publications of Jerzy K. Baksalary (1944-2005). *Linear Algebra and Its Applications*, **410**, 3-53

Keywords: Adam Mickiewicz University in Poznan, Authorship Matrix, Bibliometrics, Biography, Experimental Design, Generalized Inverses of Matrices, History of Mathematics and Statistics in Poland, Linear Statistical Models, Matrix Equations and Inequalities, Matrix Partial Orderings, Obituary, Publications, Rank of a Matrix Product, Tadeusz Kotarbinski Pedagogical University in Zielona Gora, the August Cieszkowski Agricultural University of Poznan, Zielona Gora University

# Title: Lingins, Qccurence, Formation, Structure and Reactions

? Sarkanen, K.V. and Ludwig, C.H. (1971), *Lingins*, *Qccurence*, *Formation*, *Structure and Reactions*. Wiley, New York.

# Title: Linguistics

Full Journal Title: Linguistics

ISO Abbreviated Title: Linguistics

JCR Abbreviated Title: Linguistics

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Murcia-Serra, J. (1999), Subject, topic, and agent: Accounting for the addressee in instructions in English, German, and Spanish. *Linguistics*, **37** (1), 13-40.

Full Text: [1999\Linguistics37, 13.pdf](1999/Linguistics37,%2013.pdf)

Abstract: The present paper presents a study on the functional assignment of the category subject in the production of instructions in English, German, and Spanish. It could be shown that the choice between the two natural candidates for this position (agent and topic) is determined by the conceptual accessibility of the entity functioning as agent and whether it is given in the communicative situation as specific or nonspecific (addressee present or absent). Presence or absence has different effects depending on the language. The unspecific agent is encoded in English and German preferentially in the subject position, while Spanish in the smite situation shows a tendency to use the subject category to encode topic information, not mentioning the agent of the instructions. The specific agent, on the contrary, is encoded in Spanish as subject, while in English and German if remains mostly unmentioned These differences reflect the linguistic means offered by the three languages to code the specificity of an agent and lead to a different conceptualization in organizing information for expression (“thinking for speaking”). They reflect an object-oriented versus an agent-oriented perspective depending on the communicative situation.

Keywords: Accessibility, Author, Germany, Information, Subject Category

# Title: Listy Cukrovarnicke A Reparske

Full Journal Title: [Listy Cukrovarnicke A Reparske](http://www.cukr-listy.cz/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Gebler, J. (2002), Impact Factor and the journal *Listy Cukrovarnicke A Reparske*. *Listy Cukrovarnicke A Reparske*, **118** (9-10), 233-236.

Abstract: The journal ‘Listy cukrovarnicke a reparske’ is registered in international database of Institut for Scientific Information in Philadelphia, USA. The journal is assessed in database Science Citation Index and have its Impact Factor. Only three journals from the beet, cane and sugar branch have managed that. in the article the other bibliometric characteristic are explained: Citation index, Immediacy Index and ISSN. There is added the table with the list of the world’s journals concerning the beet, cane and sugar branch

Keywords: Journals

? Kizek, R. and Adam, V. (2007), Scientometrics and their relevance. *Listy Cukrovarnicke A Reparske*, **123** (1), 25-26.

Full Text: 2007\Lis Cuk A Rep123, 25.pdf

Abstract: Databases assembled fundamental bibliographic data about articles published in peer reviewed journals can be used not only for searching for research results but also for evaluating both of scientist and journals. Here, nowadays most commonly used databases of articles and ways how can be scientific work evaluated are described and discussed.

Keywords: Bibliographic Dabases, Chemical Composition, Chemistry, Data, Databases, Dimension, English, Heavy-Metals, Impact Factor, Impact Factor, Journals, Peer Reviewed Journals, Peer-Reviewed, Relevance, Research, Research Results, Science, Scientometrics, Slovakia, Sugar-Beet Root, Topography, Work

? Kizek, R. and Adam, V. (2010), The Impact Factor of *Listy Cukrovarnicke A Reparske* in 2009. *Listy Cukrovarnicke A Reparske*, **126** (12), 454-455.

Full Text: [2010\Lis Cuk A Rep126, 454.pdf](2010/Lis%20Cuk%20A%20Rep126,%20454.pdf)

Abstract: In mid-June, ISI Web of Knowledge publishes current values of the most important scientometric indicator, the so-called Impact factor. The Czech Republic has issued a number of periodicals, but only a fraction of them are included in Web of Science database, thus having an Impact factor. In the region focusing on agricultural issues, ten journals including Listy cukrovarnicke a reparske is indexed by ISI. Here, the development of impact factor of Listy cukrovarnicke a reparske from 2000 to 2009 and citations of individual articles are discussed.

Keywords: Agricultural, Citation, Citations, Czech Republic, Database, Development, Impact, Impact Factor, Indicator, ISI, Journals, Periodicals, Plants, Scientometric, Scientometry, Scopus, Web of Sciece, Web of Science

# Title: Literary Imagination

Full Journal Title: Literary Imagination

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Gagel, M. (2010), 1897, A discussion of plagiarism: Letters between Vernon Lee, Bernard Berenson, and Mary Costelloe. *Literary Imagination*, **12** (22), 154-179.

Keywords: Plagiarism

# Title: Liver Transplantation

Full Journal Title: Liver Transplantation

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Taylor, R., Franck, L.S., Gibson, F. and Dhawan, A. (2005), A critical review of the health-related quality of life of children and adolescents after liver transplantation. *Liver Transplantation*, **11** (1), 51-60.

Full Text: 2005\Liv Tra11, 51.pdf

Abstract: We critically examined research on health-related quality of life (HRQL) in children and adolescents after liver transplantation. The specific aims were to identify research studies on HRQL after liver transplantation, to critique the methodological quality of the studies, to estimate overall HRQL after transplant, and to make recommendations for future research. Databases searched included MEDLINE, Cumulative Index to Nursing and the Allied Health Literature, PsycINFO, EMBASE, Allied and Complementary Medicine, Institute for Scientific Information Web of Science, and Applied Social Sciences Index and Abstracts. Searches also were made on related Web sites and proceedings of transplantation and associated conferences. Eligible studies involved children between birth and 18 years of age who received isolated orthotopic, auxiliary, or living related liver transplantation. HRQL was assessed through 2 or more of the domains of physical health, psychological functioning, social functioning, family functioning, or general well-being. Eligible studies were abstracted, assessed for methodological quality, and synthesized using the sign test to provide an indication of the effect of liver transplantation on each HRQL domain. The synthesis of findings suggested an improvement in HRQL in comparison with pretransplant status; there was a trend toward a worse HRQL in comparison with the healthy population and better than those with other chronic illnesses. In conclusion, liver transplantation in childhood has a negative impact on some aspects of HRQL. However, this finding is tentative because of the small number of studies and variable study quality found.

Keywords: Adaptation, Adjustment, Adolescents, Children, Chronic Illnesses, Databases, Embase, Experience, Families, Health, Health-Related Quality of Life, Impact, Inventory, Liver Transplantation, Long-Term Survivors, Nursing, Parents, Physical Health, Posttraumatic Stress, Psychological, Quality of Life, Recipients, Research, Review, Science, Scientific Information, Social, Social Sciences, Trend, Web of Science

? Perkins, J.D. (2008), Massive pulmonary embolism during liver transplantation. *Liver Transplantation*, **14** (4), 575.

Abstract: Background: Pulmonary embolism (PE) and intracardiac thrombosis (ICT) are rare but potentially lethal complications during orthotopic liver transplantation (OLT). Methods: We aimed to review clinical and pathological correlates of PE and ICT in patients undergoing OLT. A systematic review of the literature was conducted using MEDLINE and ISI Web of Science. Results: Seventy-four cases of intraoperative PE and/or ICT were identified; PE alone in 32 (43%) patients and a combination of PE and ICT in 42 (57%) patients. Most frequent clinical symptoms included systemic hypotension and concomitant rising pulmonary artery pressure, often leading to complete circulatory collapse. PE and ICT occurred in every stage of the operation and were equally reported in patients with or without the use of venovenous bypass or antifibrinolytics. A large variety of putative risk factors have been suggested in the literature, including the use of pulmonary artery catheters or certain blood products. Nineteen patients underwent urgent thrombectomy or thrombolysis. Overall mortality was 68% (50/74) and 41 (82%) patients died intraoperatively. Conclusion: Mortality was significantly higher in patients with an isolated PE, compared to patients with a combination of PE and ICT (91% and 50%, respectively; p<0.001). Intraoperative PE and ICT during OLT appear to have multiple etiologies and may occur unexpectedly at any time during the procedure.

Keywords: Antifibrinolytics, Blood, Correlates, Intracardiac Thrombosis, ISI, Literature, Liver Transplantation, Medline, Methods, Mortality, Pressure, Pulmonary Embolism, Review, Risk, Risk Factors, Science, Symptoms, Systematic, Systematic Review, Thrombosis, Web of Science

? Gurusamy, K.S., Kumar, Y. and Davidson, B.R. (2009), Systematic review on preventing bacterial sepsis and wound complications in liver transplant patients: Methods of preventing bacterial sepsis and wound complications for liver transplantation. *Liver Transplantation*, **15** (2), 255-256.

Full Text: [2009\Liv Tra15, 255.pdf](2009/Liv%20Tra15,%20255.pdf)

Abstract: Background: Bacterial sepsis and wound complications after liver transplantation increase mortality, morbidity, hospital stay, and overall transplant costs. Objectives: To assess the benefits and harms of different methods aimed at preventing bacterial sepsis and wound complications In patients undergoing liver transplantation. Search Strategy: We searched The Cochrane Hepato-Biliary Group Controlled Trials Register, the Cochrane Central Register of Controlled Trials (CENTRAL) in The Cochrane Library, MEDLINE, EMBASE, and Science Citation Index Expanded until June 2007. Selection Criteria: We included only randomised clinical trials irrespective of language or publication status. Data Collection and Analysis: We collected the data on infections, adverse effects of intervention, ITU (intensive therapy unit) stay, and hospital stay. We analysed the data with both the fixed-effect and the random-effects models using RevMan Analysis and risk ratio (RR) or weighted mean difference (WMD) with 95% confidence intervals (CI) based on intention-to-treat analysis. Main Results: We identified seven trials for inclusion including 614 patients. Four trials compared selective bowel decontamination versus placebo or no treatment. In one trial, patients were randomised to selective bowel decontamination, active lactobacillus with fibres (probiotic with prebiotic), or to inactivated lactobacillus with fibres (preblotic). In another trial, different doses of granulocyte-colony stimulating factor and placebo were compared. The remaining two trials compared lactobacillus with fibres versus fibres alone and early enteral feeding versus no intervention. Only one trial was of low bias-risk. There was no statistically significant difference in any outcome between the selective bowel decontamination and the control groups. Selective bowel decontamination increased incidence of cholangitis (RR 4.84, 95% CI 1.15 to 20.35), incidence of bacterial infection (RR 3.63, 95% CI 1.36 to 9.74), and hospital stay (WMD 4.00, 95% CI 3.14 to 4.86) than the participants in the combined pre- and probiotic group. Hospital stay was prolonged in the selective bowel decontamination group compared to the prebiotic group. There was a statistically significant lower occurrence of urinary infection in the pre- and probiotic group than in the prebiotic group. The number of people experiencing gram negative bacterial infection was not significantly lower in the probiotic group (RR 0.18, 95% CI 0.03 to 1.17). The ITU stay was lower in the probiotic group (WMD -1.41 days, 95% CI -2.09 to -0.73). There were no differences in any outcomes in the other comparisons.

Keywords: Citation, Complications, Infection, Liver Transplantation, Medline, Mortality, Outcomes, Prebiotics, Probiotics, Review, Science, Science Citation Index, Transplantation, Trial

# Title: London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science

Full Journal Title: [London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science](http://openlibrary.org/books/OL7055086M/London_Edinburgh_and_Dublin_Philosophical_Magazine_and_Journal_of_Science.)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Notes: OOriginal

? Fick, A. (1855), On liquid diffusion. *London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science*, **10**, 30-39.

Full Text: [-1959\Phi Mag J Sci10, 30.pdf](-1959/Phi%20Mag%20J%20Sci10,%2030.pdf); [1995\J Mem Sci100, 33.pdf](1995/J%20Mem%20Sci100,%2033.pdf)

# Title: Louvain Medical

Full Journal Title: Louvain Medical

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Walckiers, M.A. (1981), Vangehuchten, Arthur (1861-1914), the Belgian physician of the 19th-century the most cited by contemporary authors. *Louvain Medical*, **100** (6), 371-379.

Keywords: Authors, Physician

# Title: Lung Cancer

Full Journal Title: [Lung Cancer](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5111&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=8d5c187fb58370cd744ee0e22bd1e63c)

ISO Abbreviated Title: Lung Cancer

JCR Abbreviated Title: Lung Cancer-J Iaslc

ISSN: 0169-5002

Issues/Year: 12

Journal Country/Territory: Netherlands

Language: English

Publisher: Elsevier Sci Ireland Ltd

Publisher Address: Customer Relations Manager, Bay 15, Shannon Industrial Estate Co, Clare, IR

Subject Categories:

Oncology Respiratory System: Impact Factor

Koo, L.C. and Ho, J.H.C. (1996), Diet as a confounder of the association between air pollution and female lung cancer: Hong Kong studies on exposures to environmental tobacco smoke, incense and cooking fumes as examples. *Lung Cancer*, **14**, S47-S61.

Full Text: [L\Lun Can14, S47.pdf](L/Lun%20Can14,%20S47.pdf)

Abstract: Chinese females in Hong Kong, where only about a third of the lung cancer cases can be attributed to a history of active smoking, have a world age-standardized lung cancer incidence rate of 32.6 per 100 000, which is among the highest in the world. Trends in Hong Kong’s female lung cancer mortality also indicate a tripling in mortality rates from 1961 to 1990. The characteristically high Chinese female lung cancer incidence among nonsmokers is also found among overseas Chinese communities in Singapore and Hawaii. To help elucidate the role of ingested and inhaled substances in the etiology of lung cancer, four epidemiological studies have been conducted in Hong Kong over the last 15 years: (1) a retrospective study of 200 cases and 200 neighbourhood controls, (2) a cross-sectional study measuring personal exposures to nitrogen dioxide among 362 children and their mothers, (3) a site monitoring study of 33 homes measuring airborne carcinogens and (4) a telephone survey of 500 women on their dietary habits and exposure to air pollutants. Selected data from each study were drawn to evaluate exposures to three major air pollutants (environmental tobacco smoke, incense and cooking fumes), their relationship with lung cancer risk and their association with dietary habits. Generally in this population, nutritionally poorer diets were characterized by higher consumption of alcohol and preserved/cured foods, whereas better diets were characterized by higher intakes of fresh fruits, vegetables and fish. For environmental tobacco smoke, exposure was only moderately high in Hong Kong (36% have current smokers at home), lung cancer risk was equivocal with exposure and it was associated with poorer diets among wives with smoking husbands. Incense was identified as a major source of exposure to nitrogen dioxide and airborne carcinogens, but it had no effect on lung cancer risk among nonsmokers and significantly reduced risk (trend, P-value = 0.01) among smokers, even after adjusting for smoking. The last finding may be explained by the relatively better diets among smoking women who burned incense versus those who did not. Although about 94% of the Chinese women cook on a regular basis and the cooking fires were associated with increased airborne carcinogens, nonsmoking women who cooked for more than 25 years had a 60% reduction in lung cancer risk and the trend was highly significant (P < 0.001). Again, this unexpected finding may be due to the confounding effects of diet. Female controls who cooked for more than 25 years had a poorer diet than those who cooked for shorter durations. These three examples were chosen to illustrate the complexities of assessing air pollution exposure and understanding the behavioral and dietary dynamics underlying lung cancer risk assessments. Our conclusion is that diet can be an important confounding factor affecting lung cancer risk estimates from air pollution exposures among Chinese women living in an affluent urban environment.

Dai, X.D., Lin, C.Y., Sun, X.W., Shi, Y.B. and Lin, Y.J. (1996), The etiology of lung cancer in nonsmoking females in Harbin, China. *Lung Cancer*, **14**, S85-S91.

Full Text: [L\Lun Can14, S85.pdf](L/Lun%20Can14,%20S85.pdf)

Abstract: A case-control study of female lung adenocarcinoma in Harbin, China involving interviews with 120 cases of nonsmoking females, matched 1: 1 with controls, showed that high coal use, indoor air pollution, exposure to coal dust, frequent frying and deep frying food and a history of lung cancer in the family were statistically significant risk factors for female adenocarcinoma. High personal income, spacious living quarters and frequent consumption of carrots were protective factors for adenocarcinoma.

? Ugolini, D., Neri, M., Casilli, C., Ceppi, M., Canessa, P.A., Ivaldi, G.P., Paganuzzi, M. and Bonassi, S. (2010), A bibliometric analysis of scientific production in mesothelioma research. *Lung Cancer*, **70** (2), 129-135.

Full Text: [2010\Lun Can70, 129.pdf](2010/Lun%20Can70,%20129.pdf)

Abstract: This study aims at comparing scientific production in malignant mesothelioma (MM) among countries and evaluating publication trends and impact factor (IF). The PubMed database was searched with a strategy combining keywords listed in the Medical Subject Headings and free-text search. Publications numbers and IF were evaluated both as absolute values and after standardization by population and gross domestic product (GDP). 5240 citations were retrieved from the biennium 1951-1952 (n = 22) to 2005-2006 (n = 535). The 177% increase of MM publications from 1987 to 2006 exceeded by large the corresponding value of total cancer literature (123.5%). In these two decades, 2559 articles with IF were published: 46.4% came from the European Union (EU) (the UK, Italy and France ranking at the top), and 36.2% from the US. The highest mean IF was reported for the US (3.346), followed by Australia (3.318), and EU (2.415, with the UK, Belgium and the Netherlands first). Finland, Sweden and Australia had the best ratio between IF (sum) and resident population or GDP. The number of publications correlated with GDP (p = 0.001) and national MM mortality rates (p = 0.002). An association was found between a country commitment to MM research and the burden of disease (p = 0.04). Asbestos, survival, prognosis, occupational exposure, differential diagnosis, and immunohistochemistry were the most commonly used keywords. This report represents the first effort to explore the geographical and temporal distribution of MM research and its determinants. This is an essential step in understanding science priorities and developing disease control policies. (C) 2010 Elsevier Ireland Ltd. All rights reserved.

Keywords: Analysis, Asbestos, Australia, Belgium, Bibliometric, Bibliometric Analysis, Bibliometrics, Biomedical Research, Cancer, Citations, Control, European-Union, Impact Factor, Italy, Literature, Malignant Pleural Mesothelioma, Mesothelioma, Mortality, Population, Production, Prognosis, Publication, Publication Trends, Publications, Pubmed, Research, Resource Allocation, Science, Survival, Trends, US

# Title: Macedonian Journal of Chemistry and Chemical Engineering

Full Journal Title: [Macedonian Journal of Chemistry and Chemical Engineering](http://www.mjcce.org.mk/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Bello, O.S., Adelaide, O.M., bdul Hammed, M. and Popoola, O.A. (2010), Kinetic and equilibrium studies of Methylene blue removal from aqueous solution by adsorption on treated sawdust. *Macedonian Journal of Chemistry and Chemical Engineering*, **29** (1), 77-85.

Full Text: [2010\Mac J Che Che Eng29, 77.pdf](2010/Mac%20J%20Che%20Che%20Eng29,%2077.pdf)

Abstract: The aim of this study is to use treated sawdust as an adsorbent for the removal of Methylene blue (MB) dye. The adsorption equilibrium and kinetics of Methylene blue dye on this adsorbent were then examined at 25°C. The adsorption isotherm of the Methylene blue on the treated adsorbent was determined and correlated with common isotherm equations. The sorption data were then correlated with the Langmuir and the Freundlich adsorption isotherm models. The Langmuir isotherm exhibited a better fit for the adsorption data than the Freundlich isotherm with maximum monolayer adsorption capacity of 236.16 mg g-1. The kinetics of Methylene blue adsorption on the treated adsorbent has also been studied by fitting the data in the Lagergren’s first order, the Ho-McKay’s pseudo second order, the Elovich and the Intraparticulate kinetic models. It was observed that the removal of Methylene blue over the treated adsorbent undergoes the second order processes at all the concentrations of the dye. The kinetic parameters of this best-fit model were calculated and discussed.

Keywords: Acid Dye, Activated Carbons, Adsorbent, Adsorption, Adsorption Isotherm, Bottom Ash, Dye, Effluent, Equilibrium, Freundlich Isotherm, Hen Feathers, Isotherm, Kinetic, Kinetic Models, Kinetics, Langmuir, Langmuir Isotherm, Natural Adsorbents, Pore, Removal, Rhodamine-B, Sawdust, Sorption, Waste-Water

# Title: Macromolecular Bioscience

Full Journal Title: [Macromolecular Bioscience](http://www3.interscience.wiley.com/cgi-bin/jhome/77002860)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Chang, Y.C. and Chen, D.H. (2005), Adsorption kinetics and thermodynamics of acid dyes on a carboxymethylated chitosan-conjugated magnetic nano-adsorbent. *Macromolecular Bioscience*, **5** (3), 254-261.

Full Text: [M\Mac Bio5, 254.pdf](M/Mac%20Bio5,%20254.pdf)

Abstract: The monodisperse chitosan-conjugated Fe3O4 nanoparticles with a mean diameter of 13.5 nm were fabricated by the carboxymethylation of chitosan and its covalent binding onto Fe3O4 nanoparticles via carbodiimide activation. The carboxymethylated chitosan (CMCH)-conjugated Fe3O4 nanoparticles with about 4.92 wt.-% of CMCH had an isoelectric point of 5.95 and were shown to be quite efficient as anionic magnetic nano-adsorbent for the removal of acid dyes. Both the adsorption capacities of crocein orange G (AO12) and acid green 25 (AG25), as the model compounds, decreased with increasing pH, and the decreasing effect was more significant for AO12. On the contrary, the increase in the ionic strength decreased the adsorption capacity of AG25 but did not affect, obviously, the adsorption capacity of AO12. By the addition of NaCl and NaOH, both AO12 and AG25 could desorb and their different desorption behavior could be attributed to the combined effect of pH and ionic strength. From the adsorption kinetics and thermodynamics studies, it was found that both the adsorption processes of AO12 and AG25 obeyed the pseudo-second-order kinetic model, Langmuir isotherm, and might be surface reaction-controlled. Furthermore, the time required to reach the equilibrium for each one was significantly shorter than those using the micro-sized adsorbents due to the large available surface area. Also, based on the weight of chitosan, the maximum adsorption capacities were 1883 and 1471 mg·g-1 for AO12 and AG25, respectively, much higher than the reported data. Thus, the anionic magnetic nano-adsorbent could not only be magnetically manipulated but also possessed the advantages of fast adsorption rate and high adsorption capacity. This could be useful in the fields of separation and magnetic carriers.

Keywords: Acid Dye, Adsorption, Chitosan, Magnetic, Nanoparticles

# Title: Macromolecular Materials and Engineering

Full Journal Title: [Macromolecular Materials and Engineering](http://www3.interscience.wiley.com/cgi-bin/abstract/82003066/ABSTRACT)

ISO Abbreviated Title:

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ISSN: 1022-1360

Issues/Year:

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Language:

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Publisher Address:

Subject Categories:

: Impact Factor

Espinosa-Jiménez, M., Padilla-Weigand, R., Ontiveros-Ortega, A. and Perea-Carpio, R. (2001), Thermodynamic characterization of the adsorption process of mordant black 17 dye onto polyamide fabric. *Macromolecular Materials and Engineering*, **286** (5), 302-308.

Full Text: [M\Mac Mat Eng286, 302.pdf](M/Mac%20Mat%20Eng286,%20302.pdf)

Abstract: Full Paper: Data are presented on the kinetics and thermodynamics of adsorption of Mordant Black 17 by Polyamide-6.6 fabric at different temperatures and at an ionic strength constant of 10-3 m of NaCl in the solution fo the dye. Increased temperature of the system increased the dye content of the fabric in the presence or absence of NaCl in the liquid phase. The presence of NaCl in the liquid phase increases the amount of dye taken up by the fabric. The experimental time-sorption isotherms are represented by the exponential kinetic equation, M-t=M-eq (1 - e(-kt)), where M-t and M-eq refer to the amounts of dye taken up by Polyamide-6,6 at time t and equilibrium, respectively, and k refers to the rate constant. The empirical rate constant increases with increasing temperature of the process in absence of NaCl in the liquid phase. On the other hand, the empirical rate constant decreases with the temperature of the process in the presence of NaCl in the liquid phase. Values of half-adsorption time at different temperatures are presented. Sorption equilibria of Mordant Black 17 by Polaymide-6,6 are described by a Freundlich isotherm equation. Changes of enthalpy and entropy related to the process of adsorption of Mordant Black 17 onto Polyamide-6,6 in the presence of NaCl in the liquid phase are calculated from the Clausius-Clapeyron equation. Isosteric heats of adsorption are positive, between 30 and 180 kJ/mol. The global change of entropy is positive, between ca. 200 and 650 J/mol (.) K. The best thermodynamic conditions for dye uptake by Polyamide-6,6 appear at the highest temperatures, when the standard free energy of adsorption takes the most negative values. From the results, we find that the adsorption of Mordant Black 17 by Polyamide-6,6 in the temperature interval investigated takes place with establishment of chemical bonds between the OH- negative groups of the dye and the carboxyl groups of the fabric, although physical contributions of an electrostatic on van der Waals nature between the molecules of the dye and the end-groups of the Polyamide-6,6 cannot be neglected.

[GRAPHICS]

Time-sorption isotherms of the process of adsorption of Mordant Black 17 onto Polyamide-6,6 fabric at different temperatures in absence of the NaCl in the liquid phase. Initial concentration of the dye 10-5 M.

Keywords: Fibers

# Title: Macromolecular Symposia

Full Journal Title: Macromolecular Symposia

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1022-1360

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Dehonor-Gómez, M., Hernández-Esparza, M., Ruiz-Treviño, F.A. and Contreras-Reyes, R. (2003), Properties and adsorptive capacity of amino acids modified chitosans for copper ion removal. *Macromolecular Symposia*, **197**, 277-288.

Full Text: [M\Mac Sym197, 277.pdf](M/Mac%20Sym197,%20277.pdf)

Abstract: This work presents the results of the modification of lateral groups of chitosan (2-amino-2-desoxy-beta-D-glucose) by the reaction with different amino acids (glycine, L-lysine, -glutamic acid and L-isoleucine) under acid catalysis. The Cu2+ adsorption capacity of pure chitosan and of the chemically modified chitosans were also evaluated. The modification reaction favored the amide formation of the C-2 carbon of the glycoside ring under the adopted reaction conditions: reaction time and temperature and using sulfuric acid as a catalyst. The Cu2+ adsorption kinetics and equilibrium response using pure chitosan and the chemically modified chitosans as adsorbents showes that the adsorption capacity of equilibrium depended on the initial ion concentration. The response of each adsorbent gave good correlation with Langmuir’s isotherm model. The following maximum adsorption capacity constants were obtained: 172.4 mg/g for chitosan and 69.9, 34.4, and 26.7 mg/g for modified chitosan with glycine, L-glutamic acid, and L-lysine, respectively. The adsorptive capacity seems to be dependent on the length and complexity of the added group.

Keywords: Adsorption, Amino Acids, Chitosan, Copper, Modified Chitosan, Chelating Resins, Metal-Ions, Polystyrene, Binding, Chitin

Delval, F., Crini, G., Vebrel, J., Knorr, M., Sauvin, G. and Conte, E. (2003), Starch-modified filters used for the removal of dyes from waste water. *Macromolecular Symposia*, **203**, 165-171.

Full Text: [M\Mac Sym203, 165.pdf](M/Mac%20Sym203,%20165.pdf)

Abstract: The present article proposes the use of starch-enriched flour as low-cost adsorbent of dyes. The adsorbents have been prepared by reticulation of starch-enriched flour using epichlorohydrin as crosslinking agent. These starch-modified filters exhibit interesting properties in terms of sorption rate. Studies concerning the sorption capacity are presented. The influence of the amine groups and the chemical structure of dyes are also studied. The regeneration procedure of the filters is showed and discussed. In order to explain the results, an adsorption mechanism mainly based on physical adsorption and interactions such as hydrogen bonds and ion-exchange due to the nature of the polymer network is proposed.

Keywords: Adsorption, Dyes, Starch, Starch-Modified Filters, Waste Water Treatment, Textile Effluents, Wastewaters, Derivatives, Adsorption, Sorption

Bayramoğlu, G., Yalçin, E., Genç, Ö. and Arıca, M.Y. (2003), Dye-ligand immobilized IPNs membrane for removal heavy metal ions. *Macromolecular Symposia*, **203**, 219-224.

Full Text: [M\Mac Sym203, 219.pdf](M/Mac%20Sym203,%20219.pdf)

Abstract: We have developed a novel approach to obtain high metal sorption capacity utilizing a membrane containing chitosan and an immobilized reactive dye (i.e. Reactive Yellow-2). The composite membrane was characterized by SEM, FTIR, swelling test, and elemental analysis. The membrane has uniform small pores distribution and the pore dimensions are between 5 and 10 pm, and the HEMA: chitosan ratio was 50: 1. The reactive dye immobilized composite membrane was used in the removal of heavy metal ions [i.e., Pb(II), Hg(II) and Cd(II)] from aqueous medium containing different amounts of these ions (5-600 mg 1-1) and at different pH values (2.0-7.0). The maximum adsorption capacities of heavy metal ions onto the composite membrane under non-competitive conditions were 64.3 mmol m-2 for Pb(II), 52.7 mmol m-2 for Hg(II), 39.6 mmol m-2 for Cd(II) and the affinity order was Pb(II) > Hg(II)>Cd(II).

Keywords: Adsorption, Heavy Metal Removal, Hydrophilic Polymers, Membranes Reactive Yellow-2, Chelating Resin, Adsorption, Chromatography, Biosorption, Cd(II)

# Title: Macromolecules

Full Journal Title: [Macromolecules](http://pubs3.acs.org/acs/journals/toc.page?incoden=mamobx)

ISO Abbreviated Title: Macromolecules

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ISSN: 0024-9297

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Journal Country/Territory: United States

Language: English

Publisher: Amer Chemical Soc

Publisher Address: 1155 16th St, NW, Washington, DC 20036

Subject Categories:

Polymer Science: Impact Factor 3.697, 3/69 (2000)

Pefferkorn, E., Haouam, A. and Varoqui, R. (1989), Kinetics of exchange between adsorbed and free polymers at a solid/liquid interface. *Macromolecules*, **22** (6), 2677-2682.

Full Text: [1989\Macromolecules24, 2677.pdf](1989/Macromolecules24,%202677.pdf)

Abstract: Adsorption of polystyrene on silica was performed at 25 and 35 °C in carbon tetrachloride. The adsorption isotherm displays two distinct regions: a plateau at low concentration, followed by a region where the adsorption amount increases steeply with the solution concentration. Radioactive 3H labeled polymers enabled us to measure, in both regions, the intrinsic self-mobility of the polymers at the interface at constant chemical composition. As previously reported, surface molecules exchange very slowly with solution molecules. The kinetic properties are, however, very different in both regions of the isotherm. In the plateau region, fluxes can be expressed in terms of one relaxation time, whereas in the zone of high adsorption, the interfacial exchange of labeled and nonlabeled polymers cannot be characterized by one kinetic constant. The dynamical properties are connected with the specific conformational properties of polymer layers in both regions.

Douglas, J.F. (1989), How does surface roughness affect polymer-surface interactions? *Macromolecules*, **22** (9), 3707-3716.

Full Text: [1989\Macromolecules22, 3707.pdf](1989/Macromolecules22,%203707.pdf)

ABSTRACT: Many naturally occurring surfaces (cell membranes and organelles, soils and rocks, etc.) are highly irregular, appearing on average ‘similar’ in roughness over a large range of observational scales. The irregularity of such surfaces can often be quantified through the measurement of the fractal dimension dfa of the surface. In three dimensions, values of near 2 correspond to relatively ‘smooth’ surfaces while surfaces having values dh = 3 are relatively ‘rough’ and space filling. A simple model is introduced to qualitatively describe the effect of this kind of surface roughness on the properties of surface interacting polymers and comparison is made with recent Monte Carlo data and renormalization group calculations. The model indicates that increasing the surface irregularity (i.e., the fractal dimension dd has the effect of enhancing polymemurface interactions relative to the idealized planar interface. This is a consequence of a greater probability of polymer-surface intersection with increasing roughness. It is also argued that adsorption occurs more readily on fractal surfaces since adsorption then requires a smaller ‘entropic price’. A rough surface may adsorb a polymer when a corresponding smooth surface of the same material will not adsorb. Roughness can thus alter the effective polymer-surface interaction in a fundamental way.

? Motschmann, H., Stamm, M. and Toprakcioglu, Ch. (1991), Adsorption-kinetics of block copolymers from a good solvent: A two-stage process. *Macromolecules*, **24** (12), 3681-3688.

Full Text: [1991\Macromolecules24, 3681.pdf](1991/Macromolecules24,%203681.pdf)

Abstract: The adsorption kinetics and adsorption isotherm of a polystyrene (PS)-poly(ethylene oxide) (PEO) diblock copolymer onto a silicon wafer from toluene solution was measured in situ by ellipsometry. Both blocks are in good solvent conditions but the small PEO block is adsorbed while the much larger PS block dangles in solution. Thus, PS-PEO behaves like an end-adsorbed chain. The adsorption kinetics shows two processes on a clearly separated time scale. In the beginning, the time behavior of the adsorbed amount can be described as a diffusion-controlled process leading to a surface coverage with small interaction between molecules. A still denser surface coverage is achieved by the penetration of chains through the existing monolayer combined with the conformational rearrangement to a more brushy conformation. Experiments with different molecular weights indicate that the repulsion between the nonadsorbing PS blocks determines the maximal adsorbed amount. The adsorbed monolayer can be rapidly and completely displaced by PEO oligomer with a length comparable to the PEO block in the block copolymer. Models of the adsorption process are discussed in detail.

Keywords: Interface, Polymers, Surface, Conformations

Chakraborty, A.K. and Adriani, P.M. (1992), Glassy relaxation at polymer-solid interfaces. *Macromolecules*, **25** (9), 2470-2473.

Full Text: [1992\Macromolecules25, 2470.pdf](1992/Macromolecules25,%202470.pdf)

Abstract: We present a kinetic Ising model for the cooperative dynamics associated with the relaxation of adsorbed polymer chains. At low temperatures, the chain molecules are frozen in nonequilibrium conformations. Over a range of temperatures the dynamics of relaxation are found to be described by stretched exponential (KWW) functions. Average relaxation times exhibit a strongly non-Arrhenius temperature dependence.

Keywords: Kinetic Ising-Model, Transition, Adhesion

Dijt, J.C., Cohen Stuart, M.A. and Fleer, G.J. (1992), Kinetics of polymer adsorption and desorption in capillary flow. *Macromolecules*, **25** (20), 5416-5423.

Full Text: [1992\Macromolecules25, 5416.pdf](1992/Macromolecules25,%205416.pdf)

Abstract: With streaming potential measurements we performed kinetic and static experiments on the adsorption of poly(ethylene oxide) on glass, in order to obtain the rates of adsorption and desorption and the equilibrium thickness of the polymer layer. The hydrodynamic layer thickness delta(h) is very sensitive to small changes in the adsorbed amount, especially for high molecular weights near saturation. This enabled us to perform measurements of the kinetics and thickness isotherms in the region near saturation with unprecedented accuracy. It was found that both the adsorption and desorption rate are determined by mass transfer between bulk solution and the surface region. In the case of adsorption the observed increase of the hydrodynamic layer thickness with time could be quantitatively predicted by a model which combines the mass-transfer equation with the equilibrium relation between delta(h) and the adsorbed amount GAMMA. For desorption into a flow of pure solvent the rate is proportional to the surface concentration of nonadsorbed molecules. Assuming a local equilibrium between the adsorbed layer and the subsurface region and a logarithmic isotherm, we derived an explicit expression for the adsorbed amount as a function of time: the desorbed amount is proportional to log t. The model predicts that the absolute values of the slopes of the desorption curve GAMMA(log t) and the adsorption isotherm GAMMA(log c) should be the same. This prediction is verified experimentally for molecular weights ranging from 7×103 to 8.47×106. Moreover, the absolute value of the observed desorption rate agrees well with that predicted by our model.

Keywords: Adsorbed Polymers, Hydrodynamic Thickness, Poly(Ethylene Oxide), Relaxation, Dynamics, Strength, Layers, Glass

Dijt, J.C., Cohen Stuart, M.A. and Fleer, G.J. (1994), Kinetics of adsorption and desorption of polystyrene on silica from decalin. *Macromolecules*, **27** (12), 3207-3218.

Full Text: [1994\Macromolecules27, 3207.pdf](1994/Macromolecules27,%203207.pdf)

Abstract: Measurements are made of the rate of adsorption and desorption of polystyrene (PS) from decalin onto silica. The adsorbed mass as a function of time is monitored by means of optical reflectometry, and mass transfer through the solution is controlled by means of an impinging jet geometry. It is found that the initial rate of adsorption is entirely controlled by mass transfer, attachment being a fast step on the time scale of the experiment. This result agrees with previous findings for the system poly(ethylene oxide)/water/silica. However, at higher coverage the rate of adsorption slows down gradually and for long chains becomes quite slow. By varying the concentration in solution, it could be shown that the rate of adsorption in this regime remains proportional to the bulk concentration. This can be understood in terms of a first-order attachment step; the corresponding rate coefficient is given as a function of coverage. For comparison, we include a few data for PS with a strongly adsorbing imine end group. These polymers initially adsorb very much like their unfunctionalized counterparts but at higher coverage show a slow continuous rise to considerably higher coverages than ordinary PS, which must be due to formation of a dense brush. As with PS, the overall kinetics is proportional to the bulk concentration which again points toward a rate-limiting attachment step. By means of variations in the chain length, in the segmental adsorption energy, and in the polymer/solvent interaction, it could be shown that the rate of attachment is not simply related to the coverage but rather to the amount of anchoring energy that an incoming chain can gain in its first encounter with the surface, i.e., to the degree of undersaturation. Deviations from fast equilibration were also observed for desorption of short PS chains into pure decalin.

Keywords: Polymer Adsorption, Dilute-Solutions, Translational Diffusion, Theta-Temperature, Surface, Displacement, Flow, Energies, Chains

Dijt, J.C., Cohen Stuart, M.A. and Fleer, G.J. (1994), Competitive adsorption-kinetics of polymers differing in length only. *Macromolecules*, **27** (12), 3219-3228.

Full Text: [1994\Macromolecules27, 3219.pdf](1994/Macromolecules27,%203219.pdf)

Abstract: We have investigated competitive adsorption between homopolymer chains of different lengths. Optical reflectometry was used to monitor adsorbed amounts as a function of time, and an impinging jet flow cell was used to control mass-transfer rates between the solution and the adsorbing surface. For poly(ethylene oxide) (PEO) adsorbing from water onto silica we found that exchange of short adsorbed polymers against longer ones in solution takes place at constant coverage, the total adsorbed amount being equal to the saturated level of the short component. This result agrees fully with predictions for an adsorbed layer of mixed composition which is in full equilibrium with its immediate surroundings. We infer from this that relaxation times of adsorbed layers of PEO are shorter than the time scale of the experiment (seconds). For polystyrene (PS) adsorbing from decalin onto silica we also observed exchange, but for this case the total adsorbed amount increased during exchange, indicating incomplete relaxation of the polymer layer. It was found that the excess adsorbed amount with respect to equilibrium depends on the history of the adsorbed layer and on the rate of arrival at the surface of displacing long chains. Moreover, desorption of this excess adsorbed amount could actually be observed when the supply of polymer from solution was interrupted. From the latter type of experiments we determined a relaxation time of 45 s for pure decalin, but faster relaxation occurred in toluene/decaline mixtures and in tetrachloromethane. We forward arguments to show that the relaxation in these mixed layers is due to spreading of the adsorbed long chains from a highly coiled to a flat conformation.

Keywords: Solid Liquid Interface, Adsorbed State, Exchange, Polystyrene, Desorption, Flow

Notes: highly cited

? Shiratori, S.S. and Rubner, M.F. (2000), pH-dependent thickness behavior of sequentially adsorbed layers of weak polyelectrolytes. *Macromolecules*, **33** (11), 4213-4219.

Full Text: [2000\Macromolecules33, 4213.pdf](2000/Macromolecules33,%204213.pdf)

Abstract: A detailed study of the role that solution pH plays in the layer-by-layer processing of the weak polyelectrolytes poly(acrylic acid) and poly(allylamine hydrochoride) was carried out. It was found that dramatically different polymer adsorption behavior is observed as one systematically increases (or decreases) the charge density of a weak polyelectrolyte including transitions from very thick adsorbed layers (ca. 80 Angstrom) to very thin adsorbed layers (ca. 4 Angstrom) over a very narrow pH range. By controlling pH, it is possible to vary the thickness of an adsorbed polycation or polyanion layer from 5 to 80 Angstrom. In addition, control over the bulk and surface composition of the resultant multilayer thin films is readily achieved via simple pH adjustments. These studies have provided new insights into the polyelectrolyte sequential adsorption process and have already opened up some interesting technological applications.

Keywords: Adsorption, Surfaces

? Bohner, M., Ring, T.A. and Caldwell, K.D. (2002), Studies on the effect of particle size and copolymer polydispersity on the adsorption of a PEO/PPO/PEO copolymer on PS latex particles. *Macromolecules*, **35** (17), 6724-6731.

Full Text: [2002\Macromolecules35, 6724.pdf](2002/Macromolecules35,%206724.pdf)

Abstract: A commercial block copolymer poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) (PEO-PPO-PEO) sold under the trade name of Pluronic F108 was adsorbed on polystyrene (PS) latex particles. The adsorption isotherm of the copolymer on the PS latex particles was measured using an indirect method (colorimetric depletion). Factors such as the diameter and the concentration of the PS latex particles as well as the concentration of the copolymer were investigated. The presence of a copolymer fraction with a small molecular weight in the F108 copolymer modified significantly the adsorption isotherms: a slanted linear domain appeared in the intermediate range of copolymer concentration. This change was in accordance with the predictions of previously described models. Contrary to previous findings, there was no apparent effect of particle size on F108 surface density and layer thickness. This result was confirmed by measurements performed with a direct method (sedimentation field-flow fractionation). However, the initial slope of the adsorption isotherm was increased by an increase of particle size and a decrase of particle concentration. Moreover, the maximum adsorbed amount was decreased by an increase of particle concentration. The latter observations are believed to be due to particle aggregation.

Keywords: Protein Adsorption, Polystyrene Latex, Layer Thickness, Nonionic Surfactants, Block-Copolymers, Exchange, Amphiphiles, Curvature, Surfaces, Polymers

# Title: Maderas-Ciencia y Tecnologia

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ISO Abbreviated Title:

JCR Abbreviated Title:

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Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Bouhdadi, R., Benhadi, S., Molina, S., George, B., El Moussaouiti, M. and Merlin, A. (2011), Chemical modification of cellulose by acylation: Application to adsorption of Methylene blue. *Maderas-Ciencia y Tecnologia*, **13** (1), 105-116.

Full Text: [2011\Mad-Cie y Tec13, 105.pdf](2011/Mad-Cie%20y%20Tec13,%20105.pdf)

Abstract: Cellulose was modified under mild conditions in order to increase its capability to trap pollutants. Nicotinoyl chloride hydrochloride (NCHC), with its pyridine ring able to adsorb cations, was grafted on the substrate. This grafting has been monitored by infrared spectroscopy and elemental analysis. We have studied the adsorption of Methylene Blue (MB) onto grafted and unmodified cellulose. It was observed that grafting increases three times the retention capacity of cellulose and the kinetics of adsorption is perfectly represented by a pseudo second order model. The adsorption is well described by a Langmuir-type isotherm showing a homogeneous adsorption phenomenon through the formation of a monolayer. Besides the reaction is spontaneous and exothermic, suggesting the possibility of recycling the substrate by desorbing the dye at elevated temperature.

Keywords: Adsorbents, Adsorption, Cellulose, Chloride, Dye, Dye Adsorption, Dyes, Fibers, Films, Isotherm, Isotherms, Kinetics, Metal-Ions, Methylene Blue, Modeling, Modification, Products, Removal, Sorption, Water

# Title: Magnesium-Bulletin

Full Journal Title: Magnesium-Bulletin

ISO Abbreviated Title: Magnes.-Bull.

JCR Abbreviated Title: Magnesium-B

ISSN: 0172-908X

Issues/Year: 4

Journal Country/Territory: Germany

Language: Multi-Language

Publisher: Karl F Haug Verlag, Huthig GmbH

Publisher Address: IM Weiher 10, 69121 Heidelberg, Germany

Subject Categories:

Biochemistry & Molecular Biology: Impact Factor 0.132, 299/310 (2000)

Endocrinology & Metabolism: Impact Factor

? Milewicz, A., Iwankiewicz, G., Neuberg, L., Szymczak, J. and Schmitz, H. (1992), The level of magnesium and sex-hormones in adipose-tissue of premenopausal and postmenopausal women with breast-cancer. *Magnesium-Bulletin*, **14** (2), 46-48.

Abstract: Recently an important role of magnesium in gynecological endocrinology and its correlation to estrogens was discussed. Magnesium (Mg) concentration in serum, whole blood, erythrocytes, and fatty tissue from 13-pre-, 21-postmenopausal women with breast cancer and 9 premenopausal controls were estimated. Serum, whole blood and erythrocytes Mg levels were equal in all groups. In contrast, levels of fat magnesium in pre-and postmenopausal women (0.1 15 and 0.1 10 mmol/g) with breast cancer were significantly higher in comparison to controls (0.059 mmol/g). Fat magnesium concentration was equal in pre-and postmenopausal women, exept for E, in premenopausal women with breast cancer and testosterone in postmenopausal women, Mg concentration in fat was not correlated with other sex hormones. The influence of sex steroids on magnesium concentration in fat of breast cancer patients is questionable.

# Title: Magnesium Research

Full Journal Title: Magnesium Research

ISO Abbreviated Title: Magnes. Res.

JCR Abbreviated Title: Magnesium Res

ISSN: 0953-1424

Issues/Year: 4

Journal Country/Territory: England

Language: English

Publisher: John Libbey & Co Ltd

Publisher Address: 13 Smiths Yard, Summerley St, London SW18 4HR, England

Subject Categories:

Biochemistry & Molecular Biology

Endocrinology & Metabolism: Impact Factor 0.825, 248/310 (2000)

? Yang, C.Y., Chiu, H.F., Chiu, J.F., Wang, T.N. and Cheng, M.F. (1997), Magnesium and calcium in drinking water and cerebrovascular mortality in Taiwan. *Magnesium Research*, **10** (1), 51-57.

Abstract: The relationship between death from cerebrovascular disease and the levels of magnesium and calcium in drinking water was examined using an ecological design. The study area consisted of 227 municipalities in Taiwan. Data on the levels of magnesium and calcium in drinking water have been collected from the Taiwan Water Supply Corporation (TWSC). These levels of magnesium and calcium were compared using the standardized mortality ratios (SMRs) for cerebrovascular disease (1981-1990). A statistically significant inverse relationship was present between cerebrovascular mortality and levels of both magnesium and calcium after adjusting for urbanization index. After adjustment for calcium levels in drinking water and urbanization index, the weighted multivariate-adjusted regression coefficient indicated a decrease of 0.248 in the standardized mortality ratios (SMRs) for every 100 mg/L increase in magnesium levels in drinking water. The results from this study strengthen the hypothesis that magnesium in drinking water helps to prevent death from cerebrovascular disease.

? Yang, C.Y., Chiu, H.F., Cheng, M.F., Tsai, S.S., Hung, C.F. and Tseng, Y.T. (1999), Magnesium in drinking water and the risk of death from diabetes mellitus. *Magnesium Research*, **12** (2) 131-137.

Abstract: This report examines whether magnesium in drinking water is protective against the probability of dying from diabetes mellitus. All eligible deaths from diabetes (6781 cases) of Taiwan residents from 1990 through 1994 were compared with deaths from other causes (6781 controls), and the levels of magnesium in the drinking water of these residents was determined. Data on magnesium levels in drinking water throughout Taiwan were obtained from the Taiwan Water Supply Corporation (TWSC). Controls were pair matched to the cases by sex, year of birth, and year of death. The results of the present study show that there seems to be a significant protective effect of magnesium intake from drinking water on the risk of dying from diabetes mellitus. This is an important finding for the Taiwan water industry and human health.

Keywords: Magnesium, Diabetes Mellitus, Drinking Water, Epidemiology, Mortality, Glucose-Homeostasis, Physical-Activity, Dietary Fiber, Follow-Up, Hypomagnesemia, Calcium, Mortality, Children, Taiwan, Cancer

# Title: Magnetic Fields in the Universe: From Laboratory and Stars to Primordial Structures

Full Journal Title: Magnetic Fields in the Universe: From Laboratory and Stars to Primordial Structures

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ISSN: 0094-243X

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

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Subject Categories:

: Impact Factor

? Lazarian, A. (2005), Astrophysical implications of turbulent reconnection: from cosmic rays to star formation. *Magnetic Fields in the Universe: From Laboratory and Stars to Primordial Structures*, **784**, 42-53.

Abstract: Turbulent reconnection allows fast magnetic reconnection of astrophysical magnetic fields. This entails numerous astrophysical implications and opens new ways to approach long standing problems. I briefly discuss a model of turbulent reconnection within which the stochasticity of 3D magnetic field enables rapid reconnection through both allowing multiple reconnection events to take place simultaneously and by restricting the extension of current sheets. In fully ionized gas the model in Lazarian & Vishniac 99 predicts reconnection rates that depend only on the intensity of turbulence. In partially ionized gas a modification of the original model in Lazarian, Vishniac & Cho 04 predicts the reconnection rates that, apart from the turbulence intensity depend on the degree of ionization. In both cases the reconnection may be slow and fast depending on the level of turbulence in the system. As the result, the reconnection gets bursty, which provides a possible explanation to Solar flares and possibly to gamma ray busts. The implications of the turbulent reconnection model have not been yet studied in sufficient detail. I discuss first order Fermi acceleration of cosmic ray that takes place as the oppositely directed magnetic fluxes move together. This acceleration would work in conjunction with the second order Fermi acceleration that is caused by turbulence in the reconnection region. In partially ionized gas the stochastic reconnection enables fast removal of magnetic flux from star forming molecular clouds.

Keywords: Magnetic Reconnection, Magnetohydrodynamics, Cosmic Rays, Collisionless Magnetic Reconnection, Compressible Magnetohydrodynamic Turbulence, Current Sheet Formation, Interstellar-Medium, Power Spectrum, Plasmas, Field, Dissipation, Conductivity, Scattering

# Title: Magnetic Resonance Imaging

Full Journal Title: [Magnetic Resonance Imaging](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5112&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=56287ea0b9d115aa91e8d8366b0afc90)

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Journal Country/Territory: United States

Language: English

Publisher: Elsevier Science Inc

Publisher Address: 655 Avenue of the Americas, New York, NY 10010

Subject Categories:

Radiology, Nuclear Medicine & Medical Imaging: Impact Factor

? Karczmar, G.S., River, J.N., Goldman, Z., Li, J., Weisenberg, E., Lewis, M.Z. and Liu, K. (1994), Magnetic-resonance-imaging of rodent tumors using radiofrequency gradient echoes. *Magnetic Resonance Imaging*, **12** (6), 881-893.

Full Text: [M\Mag Res Ima12, 881.pdf](M/Mag%20Res%20Ima12,%20881.pdf)

Abstract: This paper evaluates the use of radiofrequency (RF) magnetic field gradient echoes to provide contrast in magnetic resonance (MR) images of model tumors. Decay of RF gradient echoes as a function of evolution time was measured and sensitivity of the decay to changes in blood pressure was evaluated. Previous investigators have demonstrated that static field (B-0) gradient echoes provide MR image contrast which is sensitive to the rate of selfdiffusion of tissue water and may also be sensitive to the rate of tissue perfusion. Gradient echoes produced by RF magnetic field gradients provide a useful alternative to the conventional B-0 methods. Unlike B-0 gradient echoes RF gradient echoes are relatively insensitive to local magnetic susceptibility gradients and to magnetic field gradients produced by eddy currents. Differences between the two methods may be particularly significant far studies of tumors where large concentrations of deoxyhemoglobin and other paramagnetic substances may cause significant susceptibility gradients. Mammary adenocarcinomas subcutaneously implanted in the flanks of female Fisher rats were studied. Magnetic resonance experiments were performed at 2 T. A surface coil was used to provide an RF gradient and to excite and detect signals from the tumors. The decay of echo amplitude as a function of evolution time was measured and the decay at short and long evolution times was analyzed independently to calculate two apparent diffusion coefficients (ADCs). The preparation was extremely stable and the standard error for 10 consecutive measurements of gradient echo amplitude made over 30-60 min with an RF gradient strength of 50 kHz/cm, gradient duration of 1 ms (i.e., 50 cycles/cm), and echo evolution time (t(d)) of is was generally±0.8%. The ADC calculated from the decay at short evolution times was approximately 3×10-5 cm2/s. The ADC calculated from the decay at longer evolution times was approximately 0.5×10-5 cm2/s. Both ADCs decreased immediately following sacrifice and administration of Hydralazine. The experiments demonstrate that measurements of RF gradient echo amplitudes in tumors can be made in vivo with a high degree of reproducibility and suggest that RF gradient echo amplitudes are sensitive to acute physiological changes in tumors. This method may be useful for characterization of tumors and prediction and monitoring of effects of therapeutic agents.

Keywords: Cancer, Water Diffusion, Radiofrequency Gradients, Magnetic Resonance Imaging

Olsen, G., Lyng, H., Tufto, I., Solberg, K., Bjørnæs, I. and Rofstad, E.K. (1999), Measurement of proliferation activity in human melanoma xenografts by magnetic resonance imaging. *Magnetic Resonance Imaging*, **17** (3), 393-402.

Full Text: [M\Mag Res Ima17, 393.pdf](M/Mag%20Res%20Ima17,%20393.pdf)

Abstract: Tumor proliferation may be predictive for malignant progression and response to fractionated therapy of cancer. The purpose of the present work was to investigate whether the proliferation activity of solid tumors can be assessed in vivo from the proton relaxation times, T-1 and T-2. Tumors of four amelanotic human melanoma xenograft lines were studied. Three parameters were used to represent tumor proliferation activity; the volume doubling time, T-vol, the potential doubling time, T-pot, and the fraction of cells in S-phase. T-vol was determined from volumetric growth data. T-pot and S-phase fraction were determined by flow cytometric analysis of tumor cells after bromodeoxyuridine (BrdU) incorporation in vivo. T-1 and T-2 were measured by 1H-MRI in vivo, using spin-echo pulse sequences. The proliferation parameters and relaxation times differed considerably among the tumor lines. Significant correlations were found between the proliferation parameters and the relaxation times, regardless of whether T-vol, T-pot, or S-phase fraction, vas considered. Tumors with short T-vol and T-pot and high S-phase fraction had long T-1 and T-2 compared to tumors with long T-vol and T-pot and low S-phase fraction. The elongated T-1 and T-2 of fast growing tumors were probably due to increased interstitial and/or intravascular water content. The present results suggest that in vivo spin-echo 1H-MRI can be used to discriminate between tumors of high and low proliferation activity. (C) 1999 Elsevier Science Inc.

Keywords: Quantitative MRI in Vivo, Proton T-1 and T-2, Tumor Volume Doubling Time, Tumor Potential Doubling Time, S-Phase Fraction, Human Tumor Xenograft, Potential Doubling Time, Spin-Lattice Relaxation, Accelerated Fractionation, Multivariate-Analysis, Cell Proliferation, Breast-Cancer, Water-Content, Growth-Rate, Kinetics, Tissue

# Title: Magnetic Resonance in Medicine

Full Journal Title: Magnetic Resonance in Medicine

ISO Abbreviated Title: Magn. Reson. Med.

JCR Abbreviated Title: Magnet Reson Med

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Journal Country/Territory: United States

Language: English

Publisher: John Wiley & Sons Inc

Publisher Address: 605 Third Ave, New York, NY 10158-0012

Subject Categories:

Radiology, Nuclear Medicine & Medical Imaging: Impact Factor

? Lustig, M., Donoho, D. and Pauly, J.M. (2007), Sparse MRI: The application of compressed sensing for rapid MR imaging. *Magnetic Resonance in Medicine*, **58** (6), 1182-1195.

Full Text: [2007\Mag Res Med58, 1182.pdf](2007/Mag%20Res%20Med58,%201182.pdf)

Abstract: The sparsity which is implicit in MR images is exploited to significantly undersample k-space. Some MR images such as angiograms are already sparse in the pixel representation; other, more complicated images have a sparse representation in some transform domain-for example, in terms of spatial finite-differences or their wavelet coefficients. According to the recently developed mathematical theory of compressed-sensing, images with a sparse representation can be recovered from randomly undersampled k-space data, provided an appropriate nonlinear recovery scheme is used. Intuitively, artifacts due to random undersampling add as noise-like interference. In the sparse transform domain the significant coefficients stand out above the interference. A nonlinear thresholding scheme can recover the sparse coefficients, effectively recovering the image itself. In this article, practical incoherent undersampling schemes are developed and analyzed by means of their aliasing interference. Incoherence is introduced by pseudo-random variable-density undersampling of phase-encodes. The reconstruction is performed by minimizing the l(1) norm of a transformed image, subject to data fidelity constraints. Examples demonstrate improved spatial resolution and accelerated acquisition for multislice fast spinecho brain imaging and 3D contrast enhanced angiography.

Keywords: brain/imaging/MRI

? Males, R.G., Vigneron, D.B., Star-Lack, O., Falbo, S.C., Nelson, S.J., Hricak, H. and Kurhanewicz, J. (2000), Clinical application of BASING and spectral/spatial water and lipid suppression pulses for prostate cancer staging and localization by in vivo 3D 1H magnetic resonance spectroscopic imaging. *Magnetic Resonance in Medicine*, **43** (1), 17-22.

Abstract: In previous in situ point-resolved spectroscopy (PRESS) three-dimensional (3D) 1H magneticresonance (MR) spectroscopic imaging studies, it has been demonstrated that the ratio of prostaticmetabolites can noninvasively discriminate prostate cancer from surrounding normal tissue. However, in these studies, conventional chemical shift selective suppression (CHESS) and short-time inversionrecovery (STIR) techniques often resulted in inadequate water and lipid suppression. To improvesuppression and spatial coverage, the newly developed T-1 insensitive dual band selective inversionwith gradient dephasing (BASING) Bandstop Filter and dual phase-compensating spectral/spatialspin-echo pulses have been implemented in a clinical setting. In phantom studies, no change inmetabolic profiles was observed with application of either BASING or spectral/spatial pulses. In astudy of 17 prostate cancer patients, the use of either BASING or spectral/spatial pulses allowed forsuppression of water (BASING 99.80±0.14% and spectral/spatial 99.73±0.47%) and lipid(BASING 98.56±1.03% and spectral/spatial 98.44±1.90%) without a significant difference inthe prostatic metabolite ratios. Spectral/spatial suppression has the added advantage of reducing thechemical shift dependence of the PRESS volume, but optimal performance requires high-speedgradients with negligible eddy current effects. BASING suppression is less reliant on accurate pulseand gradient timings and can be implemented easily with no loss in performance on clinical MRscanners with conventional gradients. Magn Reson Med 43 (1)7-22, 2000 (C) 2000 Wiley-Liss, Inc.

Keywords: Magnetic Resonance Spectroscopic Imaging (MRSI), Prostate Cancer, Water and Lipid Suppression, RF Pulses, MRI, Citrate, Resolution, Inversion

# Title: Magyar Kemiai Folyoirat

Full Journal Title: Magyar Kemiai Folyoirat

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Language: English

Publisher: Magyar Kemia Folyoirat

Publisher Address: Szerkesztosege Gellert Ter 4, 1111 Budapest, Hungary

Subject Categories:

Chemistry: Impact Factor 0.130, 111/121

? Agnes, H.T. (1991), Investigation of equilibrium processes in the system of calcium-bentonite manganese ion. *Magyar Kemiai Folyoirat*, **97** (10), 418-425.

Abstract: The equilibria between calcium bentonite and manganese(+2)-perchlorate solutions have been studied by radiotracer method. The quantity of manganese(+2) ions entering the boundary surface was compared with the quantity of calcium ions leaving the interlayer space. The isotherm parameters of the ‘two surface’ Langmuir equation have been determined by the use of interpolation theorem. Both the measured and calculated data proved that manganese(+2) ions were bound in two main forms: (a) about 86-91% of manganese(+2) took part in an ion exchange reaction; (b) about 9-14% of manganese(+2) ions were sorbed on special active sites.

Keywords: Adsorption, Cadmium, Cations, Langmuir Equation, Montmorillonite, Soils

? Tóth, J. (1992), A unified interpretation of physical adsorption. 1. Physical and mathematical bases. *Magyar Kemiai Folyoirat*, **98** (6), 211-217.

Abstract: The physical basis of the intention indicated in the title of this paper is that a physical meaning can be attributed to the variable psi(THETA/p(r))(dp(r)/d-THETA), introduced in the Gibbs equation. The mathematical basis of the interpretation lies in the fact that the differential relation psi may be written in forms of two differential equations and the solutions of those lead to all isotherm equations which are already known or can be derived in the future. This interpretation has further advantages as follows: (i) Based on the function psi(p(r)) belonging to a measured isotherm the physically and mathematically appropriate isotherm equation can be selected. (II) A new parameter appears in the isotherm equations which essentially influences the values of specific surfaces calculated from isotherms Type I. (iii) The mono- and multilayer parts of a measured isotherm can be distinguished.

? Tóth, J. (1992), A unified interpretation of physical adsorption. 2. The exchangeability of isotherm equations. *Magyar Kemiai Folyoirat*, **98** (7), 249-255.

Abstract: The well-known Fowler-Guggenheim (FG), the Volmer (V) and the deBoer-Hill (BG) isotherm equations have been derived from the differential equation which is the basic relation of the uniform intepretation of adsorption. The FG, V and BH equations take the mobility and interactions of adsorbed molecules explicitly into account. These equations have been applied to heterogeneous surfaces. This application means that the coverage in the differential equation mentioned above is raised to power m similarly to the derivation of the T equation. In this way we have a ‘family’ of isotherm equations describing the physical properties (mobility, interactions etc.) of layers adsorbed on heterogeneous surfaces.

It has been proved that the power m in T equation takes the physical properties of adsorbed layers implicitly into account. This is the reason why the T equation can substitute all members of the ‘equation-family’.

? Tóth, J. (1992), A unified interpretation of physical adsorption. 3. The explanation of the differential heat of adsorption. *Magyar Kemiai Folyoirat*, **98** (8), 295-299.

Abstract: It has been proved that the function psi(theta), as a basic relation for the uniform interpretation of physical adsorption, can be brought into direct mathematical connection with the differential heat of adsorption (DHA). The explicit form of this function has been determined for adsorption processes which can be described by isotherm equations with Henry’s region. So it has been demonstrated that, on homogeneous surfaces, an increasing function of DHA belongs to a localized layer with interactions, while a decreasing one corresponds to a mobile layer without interactions and a function of DHA with a limiting value is attributed to a mobile layer with interactions. These characters of the DHA function disappear on heterogeneous surfaces and, independent of the mobility and interactions, a decreasing function of DHA is operative. This result is in accordance with the physical picture concerning the structure of a heterogeneous surface: it is constructed from homogeneous paths of different adsorptive potentials and so the total coverage, in the statistical sense is formed in decreasing order of adsorptive potentials.

? Dekany, I., Turi, L., Tombacz, E. and Fendler, J.H. (1995), Preparation of size-quantized cds and zns particles in solid-liquid adsorption layer on hydrophobic layer silicates. *Magyar Kemiai Folyoirat*, **101** (7), 296-307.

Abstract: Subcolloidal (7-10 nm) CdS and ZnS semiconductors were prepared in suspensions with ethanol-cyclohexane or methanol-cyclohexane in the adsorption layer or interlamellar space on hydrophobic (HDP-montmorillonite) clay mineral surface. This adsorption Layer, and the interlamellar space between the silicate lamellae was used as a nanophase reactor for the in situ generation of size-quantized cadmium sulfide and zinc sulfide semiconductor particles from cadmium (or zinc) acetate and equivalent amounts of H2S. The volumes of the nanophase reactor in ethanol-cydohexane at a given mixture composition were determined, by adsorption excess isotherm and X-ray diffraction measurements. As expected, smaller sized semiconductor particles were generated in the smaller nanophase reactor, provided by the methanol-rich adsorption layer. Further reduction of semiconductor partides was accomplished by decreasing the concentration of their parent ions in the nanophase reactor. Incorporation of semiconductor nanocrystallites into HDP-montmorillonite manifested itself in increased yield stess and the structure building of the suspension. Information on the fractal dimensions of the semiconductor-clay organo-complex suspensions and on the radius of gyration of the nanoparticles was obtained by small-angle X-ray scattering (SAXS) measurements. The existence of nanoparticles on the hydrophobic montmorillonite was established by TEM and absorption spectrophotometric methods.

Keywords: Alcohol-Benzene Mixtures, Surface Modification, Scattering, Complexes

? Bota, A., Laszlo, K., Nagy, L.G. and Schlimper, H. (1997), Active carbon from apricot pits. *Magyar Kemiai Folyoirat*, **103** (9), 470-479.

Abstract: Active carbons are produced from fossil coals or organic materials rich in carbon, e.g. polymers or different parts of plants. The latter can be a byproduct of the timber industry (e. g. sawdust) or different agricultural by-products, such as straw, seeds or fruit stones. Throughout the world agricultural by-products are used as raw materials in active carbon production (1, 2). Especially the use of many kinds of fruit stones have been studied intensively (3-5). Our institute has studied since 1982 the properties of active carbon prepared from the stone of apricot (Armeniaca vulgaris), for Hungary produced large quantities of apricot in the past (6). The kernel of the fruits processed by the canning industry was utilized in the confectionery industry, therefore the shell was available in clean form. The shell of the apricot pit is an ideal raw material for active carbon. The active carbon prepared from this raw material shows a high carbon and low ash content and has a high mechanical strength. The raw material can be milled to optional particle size, therefore, no graining process is needed during the technology. The shell is pyrolyzed and then activated, which results at a burn-off value of ca 50 % a microporous product with high specific surface area. An optimal micro, mesopore ratio can be achieved by setting the activation parameters according to the application

Keywords: Activation, Adsorption, Sawdust, Surface Area

? Berka, M. and Banyai, I. (1999), Application of surface complexation models to describe the K+, NO3-, Ca2+, SO42-, F-, Co2+ and Cr3+ ions adsorption onto the surface of silica gel. *Magyar Kemiai Folyoirat*, **105** (11), 454-464.

Abstract: The surface complex formation of K+, NO3-, Ca2+, SO42-, F-, Co2+, Cr3+ ions was examined on the surface of silica gel. Experimental data obtained by acid-base titration of a solution containing adsorbent were calculated using the Fiteql fitting program applying a triple layer model. The value the of the deprotonation constant is log K = 7.6±0.2. The value of the protonation constant of silica gel is log K+ = 2.2±0.6, depending strongly on the model used. The ion-pair formation constants of K+, NO3-, Ca2+, SO42-are: log K-ipK = 0.5±0.3; log K (ipNO3)similar to 0 (it is not measurable), log K-ipCa: 0.7±0.3 and logK (ipSO4): 0.3±0.2. These values are around zero, therefore these ions can be considered as non-specifically binding ions in the investigated pH range of pH = 2.6-9. The determined surface complex formation constant of F is logK SiF = 4±0.4. The ion-pair formation constants of Co2+, Cr3+ ions are: logK (ipSOCo[+]) = 4.35±0.36, logK (ipSOCr (OH)2) = 3.6±0.36. It is shown that the goodness of optimization itself, i. e. WSOS/DF < 20, is not a good test for the applied equilibrium model. The results are affected by the relatively large error of the values of ion-pair formation constants used for inert ions. This uncertainty can be reduced using the modified triple layer model.

Keywords: Oxide-Water Interface, Electrical Double-Layer, Alumina Electrolyte Interface, Solid-Solution Interface, Metal-Ions, Ionization, Chromium(III), (Hydr)Oxides, Hydrolysis, Constants

? Somlai, J., Kanyar, B., Kovacs, T., Nenyei, A., Horvath, G. and Loczi, T. (2001), Ra-226 concentration of Hungarian bottled mineral waters and estimation of the dose deriving from their consumption. *Magyar Kemiai Folyoirat*, **107** (5), 208-212.

Abstract: The concentration of Ra-226 was measured in most of the bottled mineral waters commercially available in Hungary. The Ra-226 concentration exceeded the 100 mBq . l-1 value in six cases out of the investigated 29 types of mineral waters. In most of the cases, Ra-226 concentration does not reach the 100 mBq.l-1 value. 100-800 mBq.l-1 values were found in five cases and 3 Bq.l-1 was measured in one case. This concentration means 0.3 mSv.year-1 dose load in case of 1 l.day-1 consumption, but in case of children (12-17 years old populace) it can reach the 1, 6 mSv.year-1. When measuring the Ra-226 concentration in soft drinks made from this latter mineral water, 2.6 Bq.l-1 concentration was determined which means 1.4 mSv.year-1 dose load in the 12-17 years age-group when 1 l.day-1 is consumed from these drinks.

# Title: Main Group Chemistry

Full Journal Title: Main Group Chemistry

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

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Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Hashemian, S. (2011), Removal of Acid Red 151 from water by adsorption onto nano-composite MnFe2O4, kaolin. *Main Group Chemistry*, **10** (2), 105-114.

Full Text: 2011\Mai Gro Che10, 105.pdf

Abstract: The adsorption of Acid Red 151 (AR151) from water was determined for kaolin, MnFe2O4 and MnFe2O4, kaolin magnetic nano-composite. MnFe(2)O(4) and MnFe2O4, kaolin were prepared using a simple chemical co-precipitation procedure. The MnFe2O4, kaolin composite was prepared with Mn : Fe: kaolin mass ratios of 1 : 1: 10, 1: 1.5: 10 and 1: 2: 10. The adsorption capacity increased in 1: 2: 10 Mn : Fe: kaolin. Powder XRD and SEM were used to characterize the sorbents. The spinet magnetic phase is present in the MnFe2O4. The AR151 adsorption is strongly dependent on pH and increases with increasing acidity with a maximum at pH 2. The adsorption capacity of the composite is greater than that of natural kaolin and MnFe2O4. The adsorption was not affected by the presence of chloride, but was significantly affected by sulfate. The adsorption kinetics of AR151 on kaolin and ferrite powder are similar, but the adsorption of AR151 on the MnFe2O4, kaolin composite is much more rapid and occurs within 2-5 min of contact. The adsorption process follows pseudo-second order kinetics. The solid magnetic composite could be conveniently recovered after adsorption.

Keywords: Adsorption, Adsorption Kinetics, Aqueous-Solutions, Ar151, Azo-Dye, Cationic Dyes, Equilibrium, Iron-Oxide, Kaolin, Kinetics, Metal-Ions, Methylene-Blue, MnFe2O4 Composite, Orange-II, Pseudo-Second Order, Pseudo-Second-Order, Sorption

# Title: Main Group Metal Chemistry

Full Journal Title: Main Group Metal Chemistry

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Publisher Address: Ste 500, Chesham House, 150 Regent St, London W1R 5FA, England

Subject Categories:

Chemistry, Inorganic & Nuclear: Impact Factor 0.442, / (2002)

Chemistry, Organic: Impact Factor 0.442, / (2002)

? Hasany, S.M. and Ahmad, R. (2002), Fixation of micro or submicro amounts of Hg(II) ions onto sawdust from aqueous solutions. *Main Group Metal Chemistry*, **25** (12), 719-726.

Abstract: The fixation of Hg(II) ions onto sawdust has been investigated and optimised. Maximum retention (similar to 95%) of Hg(II) ions (7.39×10-6M) onto sawdust (100 mg) was achieved after 20 minutes equilibration time from pH 7 buffer. The sorption data followed Langmuir, Freundlich and Dubinin-Radushkevich (D-R) isotherms. The sorption capacity and energy were computed. Langmuir parameters Q = 99.3± 5.3 μmole g-1 and b = (4.99±0.2)×103 dm3 mole-1, Freundlich constants 1, n =0.93±0.02 and C-m=198.8±45.2 mmole g-1 and of D-R parameters beta=-0.00590±0.00001 kJ2 mol-2, X-m = 0.72±0.08 mmole g-1 and of E= 9.2±0.08 kJ mole-1 have been evaluated. The variation of sorption with temperature (283-308 K) yields DeltaH = 20.9±0.7 kJ mole-1, DeltaS=87.4±2.3 J mole-1 K-1 and DeltaG = -5.2±0.02 kJ mole-1 at 298 K. The positive and negative value of enthalpy and free energy show endothermic and spontaneous nature of sorption respectively. Thiosulphate, EDTA, Sb(III), Fe(III) and Al(III) reduce the sorption significantly. Tc(VII), I(I), Se(IV) and Cs(I) showed very low sorption affinity towards the sorbent. Therefore, these metal ions can be separated from Hg(II) ions using sawdust column. Sawdust can be effectively used for the removal of Hg(II) ions from aqueous solutions and for the decontamination and waste water treatment of industries

Keywords: Adsorption, Affinity, Binding, Column, EDTA, Isotherms, Mercury, Removal, Sawdust, Skins, Sorption

? Hasany, S.M. and Ahmad, R. (2002), Sorption profile of Cd(II) ions onto coconut husk. *Main Group Metal Chemistry*, **26** (2), 87-98.

Abstract: The removal of Cd(II) ions by coconut (Cocos nucifera) husk has been studied extensively optimising all parameters controlling their accumulation on solid surface. Maximum sorption (84%) of Cd(II) ions (2.29×10-5 M) onto sorbent surface is achieved from deionized water in 20 min. using 100 mg of coconut husk/4.5 cm3. The accumulation of Cd(II) ions monitored over a similar to 400-fold concentration (2.30×10-6 - 9.18×10-4 M) followed Freundlich and Dubinin-Radushkevich (D-R) isotherms. The Freundlich constants 1/n = 0.92±0.4 and Cm = 52±22 mmole g-1 and D-R parameters beta = - 0.0068±0,0002 kJ2 mole-2, Xm =35.1± 6.8 mmole g-1 and E = 8.5±0.1 k J mole-1 have been evaluated. The variation of temperature in the range of 278-323 K under optimized conditions yielded thermodynamic entities DeltaH = 18.1±0.6 k J mole-1, DeltaS = 74±2 J mole-1 K-1 and DeltaG(298K) = - 3.8 ± 0.04 k J mole-1. The positive enthalpy and negative free energy reflect the endothermic and spontaneous nature of sorption respectively. Among the ions tested EDTA, borate, oxalate and Eu(III) increased the sorption, while ascorbate, Ce(III) and Sb(Ill) suppressed the sorption. The investigation regarding selectivity of coconut husk reveals that Cd(II) ions can be separated from Zn(II), Se(IV), Tc(VII) and I(I). This study indicates the potential Of Coconut husk for the removal of Cd(II) ions from aqueous solutions/industrial effluents.

Keywords: Heavy-Metal Ions, Aqueous-Solutions, Efficient Removal, Cadmium Ions, Adsorption, Binding, Oxide

# Title: Makromolekulare Chemie-Macromolecular Chemistry and Physics

Full Journal Title: Makromolekulare Chemie-[Macromolecular Chemistry and Physics](http://www3.interscience.wiley.com/journal/10003495/home)

ISO Abbreviated Title: Makromol. Chem.

JCR Abbreviated Title: Makromol Chem

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Maghami, G.G. and Roberts, G.A.F. (1988), Studies on the adsorption of anionic dyes on chitosan. *Makromolekulare Chemie-Macromolecular Chemistry and Physics*, **189** (10), 2239-2243.

Full Text: [1988\Mac Che Phy189, 2239.pdf](1988/Mac%20Che%20Phy189,%202239.pdf)

Abstract: Equilibrium adsorption measurements of three anionic dyes on chitosan, under acid conditions, show that there is a 1: 1 stoichiometry for the interaction of sulfonic acid groups on the dyes with protonated amine groups of the chitosan for mono-, di- and trisulfonated dyes. Comparison of the extents of N-acetylation calculated from equilibrium dye adsorption values with those determined by IR spectroscopy, for a series of chitosan samples covering a wide range of N-acetylation values, demonstrates that equilibrium adsorption measurements ma) be used for the analysis of chitin and chitosan.

Grant, S., Blair, H.S. and McKay, G. (1989), Structural studies on chitosan and other chitin derivatives. *Makromolekulare Chemie-Macromolecular Chemistry and Physics*, **190** (9), 2279-2286.

Full Text: [1989\Mac Che Phy190, 2279.pdf](1989/Mac%20Che%20Phy190,%202279.pdf)

Abstract: Chitosan films were prepared by casting from solutions in dilute acetic acid containing methanol, acetone, or dimethyl sulfoxide. Induced changes in the structural orientation of the molecules within the film were studied by wide angle X-ray diffraction, and it was shown that the presence of a high concentration of organic solvent in solution altered the crystal structure of the resultant films, rendering them insoluble in water. Benzoylated and butyrylated derivatives of chitin and chitosan were prepared and characterised by infrared spectroscopy. Films of these derivatives were prepared by casting from a number of organic solvents and water, and the structures examined in more detail by wide angle X-ray diffraction. The introduction of the aliphatic and aromatic groups to the polysaccharide backbone was thus shown to disrupt the natural orientation of the polymer chains; the solubility of the acylated derivatives is discussed with respect to these structural changes.

? Wang, C.C., Chang, C.Y. and Chen, C.Y. (2001), Study on metal ion adsorption of bifunctional chelating/ion-exchange resins. *Macromolecular Chemistry and Physics*, **202** (6), 882-890.

Full Text: [2001\Mac Che Phy202, 882.pdf](2001/Mac%20Che%20Phy202,%20882.pdf)

Keywords: Heavy-Metal, EDTA Complexes

# Title: Makromolekulare Chemie-Macromolecular Symposia

Full Journal Title: Makromolekulare Chemie-Macromolecular Symposia

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Language:

Publisher:

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Subject Categories:

Impact Factor

? Esteban, M., Diazcruz, J.M., Arino, C. and Casassas, E. (1992), Voltammetric study of some macromolecule-metal complexes. *Makromolekulare Chemie-Macromolecular Symposia*, **59**, 297-312.

Abstract: The usefulness of a voltammetric model for studying macromolecule-metal complex systems is verified. Complexes formed by a metal ion (Zn(II), Cd(II), Pb(II) or Cu(II)) and a macromolecule (polymethacrylic (PMA), polyacrylic (PAA), alginic (AA) or polygalacturonic (PGA) acids) are investigated. Several voltammetric techniques have been used: sampled direct current polarography (DCP), normal pulse polarography (NPP), differential pulse polarography (DPP), reverse pulse polarography (RPP), cyclic voltammetry (CV) and differential pulse anodic stripping voltammetry (DPASV). Results confirm the validity of the model, in determining not only formation constants but also diffusion coefficients of the complexes. The behaviour of some systems agrees with that predicted by the model. Nonetheless, other systems only partially fulfil the predictions for different reasons, which are discussed.

Keywords: Dissociation Kinetics

# Title: Malaria Journal

Full Journal Title: Malaria Journal

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JCR Abbreviated Title:

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Subject Categories:

Impact Factor

? Kattenberg, J.H., Ochodo, E.A., Boer, K.R., Schallig, H.D.F.H., Mens, P.F. and Leeflang, M.M.G. (2011), Systematic review and meta-analysis: Rapid diagnostic tests versus placental histology, microscopy and PCR for malaria in pregnant women. *Malaria Journal*, **10**, Article Number: 321.

Full Text: 2011\Mal J10, 321.pdf

Abstract: Background: During pregnancy, malaria infection with Plasmodium falciparum or Plasmodium vivax is related to adverse maternal health and poor birth outcomes. Diagnosis of malaria, during pregnancy, is complicated by the absence or low parasite densities in peripheral blood. Diagnostic methods, other than microscopy, are needed for detection of placental malaria. Therefore, the diagnostic accuracy of rapid diagnostic tests (RDTs), detecting antigen, and molecular techniques (PCR), detecting DNA, for the diagnosis of Plasmodium infections in pregnancy was systematically reviewed. Methods: MEDLINE, EMBASE and Web of Science were searched for studies assessing the diagnostic accuracy of RDTs, PCR, microscopy of peripheral and placental blood and placental histology for the detection of malaria infection (all species) in pregnant women. Results: The results of 49 studies were analysed in metandi (Stata), of which the majority described P. falciparum infections. Although both placental and peripheral blood microscopy cannot reliably replace histology as a reference standard for placental P. falciparum infection, many studies compared RDTs and PCR to these tests. The proportion of microscopy positives in placental blood (sensitivity) detected by peripheral blood microscopy, RDTs and PCR are respectively 72% [95% CI 62-80], 81% [95% CI 55-93] and 94% [95% CI 86-98]. The proportion of placental blood microscopy negative women that were negative in peripheral blood microscopy, RDTs and PCR (specificity) are 98% [95% CI 95-99], 94% [95% CI 76-99] and 77% [95% CI 71-82]. Based on the current data, it was not possible to determine if the false positives in RDTs and PCR are caused by sequestered parasites in the placenta that are not detected by placental microscopy. Conclusion: The findings suggest that RDTs and PCR may have good performance characteristics to serve as alternatives for the diagnosis of malaria in pregnancy, besides any other limitations and practical considerations concerning the use of these tests. Nevertheless, more studies with placental histology as reference test are urgently required to reliably determine the accuracy of RDTs and PCR for the diagnosis of placental malaria. P. vivax-infections have been neglected in diagnostic test accuracy studies of malaria in pregnancy.

Keywords: Accuracy, Area, Blood, Burden, Diagnosis, Diagnostic Test, Diagnostic Test Accuracy, Diagnostic Tests, DNA, Embase, Histidine-Rich Protein-2, Histology, Infection, Low, Low-Birth-Weight, Malaria, Malaria in Pregnancy (MIP), Maternal Malaria, Medline, Meta Analysis, Meta-Analysis, Methods, Microscopy, Molecular, Outcomes, PCR, Plasmodium-Falciparum Infections, Pregnancy, Pregnant, Pregnant Women, Rapid Diagnostic Tests (RDTS), Real-Time PCR, Review, Risk-Factors, Science, Sensitivity, Specificity, Systematic, Systematic Review, Test Accuracy Studies, Transmission, Umbilical-Cord Blood, Web of Science, Women

# Title: Malaysian Journal of Chemistry

Full Journal Title: Malaysian Journal of Chemistry

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

Rahman, I.A. and Saad, B. (2003), Utilization of guava seeds as a source of activated carbon for removal of Methylene blue from aqueous solution. *Malaysian Journal of Chemistry*, **5** (1), 8-14.

Full Text: [M\Mal J Che5, 8.pdf](M/Mal%20J%20Che5,%208.pdf)

Abstract: Guava seeds have been used as a raw material to produce activated carbon. Dried, milled, guava seeds were activated by pyrolysis at temperature up to 700 o C, and by using zinc chloride as chemical activation agent. The adsorption capacity was demonstrated by the isotherms of Methylene blue from aqueous solution. Pyrolysis alone yields a poor adsorbing carbon with adsorbing capability of only ~ 55 % due to the blockage of pores by decomposition products of lignocellulosic materials. Optimum absorption capacity was obtained when the samples were subjected to chemical activation, followed by pyrolysis at 700 oC.

# Title: Malaysian Journal of Computer Science

Full Journal Title: [Malaysian Journal of Computer Science](http://ejum.fsktm.um.edu.my/VolumeListing.aspx?JournalID=4)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Zainab, A.N., Anyi, K.W.U. and Anuar, N.B. (2009), A single journal study: *Malaysian Journal of Computer Science*. *Malaysian Journal of Computer Science*, **22** (1), 1-18.

Full Text: [2009\Mal J Com Sci22, 1.pdf](2009/Mal%20J%20Com%20Sci22,%201.pdf)

Abstract: Single journal studies are reviewed and measures used in the studies are highlighted. The following quantitative measures are used to study 272 articles published in Malaysian Journal of Computer Science, (1) the article productivity of the journal from 1985 to 2007, (2) the observed and expected authorship productivity tested using Lotka’s Law of author productivity, identification and listing of core authors; (3) the authorship, co-authorship pattern by authors’ country of origin and institutional affiliations; (4) the subject areas of research; (5) the citation analysis of resources referenced as well as the age and half-life of citations; the journals referenced and tested for zonal distribution using Bradford’s law of journal scattering; the extent of web citations; and (6) the citations received by articles published in MJCS and impact factor of the journal based on information obtained from Google Scholar, the level of author and journal self-citation.

Keywords: American, Analysis, Authorship Pattern, Bibliometric Analysis, Bibliometrics, Citation, Citation Analysis, Citations, Health, Impact Factor, In-Music-Education, Information, Internationalization, Journal Productivity, Publication, Self-Citation, Single Journal Study

# Title: Malaysian Journal of Library & Information Science

Full Journal Title: [Malaysian Journal of Library & Information Science](http://ejum.fsktm.um.edu.my/VolumeListing.aspx?JournalID=3)

ISO Abbrev. Title: Malays. J. Libr. Sci.

JCR Abbrev. Title: Malays J Libr Inf Sci

ISSN: 1394-6234

Issues/Year: 2

Language: English

Journal Country/Territory: Malaysia

Publisher: Univ Malaya, Fac Computer Science & Information Tech

Publisher Address: Univ Malaya, Fac Computer Science & Information Tech, Kuala Lumpur 50603, Malaysia

Subject Categories:

Information Science & Library Science: Impact Factor 0.533, 44/66 (2009); Impact Factor 0.353, 59/76 (2010) SSCI

Sen, B.K. and Taib, C.A.B. and Hassan, M.F.B. (1996), Library and information science literature and Lotka’s Law. *Malaysian Journal of Library & Information Science*, **1** (2), 89-93.

Full Text: [M\Mal J Lib Inf Sci1, 89.pdf](M/Mal%20J%20Lib%20Inf%20Sci1,%2089.pdf)

Abstract: Reports results of a study to test the validity of Lotka’s Law in the field of library and information science (LIS), using the personal authors taken from the annual Name Index of Library and Information Science Abstracts (LISA) for 1992 and the annual Author Index of LISA for 1993 as the base for obtaining data. LISA was used as it was found to be more comprehensive than other abstracting and indexing services in the LIS field. The author productivity patterns for these 2 years were measured by noting: the number of authors publishing 1 article, the number of authors publishing 2 articles and finally, the number of authors publishing 5 articles. The value for the Lotka factor (n) was calculated to be 3.23 for 1992 data and 3.1 for1993 data. Concludes that Lotka’s Law is applicable to the LIS field.

Keywords: Bibliometrics, Lotka’s Law, Library and Information Science, Periodicals, Articles, Author Productivity

? Gu, Y. and Zainab, A.N. (2001), Publication productivity of Malaysian researchers in the field of computer science and information technology. *Malaysian Journal of Library & Information Science*, **6**, (1), 1-23.

Full Text: [2001\Mal J Lib Inf Sci6, 1.pdf](2001/Mal%20J%20Lib%20Inf%20Sci6,%201.pdf)

Abstract: Searches made in the CD-ROM databases, COMPENDEX (1987-1999), IEL (IEE/IEEE Electronic Library) (1988-1999) and INSPEC (1990-1998) revealed a total of 389 publications contributed by Malaysian researchers in the field of computer science and information technology. The trend in output indicates rapid growth that is expected to continue in future. A total of 458 unique Malaysian authors contributed to the 389 publications. Collaboration between two authors was the dominant authorship pattern. Single-authored or more than 3-authored works were rare. The active authors were affiliated to a few institutions, with the Universiti Teknologi Malaysia, Universiti Sains Malaysia and Universiti Malaya accounting for the highest number of publications, either in the form of journal articles or papers in conference proceedings. The most active research areas include simulation system, control engineering, computer-assisted instruction, programming techniques, expert systems, asynchronous transfer mode, image processing, software engineering and digital signal processing and applications.

Keywords: Authorship, Authorship Pattern, CD-ROM, Control, Databases, Engineering, Expert Systems, Field, Growth, Image Processing, Information, Information Technology, Institutions, Instruction, Journal, Journal Articles, Malaysia, Mode, Papers, Pattern, Productivity, Programming, Publications, Research, Science, Simulation, Software, Software Engineering, Systems, Techniques, Technology, Trend

? Angadi, M. (2002), Bibliometric dimension of innovation communication productivity of Tata Institute of Social Sciences. *Malaysian Journal of Library & Information Science*, **7** (1), 69-76.

Full Text: [2002\Mal J Lib Inf Sci7, 69.pdf](2002/Mal%20J%20Lib%20Inf%20Sci7,%2069.pdf)

Abstract: Bibliometric analysis of 663 papers published by the social scientists of Tata Institute of Social Sciences during 1990-2000 in diverse domains: Criminology and Correctional Administration, Extra Mural Studies, Family and Child Welfare, Health Service Studies, Medical and Psychiatric Social work, Personnel Management and Industrial Relations, Research Methodology, Social Welfare Administration, and Urban and Rural Community Development, and Research Units: Social Work Education and Practice Cell, Audi-Visual Unit, Unit for Labour Studies, National Service Scheme, Publication Unit, Unit for Rural Studies, Unit for Research in the Sociology of Education, Students Service Cell, Unit for Child and Youth Research, Unit for Family Studies, Unit for Media and Communication, Unit for Research and Consultancy in Social Policy, Unit for Urban Studies, Unit for Social Policy and Social Welfare Administration, and Unit for Women Studies were analysed for authorship pattern, collaboration co-efficient 92.46 percent (613 papers) of papers were single authored followed by 6.33 percent (42 papers) two authored papers. Maximum collaboration coefficient (0.13) was found during 1996-1997. Most prolific authors were: Murli Desai, Sarthy Acharya, Lakshmi Lingam, I.U.B. Reddy, Kailash, Shalini Bharat, and Chhaya Datar. The core journals that publishes Tata Institute of Social Sciences scientists’ papers were: Indian Journal of Social Work (98), Economic and Political Weekly (26), Perspective of Social Work (7), and All India Institute of Local Self Government (5). Most prolific keywords were: Social Work (9), People-Centred development (8), Social work profession (8), Child labour (6), India (6), Sociology-South-Asia (6), and Non-Governmental Organisations (5).

Keywords: Bibliometrics, Individual Institution, Publication Productivity, Authorship Pattern, Collaboration Coefficient, Channels of Communication, TISS, Social Sciences

Abdoulaye, K. (2004), Research trends in the humanities: An analysis of master’s theses at the International Islamic University Malaysia. *Malaysian Journal of Library & Information Science*, **9** (1), 59-68.

Full Text: [2004\Mal J Lib Inf Sci9, 59.pdf](2004/Mal%20J%20Lib%20Inf%20Sci9,%2059.pdf)

Abstract: Thesis is a key indicator for academic achievement. Analysing and studying theses assist in assessing and evaluating the quality of students’ researches, as well as productivity level of supervisors and their departments. It also helps in identifying research trends and monitoring research activities. This study analyses master’s theses in the Humanities submitted to the International Islamic University Malaysia (IIUM) from 1991 to 1999. A compilation of master’s theses abstract was used as the source of information. A total of 308 theses were analyzed in terms of departmental and geographical affiliation, periodical growth, supervisors’ contributions, and major subject area. The amount of theses grew by 266.7 per cent with greater emphasis on religion and philosophy. The number of supervisors also increased from 35 during 1991-95 to 94 during 1996-99, indicating an increase rate of 168.6 per cent from one period to another. Results of the analyses help identify research trends in the Humanities that have been developed during the 9-year period.

Keywords: Academic Achievement, Achievement, Affiliation, Analyses, Analysis, Assessing, Growth, Humanities, Indicator, Information, Malaysia, Monitoring, Periodical, Philosophy, Productivity, Quality, Quality of, Religion, Research, Source, Students, Trends

? Kademani, B., Kumar, V., Sagar, A. and Kumar, A. (2006), Scientometric dimensions of nuclear science and technology research in India: A study based on INIS (1970-2002) database. *Malaysian Journal of Library & Information Science*, **11** (1), 23-48.

Full Text: [2006\Mal J Lib Inf Sci11, 23.pdf](2006/Mal%20J%20Lib%20Inf%20Sci11,%2023.pdf)

Abstract: This paper analyses quantitatively the growth and development of nuclear science and technology research in India in terms of publication output as reflected in International Nuclear Information System (INIS) (1970-2002) database. During 1970-2002 a total of 55313 papers were published by the Indian nuclear scientists in various domains: physics (23033), chemistry (16368), life and environmental sciences (7203), engineering and technology (6960), other aspects of nuclear and non nuclear energy (981) and isotopes and radiation application (768). Year-wise growth of publications and input of records to INIS database by India and other countries were analysed. The total number of records input to INIS database by India was 30356 (54.88%) and by other countries and international organizations 24957 (45.12%). The average number of papers published per year was 1676.15. The average Indian contribution to the world literature was 2.25%. Authorship and collaboration trend was towards multi-authored papers. Intensive international collaboration was found during the period and bilateral collaboration accounted for 80.06% of the total collaborative papers. More than 99% of publications were published in English. More than 60% of publications were published in journals. Most preferred journals by the scientists were Pramana 1327 (3.95%), Indian Journal of Pure and Applied Physics 1104 (3.29%), Physical Review-D 925 (2.75%), Journal of the Indian Chemical Society 783 (2.33%) and Indian Journal of Chemistry-A 734 (2.19%). High frequency indexer assigned descriptors were: gamma-radiation (4076), temperature-dependence (3220), experimental-data (2749), radiation-doses (2306) and India (2000).

Keywords: Analyses, Application, Chemistry, Collaboration, Database, Development, Energy, Engineering, Environmental, Gamma Radiation, Growth, India, International, Journals, Life, Literature, Papers, Publication, Publications, Radiation, Records, Research, Science, Science and Technology, Sciences, Technology, Trend, World

? Kademani, B., Surwase, G., Sagar, A. and Kumar, V. (2006), Mapping of literature on Bose-Einstein Condensation. *Malaysian Journal of Library & Information Science*, **11** (2), 87-104.

Full Text: [2006\Mal J Lib Inf Sci11, 87.pdf](2006/Mal%20J%20Lib%20Inf%20Sci11,%2087.pdf)

Abstract: This paper attempts to highlight quantitatively the growth and development of research work in this field on Bose-Einstein Condensation (BEC) in terms of publication output as per Science Citation Index (1982-2005). During 1982-2005 a total of 5258 papers were published by scientists in this field. The average number of publications per year were 219. The highest number of papers (814) were published in 2004. There were 77 countries involved in the research in BEC. USA is the top producing country with 1632 publications (31%) followed by Germany with 620 publications (11.79%). Authorship and collaboration trend was towards multi-authored papers. Intensive collaboration was found during 1996-2005. One paper “Astrophysical Journal 543 (1), (2000) L39-L42” had 56 collaborators. There were 1635 international collaborative papers. Bilateral collaboration accounted for 24 percent of total collaborative papers. National Institute of Standards & Technology (USA) topped the list with 179 publications followed by University of Colorado (USA) with 160 publications. The most prolific authors were W. Ketterle (USA) with 93 publications; K. Burnett (England) and M. Lewenstein (England) with 68 publications each; and S. Stringari with 57 publications. The most preferred journals by the scientists were Physical Review-A with 1504 papers; Physical Review Letters with 824 papers; Journal of Physics-B with 205 papers; Physical Review-B with 178 papers; Physics Letters-A with 157 papers; Physical Review-E with 122 papers; and Journal of Low Temperature Physics with 102 papers. The high frequency keywords were Bose-Einstein Condensation (2012), Gases (1928), Atoms (860), and Dynamics (493).

Keywords: Collaboration, Country, Development, England, Field, Germany, Growth, International, Journals, Literature, Papers, Publication, Publications, Research, Research Work, Science Citation Index, Trend, USA, Work

? Johare, R. (2007), A global search for universal models of education and training in electronic records management. *Malaysian Journal of Library & Information Science*, **12** (1), 1-22.

Full Text: [2007\Mal J Lib Inf Sci12-1, 1.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-1,%201.pdf)

Abstract: In developed countries, education and training for records practitioners and other key players on electronic records management (ERW) are provided by the universities, professional organisations, private consultants and individual archival institutions, or through collaboration between the various organisations. However, evidence from the review of literature suggests that in many countries especially, those in Asia, the present situation is characterised by a lack of local expertise, experience and facilities. As a result, records practitioners are sent to developed countries to acquire knowledge and skills on ERM, or foreign experts are brought in to conduct in-service training for government record keepers. According to the literature, these issues have already been addressed in the UK and Europe where education and training programmes on ERM have been developed to provide the key players with the required knowledge and skills. Pursuance to this development, an international survey was conducted to identify universal models of education and training programmes in ERM. This article reports and discusses the findings of the survey questionnaire of the national archival institutions and related professional associations world wide for administrators, archivists, information managers, IT specialists and records managers.

Keywords: Asia, Collaboration, Development, Education, Education And Training, Electronic Records, Electronic Records Management, Europe, Information, Literature, National Archival Institutions, Professional, Professional Associations, Questionnaire, Record Keepers, Record-Keeping, Review, Survey, Training, UK

? Biswas, B.C., Roy, A. and Sen, B.K. (2007), Economic botany: A bibliometric study. *Malaysian Journal of Library & Information Science*, **12** (1), 23-33.

Full Text: [2007\Mal J Lib Inf Sci12, 23.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12,%2023.pdf)

Abstract: The study has been conducted with 358 original contributions published in the journal Economic Botany during 1994-2003. Contributions by single author and small teams comprising two or three authors account for about 80% of the papers. Among the citations, books accounted for 59%, and articles 41%. E citations started appearing from 1998. are still negligible in number. Charts, diagrams, photos and tables included in the articles total 396, 427, 859 and 925 respectively. The length of maximum number of articles (38%) ranges from six to 10 pages. Articles occupying 11 to 15 pages rank next accounting for 31%. The highest number of articles totaling 217 (60.61%) has emanated from academic institutions such as universities. The articles originate from 45 countries. The first four countries are responsible for 51.7%, the first ten countries for 67.8%, and the first 15 countries for 78.6% of the articles.

Keywords: Academic, Accounting, Authors, Bibliometric, Bibliometric Study, Bibliometrics, Citations, Econoinic Botany, First, Informetrics, Institutions, Journal, Length, Papers, Rank, Scientometrics, Single Journal Bibliometric Study, Small, Universities, Whole Journal Bibliometric Study

? Johari, R. and Zainab, A.N. (2007), Identifying what services need to be improved by measuring the library’s performance. *Malaysian Journal of Library & Information Science*, **12** (1), 35-53.

Full Text: [2007\Mal J Lib Inf Sci12-1, 35.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-1,%2035.pdf)

Abstract: This is an exploratory attempt to use a modified version of SERVPERF to assess user’s satisfaction with the services provided by an ISO9000:2000 certified library at a private university in Malaysia where measuring performance would be an integral part to continuously improve quality of services. The services being measured are grouped as frontline, core and peripheral where staff and facilities interact with users directly and where user’s opinions and expectations could be extracted. The clients are undergraduates and postgraduates who use these services and facilities. The results identify services deem important to users of the library as well as the problem areas which need improvements. A total of 274 students comprising 250 undergraduates and 24 postgraduates form the sample. The respondents’ ratings range on average between 3.13 and 4.36 on a 5-point scale, implying that the library is performing at an above average level. From 59 service attributes, 2 are perceived as excellent, 20 attributes are considered good, 31 are average and 4 services are rated as poor. A total of 16 services are rated below 50%, which form the priority list of services given priority in the library’s proposed action plan. The good and excellent services would continue to be monitored to maintain their performance.

Keywords: Expectations, Extension, Library Websites, Malaysia, OPAC Services, Perceptions, Performance Measure, Quality, Quality Measure, Reassessment, Scale, Servperf, Students, University, Users

? Kassim, N.A. and Nor, A.M. (2007), Team learning in a learning organization: The practices of team learning among university librarians in Malaysia. *Malaysian Journal of Library & Information Science*, **12** (1), 55-64.

Full Text: [2007\Mal J Lib Inf Sci12-1, 55.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-1,%2055.pdf)

Abstract: This paper reports a part of an investigation on learning organization and organizational learning practices at university libraries in the Mang Valley of Malaysia. The study aimed to find out whether or not academic librarians are applying the concepts and practices of learning organization at three levels, namely individual level, team level and the organizational level. This paper focuses on the perceptions of academic librarians on the practices of team level learning in public and private university libraries. There are 17 variables on team level learning that formed a part of a survey instrument using a seven-point interval scale. The instrument was distributed to a total population of 250 librarians of the public and private university libraries in the Klang Valley of Malaysia. A total of 191 (76.4%) respondents returned the questionnaire. The study found that academic librarians perceived learning at the team level does exist in general, but they were not overly convinced of the extent to which the practices exist. The results of the Mann-Whitney U test showed that there is a statistical significant difference in the perceptions of team level learning practices between the senior and middle level academic librarians implying that the senior level librarians had more positive perceptions on the practices of team level learning in their organizations than the middle level librarians.

Keywords: Academic Libraries, Learning, Learning Organization, Malaysia, Organizational Learning, Perceptions, Questionnaire, Statistical, Survey, Team Learning, University, University Librarians

? Odero, D.J.N. and Mutula, S.M. (2007), Internet access in Kenyan university libraries since 1990s. *Malaysian Journal of Library & Information Science*, **12** (1), 65-81.

Full Text: [2007\Mal J Lib Inf Sci12-1, 65.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-1,%2065.pdf)

Abstract: Presents literature based historical review of Internet access in Kenyan university libraries since the first connectivity in the country in 1994. The literature is based on four major newspapers in Kenya that are reputed for tracking Internet growth and its integration in the country’s institutions. These major newspapers are The Standard, Daily Nation, Kenya Times and East African. Despite the fact that the Internet is increasingly being adopted in most universities the world over, universities in Kenya are struggling to provide efficient internet access to students and staff because of several constraints such as costs, infrastructure, policy and poor management vision. The findings of this work identify several areas that need attention to enhance a wider adoption and use of the Internet by university libraries in Kenya. Moreover, there is a need for demonstrated interventions that will provide conditions that enhance individual employees’ interaction, acceptability and use of the Internet. In addition, university libraries should equip their employees with the required levels of Internet related knowledge and skills. From a practical perspective, the training offered to the staff should be designed to not only offer mastery of the skills, but also promote positive perceptions and appreciations of the technology. There is also need for libraries to identify appropriate proactive measures that can promote positive Internet response. Similarly, university libraries require clear drawn-up ICT policies specifying the envisioned role of both general and specific ICTs. Extending the service to library clients at a subsidized fee should supplement the recurrent expenditure incurred in the provision of the service.

Keywords: Costs, Historical Review, Internet, Internet Access, Internet Adoption, Internet Connectivity, Internet Diffusion, Interventions, Kenya, Literature, Perceptions, Policies, Policy, Review, Students, Training, University, University Libraries

? Santra, N. (2007), Academic medical librarians in Malaysia: What roles do they play? *Malaysian Journal of Library & Information Science*, **12** (1), 83-96.

Full Text: [2007\Mal J Lib Inf Sci12-1, 83.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-1,%2083.pdf)

Abstract: This study was conducted among academic medical librarians in Malaysia to learn what activities they were engaged in, their awareness of the skills and knowledge required for the emerging roles of medical librarianship and to find out their education and training needs. Face-to-face and telephone interviews were conducted with librarians attached to academic medical libraries in Malaysia. Results indicated that instructional roles had increasingly become part of the librarians’ tasks. Activities that would have granted them some knowledge of the domain or expertise in searching specific medical information was missing. Awareness of the skills and knowledge of the emerging roles was poor. Training and education to specialize in the field was limited. It is recommended that creating opportunities for further training and education can establish a specialist group and improved performance.

Keywords: Academic Libraries, Care, Challenges, Education, Education and Training, Environment, Evidence-Based Librarianship, Health Sciences Librarians, Health-Sciences Librarians, Information, Malaysia, Medical, Medical Librarianship, Roles of Librarians, Training

? Edzan, N.N. (2007), Tracing information literacy of computer science undergraduates: A content analysis of students’ academic exercise. *Malaysian Journal of Library & Information Science*, **12** (1), 97-109.

Full Text: [2007\Mal J Lib Inf Sci12-1, 97.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-1,%2097.pdf)

Abstract: Librarians have been using citation analysis as a means to determine the usage of their collection while others have used it look at undergraduate information behaviour. At the same time, various attempts are being made to relate citation analysis of bibliographies to information literacy competencies by mapping them to the performance indicators of established information literacy standards. This paper describes the analysis of bibliographies of final year project reports emanating from the Faculty of Computer Science and Information Technology, University of Malaya. A total of 73 reports were analysed using a pre-designed scoring sheet and results presented included number of pages, number of citations, types of sources used, usage of Web resources, currency of sources and citation style. The contents analysis of the bibliographies indicates: (a) the least number of citations per report is 6 and the most is 165 with the most number of citations within the range of 11 to 20 cites; (b) there are more Web citations than citations to books, journal articles, undergraduate reports, Masters’ dissertations and conference papers; (c) there are more citation to .com than to .org, .edu, .net and other URL extensions; (d) most citations are not dated and most of those dated are from within the last three years with the most current being 2005 and the oldest dated citation is 1935; and (e) most references have their print citations cited correctly but the Web citations cited incorrectly. Only a handful of indicators could be matched to the information literacy performance indicators of the ALA/ACRL/STS 2005 Information Literacy Standards for Science and Engineering/Technology.

Keywords: Citation, Citation Analysis, Citation Behavior, Citations, Content Analysis, Final Year Project Reports, Information, Information Literacy, Journal, Literacy, Malaya, Papers, Performance Indicators, Science, Standards, Students, University, Web

? Kademani, B.S., Kumar, A., Sagar, A., Surwase, G. and Kumar, V. (2007), Web-resources in nuclear science and technology. *Malaysian Journal of Library & Information Science*, **12** (2), 1-12.

Full Text: [2007\Mal J Lib Inf Sci12-2, 1.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-2,%201.pdf)

Abstract: This paper attempts to analyse the growth and development of web-resources in Nuclear Science and Technology as reflected in the International Nuclear Information System (INIS) (1996-2005) database. During 1996-2005, a. total of 102,720 publications appeared in 1,526 web-resources contributed by the nuclear scientists in various areas of research namely, Physics (52,590), Other Aspects of Nuclear and Non Nuclear Energy (23,148), Life and Environmental Sciences (13,843), Engineering and Technology (10,380), and Chemistry, Materials and Earth Sciences (2,759). The publications in web-resources have started appearing in the INIS database in 1996 with three publications. The highest number of publications in web-resources published were 25,813 in 2005. The average number of publications in web-resources published per year were 10,272. The top websites were http://www.iop.org with 30,711 publications, followed by https://www.osti.gov with 25,241 publications, and http://www.dx.doi.org with 8,569 publications. The websites with the domain name.org have published 51,602 followed by gov with 26,61 publications and jp with 6,565 publications. More than 91.8 percent of publications in web-resources were in English. More than 45 percent of the web-resources were published in journals followed by reports (41.66%). The most preferred web-journals by the scientists were Journal of Physics-Condensed Matter with 6,677 publications, followed by Journal of Physics-A with 5,186 publications and Journal of High Energy Physics with 4,799 publications. Also analysed were the locations of web-resources in various fields in a record in the database.

Keywords: Databases, Development, E-Resources, Energy, Global Information Access, Information Storage and Retrieval, INIS, Journal, Journals, Nuclear Science and Technology, Open Archives, Publications, Research, Science, Web-Resources

? Olatokun, W.M. (2007), Availability, accessibility and use of ICTS by Nigerian women academics. *Malaysian Journal of Library & Information Science*, **12** (2), 13-33.

Full Text: [2007\Mal J Lib Inf Sci12-2, 13.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-2,%2013.pdf)

Abstract: This study investigated the availability, accessibility and use of Information and Communication Technologies (ICTs) among women academics in six universities in South Western Nigeria. The study adopted a survey design approach and the questionnaire was administered on 246 women academics in the six universities. Findings revealed that the use of ICT facilities such as computers, printers, Internet, individual websites, photocopiers, telephones and mobile phones was relatively high among the respondents compared to the use of scanners, facsimiles, videoconferencing, and teleconferencing. Also, the women academics used the ICT facilities for various tasks notably for statistical analyses, word processing, Internet browsing and searching for information, electronic communications and preparation of course materials. Analyses also confirmed notable differences in women academics access to the ICT facilities compared with their male counterparts and some factors responsible for this were identified. The study argues that though increasing availability and access to ICT is very pertinent to making women academics avail themselves of the benefits of ICT, but other factors that would make them, become a part of the decision-making process regarding ICT issues should equally be addressed. The study recommends some policy options and strategies that the government and the management of the surveyed institutions should adopt. They should not only increase the access of women academics to ICT but also enable them participate in the decision-making and control of ICT deployment.

Keywords: Academics, Communication, Control, Decision Making, Decision-Making, Digital Divide, Gender, ICT Policy, Information, Information And Communication Technology, Internet, Nigeria, Policy, Preparation, Questionnaire, Statistical, Survey, Women, Women in ICT

? Yazit, N. and Zainab, A.N. (2007), Publication productivity of Malaysian authors and institutions in LIS. *Malaysian Journal of Library & Information Science*, **12** (2), 35-55.

Full Text: [2007\Mal J Lib Inf Sci12, 35.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12,%2035.pdf)

Abstract: The paper attempted to provide a “picture” of Malaysian LIS research and publications. The study aimed to show (a) the total number and spread of publications produced by Malaysian authors; (b) the active authors; (c) the authorship pattern; (d) the affiliation status of the authors; (e) the main channels used to publish; and (/) the subject covered by the published works. The study confined its scope to the publications produced between 1965 and 2005 by Malaysian authors published in Malaysia as well as abroad. Bibliometric techniques and regression analysis were employed as the measuring instrument. The data was collected from seven online databases and seven well established library OPACs, which are expected to hold earlier and current LIS publications. A bibliometric toolbox was used to feed in text files which provided brief summaries of ranked results, a bibliograph and minimal Bradford zonal analysis. The subject categorization used by Gorman and Corbit’s Model of core competencies for LIS was used to categorized entries by subjects. The results indicated that (a) Malaysian LIS authors preferred to publish in journals (511, 48.9%) and conference papers (474, 45.4%); (b) the publication distribution fluctuated over the 41 year period but the moving average depicted a steady incremental trend; (c) a total of 506 authors contributed to 1,045 publications and 309 are one-time authors’ (d) the active authors in LIS are affiliated to 131 institutions and the productive institutions were the national Library of Malaysia, University of Malaya library and the academics at the MLIS Programme, University of Malaya.; (e) publication productivity was related to institutional active involvement in LIS journal publishing; and (0 the main subject areas actively researched upon were collection development and management, information centres and services, and ICT applications LIS.

Keywords: Academic Librarians, Affiliation, Analysis, Authors, Authorship, Authorship Pattern, Bibliometric, Bibliometric Techniques, Bibliometrics, Collection, Competencies, Core Competencies, Data, Databases, Development, Distribution, Feed, Information, Information-Science Faculty, Institutional, Institutions, Involvement, Journal, Journals, LIS, Malaysia, Management, Model, Moving Average, National, Papers, Pattern, Patterns, Productivity, Publication, Publications, Published Works, Publishing, Regression, Regression Analysis, Research, Scholarly Communication, Scholarly Productivity, Scientometrics, Scope, Services, Spread, Status, Techniques, Trend, University Librarians

? Winarko, B. (2007), Content, benefits and development of pesantren online in Indonesia. *Malaysian Journal of Library & Information Science*, **12** (2), 57-75.

Full Text: [2007\Mal J Lib Inf Sci12-2, 57.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-2,%2057.pdf)

Abstract: Pesantrens are traditional Islamic boarding schools in Indonesia. Pesantrens play significant roles in education, particularly Islamic teaching synergy with the secular education systems. However, Pesantrens these days are facing an environment that could be detrimental to their existence as a traditional education system. This challenge comes from the Internet technology penetration in Indonesia, which. brings about changes in almost all aspects of living. This paper describes the application of Internet technology in Islamic teaching and the role of Internet technology on Pesantren online. The study was conducted by searching the available Pesantrens online using search engines, and investigated the content to reveal the applied Internet technology, benefit of Internet technology for Pesantrens, content of the Pesantrens’ web sites, and a comparison between the previous and present investigation of Pesantrens online. The study found that information about the 46 pesantrens online were available in the Internet and uses 16 Internet technology applications. It also showed that Pesantrens had diverse roles such as informational, advertising and teaching purposes. The study revealed that the development of the pesantren online includes increasing the number of Internet technology application as well as the number of pesantren online.

Keywords: Development, Education, Environment, Indonesia, Information, Internet, Internet Technology, Islamic Resources, Islamic Teaching, Pesantren, Schools, Web Content, Websites

? Ahmad, P. and Shafiq, u.R. (2007), Library organizations in the Punjab province of Pakistan: An appraisal. *Malaysian Journal of Library & Information Science*, **12** (2), 77-88.

Full Text: [2007\Mal J Lib Inf Sci12-2, 77.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-2,%2077.pdf)

Abstract: Library is a growing organism and librarianship is an expanding multidimensional profession. Librarianship connects people and ideas. Library organisations connect library profession and professionals. These organisations include associations, groups, and forums, whether registered or unregistered. Pakistan was born on 14 August 1947. Punjab is the largest province in Pakistan in terms of population, libraries and library schools. Punjab Library Association is the first library association in Pakistan. At present there are 11 such organisations in the Punjab province of Pakistan. This appraisal, founded upon literature review, personal communications, observation and authors’ experiences of dealing with these associations, introduces these organizations and their contribution to the cause of librarianship in the province and the country.

Keywords: Authors, Contribution, Library Associations, Library Forums, Library Groups, Library Organizations, Literature, Literature Review, Observation, Pakistan, Review, Schools

? Jeevan, V.K.J. and Sen, B.K. (2007), A scientometric analysis of publications on accelerator-based research from Nuclear Science Centre and Tata Institute of Fundamental Research, India. *Malaysian Journal of Library & Information Science*, **12** (2), 89-97.

Full Text: [2007\Mal J Lib Inf Sci12, 89.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12,%2089.pdf)

Abstract: The study is based on the journal publications generated by the Nuclear Science Centre (NSC) [now known as Inter University Accelerator Centre] and the, Accelerator Group at the Tata Institute of Fundamental Research (TIFR) during 1997-1999. The data was collected from the annual reports of the two institutions and analyzed using scientometric tools and techniques. The impact was examined with the help of Science Citation Index (SCI). The analysis highlights yearly output, publication in national or international journals, number of papers in SCI-journals and non-SCI journals, normalized impact factor (NIF) per paper, category-wise distribution of papers in different NIF ranges, the proportion of high NIF papers, papers above the average NIF. NSC is a facility exclusive for accelerator research and its Annual Report gives clear indication of the different specializations, hence the data for NSC is further analyzed in three subdivisions of nuclear physics, materials science, and radiation biology and others. However, such an analysis for TIFR was not attempted due to the lack of such information in its Annual Report. From the study one can have an idea about the performance and impact of the research conducted in the two institutions.

Keywords: Accelerator-Based Research, Analysis, Annual Reports, Biology, Citation, Data, Distribution, Impact, Impact Factor, India, Indication, Information, Institutions, Inter University Accelerator Centre, International, Journal, Journals, Mumbai, National, New Delhi, Nuclear Physics, Nuclear Science Centre, Papers, Performance, Publication, Publications, Radiation, Research, SCI, Science, Science Citation Index, Scientometric, Scientometric Analysis, Scientometrics, Tata Institute of Fundamental Research, Techniques

? Abdullah, A. and Zainab, A.N. (2007), Collaborative digital library of historical resources: Evaluation of first users. *Malaysian Journal of Library & Information Science*, **12** (2), 99-122.

Full Text: [2007\Mal J Lib Inf Sci12-2, 99.pdf](2007/Mal%20J%20Lib%20Inf%20Sci12-2,%2099.pdf)

Abstract: This paper describes the digital library of historical resources, a research project which involves building a testbed for the purpose of developing and testing new collaborative digital library functionality and presents an initial analysis of the digital library’s public use on the web. The digital library is modeled to focus on serving secondary students information needs in conducting history projects. As such, in the implementation of the digital library, the use of online resources would be an integral part of history project based learning activities. Students should be enabled to access digital resources, create and publish their own documents in the digital library and share them with others. As a testbed system, the collaborative digital library known as CoreDev has demonstrated its capabilities in serving an educational community as has been reflected by the positive feedback on the functional requirements from 44 users. Over 75% of the respondents in the user survey considered themselves capable of using the digital library easily. The beta tester demographics (n = 105) indicate that the digital library is reaching its target communities.

Keywords: Collaborative Digital Libraries, Digital Libraries In Education, Evaluation, Feedback, Historical Resources, History, Information, Learning, Research, School Projects, Students, Survey, Usability Study, User Testing And Evaluation

? Han, L.P. (2008), Malay schools and school libraries in the straits settlements under British colonial rule before the Second World War, 1876-1941. *Malaysian Journal of Library & Information Science*, **13** (1), 1-15.

Full Text: [2008\Mal J Lib Inf Sci13-1, 1.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13-1,%201.pdf)

Abstract: This article attempts to re-examine whether school libraries in the Straits Settlements were a post war innovation by going through primary and secondary historical records available. It was discovered that although the first policy to initiate school libraries in Malay schools was stated in 1899, it was unlikely to have taken off since the only press to publish Malay school books was discontinued the same year. It was not until 1925 that the Malay Translation Bureau was reorganized to produce Malay school books and reading books. However, not much books were translated and finalized as there was no more than nine staff employed in the Bureau when compared to 250 staff in Balai Pustaka in the Netherlands East Indies (NEI). By 1936, 165 out of 171 Malay boys’ schools had school libraries. However, the libraries were limited to having 30 titles each. In contrast school libraries in the NEI had 328 titles. Therefore not much efforts were put in to make the Malay Translation Bureau into a full-fledged publishing house, like Balai Pustaka, to meet a growing demand for Malay books as Malay schools and school libraries expanded throughout the Straits Settlements during the first 40 years of the twentieth century.

Keywords: Education in the Straits Settlements, Innovation, Libraries, Malay Book Publishing, Malay Schools, Policy, Primary, Publishing, School Libraries, Schools

? Zainab, A.N. (2008), Internationalization of Malaysian mathematical and computer science journals. *Malaysian Journal of Library & Information Science*, **13** (1), 17-33.

Full Text: [2008\Mal J Lib Inf Sci13, 17.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13,%2017.pdf)

Abstract: The internationalization characteristics of two Malaysian journals, Bulletin of the Malaysian Mathematical Sciences Society (indexed by ISI) and the Malaysian Journal of Computer Science (indexed by Inspec and Scopus) is observed. All issues for the years 2000 to 2007 were looked at to obtain the following information, (i) total articles published between 2000 and 2007; (II) the distribution of foreign and Malaysian authors publishing in the journals; (iii) the distribution of articles by country and (iv) the geographical distribution of authors citing articles published in the journals. Citation to articles is derived from information given by Google scholar. The results indicate that both journals exhibit average internationalization characteristics as they are current in their publications but with between 19% -30% international composition of reviewers or editorials, publish between 36%-79% of foreign articles and receive between 60%-70% of citations from foreign authors.

Keywords: Authors, Bibliometrics, Characteristics, Citation, Citations, Composition, Computer, Country, Distribution, Foreign, Foreign Authors, Google, Information, International, Internationalization, ISI, Journal Studies, Journals, Language, Publications, Publishing, Scientific Journals, Scopus

? Ahmed, S.M.Z. and Rahman, M.A. (2008), Nutrition literature of Bangladesh: A bibliometric study. *Malaysian Journal of Library & Information Science*, **13** (1), 35-43.

Full Text: [2008\Mal J Lib Inf Sci13, 35.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13,%2035.pdf)

Abstract: This paper presents the results of a bibliometric analysis of nutrition literature of Bangladesh. A list of periodical articles on various aspects of nutrition research of Bangladesh published during 1972 - 2006 was compiled for analysis. A total of 636 articles by 998 authors were identified. The articles were published in 100 local and foreign journals. The five-yearly distribution of nutrition literature shows that there is a rapid growth of nutrition literature from 1987 onwards. Lotka’s law is found to be applicable to nutrition literature of Bangladesh. Bradford-Zipf distribution also appears to be applicable to the literature.

Keywords: Analysis, Authors, Bangladesh, Bibliometric, Bibliometric Analysis, Bibliometrics, Bradford-Zipf Distribution, Distribution, Foreign, Growth, Journals, Law, Literature, Local, Lotka’s Law, Nutrition, Nutrition Literature, Periodical, Rapid, Research

? Rehman, S.U. (2008), Analyzing corporate job market for developing information and knowledge professionals: the case of a developing nation. *Malaysian Journal of Library & Information Science*, **13** (1), 45-58.

Full Text: [2008\Mal J Lib Inf Sci13-1, 45.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13-1,%2045.pdf)

Abstract: The paper presents the case of a developing nation-Kuwait-for analyzing its corporate job market for developing and knowledge professionals. The paper is based on the analysis of a body of research that has cumulated over the last 5-6 years. These studies were focused on the status of information management operations in Kuwaiti corporate companies, manpower and organizational issues related to information technology (IT) and information professionals, information management activities of finance companies, and information and knowledge management education. It has been noted that this corporate market is aggressive in pursuing strategic initiatives in employing latest technologies and management approaches. These organizations also appear to be in need of qualified human resources, equipped with befitting competencies, who can assume key managerial and professional roles for information and knowledge positions. There is also a need for creating meaningful partnerships between industry and trade and the higher education institutions, which might be instrumental in designing suitable programmes of education and training in information and knowledge management. Based on these findings, this paper analyses the needs of the corporate job market of Kuwaiti corporate sector for the areas of information and knowledge management. Strategies for developing appropriate competencies have also been outlined.

Keywords: Competencies, Corporate Job Market, Education, Higher Education, Human, Human Resource Development, Industry, Information, Information Management, Information Professionals, Knowledge, Knowledge Management, Kuwait, Professional, Research, Training

? Tella, A. and Mutula, S.M. (2008), Gender differences in computer literacy among undergraduate students at the University of Botswana: Implications for library use. *Malaysian Journal of Library & Information Science*, **13** (1), 59-76.

Full Text: [2008\Mal J Lib Inf Sci13-1, 59.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13-1,%2059.pdf)

Abstract: This paper, presents findings of a study that was carried out in January 2006 at the University of Botswana to determine gender differences amongst undergraduates’ students across all disciplines with regard to computer literacy. Five hundred students were surveyed of which 300 were females while 200 were male. The proportion of female to male students at the University of Botswana is 53%: 47%. Purposive sampling was used to select respondents from the six faculties of the University; a survey questionnaire was administered to them and collected on its completion. Descriptive statistics and t-test were employed in the analysis of data. The results suggest that gender differences exist between female and male undergraduate students at the University of Botswana with regard to computer literacy. The findings further revealed that students with higher computer literacy were more inclined to access and make use of library facilities. Moreover, differences exist in the respondents’ computer usage and software application. The paper discusses the implications of these results on the students’ use of library.

Keywords: Attitudes, Botswana, Computer Literacy, Digital Literacy, Gender, Gender Differences, Information Literacy, Library Use, Literacy, Questionnaire, School-Students, Statistics, Students, Survey, Undergraduates, University

? Abdullah, K.A.S. and Kassim, N.A. (2008), Perceptions of organizational learning practices among Yemeni university librarians. *Malaysian Journal of Library & Information Science*, **13** (1), 77-90.

Full Text: [2008\Mal J Lib Inf Sci13-1, 77.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13-1,%2077.pdf)

Abstract: This study explores the perceptions of organizational level learning practices among university librarians in Yemen. The Dimensions of the Learning Organization Questionnaire (DLOQ) developed by Watkins and Marsick (1993) was used as the instrument for collecting data. Twenty-four variables were used to assess the perception of organizational level learning practices among senior and middle-level librarians of all Yemeni university libraries (seven public and 11 private). The response rate was 72% (n = 198). The results of the study show that the mean scores of learning practices at the organizational level were not enough to consider Yemeni university libraries as learning organizations. The result of comparison showed that the mean score rating for private university libraries is higher than the mean score for public university libraries. The study suggests the need for more studies of organizational learning in order to understand the barriers of practicing organizational learning. Furthermore, for effective organizational learning, the results propose institutionalizing individual and team learning as prerequisites.

Keywords: Academic Libraries, Barriers, Learning, Learning Organization, Organizational Learning, Perception, Perceptions, University, University Librarians, Yemen

? Popoola, S.O. (2008), Faculty awareness and use of library information products and services in Nigerian universities. *Malaysian Journal of Library & Information Science*, **13** (1), 91-102.

Full Text: [2008\Mal J Lib Inf Sci13-1, 91.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13-1,%2091.pdf)

Abstract: This paper discusses faculty awareness and use of library information products and services in South-West Nigeria universities. Systematic random sampling method was used to select 446 faculty members from a population of 4,459 in the universities. A questionnaire formed the major instrument for data gathering. The response rate achieved was 89.7 percent and the reliability coefficient of the questionnaire used was 0.72. The study found that there was a significant difference in faculty awareness of available library information products and services. In addition, they did not have sufficient knowledge of those library products and services pertinent to their teaching and research activities. The survey also revealed that the level of knowledge of faculty staff had positive relationship with the frequency of use, consultation with the librarians, faculty status and membership of library related committees. User education programmes coupled with planned public relations were recommended to improve faculty awareness of library information products and services.

Keywords: Academic Libraries, Education, Information, Information Sources and Services, Library Usage, Nigeria, Questionnaire, Research, Survey, Universities, User Awareness, User Education

? Bakri, A. and Willett, P. (2008), The *Malaysian Journal of Library and Information Science* 2001-2006: A bibliometric study. *Malaysian Journal of Library & Information Science*, **13** (1), 103-116.

Full Text: [2008\Mal J Lib Inf Sci13, 103.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13,%20103.pdf)

Abstract: This paper analyses publication and citation patterns in the Malaysian Journal of Library and Information Science (MJLIS) from 2001-2006, and compares the results with those obtained in an earlier study by Tiew et al. (2002) covering the period 1996-2000. Our results show that the number of publications has increased from the 76 articles in the Tiew study to 85 articles here, with statistically significant changes in the types of article, in the numbers of references per article and in the lengths of the articles. The complete set of 161 articles attracted a total of 87 citations, 52 of which were self-citations, with 14% of the MJLIS articles having been cited at least once.

Keywords: Analyses, Bibliometric, Bibliometrics, Changes, Citation, Citation Analysis, Citation Counts, Citation Patterns, Citations, Google-Scholar, Impact, Malaysian Journal of Library and Information Science, Number of Publications, Publication, Publications, Publications Analysis, References, Scopus, Self-Citations, Web

? Noorhidawati, A. and Gibb, F. (2008), How students use e-books - Reading or referring? *Malaysian Journal of Library & Information Science*, **13** (2), 1-14.

Full Text: [2008\Mal J Lib Inf Sci13-2, 1.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13-2,%201.pdf)

Abstract: This paper reports a study on students’ perceptions and reactions towards e-books in Higher Education (HE). During this study a Web survey and a follow-up study were conducted using students from University of Strathclyde as a sample population. The Web survey revealed that there were three different types of e-book use in an academic setting: (a) fact finding; (b) finding relevant content; and (c) extended reading. The most popular reason for using e-books was for “finding relevant content” which indicated that e-books were not read in their entirety but instead were consulted or used for reference purpose. The Web survey finding was then confirmed by the follow-up study. This study is valuable for designing a better e-book features in which they should be designed according to what purpose the e-books are used for (i.e. for reference purpose or extended reading or both). If the e-books are intended to be used for reference purpose, the features might include practical searching and browsing features, whereas if the e-books are designed for extended reading they should be provided with features that are conducive for on-screen reading such as a good layout design and navigation tools.

Keywords: Academic Libraries, Academic-Libraries, E-Book Features, E-Book Usage, E-Books, Education, Electronic Books, Electronic Books, Perceptions, Students, Survey, University

? Isfandyari-Moghaddam, A. and Ranjbar, V. (2008), Difference among ranking algorithms of different web search tools: A statistical approach. *Malaysian Journal of Library & Information Science*, **13** (2), 15-28.

Full Text: [2008\Mal J Lib Inf Sci13-2, 15.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13-2,%2015.pdf)

Abstract: One of evaluation studies examining web search tools is ranking algorithm area. Accepting the idea that different search tools do use different ranking algorithms, the present research aims to confirm such an idea using a statistical approach. To do this, five metasearch engines (MSEs) namely Ez2find, Dogpile, MetaCrawler, Info and WebCrawler along with their four common underlying single search engines (SEs) - Google, Yahoo!, Msn (currently called Windows Live Search) and Ask - have been applied. To conduct the research five queries have been utilized. For comparing ranking algorithms of these web search tools, statistical tests “Kruskal-Wallis” and “Tukey HSD” were utilized. The findings indicate and confirm that different search tools on the web make use of different ranking algorithms. In other words, this research supports findings of previous studies.

Keywords: Comparing Rankings, Engines, Evaluation, Evaluation Studies, Information, Internet Studies, Metasearch Engines, Overlap, Ranking, Ranking Algorithm, Research, Retrieval, Search Engines, Statistical, Web Searching, World-Wide-Web

? Keat, Y.C. and Kaur, K. (2008), Citation study of library and information science dissertations for collection development. *Malaysian Journal of Library & Information Science*, **13** (2), 29-47.

Full Text: [2008\Mal J Lib Inf Sci13, 29.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13,%2029.pdf)

Abstract: This study applies citation analysis method to examine the use of information resources by students of the Master in Library and Information Science (MLIS) at the University of Malaya in preparing their dissertation. References from a sample of 40 MLIS thesis from the period 2000-2005 were examined for: year of publication; author; source title; bibliographic format; language; subject category; and place of publication. Core journal titles are compared with Journal Citation Report (JCR) listing and also for availability at the University of Malaya Library. The study shows that journals and books are still the most used sources for information and there is a steady increase in the use of electronic media by Library and Information Science (LIS) researchers. Authorship pattern indicates preference for single authored works. This study serves as a baseline indicator of resources used by LIS researchers. It can be utilised by librarians to focus on collection development to support research needs.

Keywords: Authorship, Authorship Pattern, Bibliometrics, Citation, Citation Analysis, Journal Ranking, Journals, Librarianship, Library & Information Science Research, LIS, Obsolescence, Research, Science, University

? Swarna, T., Kalyane, V.L. and Kumar, V. (2008), Homi Jehangir Bhabha: His collaborators, citation identity, and his citation image makers. *Malaysian Journal of Library & Information Science*, **13** (2), 49-67.

Full Text: [2008\Mal J Lib Inf Sci13, 49.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13,%2049.pdf)

Abstract: In this paper, we studied synchronous references (references in the same papers) and diachronous citations (citations to the papers) of the renowned theoretical physicist, Homi Jehangir Bhabha. We utilized the Science Citation Index (SCI) on CD from 1982 - 2006. We identified his coauthors, his most cited works, citation identity (authors whom he had cited) and citation image makers (authors citing him). Bhabha published his first paper in 1933 at the age of 24 and the last paper in 1966, the year of his demise. His 66 papers could be categorized into nine fields: Cosmic ray physics (18 papers); Elementary particle physics, and Field theory (14 papers each); Quantum electrodynamics (6 papers); Nuclear physics (4 papers); General, and Interaction of radiation with matter (3 papers each); and Mathematical physics and General physics (2 papers each). He collaborated with 18 authors in 18 papers; the remaining 48 papers were single-authored. His citation identity consisted of 212 different authors, of whom six were Nobel laureates. He received 328 citations to his works, his overall citation rate being 10.6 per cited paper and the highest citation rate was 21.2 to his papers in the field of Elementary particle physics. His most often cited paper was in Quantum electrodynamics with 54 citations. His image makers comprised 537 different authors. Bhabha has the distinction of being cited by at least two Nobel laureates, P. M. S. Blackett and H. Yukawa in their respective Nobel lectures.

Keywords: Authors, Authorship Pattterns, Bibliometrics, Citation, Citations, Ego-Centric Citation Analysis, Heavy Electrons, Hjbhabha, Nuclear-Forces, SCI, Science, Science Citation Index, Scientometrics

? Karim, N.H.A. (2008), Investigating the correlates and predictors of job satisfaction among Malaysian academic librarians. *Malaysian Journal of Library & Information Science*, **13** (2), 69-88.

Full Text: [2008\Mal J Lib Inf Sci13-2, 69.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13-2,%2069.pdf)

Abstract: This study employs a global measure for job satisfaction on the following ten work and worker related variables: affective commitment, continuance commitment, job involvement, job autonomy, job feedback, role clarity, role conflict, age, organizational tenure and job tenure. A survey was conducted to investigate how much of the variance in job satisfaction can collectively be explained by these variables in a Malaysian academic library setting. The survey was administered on 279 academic librarians from eight university libraries in West Malaysia. Findings were based on the responses from 139 usable questionnaires. The findings revealed that only six of the ten work and worker related variables were significantly correlated with job satisfaction: affective commitment, job autonomy, job performance feedback, role conflict, role clarity and organizational tenure. Findings also revealed that of these six correlates, only two have predictive relationship with job satisfaction: affective commitment and organizational tenure. Collectively these two predictors explain about 26% of the variance in job satisfaction. Although this study did not examine all the possible correlates and predictors of job satisfaction that have been identified in the organizational behavior/psychology and management literature, it nevertheless provides an empirical glimpse of the job satisfaction phenomenon among Malaysian academic librarians.

Keywords: Academic Libraries, Affective Commitment, Allen and Meyer’s Organizational Commitment Scale, Antecedents, Consequences, Feedback, Involvement, Job Satisfaction, Literature, Malaysia, Organizational Commitment, Organizational Commitment, Questionnaires, Survey, University

? Sulistyo-Basuki, L. and Mulyani, A.S. (2008), Indonesian Librarians’ Efforts to Adapt and Revise the Dewey Decimal Classification (Ddc)’S Notation 297 on Islam. *Malaysian Journal of Library & Information Science*, **13** (2), 89-101.

Full Text: [2008\Mal J Lib Inf Sci13-2, 89.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13-2,%2089.pdf)

Abstract: In Indonesia, two points must be considered on utilizing notation classification on Islam. One is that Indonesia is the largest Islamic country in the world, in which about 90% of her 220 million populations are Muslims. The other is that Indonesian libraries have been using the Dewey Decimal Classification (DDC) since early 1950s. From Indonesian librarians point of view, the term “Mohammedanism” used in the 15(th) edition is not appropriate that and the notation given is very limited for the second largest denomination in the world. The term was then changed to Islam albeit the available notations were still felt not enough for the organization of Islamic books. This paper traces and describes the effort by Indonesian librarians and Islamic libraries to improve the notation 297 of the various editions of the DDC since 1973 to 1987. In 1987 the joint declaration between the Minister of Religious Affairs and the Minister of Education and Culture issued an adaptation and expansion of the DDC. This version is widely used especially in public and Islamic-based-schools, Islamic higher education institutions and Islamic colleges, but not in non-Islamic-denomination academic and special libraries. In 2005 the National Library of Indonesia issued its version based on DDC 22(nd) edition and the details of this version are explained. Based on the various versions, the authors proposed that future adaptation and expansion should be based on the original DDC version. With that adaptation then the proposed expansion, matched with the international usage and practice, could contribute to future DDC editions.

Keywords: Adaptation, Authors, Cataloguing, Classification, Dewey Decimal Classification (DDC), Education, Higher Education, Indonesia, Islam, Organization of Information

? Ping, C.Y. and Edzan, N.N. (2008), Evaluating user’s level of satisfaction with the Chinese studies collection held at an academic library. *Malaysian Journal of Library & Information Science*, **13** (2), 103-119.

Full Text: [2008\Mal J Lib Inf Sci13-2, 103.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13-2,%20103.pdf)

Abstract: A user assessment study was conducted to evaluate the users’ level of satisfaction with the Chinese studies collection at the University of Malaya Library. The respondents were library professionals, faculty members, undergraduate and postgraduate students at the Department of Chinese Studies, University of Malaya. A total of 135 responses were received with a response rate of 77.5%. The results indicated that the undergraduates of years 2 and 3 and the postgraduates were less satisfied with the collection and services compared with the undergraduates of year 1, faculty members and library professionals. Results showed that there is no significant gap between the performance evaluation by library professionals and library users’ expectations in the level of satisfaction with the information sources available between the library professionals and the respondents from the Department of Chinese Studies at the university.

Keywords: Academic Library, Assessment, Collection Development, Evaluation, Gap Analysis, Information, Malaya, Service Quality, Special Collection, Students, University, University of Malaya Library, User Evaluation, User Satisfaction, User Study

? Tsay, M.Y. (2008), Journal bibliometric analysis: A case study on the JASIST. *Malaysian Journal of Library & Information Science*, **13** (2), 121-139.

Full Text: [2008\Mal J Lib Inf Sci13, 121.pdf](2008/Mal%20J%20Lib%20Inf%20Sci13,%20121.pdf)

Abstract: The purpose of this study is to explore the relationship between Journal of the American Society for Information Science and Technology (JASIST), and other disciplines by citation analysis. The citation data were drawn from references of each article of JASIST in 1980, 1985, 1990, 1995, 2000 and 2004. The Ulrich’s Periodical Directory, Library of Congress Subject Heading, retrieved from the WorldCat and LISA database were used to identify the main class, subclass and subject of cited journals and books. The results of this study revealed that the production rate of JASIST literature doubles and the average number of references cited per paper is also increased 2 to 3 times in a period of about 25 years. Beginning in 1995, there has been a significant increase in the number of electronic resources and constitutes 5% of all document types in 2004. JASIST itself is the most highly cited, and is followed by four library and information science (LIS) journals, namely Information Processing and Management, Journal of Documentation, Annual Review of Information Science and Technology and Journal of Information Science. The number of countries publishing the cited journal increases from 9 to 26 within 25 years. The three main classes of journals that were cited by JASIST most are library science (50%), science (22.7%) and social sciences (6.3%). The three subclasses of LIS encompass general bibliography, machine methods of information & retrieval and mechanized bibliographic control and library & information science. The top five most cited books of JASIST are Smart Retrieval System-Experiments in Automatic Document Processing, Introduction to Modern Information Retrieval, Information Retrieval, Little Science and Big Science, Information Seeking in Electronic Environments, Information Retrieval: Data Structure and Algorithms. The most cited books of JASIST are quite dispersive and science is the most cited class followed by LIS, social sciences, philosophy/psychology/religion, and the most cited subject is computerized information retrieval and mechanized bibliographic control.

Keywords: Algorithms, Authorship, Bibliometric, Bibliometric Analysis, Bibliometrics, Citation, Citation Analysis, Document Types, For-Information-Science, Highly-Cited, Journal of the American Society for Information Science and Technology (JASIST), Journals, Library and Information Science, LIS, Obsolescence, Review, Science, Single Journal Studies

? Popoola, S.O. (2009), Self efficacy, information acquisition and utilization as correlates of effective decision making among managers in insurance companies in Nigeria. *Malaysian Journal of Library & Information Science*, **14** (1), 1-15.

Full Text: [2009\Mal J Lib Inf Sci14-1, 1.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14-1,%201.pdf)

Abstract: This paper examined the self-efficacy, information acquisition and utilization as correlates of effective decision making of managers in corporate insurance companies in Nigeria. Total enumeration technique called census coupled with a self-developed questionnaire was used to collect data on a population size of 153 managers in eleven corporate insurance companies in Nigeria, out of which 145 responded given a response rate of 94.8 percent. The study found that self-efficacy, information acquisition and utilization had significant collinear relationship with effective decision making of the respondents. In addition, self-efficacy, information acquisition and utilization significantly predict effective decision making of the respondents. More so, each of the independent variables, namely, self-efficacy, information acquisition and information utilization significantly predict effective decision making of the respondents. Nevertheless, information utilization was found to have the greatest percentage (65.22 percent) relative contribution to the prediction of effective decision making of the managers in Nigerian corporate insurance companies.

Keywords: Contribution, Decision Making, Decision-Making, Efficacy, Information, Information Acquisition, Information Utilization, Insurance Managers, Nigeria, Questionnaire, Self-Efficacy, Utilization

? Anyi, K.W.U., Zainab, A.N. and Anuar, N.B. (2009), Bibliometric studies on single journals: A review. *Malaysian Journal of Library & Information Science*, **14** (1), 17-55.

Full Text: [2009\Mal J Lib Inf Sci14-1, 17.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14-1,%2017.pdf)

Abstract: This paper covers a total of 82 bibliometric studies on single journals (62 studies cover unique titles) published between 1998 and 2008 grouped into the following fields; Arts, Humanities and Social Sciences (12 items); Medical and Health Sciences (19 items); Sciences and Technology (30 items) and Library and Information Sciences (21 items). Under each field the studies are described in accordance to their geographical location in the following order, United Kingdom, United States and Americana, Europe, Asia (India, Africa and Malaysia). For each study, elements described are (a) the journal’s publication characteristics and indexation information; (b) the objectives; (c) the sampling and bibliometric measures used; and (d) the results observed. A list of journal titles studied is appended. The results show that (a) bibliometric studies cover journals in various fields; (b) there are several revisits of some journals which are considered important; (c) Asian and African contributions is high (41.4% of total studies; 43.5% covering unique titles), United States (30.4% of total; 31.0% on unique titles), Europe (18.2% of total and 14.5% on unique titles) and the United Kingdom (10% of total and 11% on unique titles); (d) a high number of bibliometrists are Indians and as such coverage of Indian journals is high (28% of total studies; 30.6% of unique titles); and (e) the quality of the journals and their importance either nationally or internationally are inferred from their indexation status.

Keywords: Authors, Bibliometric, Bibliometric Studies, Bibliometrics, Citation Analysis, Health, Impact Factor, in-Music-Education, Information, Journal Productivity, Journals, Library, of-Documentation, Quality, Science, Sciences, Scientometrics, Single Journal Study, United Kingdom

? Han, L.P. (2009), The beginning and development of English boys’ and girls’ schools and school libraries in the Straits Settlements, 1786-1941. *Malaysian Journal of Library & Information Science*, **14** (1), 57-81.

Full Text: [2009\Mal J Lib Inf Sci14-1, 57.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14-1,%2057.pdf)

Abstract: Throughout the nineteenth century missionaries from Europe and America dominated the setting up of English boys’ and girls’ schools in the Straits Settlements. In 1899 there were only two known school libraries. During the 1930s more than 70 per cent of English schools had school libraries. In 1937 80 per cent of English Boys’ schools had school libraries. However, by 1935 97 per cent of Malay vernacular boys’ schools had school libraries since they were funded by the Government. Several factors impended the development of English school libraries: (a) Most of these schools collect fees and were partially funded through Government grants; (b) There was no central book-buying agency to coordinate the importation of English books from India and Europe as the publishing and distribution of Malay books were centrally controlled by the Education Department; (c) Government funding for English school libraries began in 1939; Europe was already at war and resources were prioritized for the defense of the settlements; (d) The public libraries in Singapore and Penang did not provide services to school libraries as practiced in England; (e) Although two school library associations were established in England in 1937, the movement did not spread to the settlements.

Keywords: Development, Education, Education in the Straits Settlements, England, English Schools, Europe, Funding, Malaya, Publishing, School Libraries, Schools

? Al-Qallaf, C.L. (2009), A bibliometric analysis of the *Punica grantum* L. literature. *Malaysian Journal of Library & Information Science*, **14** (1), 83-103.

Full Text: [2009\Mal J Lib Inf Sci14, 83.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14,%2083.pdf)

Abstract: The purpose of this study was to identify and analyze the intellectual structure of the Punica granatum L (pomegranate) literature and to determine trends and patterns. Specific areas addressed were growth of the literature, publication type, author productivity and patterns, subject focus, language dispersion, and characteristics of the journal literature. Thirty-one related databases and the online catalogs of two United States national libraries were searched to identify publications. The final data set consisted of 3,306 items. All publications were reviewed through 2006. Data were sorted and manipulated using the software package ProCite. For analysis of the data, bibliometric techniques were applied. The results show that the literature has grown consistently from 1970 onwards exploding to significant proportions beginning in 2000. Most of the publications are the result of author collaboration (71.82%) and written in the English language (69.57%). India and the United States are the leading contributors to the literature and educational institutions make-up more than fifty percent of the authors’ affiliation. The literature is multi- and inter-disciplinary in nature. The major subject areas are plant diseases, growth (plants), botanical chemistry, pharmacognosy, and plant products. Journal articles (75.53%) constitute the largest single type of publication. There are 1,045 unique journal titles containing 2,497 publications. According to Bradford’s Law a core of 38 journal titles form the nucleus of this literature. This study provides future direction for researchers, facilitates discussion within multiple disciplines, and assists information providers in formulating policy guidelines for the selection and acquisition of information resources.

Keywords: Authorship, Bibliometric Analysis, Bibliometrics, Collaboration, Countries, Databases, Intellectual Structure, Medicinal Plants, Nutritional Plants, Plants, Policy, Pomegranate, Publications, Punica Granatum L., Scholarly Communication, Sciences, Trends

? Abu Bakar, A.B. (2009), Perceived value of satisfaction with services provided to faculties among liaison librarians. *Malaysian Journal of Library & Information Science*, **14** (1), 105-111.

Full Text: [2009\Mal J Lib Inf Sci14-1, 105.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14-1,%20105.pdf)

Abstract: This study examines the changes in the way the information services are delivered to the faculty. One of the delivery methods for the faculty adopted by most academic libraries in Malaysia is putting in place a liaison programme. Generally, online resources have made faculty less reliant on the partnership under the programme for help with teaching and research, while electronic communication, such as e-mail, with the library has the potential to make the partnership more lasting and effective. Under this programme, a reference librarian is appointed as a liaison librarian for each Faculty to which he/she is responsible. The study revealed that the liaison librarians have no choice but to upgrade their competencies which they lack in order to perform their responsibilities up to the expected level of excellence demanded by the faculty. They must promote, collaborate and maintain good rapport with the faculty.

Keywords: Academic Libraries, Faculty Satisfaction, Information, Liaison Librarian, Malaysia, Reference Librarians, Research, University Libraries

? Shanmugam, A. (2009), Citation practices amongst trainee teachers as reflected in their project papers. *Malaysian Journal of Library & Information Science*, **14** (2), 1-16.

Full Text: [2009\Mal J Lib Inf Sci14, 1-16.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14,%201-16.pdf)

Abstract: The study aims to investigate errors in citation practices of postgraduate student teachers. This research examines the various types of citations according to bibliographic forms in relation to course options, language use and underlying reasons for the student teachers’ citation behaviors. The study involved 154 postgraduate student teachers from a Teacher Education Institution in East Malaysia. The citations used in a process based term paper submitted as part of their final course evaluation submitted to the Education Department were analyzed. Findings revealed that only 62.24% of the total population included a reference list in their assignment, and this was despite being provided with explicit instructions regarding the need to attach a reference page. From the total of 489 citations analyzed, 77.5% were from text books. Materials from seminar papers and theses made up less than 3% of the total sources used. It was found that 3 most frequently cited authors accounted for a third of the total citations, and the authors were writers of the pedagogy text books used by the course lecturers. More than 83% of the sources employed were from local publications written in the Malay Language. The numbers of missing and inconsistent citations in the participants’ term papers were exceptionally high. Only 12.67% of the total citations were found to be correct. The trainees placed the blame on (a) lack of emphasis by course lecturers; and (b) ignorance of citation format leading to such errors. The findings suggest a need for deliberate and concerted efforts from course lecturers or teacher trainers to inculcate student teachers to accustom themselves to a variety of reference sources and instill a culture of avoiding citation errors. Exclusion of reference list in academic writing should not be tolerated as it has implications for the level of professionalism among trainees and their lecturers.

Keywords: Authors, Citation, Citation Analysis, Citation Errors, Citations, Course, Culture, Errors, Evaluation, Forms, Information Skills, Local, Malaysia, Options, Papers, Population, Practices, Pre-Service Teachers, Professionalism, Publications, Reference, Research, Research Skills, Seminar, Sources, Student, Student Teachers, Term, Web

? Abrizah, A. (2009), The cautious faculty: Their awareness and attitudes towards institutional repositories. *Malaysian Journal of Library & Information Science*, **14** (2), 17-37.

Full Text: [2009\Mal J Lib Inf Sci14-2, 17.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14-2,%2017.pdf)

Abstract: This paper reports on a web-based survey carried out on academics of a research intensive university in Malaysia, investigating their use of open access repositories, advocacy undertaken, and reasons for contribution or non-contribution to Institutional Repositories (IRs). The outcome of this study is to provide an institutional repository (IR) that will preserve and disseminate digital materials created by, or associated with the university. Specifically, the objectives of the study are to investigate (a) the issues in establishing a facility to provide open access to research materials, and (b) the potential of an IR and the requirements of a good digital repository in allowing faculties to contribute resources to the institutional repository. Using a mixture of closed and open questions, the survey explored the faculty’s awareness, experiences and opinions of open access publishing, and the university’s IR. Responses were received from 131 academics from 14 faculties, institutes and centres at the university. Science-based faculty members were overwhelmingly in favour of permitting the deposit of research work. More than 60% of the respondents mentioned allowing the deposit of theses and dissertations. Findings indicated that, as users, the academics wanted to find many more types of material in the repository and as authors, they were willing to deposit. Complete theses, post-prints and conference papers were acceptable to be deposited in the IR. Respondents’ support of open access principle and altruism in making their scholarly work publicly accessible were the most important motivators for the academics depositing their work, closely followed by the prospect of an increase in the accessibility of their work. The greatest deterrents were the ownership of copyrights and plagiarism. Other reasons that might impede self-archiving were the pre-print culture, publishers’ policy, trust of readers and preservation. Findings indicated that faculty who planned to contribute to the IR in the future agreed with of the concept of open access and had a greater altruism in making their work publicly accessible. It was also found that a mandate from an institutional employer or a research funder to self-archive would meet with very little resentment and less resistance from the respondents. Based on the findings of the literature review and the survey, appropriate recommendations were made for the university’s repository.

Keywords: Academics, Advocacy, Authors, Contribution, Faculty Contribution, Institutional Repositories, Literature, Literature Review, Malaysia, Open Access, Open Access Publishing, Papers, Plagiarism, Policy, Publishing, Research, Review, Scholarly Communication, Survey, University

? Bakri, A. and Willett, P. (2009), The *Malaysian Journal of Computer Science*: A bibliometric study. *Malaysian Journal of Library & Information Science*, **14** (2), 39-49.

Full Text: [2009\Mal J Lib Inf Sci14, 39.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14,%2039.pdf)

Abstract: This paper analyses publication and citation patterns in the Malaysian Journal of Computer Science (MJCS) from 1996-2006. The articles in MJCS are mostly written by Malaysian academics, with only limited inputs from international sources. Comparisons are made with the companion Malaysian Journal of Library and Information Science in terms of the type, number of references, length and numbers of authors for individual papers. Searches of Google Scholar showed that 53 MJCS articles attracted a total of 86 citations, of which 43 were self-citations.

Keywords: Bibliometric Study, Bibliometrics, Citation Analysis, Citation Analysis, Citations, Informetrics, LIS, Malaysian Journal of Computer Science, Malaysian Journal of Library and Information Science, Publication, Publication Productivity, Publications Analysis, Self-Citations

? Babalhavaeji, F., Isfandyari-Moghaddam, A., Aqili, S.V. and Shakooii, A. (2009), Quality assessment of academic library performance: The case of an Iranian academic library. *Malaysian Journal of Library & Information Science*, **14** (2), 51-81.

Full Text: [2009\Mal J Lib Inf Sci14-2, 51.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14-2,%2051.pdf)

Abstract: The present research aims to assess the performance of libraries at the Islamic Azad University, Sciences and Research Branch (IAUSRB) through gap analysis. To do this, a researcher-developed questionnaire which is based on available standards and quality assessment tools including ACRL standards, LibQUAL and ISO 11620, and some criteria included in the related literature was designed and distributed among users of IAUSRB libraries. Five service quality categories, were included in the questionnaire: “Environment, equipment and physical facilities”, “Public services”, “Non-book materials”, “Staff (librarians and their co-workers)”, and “Information literacy and user education”. Based on research findings, the most expected library services prioritized by users are “ operation time” (mean = 4.2300), “staff” (mean = 4.1461), and “circulation” (mean = 4.1208), while the least expected library services which are of lower importance from users’ perspective are “press” (mean = 3.9734) and “audiovisual materials” (mean = 3.8796). The findings also indicate that services offered by the libraries surveyed had a relatively quality performance and average success (perceived quality is 2.9635 approximate to 50%). In other words, such a finding emphasizes an average performance of IAUSRB libraries. In addition, confirming five research hypotheses concerning gap analysis, there was a significant difference between expected quality of five service categories and their perceived quality based on users’ viewpoint. It was also realized that the categories with better performance or perceived quality from users’ perspective are “staff” (mean = 3.2240), “information literacy and user education” (mean = 2.9998), and “environment, equipment and physical facilities” (mean = 2.9871), and the two libraries “Theology and Philosophy” (mean = 2.2639) and “Medical Engineering” (mean = 2.4507) have offered poor services than the other IAUSRB libraries.

Keywords: Academic Libraries, Assessment, Gap Analysis, Information, Literacy, Literature, Performance Evaluation, Quality, Quality Assessment, Questionnaire, Research, Scale, Service Quality, Service Quality, Standards, University, Users

? Sagar, A., Kalyane, V.L., Prakasan, E.R., Garg, R.G. and Kumar, V. (2009), Scientometric highlights on science and technology related review articles affiliated to India. *Malaysian Journal of Library & Information Science*, **14** (2), 83-99.

Full Text: [2009\Mal J Lib Inf Sci14, 83-1.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14,%2083-1.pdf)

Abstract: Review Articles are of primary importance as a scholarly output and have become a secondary source in order to access older primary literature. The present study is a quantitative documentation of ‘Review Articles’ published during 2000-2005 in the Science Citation Index (SCI) and having India in the affiliation of authors. SCI considers article having 100 or more synchronous references as ‘review’. Records with ‘Review’ in Document type field are extracted out from the results of the search ‘India’ in the ‘Address word’ field for the indicated publication period, which resulted in a total of 2042 records by 5135 individual authors in over 640 individual journals. Authors from Bhabha Atomic Research Centre, Mumbai, India are in the forefront among the most productive review writers. Findings indicated that the average yearly growth rate is 11.04, and that 85.16 per cent of the total Review Articles are written in collaboration. Of these collaborative works, 22.9 percent are written with authors from 78 different countries. The study clearly shows that collaboration of Indian reviewers with people from outside India is significant. Multidisciplinary Sciences; Chemistry in General; General and Internal Medicine; Biochemistry and Molecular Biology; and Pharmacology and Pharmacy are the main fields in which majority of the Review Articles are written. The inter-quartile mean of the number of Synchronous References of the 2042 Review Articles is found as 94.84.

Keywords: Bibliometrics, Informetrics, Multidisciplinary, Publication, Publication Productivity, Research, Review, Review Articles, SCI, Science Citation Index, Scientometrics

? Kassim, N.A. (2009), Evaluating users’ satisfaction on academic library performance. *Malaysian Journal of Library & Information Science*, **14** (2), 101-115.

Full Text: [2009\Mal J Lib Inf Sci14-2, 101.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14-2,%20101.pdf)

Abstract: This paper reports a part of a quantitative study that aims to evaluate the library’s performance by measuring the users’ satisfaction with (a) library services, (b) infrastructure/place/space and (c) collection/information provided by an academic library in Malaysia. A self-developed questionnaire was used to gauge the respondents’ opinions on their satisfaction level on the statements regarding the three dimensions. The instrument was distributed to a sample of 650 final year students from three faculties of the university. Descriptive and inferential statistics were used in the analysis of data using the Statistical Product and Service Solutions. A parametric test using the one-way analysis of variance (ANOVA) was used to compare the mean satisfaction scores among the respondents from the three faculties. The results of the study revealed that on the average, the respondents were only quite satisfied with the library services, infrastructure/place/space, collection/information of the library as a whole. The respondents were relatively most satisfied with infrastructure/place/space (M = 3.41), followed by collection/information (M = 3.27), and library services to users (M = 3.18) in that order. The results also showed significant differences on the satisfaction on services, infrastructure/place/space, and libraries’ collection/information among the respondents of the three faculties.

Keywords: Library Collection, Library Infrastructure, Library Performance, Library Services, Malaysia, Measuring Service Quality, Participation, Quantitative, Questionnaire, Statistics, Students, University, User Satisfaction

? Wijetunge, P. (2009), A descriptive analysis of current LIS education providers and programmes in Sri Lanka. *Malaysian Journal of Library & Information Science*, **14** (2), 117-134.

Full Text: [2009\Mal J Lib Inf Sci14-2, 117.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14-2,%20117.pdf)

Abstract: Formal Library and Information Science (LIS) education in Sri Lanka began in 1961 with the commencement of a short programme by the Sri Lanka Library Association (the then Ceylon Library Association). From 1961 to 1997, many programmes were introduced but some were terminated due to various reasons. The introduction of new LIS programmes was accelerated from 1997 onwards as a result of the reforms in the education system which brought significant changes in LIS education. There were many issues affecting the LIS education system of Sri Lanka but without due attention of the authorities. In order to understand the issues concerning the LIS education system in a holistic manner; a research project was carried out from the year 2004 to 2007. Several aspects regarding LIS education were studied in depth, for example, the current available LIS programmes and providers, course contents, LIS faculty and facilities. This paper presents the current status of LIS providers and programmes in the country. Eight university and non university LIS education providers were identified from a survey. At the university level there are six organizations; the National Institute of Library and Information Sciences, the Department of LIS affiliated to a university faculty, two faculties offering several postgraduate level LIS programmes, and two units affiliated to universities. At the non-university level there are two types of organizations (an association and three colleges) conducting the programme - the Sri Lanka Library Association and three National Colleges of Education. The survey also identified a total of 24 programmes at six different academic levels comprising six Certificate programmes, six Diploma programmes, three Bachelors programmes, three Post Graduate Diploma programmes, four Masters programmes and two Research Degree programmes. The paper highlights the absence of a co-ordinating body for LIS education in Sri Lanka and it concludes by identifying a suitable body for this purpose.

Keywords: Ceylon, Education, Information Science, Library And Information Science, Library and Information Science Programmes, Library Schools, Library Science Education, LIS, Research, Science, Sri Lanka, Survey, University

? Yin, C.Y. (2009), Bibliometric analysis of journal articles published by Southeast Asian chemical engineering researchers. *Malaysian Journal of Library & Information Science*, **14** (3), 1-13.

Full Text: [2009\Mal J Lib Inf Sci14, 1.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14,%201.pdf)

Abstract: In this study, journal articles publication trends among Southeast Asian chemical engineering (CE) researchers from 1996 to 2008 are analyzed through bibliometric means. The focus of the study is on the journal publication trend of CE researchers rather than the publication trend of papers that fall within the area of CE. Bibliometric data are obtained from Scopus, Journal Citation Reports (R) as well as the SCImago Journal & Country Rank online academic databases. The study shows that Singapore tops the amount of journal articles published by CE researchers from 1996 to 2008, followed by Malaysia, Thailand, Indonesia and Philippines. Overall observation indicates that journal articles publication trends among Southeast Asian CE researchers are highly dissimilar and noteworthy. Results accrued from this study are useful indicators for journal publishers to determine the publishing behaviour of CE researchers as well as for each country’s science policy makers to formulate appropriate research policies and directions.

Keywords: Articles, Bibliometric, Bibliometric Analysis, Bibliometric Data, Bibliometrics, Chemical Engineering, Citation, Country’s Science Policy, Databases, Journal Citation Reports, Journal Studies, Malaysia, Publication, Publishing, Research, Researchers, Science, Scopus, Singapore, Southeast Asia

? Saad, M.S.M. and Zainab, A.N. (2009), An investigation of information seeking behaviour of Computer Science and Information Technology undergraduates: A qualitative approach. *Malaysian Journal of Library & Information Science*, **14** (3), 15-34.

Full Text: [2009\Mal J Lib Inf Sci14-3, 15.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14-3,%2015.pdf)

Abstract: It is a common fallacy to assume that undergraduates are skilled in finding and evaluating resources for their various learning needs. Information professionals need to find out strategies and courses of action undertaken by undergraduate students in order to perhaps improve information literacy skills or user education programmes. This qualitative study uses the diary, emails interaction and in depth face to face interview approach involving 14 final year Computer Science and Information Technology undergraduates whom shared their information search and use process. The objectives of this study are to find out the followings: (a) the decision on deciding research topics by final year students; (b) the sources and channels of information they use and prefer; (c) the utility of libraries and librarians; (d) the use of the Internet; (e) the search strategies adopted; (f) their thoughts on intellectual property and ethical issues. Among the main information sources used were the Internet, books and previous final year project reports. They also seem to rely a lot on their friends and lecturers as their source of information. Very few used journal articles, seminar papers or other sources. An understanding of their information seeking behaviour patterns is the focus of this paper. Informants’ thoughts and feeling on the library services and the ethical use of information will be shared.

Keywords: Education, Information, Information Literacy, Information Seeking Behaviour, Internet, Journal, Learning, Literacy, Papers, Qualitative Study, Research, Science, Students, Topics, Undergraduates, User Studies

? Tsay, M.Y. and Lin, Y.J. (2009), Scientometric analysis of transport phenomenon literature, 1900-2007. *Malaysian Journal of Library & Information Science*, **14** (3), 35-58.

Full Text: [2009\Mal J Lib Inf Sci14, 35.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14,%2035.pdf)

Abstract: The present study explores the characteristics of transport phenomenon literature from 1900 to 2007 based on the Science Citation Index Expanded (SCI (TM) Expanded) database and its implication using two scientometric techniques, namely Bradford-Zipf’s law and Lotka’s law. The results of this work reveal that the literature on transport phenomenon grows exponentially with an annual growth rate of about 8.67% for the last century. The document type and language distribution, country and institution productivity, core journals, journals with highly cited documents, most highly cited articles and leading authors on transport phenomenon are identified. The present study indicates that the journal literature on transport phenomenon confirms the typical S-shape for the Bradford-Zipf plot. The author productivity distribution however does not confirm with Lotka’s law by the Kolmogorov-Smirnov (K-S) goodness of fit test.

Keywords: Articles, Author Productivity, Bibliometric Analysis, Bibliometrics, Bradford-Zipf’s Law, Citation, Citation Analysis, Collaboration, Core, Database, Highly Cited Articles, Interdisciplinarity, Journals, Literature, Lotka’s Law, Nanoscience, Nanotechnology, Patterns, SCI, Science, Science Citation Index, Scientometric, Scientometrics, Transport

? Abdullah, R. and Ab Rahman, A. (2009), Fifteen years of *Jurnal Syariah* (1993-2007): A bibliometric study. *Malaysian Journal of Library & Information Science*, **14** (3), 59-76.

Full Text: [2009\Mal J Lib Inf Sci14, 59.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14,%2059.pdf)

Abstract: This study presents the result of various bibliometric patterns of articles published by the Jurnal Syariah for the period of 1993-2007. This Malaysian academic journal is devoted to the field of classical Islamic Law and its applications in modern times today. Data from each selected issue of the Jurnal Syariah were collected and statistically analysed using the Statistical Product and Service Solutions (SPSS). The study looked at variables which include authorship patterns, length of articles, number of articles published, author productivity, contributing institutions and subject area patterns. Among the significant findings are that single authorship is prevalent and accounted for about 90% of the articles published and the total number of articles published for the period of 1993-2007 was 285 articles. It was found that 89% of the articles were published in the Malay language. As for the references used, 98% were books, and 39% were journals cited. This study has demonstrated that despite its fifteen years of existence and multidisciplinary approach, contributors and citations of this journal has not yet international. Henceforth, this article provides significant suggestions and strategies for the future of the Jurnal Syariah.

Keywords: Articles, Author Productivity, Authors, Authorship, Bibliometric, Bibliometric Study, Bibliometrics, Books, Citations, Islamic Laws, Islamic Studies, Journals, Science, Shariah Studies, Single Journal Study

? Abrizah, A., Noorhidawati, A., Hilmi, M.R. and Azeana, D. (2009), What do the highly-rated and accredited LIS programmes inform us about education in digital libraries? *Malaysian Journal of Library & Information Science*, **14** (3), 77-93.

Full Text: [2009\Mal J Lib Inf Sci14-3, 77.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14-3,%2077.pdf)

Abstract: This paper examines the course offerings in digital library (DL) education, guided by the following specific research question: “What do the Library and Information Science (LIS)-accredited programmes inform us about education in digital libraries?” The paper provides an analysis of DL education which is included in the curriculum of 13 accredited and highly-rated library schools. Findings indicate that a significant DL content is present in the curriculum; and the inclusion is categorised into (a) an independent or full digital library course, (b) an integrated digital library course with other LIS topics, and (c) courses with close relation to DL processes. The title “Digital Libraries” appears to be the most popular title in the USA LIS schools sampled, and range from theory and practice, to project-based courses. The four UK LIS schools sampled do not have an explicit focus on DL topics. The curriculum areas for DL education suggested by Spinks and Cool (1999) are taken into account in analysing the content of the DL courses offered by the library schools. The paper also provides insights into the current state of DL education in Malaysia, and reports the findings of a small-scale survey, which has informed the LIS programme on how the DL course should be conducted. Findings from this paper may assist DL educators to develop DL modules and courses, standing on a solid foundation as well as following a standard curriculum design model of analysis, design/development, and evaluation practised by the renowned LIS schools worldwide.

Keywords: Ala-Accredited LIS Programmes, CILIP-Accredited LIS Programmes, Digital Librarianship, Digital Libraries, Digital Library Education, Education, Evaluation, Information Science, Library And Information Science, Library and Information Science (LIS) Education, LIS, Malaysia, Model, Research, Schools, Science, Survey, Topics, UK

? Baradar, R., Tajdaran, M., Musavi, S.M. and Abedi, H. (2009), Mapping the Iranian ISI papers on Nanoscience and Nanotechnology: A citation analysis approach. *Malaysian Journal of Library & Information Science*, **14** (3), 95-107.

Full Text: [2009\Mal J Lib Inf Sci14, 95.pdf](2009/Mal%20J%20Lib%20Inf%20Sci14,%2095.pdf)

Abstract: To clarify the interdisciplinary relationships of Iranian ISI papers on nanoscience and nanotechnology (N&N) and scheme its development pattern, a detailed citation analysis study was conducted. An increasing trend of publications from 1 paper in 1995 (with 26 citations) to 94 papers in 2007 (with 2425 citations) is obtained. With about 90%, journal papers have the most impacts on the N&N citations. Citation to books after 2003 is an indicative of N&N evolution. To the end of 2007, 14 different subject fields containing 25 disciplines contribute in the foundations of N&N. The 4 top subject fields in N&N are manufacturing and transport engineering (with 48.5% of all citations), physical sciences (15%), chemical sciences (14.7%), and nano (13.3%). Alternatively, metallurgy (with 28.01%), physic (17.33%) and materials engineering (16.48%) appear as the top three disciplines. In general, the standard deviations of the data are fairly large, indicating considerable variability among them. While N&N in Iran is a multidisciplinary field, the dynamic nature of nano causes to afford sources itself gradually. Besides, it is inevitable that novel nano sources enter in other fields in the future. In other words, the relationships among N&N and other disciplines appear mutually. Finally, in the outlining perspectives of N&N in Iran, the convergence of basic sciences (physics and chemistry) and engineering (materials engineering and metallurgy) have the highest impacts on their fundamental and applied aspects, respectively.

Keywords: Bibliometrics, Books, China, Citation, Citation Analysis, Citations, Collaboration, Institute of Scientific Information (ISI), Interdisciplinarity, Interdisciplinary Relationships, Iran, ISI, Manufacturing, Nanoscience, Nanoscience and Nanotechnology, Nanotechnology, Patterns, Publications, Science, Transport

? Nadiri, H. and Mayboudi, S.M.A. (2010), Diagnosing university students’ zone of tolerance from university library services. *Malaysian Journal of Library & Information Science*, **15** (1), 1-21.

Full Text: [2010\Mal J Lib Inf Sci15-1, 1.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-1,%201.pdf)

Abstract: Higher education is a dynamic fast growing service industry and every day it is more and more exposed to the globalization processes. Almost with every sector we face increased competition that also shows itself in higher education as well. Thus, measuring the quality of service in higher education is increasingly important and students should be considered as customers in the field of higher education. Many researchers suggest that for market orientation and differentiation, higher educational institutions should understand their customers, assess their needs, modify their offerings to meet those needs, and thereby boost customer satisfaction by delivering superior quality services. According to research findings service quality of library facilities is one of the most important factors that have a significant influence on students’ overall satisfaction from their universities. The most widely known and discussed scale for measuring service quality -SERVQUAL- has not been successfully adapted to and validated in the library context. The LibQUAL+ scale has been validated in some of the developed cultures but not in other cultural settings. So, there is a significant gap in the literature regarding this area of research. The present study addresses this gap by applying the LibQUAL+ among 358 students of a state-owned university in Northern Cyprus. A conceptual model LIBZOT is presented in this study, and the results demonstrate that evaluation of services can be scaled according to different types of expectations-’desired’ and ‘adequate’-and that students use these two types of expectations as a comparison standard in evaluating library services. The findings reveal that students have a narrow zone of tolerance with regards to the services provided by libraries.

Keywords: Academic Libraries, Academic-Libraries, Consumer Perceptions, Education, Evaluation, Expectations, Higher Education, Industry, Internet-Based Surveys, Libqual Plus, Library Services, Literature, Model, Perspectives, Quality, Research, Researchers, Service Quality, Servqual Scale, Student Satisfaction, Students, University, User Satisfaction, Zone of Tolerance

? Sagar, A., Kademani, B.S., Garg, R.G. and Kumar, V. (2010), Scientometric mapping of tsunami publications: A citation based study. *Malaysian Journal of Library & Information Science*, **15** (1), 23-40.

Full Text: [2010\Mal J Lib Inf Sci15, 23.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15,%2023.pdf)

Abstract: The objective of the study was to perform a scientometric analysis of all Tsunami related publications as per the Scopus (TM) database during 1997-2008. A total of 4338 publications and 21107 citations to these papers were received. The parameters studied include growth of publication, country-wise distribution of publications, activity index of countries, most-frequently cited publications, authorship pattern, co-authorship index, and distribution of keywords. United States of America, Japan, United Kingdom, India and Australia produced 54.20% of the total output. A spurt in number of publications was observed after the Indonesia’s tsunami occurred on 26 December 2004.

Keywords: Articles, Australia, Author Productivity, Authorship, Authorship Pattern, Bibliometric Analysis, Bibliometrics, Citation, Citation Analysis, Citations, Co-Authorship, Database, Growth, Highly Cited Authors, Impact, India, Indicators, Institutional Productivity, Mapping, Number of Publications, Publication, Publication Productivity, Publications, Science, Scientometric, Scientometric Analysis, Scientometrics, Scopus, Technology, Tsunami, United Kingdom, United States

? Halder, S., Roy, A. and Chakraborty, P.K. (2010), The influence of personality traits on information seeking behaviour of students. *Malaysian Journal of Library & Information Science*, **15** (1), 41-53.

Full Text: [2010\Mal J Lib Inf Sci15-1, 41.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-1,%2041.pdf)

Abstract: The present study was undertaken with the objective to explore the influence of the five personality dimensions on the information seeking behaviour of the students in higher educational institutions. Information seeking behaviour is defined as the sum total of all those activities that are usually undertaken by the students of higher education to collect, utilize and process any kind of information needed for their studies. Data has been collected from 600 university students of the three broad disciplines of studies from the Universities of Eastern part of India (West Bengal). The tools used for the study were General Information schedule (GIS), Information Seeking Behaviour Inventory (ISBI) and NEO-FFI Personality Inventory. Product moment correlation has been worked out between the scores in ISBI and those in NEO-FFI Personality Inventory. The findings indicated that the five personality traits are significantly correlated to all the dimensions of information seeking behaviour of the university students.

Keywords: Behaviour, Cognition, Education, Five Personality Dimensions, Graduate-Students, Higher Education, Individual-Differences, Information, Information Seeking, Information Seeking Behavior, Library Instruction, Model, Need, Performance, Product Moment Correlation, Scientists, Students, Systems, Universities, University, University Students

? Abusin, K.A. and Zainab, A.N. (2010), Exploring library anxiety among Sudanese university students. *Malaysian Journal of Library & Information Science*, **15** (1), 55-81.

Full Text: [2010\Mal J Lib Inf Sci15-1, 55.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-1,%2055.pdf)

Abstract: Library anxiety is one of the psychological barriers that encounter students when they are performing a library task. This study explores library anxiety among 51 Sudanese university students using diary method for data collection. The finding indicates that library anxiety among Sudanese university students are manifested into five dimensions, namely; (a) Negative perceptions towards library environment, (b) Negative perceptions towards peer students, (c) Negative perceptions towards library staff, (d) Negative perceptions towards library services, and (e) Psychological barriers. Details of statements under the dimensions highlight the issues that are unique and not covered by previous studies in library anxiety.

Keywords: Academic Libraries, Academic-Libraries, Attitudes, Barriers, Diary Method, Environment, Information-Seeking, Library Anxiety, Library Avoidance, Library Phobia, Perceptions, Scale, Service, Students, University

? Yusuf, F. and Nkiko, C. (2010), Involvement of non-professionals in cataloguing: a survey of practices in three academic libraries in Nigeria. *Malaysian Journal of Library & Information Science*, **15** (1), 83-90.

Full Text: [2010\Mal J Lib Inf Sci15-1, 83.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-1,%2083.pdf)

Abstract: The study examined the involvement of non-professionals in cataloguing practices in three academic libraries in Nigeria. Twenty five respondents comprising current cataloguers and those who had worked as cataloguers were used for the study. A descriptive survey method using a self-constructed questionnaire was used. Four research questions were posed and analysed using frequency counts and percentages. Results showed that the involvement of non-professionals in cataloguing is fast becoming a reality, with one university library depending more on non-professionals while the other two showed less dependence on them. Methods adopted by these libraries to ensure quality control include close supervision by professionals, training non-professionals in copy cataloguing, and designation of a librarian to constantly edit the catalogue for possible re-cataloguing. The use of prepared worksheets by librarians to be keyed in by non-professionals is the least used strategy. Other major findings include changes in cataloguing practices which comprise online cataloguing, cataloguing of Internet resources and electronic files, copy-cataloguing, different metadata structures, introduction of OPAC and the involvement of non-professionals in cataloguing practices. Outsourcing, procurement of ICT, employment of Systems Engineers as part of library staff, attendance of workshops and conferences among others were some of the strategies adopted to cope with these changes; however, the application of ICT was the most frequently used strategy. The study concluded that cataloguing practices in the libraries sampled have witnessed changes as a result of the application of ICT in organizing library materials which has in turn changed the role of cataloguers from merely providing bibliographic details of materials to that of supervision and other administrative functions, and in order to maintain relevance, librarians have been forced to build capacity in the area of ICT.

Keywords: Academic Libraries, Bibliographic, Cataloguing, Control, Internet, Involvement, Library Non-Professionals, Library Para-Professionals, Methods, Nigeria, Organization of Information, Quality Control, Questionnaire, Research, Strategy, Survey, Training, University

? Mishra, P.N., Panda, K.C. and Goswami, N.G. (2010), Citation analysis and research impact of National Metallurgical Laboratory, India during 1972-2007: A case study. *Malaysian Journal of Library & Information Science*, **15** (1), 91-113.

Full Text: [2010\Mal J Lib Inf Sci15, 91.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15,%2091.pdf)

Abstract: This paper provides an insight into the citation analysis of research publications of the National Metallurgical Laboratory (NML) during the period 1972-2007. It analysed 2830 most valuable citations spread over 561 publications made by the NML scientists and researchers indexed in Science Citation Index (SCI) retrieved through the Web of Science. It determines the research and citation impact using parameters such as extent of citation received in terms of number of citation per paper, year wise break up of citation, domain wise citation, self citations and citation by others, diachronous self citation rate, citing authors, citing institutions, highly cited papers and categories of citing documents, citing journals and impact factor. A Bradford plot constructed to determine the core-citing journals shows that the curve is a typical S shape which indicates subject maturity.

Keywords: Articles, Bibliometric Analysis, Bradford’s Law, Citation, Citation Analysis, Citation Impact, Citations, Highly Cited Papers, Impact, Impact Factor, India, Institutional Citation Analysis, Journals, Lotka’s Law, Productometric Analysis, Publications, Research, Researchers, SCI, Science, Science Citation Index, Self-Citation, Self-Citations, Uncitedness, Web of Science

? Karim, N.H.A. and Ansari, N.A. (2010), A cross-cultural evaluation of Bostick’s (1992) Library Anxiety Scale: Investigating the scale’s psychometric properties in a Malaysian university library environment. *Malaysian Journal of Library & Information Science*, **15** (1), 115-134.

Full Text: [2010\Mal J Lib Inf Sci15-1, 115.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-1,%20115.pdf)

Abstract: Sharon L Bostick’s (1992) Library Anxiety Scale has been widely used to assess library anxiety among library users. Little psychometric effort was undertaken to assess the scale’s psychometric properties in an environment where English is not the native language of the library users. This study was an attempt to cross-culturally validate the scale in a Malaysian university library environment where the population’s native language is not English. A 49-item modified version of Bostick’s (1992) Library Anxiety Scale was tested among 367 students drawn randomly from a population of 8,432 undergraduate students. The instruments were administered during classroom hours using a self-reported questionnaire. An 84% return rate was achieved in which the questionnaires that were returned were found to be usable. The findings revealed that a 5-factor solution was found which corresponded to the five factors as found by Bostick’s (1992) pioneering psychometric effort on library anxiety. The factor “barriers with staff” explained the greatest proportion of variance in the library anxiety construct which is consistent with previous studies on library anxiety. The overall scale as well as each of the five sub-scales was submitted to an internal reliability assessment using Cronbach’s internal reliability coefficient alpha. With the exception of the modified sub-scale “comfort with library technology” all the four sub-scales as well as the overall scale were found to have satisfied the 0.70 criteria as recommended by Nunnally and Bernstein (1994). As such the findings were found to be consistent with previous studies that found the scale to be valid as well as internally reliable. More psychometric efforts are needed before the scale can be said to be a useful instrument in assessing library anxiety among Malaysian university library users. A Malay version of Bostick’s (1992) scale would have to be tested before any sound conclusions can be made about the scale’s psychometric soundness and stability in an environment where English is not the native language.

Keywords: Academic Libraries, Assessment, Attitudes, Bostick’S Library Anxiety Scale, Environment, Evaluation, Graduate-Students, Impact, Library Anxiety Assessment, Psychometric Analysis, Questionnaire, Questionnaires, Scale, Students, University, User Perceptions of Libraries

? Isfandyari-Moghaddam, A. and Bahari-Movaffagh, Z. (2010), Evaluating and comparing search features of Web metasearch engines: A checklist-based approach. *Malaysian Journal of Library & Information Science*, **15** (2), 1-17.

Full Text: [2010\Mal J Lib Inf Sci15-2, 1.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-2,%201.pdf)

Abstract: This paper aims at evaluating and comparing search features of Web metasearch engines (MSEs). To do this, a total of 64 MSEs were identified and examined on the basis of first observations. However after examining them, about 70% of these MSEs were discarded and 19 cases, which were free of charge, accessible and compatible with the research objectives were kept for further analysis. A researcher-made checklist, composed of 50 items under five search engines’ general criteria (search operators, restrictors, result presentation, search help options and others) was used for data collection. It was found that AND, Phrase, Number of results per page, Keeping query searched, and Help were features that have been fully included in all 19 MSEs, while the features Anchor search and Size have been neglected by the MSEs examined. It should be also added that features Truncation, Keywords in title, URL, and Brief text have been highly supported by 18 cases (94.7%). The features Date, Cached, and Also try were observed only in one case (5.3%). It is suggested that the checklist used in this study be restructured for studying search features of Web search engines, digital libraries and other Internet search tools.

Keywords: Digital Libraries, Information Research, Information Retrieval, Internet, Internet Search Tools, Research, Search Engines, User Interfaces

? Abrizah, A. and Ahmad, R. (2010), Systemic barriers: The challenges in the provision of inclusive school libraries in Malaysia. *Malaysian Journal of Library & Information Science*, **15** (2), 19-40.

Full Text: [2010\Mal J Lib Inf Sci15-2, 19.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-2,%2019.pdf)

Abstract: Special Education Needs (SEN) students who have difficulties in learning have traditionally been marginalized within or even excluded from the school libraries. To explore the practices of the school library media service provision and programmes conducted for SEN students in the mainstream schools and understand conditions that may facilitate or deter the provision of an inclusive school library in a Malaysian setting, a total of 24 participants comprising special educators, teacher librarians and students with disabilities were interviewed. The study found that although examples of good practice of school library services and programmes were found, there is need for improvement in service delivery to SEN students. Much of this could be achieved by enhanced communication and cooperation between teacher librarians and special educators. The analysis suggests six barriers in the provision of inclusive school libraries: physical, resources, curriculum, policy, unintentional and intentional attitudinal barrier. The paper concludes with a consideration of possible strategies for improvements in provision of inclusive school libraries. It is hoped that the results will stimulate and encourage moves to create more effective and inclusive library arrangements for students with disabilities.

Keywords: Barriers, Disabilities, Education, Inclusive Education, Inclusive School Libraries, Learning, Malaysia, Policy, Schools, Special Education, Special Needs Children, Students, Students with Learning Disabilities

? Varaprasad, S.J.D., Sahoo, S. and Madhusudhan, S. (2010), Research contributions of J.S. Yadav to chemical sciences: A scientometric study. *Malaysian Journal of Library & Information Science*, **15** (2), 41-55.

Full Text: [2010\Mal J Lib Inf Sci15, 41.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15,%2041.pdf)

Abstract: This paper highlights quantitatively the growth and development of chemical science research by J.S. Yadav during the period from 1986-2009. During this period he has published 722 papers (702 research articles) in various domains. The data used was from Thomson/ISI Web of Science. This study attempts to evaluate the publications of J. S. Yadav in relation to his contribution to the knowledge domain of chemical science and his role for the advancement of chemical science in India and elsewhere in a span of about two and half decades. His papers have been scattered in 56 high impact factor scientific journals. The percentage of collaborative work (99.7) was very high. His highest degree of collaboration 0.1925, was found during 2002-2003. The h index of 41 after 24 years of scientific activity is a clear indication of his consistent publication productivity behaviour.

Keywords: Scientometrics, Bibliometrics, Citation Studies, Publication Productivity, h-Index, Organic Chemistry, Role Model Scientists

? Kassim, N.A. (2010), Information needs of Malaysian Bumiputera would-be entrepreneurs. *Malaysian Journal of Library & Information Science*, **15** (2), 57-69.

Full Text: [2010\Mal J Lib Inf Sci15-2, 57.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-2,%2057.pdf)

Abstract: This paper reports on the findings of a part of a study that aims to investigate the information needs of Malaysian Bumiputera entrepreneurs. The study adopted a quantitative approach and questionnaires were distributed to a sample of 400 Bumiputera would-be entrepreneurs who had attended entrepreneurial development courses. It was found that the types of business information needed by the respondents were preparation of business plan, followed by planning of cash flow, examination of business opportunities, and profit planning. The results indicated that the types of business information considered very important were information related to planning of cash flow, followed by preparation of business plan, profit planning, communications with clients, business opportunities, courses on entrepreneurship, and creativeness and innovativeness in business. The study found that respondents obtained most of their business information by talking to other entrepreneurs, followed by sharing experience with other entrepreneurs, discussing with friends/relatives, reading newspaper and magazines, and asking clients. The results revealed that the sources from which respondents obtained their business information were courses, followed by business exhibitions, Internet/e-mail, business premises, government agencies, and technical training. The respondents considered clients and other entrepreneurs as very important sources of business information. The study had a profound impact on making recommendations to business supporting agencies concerning entrepreneurs’ and business sectors’ information needs in Malaysia.

Keywords: Bumiputera Entrepreneurs, Business Information, Development, Impact, Information, Information Needs, Information Sources, Malaysia, Preparation, Quantitative, Questionnaires, Training

? Ansari, M.N. and Zuberi, N.A. (2010), Information seeking behaviour of media professionals in Karachi. *Malaysian Journal of Library & Information Science*, **15** (2), 71-84.

Full Text: [2010\Mal J Lib Inf Sci15-2, 71.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-2,%2071.pdf)

Abstract: The purpose of this study was to investigate the use of various information channels, the awareness of the existence of information sources, ways used for disseminating information and use of libraries among media professionals in Karachi. A questionnaire was used as an instrument for data collection for the survey. Data was gathered from 185 media professionals who belonged to three types of media houses (T. V, radio and newspaper). Findings indicate that library is the most used channel among newspaper professionals and television professionals. Reference service and newspaper clipping service are the most favorable information services in the library. Media professionals get to know of the information sources through common knowledge and review articles. Internet is the channel, which is being used increasingly by media practitioners; however use of Internet among newspaper practitioners is high as compared to radio and television practitioners. Quite surprisingly, the use of libraries among radio practitioners was found to be particularly low. All groups of the practitioners mentioned reading of book reviews published in newspapers to know the existence of an information source. This study would be helpful for librarians and information specialists, who are working in media house libraries for library planning and designing of library services in their parent organisation.

Keywords: Information, Information Behaviour, Information Seeking, Information Services, Internet, Journalists, Library Use, Media, Media Professionals, Newspaper Journalists, Pakistan, Questionnaire, Review, Survey

? Han, L.P. (2010), The history of an emerging multilingual public library system and the role of mobile libraries in post colonial Singapore, 1956-1991. *Malaysian Journal of Library & Information Science*, **15** (2), 85-108.

Full Text: [2010\Mal J Lib Inf Sci15-2, 85.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-2,%2085.pdf)

Abstract: This paper traces the historical background and development of public library services in postcolonial Singapore from 1956-1991, with special emphasis on multilingual public library system and the role of mobile libraries. After Sir Stamford Raffles founded Singapore in 1819 on behalf of the East India Company he planned to establish a college with a multilingual library. However, it began as an elementary school library (1823-1844) with English books, and evolved into a proprietary library (1844-1874), Government library (1874-1941), Japanese library (1942-1945) and Government library (1945-1958). In 1956 the library began to source books in the vernacular languages. In 1958 it became a National Library and public library. Two part-time branches and two mobile libraries known as the Library Extension were set up in 1960. By 1963, there were 7 per cent Malay books, 19 per cent Chinese books, 6 per cent Tamils books, and 68 per cent English books. The mobile library service points increased from 2 in 1964 to 12 in 1969. During the mid-1960s and up to 1970 the Library Extension Unit had about 20 per cent membership of the total public library system. Although Raffles wanted his proposed institution to have a multilingual library in 1823, it was not until 1970 that the library evolved into one when there was sufficient collection to make it into a multilingual public library system. After eight full-time branch libraries were gradually set up from 1970 to 1988, the mobile library services were gradually reduced and terminated in 1991.

Keywords: Children Library Services, Development, History, Japanese, Library History, Mobile Libraries, National Library of Singapore, Public Libraries, School Libraries

? Islam, M.A. and Hoq, K.M.G. (2010), Community internet access in rural areas: A study on Community Information Centres in Bangladesh. *Malaysian Journal of Library & Information Science*, **15** (2), 109-124.

Full Text: [2010\Mal J Lib Inf Sci15-2, 109.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-2,%20109.pdf)

Abstract: Information is an indispensable resource for the socio-economic development of any community as it is needed and utilized by society for its development and prosperity. The rural communities have different needs for information depending upon their functions, responsibilities and duties. Different community information centres are meeting up these demands through the provision of information services. The purpose of this article is to highlight community information centres established in the rural areas of Bangladesh and describe how these centres are playing a vital role for providing specific Internet-based information services to the rural communities. This article explores the major role of Community Information Centres (CICs) and its impact on the user communities in Bangladesh. Equal importance is also given to how the communities are getting the latest information facilities through CIC and explores how CIC can be strapped up to promote development of the rural communities in Bangladesh. This article also sees the sights of different community Internet access points in Bangladesh and identifies their service pattern and existing situations of internet services. It also highlights the different problems of CICs and an attempt has been made to suggest some effective measures and future directions for further development of Internet access points and CICs in Bangladesh.

Keywords: Community Information Centre (CIC), Development, Impact, Information, Information Communication Technology (ICT), Internet, Internet Community, Internet Facilities, Rural Community

? Yang, Y.H. and Tsaih, R.H. (2010), An investigation of research on evolution of altruism using informetric methods and the growing hierarchical self-organizing map. *Malaysian Journal of Library & Information Science*, **15** (3), 1-17.

Full Text: [2010\Mal J Lib Inf Sci15, 1.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15,%201.pdf)

Abstract: The purpose of this study was to investigate the characteristics of research related to evolution of altruism from 1971 to 2009 within the science citation index expanded (SCIE) and the social science citation index (SSCI) databases. This study showed how the growth of research related to evolution of altruism is a well known phenomenon, that statistics of the Bradford’s Law identified ten core altruism-related journals, and that the altruism-related data does not fit Lotka’s law. We applied Growing Hierarchical Self-Organizing Map (GHSOM), a text-mining Neural Networks tool, to obtain a hierarchical topic map. The topic map illustrated the delicate intertwining of subject areas and provided a more explicit illustration of the concepts within each subject area. Furthermore, the result of the topic map also reflects that evolutionary psychology based on neuroscience and other related discipline will play an importance role in the future exploring into the in-depth motivation of altruism.

Keywords: Altruism, Bases, Characteristics, Citation, Data, Databases, Evolution, Ghsom, Growing Hierarchical Self-Organizing Map, Growth, Index, Informetrics: Bibliometrics, Investigation, Journals, Law, Lotka Law, Methods, Neural-Network Research, Psychology, Purpose, Research, Role, Science, Science Citation Index, Scientometrics, Social, SSCI, Statistics, Text Mining

? Nwagwu, W. and Ibitola, T. (2010), Aspects of size and geography of African cyberspace. *Malaysian Journal of Library & Information Science*, **15** (3), 19-34.

Full Text: [2010\Mal J Lib Inf Sci15-3, 19.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-3,%2019.pdf)

Abstract: In this study, data on web links collected from 15 African countries, three with the highest Internet penetration in each of North, West, Central, East and South sub-regions were used to study the number and origins of links to Africa. The sample has a ratio of one Internet user per 12 persons. Altogether, all African countries generated a total of 124,047,702 Web pages and 30,546,967 inlinks to the pages, an average of about 0.25 links per page. The study sample constituted 28% of all the countries in the region, which generated 98,629,700 pages and 21,272,500 inlinks, an average of about 0.21 inlinks per page. South Africa ranked the highest in web pages and web links per population and also received the highest number of inlinks from other African and the G8 countries. However, Kenya linked other African countries more than the others. The study also found that population size does not relate to number of web pages, self-inlinks, and inlinks or penetration, but relates positively with number of Internet users. A major step in boosting use of Internet resources in Africa will be in developing policies that will encourage African countries to use information developed by other African countries.

Keywords: Africa, African Countries, Information, Internet, Internet Studies, Journals, Policies, South Africa, Web Impact Factor, Web Presence, Webometrics

? Sanni, S.A. and Zainab, A.N. (2010), Google Scholar as a source for citation and impact analysis for a non-ISI indexed medical journal. *Malaysian Journal of Library & Information Science*, **15** (3), 35-51.

Full Text: [2010\Mal J Lib Inf Sci15, 35.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15,%2035.pdf)

Abstract: It is difficult to determine the influence and impact of journals which are not covered by the ISI databases and Journal Citation Report. However, with the availability of databases such as MyAIS (Malaysian Abstracting and Indexing System), which offers sufficient information to support bibliometric analysis as well as being indexed by Google Scholar which provides citation information, it has become possible to obtain productivity, citation and impact information for non-ISI indexed journals. The bibliometric tool Harzing’s Publish and Perish was used to collate citation information from Google scholar. The study examines article productivity, the citations obtained by articles and calculates the impact factor of Medical Journal of Malaysia (MJM) published between 2004 and 2008. MJM is the oldest medical journal in Malaysia and the unit of analysis is 580 articles. The results indicate that once a journal is covered by MyAIS it becomes visible and accessible on the Web because Google Scholarindexes MyAIS. The results show that contributors to MJM were mainly Malaysian (91%) and the number of Malaysian-Foreign collaborated papers were very small (28 articles, 4.8%). However, citation information from Google scholar indicates that out of the 580 articles, 76.8% (446) have been cited over the 5-year period. The citations were received from both mainstrean foreign as well as Malaysian journals and the top three citors were from China, Malaysia and the United States. In general more citations were received from East Asian countries, Europe, and Southeast Asia. The 2-yearly impact factor calculated for MJM is 0.378 in 2009, 0.367 in 2008, 0.616 in 2007 and 0.456 in 2006. The 5-year impact factor is calculated as 0.577. The results show that although MJM is a Malaysian journal and not ISI indexed its contents have some international significance based on the citations and impact score it receives, indicating the importance of being visible especially in Google scholar.

Keywords: Analysis, Asia, Asian, Availability, Bibliometric, Bibliometric Analysis, China, Citation, Citation Analysis, Citations, Databases, Europe, General, Impact, Impact Analysis, Impact Factor, Indexation Status, Information, International, Internationalization, ISI, Journal, Journals, Malaysia, Medical, Medical Journal of Malaysia, MJM, MYAIS, Papers, Patterns, Productivity, Publication, Publication Productivity, Science, Scientometrics, Significance, Small, Source, Support, United States, Web

? Abrizah, A., Noorhidawati, A. and Kiran, K. (2010), Global visibility of Asian universities’ Open Access institutional repositories. *Malaysian Journal of Library & Information Science*, **15** (3), 53-73.

Full Text: [2010\Mal J Lib Inf Sci15-3, 53.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-3,%2053.pdf)

Abstract: This paper highlights the current state of open access repositories of Asian universities. It describes their characteristics in terms of types, contents, disciplines, language, technical and operational issues, and policy. The web performance of Asian institutional repositories as reflected through global visibility and impact of the repositories in Open Directory of Open Access Repository (OpenDOAR), is also examined; as well as the performance of Asian top-ranked universities in the archiving and sharing their research output through institutional repositories, based on the Ranking Web of World Repositories (RWWR). Findings signify Japan as the biggest contributor of Asian repositories, followed by India and Taiwan. An investigation of the status of these universities revealed that out of the 191 Asian organizational institutional repositories identified in this study, only 48 are listed in the Top 400 RWWR. This implies that only 12% of Asian institutional repositories are visible and incorporate good practices in their web publication as extracted from the quantitative webometrics indicators used by the ranking. Out of these 48 institutions, 29 are among the Asian Top 200 universities. However, only 14 of these 29 universities were ranked top 100 in the RWWR. It is revealed that some of the top ranked universities in Asia are not actively contributing to the open access movement. It is suggested that if the web performance of an institutional repository of a research institution is below the expected position, the university authorities should reconsider their web policy to increase the volume and quality of their intellectual output / research publications through institutional repositories.

Keywords: Asia, Asian University Ranking, Digital Libraries, Faculty, Impact, Institutional Repositories, Open Access, Open Access Initiatives, Policy, Publication, Publications, Quantitative, Ranking, Ranking Web of World Repositories, Research, Research Output, University, Visibility, Webometrics

? Rasul, A. and Singh, D. (2010), The role of academic libraries in facilitating postgraduate students’ research. *Malaysian Journal of Library & Information Science*, **15** (3), 75-84.

Full Text: [2010\Mal J Lib Inf Sci15-3, 75.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-3,%2075.pdf)

Abstract: Universities are seeking to play a key role in the research and development process. An important element in the research process is the accessibility of information resources and services provided by libraries. Postgraduate students are key producers of research in universities, and an important element in their research process is the access to information. This study examines postgraduate students’ views on the role of the academic library services in facilitating their research and their satisfaction with the sources and services currently provided. Data was collected from 375 randomly selected postgraduate students in four Malaysian public universities. The findings show that the majority (90.1%) of respondents acknowledged the important role of library in facilitating research, and 72.5% of the respondents were satisfied with the current role being played by the libraries. However, certain areas needed to be improved such as longer opening hours for physical visits, in spite of the facilities for remote access assistance for supporting students’ research. The findings will be useful to academic libraries in providing better services to postgraduate students for their research.

Keywords: Academic Libraries, Development, Information, Malaysia, Postgraduate Students, Research, Research and Development, Research Facilities, Students, Universities

? Erfanmanesh, M.A., Didegah, F. and Omidvar, S. (2010), Research productivity and impact of Library and Information Science in the Web of Science. *Malaysian Journal of Library & Information Science*, **15** (3), 85-95.

Full Text: [2010\Mal J Lib Inf Sci15, 85.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15,%2085.pdf)

Abstract: This study aims to investigate world scientific productivity of LIS researchers, their visibility and impact of their publications. A total of 99789 documents published in 61 LIS journals were extracted from WoS during 1998-2007 and were then analyzed. Based on the results, no significant differences were found among frequencies of LIS publications in different years. The results of Chi-square test clearly proves this finding (Chi(2) value=.001, df=9, p>.05). The growth rate of LIS citations showed that the number of citations has grown more than the number of LIS publications over the period under consideration. The number of citations received by each LIS publication was 0.27 on average. More than 60 percent of all LIS publications and about 40 percent of all citations to LIS were made by US researchers. Computer Science researchers have mostly cited LIS publications in their research. Among all institutions, The Scientist is the most productive institution in LIS. In addition, more than 60 percent of LIS papers were published in Library Journal.

Keywords: Articles, Authors, Chi-Square, Citation Analysis, Citation Analysis, Citations, Growth, Growth Rate, Impact, Institutions, Journals, Library And Information Science, LIS, Papers, Productivity, Publication, Publications, Research, Research Productivity, Scientific Productivity, Scientometrics, US, Visibility, Web of Science, World

? Zainab, A.N. (2010), Open Access repositories and journals for visibility: Implications for Malaysian libraries. *Malaysian Journal of Library & Information Science*, **15** (3), 97-119.

Full Text: [2010\Mal J Lib Inf Sci15-3, 79.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-3,%2079.pdf)

Abstract: This paper describes the growth of Open Access (OA) repositories and journals as reported by monitoring initiatives such as ROAR (Registry of Open Access Repositories), Open DOAR (Open Directory of Open Access Repositories), DOAJ (Directory of Open Access Journals), Directory of Web Ranking of World Repositories by the Cybermetrics Laboratory in Spain and published literature. The performance of Malaysian OA repositories and journals is highlighted. The strength of OA channels in increasing visibility and citations are evidenced by research findings. It is proposed that libraries champion OA initiatives by making university or institutional governance aware; encouraging institutional journal publishers to adopt OA platform; collaborating with research groups to jumpstart OA institutional initiatives and to embed OA awareness into user and researcher education programmes. By actively involved, libraries will be free of permission, licensing and archiving barriers usually imposed in traditional publishing situation.

Keywords: Articles, Barriers, Citations, Digital Repositories, Education, Impact, Institutional Repositories, Journal, Journals, Literature, Open Access Journals, Publishing, Ranking, Research, Spain, University, Visibility

? Kamraninia, K. and Abrizah, A. (2010), Librarians’ role as change agents for institutional repositories: A case of Malaysian academic libraries. *Malaysian Journal of Library & Information Science*, **15** (3), 121-133.

Full Text: [2010\Mal J Lib Inf Sci15-3, 121.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-3,%20121.pdf)

Abstract: The primary reason for establishing an institutional repository is to increase the visibility of the institution’s research output by making it Open Access. Academic libraries are becoming very involved in managing electronic scholarly products and participating in the evolving scholarly communication process through institutional repositories. Although institutional repositories can make room for easier access to universities’ research output, unfortunately it is not fully developed in some academic institutions. The origin of this problem is that there are known instances where librarians in-charge of institutional repository are unaware of their roles, and are unskilled in implementing the institutional repository. This paper describes a study conducted on the roles of librarians in the deployment and content recruitment of institutional repositories in eight (8) universities in Malaysia. Sample for this study are librarians who are involved with the development and implementation of institutional repository in their respective universities. The study reveals that the act of collecting materials for depositing is mainly done by librarians rather than the authors and researchers. Providing training sessions, holding meetings in departments and faculties, and also linking of the institutional repository website from the university and faculties’ website have the highest rank in librarians’ approach to promote the institutional repository. The paper also discusses the process of depositing, motivation factors, roles, marketing and benefits of institutional repository that will have reference value for the librarians who desire to embark on an institutional repository.

Keywords: Academic Libraries, Authors, Collection, Development, Digital Libraries, Institutional Repositories, Malaysia, Open Access Initiatives, Primary, Research, Research Output, Researchers, Roles of Librarians, Training, University, Visibility

? Mahbuba, D., Rousseau, R. and Srivastava, D. (2010), A scientometric analysis of health and population research in South Asia: Focus on two research organizations. *Malaysian Journal of Library & Information Science*, **15** (3), 135-147.

Full Text: [2010\Mal J Lib Inf Sci15, 135.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15,%20135.pdf)

Abstract: In this article we provide a scientometric comparison between two health and population research organizations, namely the International Centre for Diarrhoeal Disease Research in Bangladesh (ICDDR,B) and the National Institute of Cholera and Enteric Diseases (NICED) in India, during the period 1979-2008. We study these two institutes because they conduct similar research and because of their collaboration ties. Data are collected from the Web of Science (WoS) as well as from official records of these two organizations. The analysis presents the evolution of publication activities. Special attention is given to research impact through time series of the institutional h-and R-indices, as well as to the trend in yearly citations received. Types of publications, international collaboration with other countries, top scientists and most cited articles co-authored by scientists from these institutions are highlighted. It is observed that female scientists play a minor role in these two institutes.

Keywords: Analysis, Asia, Bangladesh, Citation Studies, Citations, Collaboration, Comparison, Evolution, Female, h-Index, h-Index, Health, Impact, India, Institutions, International, Minor, Population, Publication, Publication Productivity, Publications, Records, Research, Research Impact, Role, Science, Scientometric, Scientometrics, Time Series, Trend, Web of Science

? Karim, N.H.A. (2010), The impact of work related variables on librarians’ organizational commitment and job satisfaction. *Malaysian Journal of Library & Information Science*, **15** (3), 149-163.

Full Text: [2010\Mal J Lib Inf Sci15-3, 149.pdf](2010/Mal%20J%20Lib%20Inf%20Sci15-3,%20149.pdf)

Abstract: This study attempted to assess the impact of five (5) work related variables (role conflict, role clarity, job autonomy, job performance feedback and job involvement) on organizational commitment and job satisfaction among Malaysian university librarians. The study sought to address the following research questions: (a) do work related variables such as role conflict, role clarity, job autonomy, job performance feedback and job involvement correlate significantly as well as significantly predict the variation in organizational commitment and job satisfaction among university librarians in Malaysia; and (b) does this set of five (5) work related variables have a greater/lesser impact on organizational commitment as compared to job satisfaction or vice versa. A proportionate stratified random sampling technique was employed and questionnaires were distributed to 222 respondents comprising mainly of professionally trained library employees. A response rate of 63% was achieved resulting in 139 usable questionnaires that were returned. The findings of this study were based on the analysis of 139 usable questionnaires that were returned. The findings revealed that of the five (5) work related variables that were employed, all were found to be correlates of organizational commitment. Of these five correlates however, only three (3) were found to have statistically significant predictive relationship with organizational commitment: role clarity, job autonomy and job involvement Collectively these three (3) predictors account for 31.8% of the variance in organizational commitment. Of the five (5) work related variables that were employed to examine their relationship with job satisfaction, only four were found to correlate significantly with job satisfaction: role conflict, role clarity, job autonomy and job performance feedback. Of these 4 work correlates, only two (2) were found to significantly predict the variation in job satisfaction. Collectively these two variables (role conflict and role clarity) account for 16.3% of the variance in job satisfaction. Hence, the impact of work related variables was greater for organizational commitment (31.8% of the variance) than for job satisfaction (16.3% of the variance). Only role clarity was found to be a significant correlate as well as a significant predictor of organizational commitment as well as job satisfaction.

Keywords: Academic Librarians, Antecedents, Consequences, Context, Feedback, Impact, Involvement, Job Satisfaction, Malaysia, Organizational Commitment, Questionnaires, Research, University, University Librarians

? Babalhavaeji, F. and Kermani, Z.J. (2011), Knowledge sharing behaviour influences: a case of Library and Information Science faculties in Iran. *Malaysian Journal of Library & Information Science*, **16** (1), 1-14.

Full Text: [2011\Mal J Lib Inf Sci16-1, 1.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16-1,%201.pdf)

Abstract: The dynamism of a new economy requires information professionals to not only quickly create knowledge but also to acquire and apply knowledge through knowledge sharing. As such, determining factors that may influence knowledge sharing behaviour constitutes an important area of research. This paper aims to determine the factors that influence knowledge sharing amongst Library and Information Science (LIS) faculties, which in this context refers to attitude, intention and intrinsic motivation. Also, the paper identifies the effect of two demographic variables (type of institute and length of teaching experience) on knowledge sharing behaviour. Data were collected through survey questionnaire returned by 93 full-time LIS teaching staff in governmental and private universities (Islamic Azad universities) in Iran. Results showed that among demographic variables a significant difference was found between knowledge sharing behaviour of LIS educators with different teaching experiences (. 027) but observed no significant difference between knowledge sharing behaviour of LIS faculties working in governmental universities and those working in Islamic Azad universities. The researchers also found a significant relationship (0.000) between attitude of educators toward knowledge sharing and their intention to share knowledge. Results showed that intention and intrinsic motivation influence knowledge sharing behaviour of the LIS educators sampled.

Keywords: Attitude, Climate, Information, Information Professionals, Information Science, Intrinsic Motivation, Iran, Knowledge, Knowledge Sharing Attitude, Knowledge Sharing Behaviour, Knowledge Sharing Intention, Library and Information Science, Library and Information Science Educators, Motivation, Questionnaire, Research, Researchers, Science, Survey

? Maidabino, A.A. and Zainab, A.N. (2011), Collection security management at university libraries: Assessment of its implementation status. *Malaysian Journal of Library & Information Science*, **16** (1), 15-33.

Full Text: [2011\Mal J Lib Inf Sci16-1, 15.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16-1,%2015.pdf)

Abstract: This study examines the literature on library security and collection security to identify factors to be considered to develop a collection security management assessment instrument for university libraries. A “house” model was proposed consisting of five factors; collection security governance, operations and processes, people issues, physical and technical issues and the security culture in libraries. An assessment instrument listing items covering the five factors was pilot tested on 61 samples comprising chief librarians, deputy librarians, departmental, sectional heads and professional staff working in four university libraries in Nigeria. The level of security implementation is assessed on a scale of 1=not-implemented, 2=planning stage, 3=partial implementation, 4=close to completion, and 5=full implementation. The instrument was also tested for reliability. Reliability tests indicate that all five factors are reliable with Cronbach’s alpha values between 0.7 and 0.9, indicating that the instrument can be used for wider distribution to explore and assess the level of collection security implementation in university libraries from a holistic perspective.

Keywords: Academic-Libraries, Africa, Assessment, Assessment Instrument, Collection Security, Literature, Model, Nigeria, Professional, University, University Libraries

? Sombatsompop, N., Markpin, T., Ratchatahirun, P., Yochai, W., Ittiritmeechai, S., Premkamolnetr, N. and Wongkaew, C. (2011), Research productivity and impact of ASEAN countries and universities in the field of energy and fuel. *Malaysian Journal of Library & Information Science*, **16** (1), 35-46.

Full Text: [2011\Mal J Lib Inf Sci16, 35.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2035.pdf)

Abstract: The research performances for Association of Southeast Asian Nations (ASEAN) countries and universities in the energy and fuel field were assessed using the standard bibliometric indicators proposed by the Centre for Science and Technology, University of Leiden, The Netherlands; and h-index, all the data being retrieved from the Web of Science (WoS) database during 2003-2009. The results suggested that Thailand had the highest number of published articles while Singapore was positioned first as concerns total citations and citations per publication. All the selected ASEAN countries seemed to publish their research works in a similar group of energy and fuel journals, while 15-50% of the published articles for the ASEAN universities had never been cited after publication. The research performance of Singapore was found to exceed the worldwide average reference while those of Malaysia, Thailand and Vietnam were just about average; those for the rest of the ASEAN countries were positioned below. At the university level, Nanyang Technology University (Singapore), National University of Singapore (Singapore) and King Mongkut’s University of Technology Thonburi (Thailand) were the top three ASEAN universities with the highest publication volumes, total citations and h-index values. The variations in h-index values for ASEAN universities most correlated with those in total citations. There was no apparent relationship between the h-index and ratio of citation/article to average field citation score (CPP/FCSm) values observed in this work. In conclusion, the research performances of ASEAN countries and their selected universities have now been revealed and discussed for the first time in relation to worldwide references.

Keywords: Articles, Asian, Bibliometric, Bibliometric Indicators, Bibliometrics, Citation, Citations, Data, Database, Disciplines, Energy, Field, First, h Index, h-Index, Impact, Index, Indicators, Industry Collaboration, Journals, Malaysia, Performance, Productivity, Publication, Publication Productivity, Quality, Reference, References, Research, Research Performance, Research Performance, Research Productivity, Science, Standard, Thailand, The Netherlands, Universities, University, Vietnam, Web of Science, Work

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Full Text: [2011\Mal J Lib Inf Sci16-1, 47.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16-1,%2047.pdf)

Abstract: This study aims to develop an integrative understanding of the Big Five Personality (BFP) factors supporting or inhibiting individuals’ online entertainment knowledge sharing behaviours. Survey data are collected from 255 university students from two Malaysian universities. As hypothesised, structural equation modelling shows that extraversion and neuroticism are positively related to the attitude towards knowledge sharing. Openness to experience is found to have an inverse relationship with the attitude towards knowledge sharing. Subjective norm is positively related to the attitude towards knowledge sharing. Both attitude towards knowledge sharing and subjective norm are found to be independently and significantly related to the intention to share knowledge, which significantly influences the knowledge sharing behaviour. The research model proposed in the present study is useful to other researchers seeking to understand the personality factors that influence the knowledge sharing behaviour among the organisational communities. The results of this study provide empirical evidence for a new model that shows that the BFP factors are implicated in individuals’ knowledge sharing behaviour. This study and its findings have filled the research gap in the literature of the BFP factors and knowledge sharing behaviours. Furthermore, the inclusion of the BFP factors in the Theory of Reasoned Action framework is an important distinction that other studies have not established.

Keywords: 5-Factor Model, Attitude, Big Five Personality, Determinants, Dimensions, Experience, Higher Education, Job-Performance, Knowledge Sharing Behaviour, Literature, Malaysia, Model, Motivation, Online Entertainment, Planned Behavior, Reasoned Action, Research, Researchers, Structural Equation Modelling, Students, Theory, Traits, University

? Klaib, F.J. (2011), Users’ ratings on the improved library orientation programme at Zarqa Private University: A comparative study. *Malaysian Journal of Library & Information Science*, **16** (1), 63-72.

Full Text: [2011\Mal J Lib Inf Sci16-1, 63.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16-1,%2063.pdf)

Abstract: Findings of a study on library orientation programme conducted in 2008 at Zarqa Private University Jordan revealed that the offered programme had focused more on theoretical rather than the practical aspects. Subsequently, another study was conducted whereby an improved programme was offered to first year students in the second semester of the academic year 2008/2009. The programme covers three courses which concentrated on (a) practical library skills, (b) writing research requirements and (c) formulating research methodology. This study makes comparisons between the students’ ratings on their perceived achievement of the programme objectives in both studies. Data were collected from 155 usable questionnaires returned by the population of 621 first year students (25% response rate). Study findings indicate that (a) the average of mean of students’ ratings on the achievement of the practical objectives of the improved library orientation programs is higher (3.28) than the mean found in the previous study (2.91); and (b) in spite of the improvement of respondent’s ratings in the current study, there is still a need, in the future, to offer long time library orientation programmes that concentrate on more practical aspects.

Keywords: Academic Libraries, Bibliographic Instruction, Comparative Study, Information Literacy, Information Literacy, Jordan, Library Orientation Programme, Methodology, Questionnaires, Research, Students, University, User Education, Writing

? Manuri, I. and Yaacob, R.A.R. (2011), Perceptions of knowledge creation, knowledge management processes, technology and applications in military organisations. *Malaysian Journal of Library & Information Science*, **16** (1), 73-85.

Full Text: [2011\Mal J Lib Inf Sci16-1, 73.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16-1,%2073.pdf)

Abstract: Current and future warfare depend on sophisticated sensor and imaging technologies and advanced communications and computers which demand the Malaysian Armed Forces (MAF) to develop its ability towards managing the battle space effectively. The development of modern warfare is reflected by the rising importance of having knowledge advantage and information supremacy over adversaries. Leadership, sense-making, problem-solving and decision-making are more complex and more demanding in military situations. Command and control is taking on new dimensions, and the role of military personnel is evolving into that of ‘knowledge force’. A study on military officers of the MAF of perception towards Knowledge Management (KM) which incorporates knowledge creation, KM processes, technology and applications was conducted in the military environment. The focus of the study is to examine the perceptions of military personnel toward the KM key drivers, which include the people, process, and technology. The results of the study indicated that the demographic elements have influenced over the creation of knowledge, and the applications of KM were influenced by the KM processes and technology infrastructure in the MAF. The innovation of KM in the MAF could be implemented with the right leadership support in line with the aspiration of transformation towards developing Knowledge Force of the MAF.

Keywords: Control, Decision Making, Decision-Making, Development, Environment, Imaging, Information, Information Technology, Innovation, Knowledge, Knowledge Creation, Knowledge Management, Leadership, Malaysia, Management, Military, Perception, Perceptions, Sensemaking

? Kwon, N. and Song, H. (2011), Personality traits, gender, and information competency among college students. *Malaysian Journal of Library & Information Science*, **16** (1), 87-107.

Full Text: [2011\Mal J Lib Inf Sci16-1, 87.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16-1,%2087.pdf)

Abstract: This study examines the influence of personality traits on information competency. Furthermore, it seeks to determine whether or not gender moderates the relationship between personality traits and information competency. Data were collected using standardized survey instruments, including Costa and McCrae’s NEO-Five Factor Inventory. The surveys were administered to a convenient sample of 185 college students at a large public university in the southeastern United States. The study results show that three of the five personality traits were significant determinants of information competency among the population sample. Those students, who are more conscientious, open to experience, and extroverted tended to report greater information competency than students who are not. Neither neuroticism nor agreeableness was identified as determinants. Revealing the moderating role of gender, the study uncovers gender-specific personality traits that affect information competency. Specifically, the study finds extroversion to be a male-specific trait and openness to experience a female-specific trait. The results identify conscientiousness as the most consistent and robust determinant of information competency across both genders. The concluding analysis relates the findings’ implications to information literacy.

Keywords: Behavior, College Students, Cultures, Determinants, Exploration, Gender, Information, Information Competence, Information Literacy, Information Seeking, Internet Use, Literacy, Patterns, Perceived Social Support, Personality Traits, Seeking, Self-Efficacy, Students, Survey, Systems, Technology Use, University

? Abrizah, A. and Wee, M.C. (2011), Malaysia’s computer science research productivity based on publications in the Web of Science, 2000-2010. *Malaysian Journal of Library & Information Science*, **16** (1), 109-124.

Full Text: [2011\Mal J Lib Inf Sci16, 109.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%20109.pdf)

Abstract: A number of studies have appeared that evaluate the productivity of computer science scholars and their institutions. The aim of this work is to estimate the research productivity of Malaysia’s computer science researchers and their affiliated institutions. To achieve the objectives of the study, we employed the bibliographic repository that is made available to the world’s scientific research, which is the Thomson’s Web of Science (denoted as CWTS-WoS) database. The 903 research works produced by Malaysia’s computer science researchers, published as journal article (74.8 percent) and proceedings (25.2 percent) covered by the database from 2000 to 2010 were evaluated. The productivity of authors and core journals they published in have been determined using Lotka’s and Bradford’s Law. Some of the important findings are that most articles (54.9 percent) are multi-authored, author productivity is not in agreement with Lotka’s law, the maximum number of articles were published in the Lecture Notes of Computer Science, distribution of articles is quite close to Bradford’s Law, and the Multimedia University ranked first for the maximum number of publications (22.3% percent).

Keywords: Author Productivity, Authors, Bibliometrics, Citation, Collaboration, Computer Science, Database, Distribution, First, Institutions, Journal, Journal Article, Journals, Law, Lotka’s Law, Malaysia, Perceptions, Productivity, Publications, Quality, Ranking, Research, Research Productivity, Scholarly Publications, Science, Scientific Research, Technology, University, Web of Science, Work

? Yap, C.S. and Rashid, M.Z.A. (2011), Acquisition and strategic use of competitive intelligence. *Malaysian Journal of Library & Information Science*, **16** (1), 125-136.

Full Text: [2011\Mal J Lib Inf Sci16-1, 125.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16-1,%20125.pdf)

Abstract: This study investigates the current status of competitive intelligence (CI) practices in Malaysia, and how managers acquire and use CI from various sources. Data are collected through mail questionnaire survey from 123 companies listed on Bursa Malaysia. More than half of the surveyed companies have a formal CI unit in their organisation. These units are mostly located within the marketing or market research or corporate planning department and has been established from 5 to 9 years. On average, 2 to 5 full-time personnel are assigned to take charge of CI activities. The top three sources managers acquire CI are newspapers and periodicals, the Internet and extranets, and customers. Whereas, the top three sources where CI is used in strategic decision making are customers, competitors, and newspapers and periodicals. In terms of source category, while the frequency of acquiring CI is higher from external impersonal sources, the frequency of using external and personal sources in strategic decision making is significantly higher than internal and impersonal sources. The article includes implications and recommendations for future studies.

Keywords: Competitive Intelligence Practices, Decision Making, Decision-Making, Environmental Uncertainty, Executives, Intelligence Acquisition, Intelligence Sources, Intelligence Use, Internet, Malaysia, Performance, Periodicals, Questionnaire, Questionnaire Survey, Research, Smes, Strategic Decision Making, Survey

? Chuttur, M.Y. (2011), Exploratory study of video collection browsing behaviour of patrons in an academic library. *Malaysian Journal of Library & Information Science*, **16** (1), 137-149.

Full Text: [2011\Mal J Lib Inf Sci16-1, 137.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16-1,%20137.pdf)

Abstract: Previous studies on browsing have mostly focused on print materials and websites. The present research investigates the browsing behaviour of patrons when interacting with video collections. Using non-participant observation method, 22 patrons were observed browsing video collections in a large Midwestern university library over a period of three days with each observation lasting for an hour. To supplement some of the observations made, four of the observed participants were also interviewed. Observations show that when compared to previously reported findings on browsing behaviour of patrons with print materials and websites, the same browsing patterns seem to emerge when individuals interact with video collections. In addition, this study reveals that patrons frequently showed feelings of frustrations when it came to selecting a video. One possible reason could be the lack of information available to patrons for helping them in their decision making process. Further studies are, however, required to substantiate this claim.

Keywords: Browsing Behavior, Decision Making, Decision-Making, Information, Information Behaviour, Non-Participant, Observation, Research, Shelf Browsing, Text, University, Video Collections

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Full Text: [2011\Mal J Lib Inf Sci16, 1.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%201.pdf)

Abstract: The scientific performance of National Taiwan University (NTU) and Peking University (PKU) were compared by two indicators, namely citations per publication and h-index, based on the data extracted from the Science Citation Index Expanded (SCI-Expanded), Social Science Citation Index (SSCI), and Arts & Humanities Citation Index (A&HCI) Web of Science from 2000 to 2009. Analyzed aspects covered publication outputs, publication patterns, and international and inter-institutional collaborations of the two universities. The two universities were in the same scale based on the number of publications. Articles from electrical and electronic engineering dominated the other articles in NTU while PKU researchers published a great number of articles in the basic science fields. Material science was the new field for these two universities. The USA had the greatest number of collaborated articles accounting for 15% and 12% of total articles with NTU and PKU respectively. Article impact followed a decreasing order of international collaboration, inter-institutional collaboration, and independent articles for both universities. PKU articles had higher visibility. In addition, the Essential Science Indicators were applied to investigate the research activities of NTU and PKU.

Keywords: Articles, Bibliometric, Bibliometric Indicators, Citation, Citations, Citations Per Publication, Collaboration, h Index, h-Index, Humanities, Impact, Index, Indicators, International Collaboration, Publication, Publications, Research, Research Performance, Researchers, Science, Science Citation Index, Science Indicators, Scientometrics, SSCI, University, Visibility, Web of Science

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Full Text: [2011\Mal J Lib Inf Sci16, 21.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2021.pdf)

Abstract: The purpose of the study is to examine the factors affecting library use amongst university students. Logistic regression analysis is applied on data collected using stratified random questionnaire-based interviews of 388 students of a public university in Malaysia. Results of the marginal effects indicate that students of Indian and other descent are more likely to use the library than their Malay cohorts. In addition, those who have attended library induction sessions, those who believe that the library provides a useful avenue for them to achieve their academic goals, and frequent online users are more likely to utilize the library than their cohorts, all else equal. Students in their third/fourth/final year of studies have a lower propensity for library visits than their second year counterparts, ceteris paribus. Meanwhile, factors such as gender, parental education, campus residence, field of study, and job status do not affect library utilization in a statistically significant manner. Based on these results, several observations are noted vis-a-vis the determinants of library use amongst university students.

Keywords: Determinants, Education, Gender, Library Use, Logit Analysis, Malaysia, Students, University, University Students, Utilization

? Anwar, M.A. and Al-Daihani, S. (2011), Literature on terrorism: A bibliometric analysis of articles published during 1981-1990. *Malaysian Journal of Library & Information Science*, **16** (2), 33-43.

Full Text: [2011\Mal J Lib Inf Sci16, 33.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2033.pdf)

Abstract: This study conducted a bibliometric analysis of papers on terrorism published in journals from 1981-1990. The 402 citations were retrieved from Social Science Citation Index (SSCI) via DIALOG. The findings show that the annual growth of this literature is unstable. These papers come from many disciplines indicating that terrorism has not yet developed into a specialty. The literature is dispersed, mostly thin, in 139 journals with no identifiable core. Single-author and English language publications are dominant. Most of the papers originate in the U.S.A and U.K. It is suggested that indexing should be expanded to cover journals published in developing countries and their languages. It is also suggested that studies on larger samples should be conducted to identify rates of growth, core authors, core journals, and changes in research topics.

Keywords: Authors, Bibliometric, Bibliometric Analysis, Citation, Citations, Developing Countries, Indexing, Journals, Literature, Papers, Publications, Research, Science Citation Index, Terrorism Literature

? Ismail, R. and Zainab, A.N. (2011), Information systems security in special and public libraries: An assessment of status. *Malaysian Journal of Library & Information Science*, **16** (2), 45-62.

Full Text: [2011\Mal J Lib Inf Sci16, 45.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2045.pdf)

Abstract: Explores the use of an assessment instrument based on a model named library information systems security assessment model (LISSAM) to assess the 155 status in special and public libraries in Malaysia. The study aims to determine the implementation status of technological and organizational components of the LISSAM model. An implementation index as well as a scoring tool is presented to assess the IS safeguarding measures in a library. Data used was based on questionnaires distributed to a total of 50 individuals who are responsible for the information systems (IS) or IT in the special and public libraries in Malaysia. Findings revealed that over 95% of libraries have high level of technological implementation but 54% were fair poorly on organizational measures, especially on lack of security procedures, administrative tools and awareness creation activities.

Keywords: Assessment, Countermeasures, Information, Information Systems, Information Systems Security, Libraries, Malaysia, Model, Organizational Measures, Policy, Questionnaires, Sample-Size, Security Practices, Technological Measures

? Kademani, B.S., Sagar, A. and Bhanumurthy, K. (2011), Research and impact of materials science publications in India: 1999-2008. *Malaysian Journal of Library & Information Science*, **16** (2), 63-U66.

Full Text: [2011\Mal J Lib Inf Sci16, 63.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2063.pdf)

Abstract: The study analyses the materials science publications in India for a period of ten years (1999-2008) based on the Scopus database. The objective of the study was to perform a scientometric analysis of all materials science research publications by Indian scientists. The parameters studied include growth of publications and citations, relative growth rate and doubling time, domain-wise distribution of publications and citations, activity index, Citation Index, national and international collaboration, highly productive institutions, highly productive authors, highly preferred journals and highly cited publications. A total of 14849 publications were published by the Indian scientists in materials science during 1999-2008 which received 94610 citations. The average number of publications per year was 1484.90. The average number of citations per publication was 6.37. The highest number of publications 1953 was published in 2007. The highest number of citations 12901 was received in 2003. There were 11961 (80.55%) national collaborative publications and 2190 (14.75%) international collaborative publications by the scientists from India with 59 countries. Indian Institute of Technology-Kharagpur topped the list with 1243 publications which received 7985 citations, followed by Indian Institute of Science-Bengaluru with 1052 publications and 8816 citations, and Bhabha Atomic Research Centre-Mumbai with 818 publications and 4252 citations.

Keywords: Authors, Citation, Citations, Citations Growth, Collaboration, Impact, Indian Highly Cited Authors, Indian Highly Cited Publications, Journals, Materials Science, Publication, Publication Productivity, Publications, Research, Scientometric Analysis, Scopus

? Suki, N.M. (2011), Public library users’ dissatisfaction attributions and complaining behaviour. *Malaysian Journal of Library & Information Science*, **16** (2), 81-94.

Full Text: [2011\Mal J Lib Inf Sci16, 81.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2081.pdf)

Abstract: In an increasingly demanding environment, users complain because they are dissatisfied with the services rendered. This study investigates the complaining behaviour of public library users in a Malaysian state. A self-administered questionnaire was randomly distributed to 99 dissatisfied adult users of the Labuan Public Library, which is located in the Federal Territory of Labuan, Malaysia. The survey revealed that public library users, who perceive the service of the library to be free, are more likely to complain to a third party about their dissatisfaction. There are some users who complain directly to the personnel or person in charge of the department, or chief librarian at the time of dissatisfaction. Users’ complaints can be a powerful resource for the library management to use in making strategic and tactical decisions that could prevent them from switching services. In addition, discussion, conclusions and recommendation for future research are also presented.

Keywords: Adult, Complaints, Consumer Behaviour, Dissatisfaction, Environment, Library Management, Malaysia, Public Libraries, Questionnaire, Research, Survey, User Behavior

? Kiran, K. and Diljit, S. (2011), Antecedents of customer loyalty: Does service quality suffice? *Malaysian Journal of Library & Information Science*, **16** (2), 95-113.

Full Text: [2011\Mal J Lib Inf Sci16, 95.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2095.pdf)

Abstract: This study reports on an investigation of the antecedents of customer loyalty in an academic library setting. A structural model is presented to test the relationships between web-based library service quality, service value, customer satisfaction and customer loyalty based on theoretical underpinnings in the literature on service quality and customer loyalty. The study provides empirical data on library users’ behavioral intentions, which helps understand the nature of customers’ loyalty towards web-based library services. Participants included postgraduates and academic staff from four research intensive universities in Malaysia. Structural equation modeling was carried out to test the modeled relationships between the four construct in this study. This study provides insights into the antecedents of customer satisfaction and customer loyalty as findings revealed that service quality and service value have a direct effect on customer satisfaction, which then directly impacts customer loyalty.

Keywords: Academic Libraries, Behavioral Intentions, Comparison Standard, Consumer Perceptions, Customer Loyalty, Customer Satisfaction, Expectations, Industry, Library, Literature, Malaysia, Model, Modeling, Multiple-Item Scale, Reassessment, Research, Satisfaction, Service Quality

? Islam, M.A. and Alam, M.S. (2011), Webometric study of private universities in Bangladesh. *Malaysian Journal of Library & Information Science*, **16** (2), 115-126.

Full Text: [2011\Mal J Lib Inf Sci16, 115.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%20115.pdf)

Abstract: There have been substantial studies conducted on webometrics, especially on the impact of websites and the web impact factor. The present study analysed the websites of private universities in Bangladesh according to the webometrics indicator. It examines and explores the 44 private university websites in Bangladesh and identifies the number of web pages and link pages, and calculates the Overall Web Impact Factor (WIF) and Absolute Web Impact Factor (WIF). In a cross-sectional study, all the websites were analysed and compared using Alta Vista search engine. The websites were then ranked based on these webometric indicators. The study revealed that some private universities in Bangladesh have higher number of web pages but their link pages are very small in number, thus the websites fall behind in their Overall WIF, self link, external links and Absolute WIF. Finally, it is showed that these universities did not have much impact factor on the web and were not known internationally. The major reasons are discussed and suggestions to overcome the problems are presented.

Keywords: Impact, Impact Factor, Private Universities, Sites, University, Web Impact Factor, Web Impact Factors, Web Presence, Webometrics, World Wide Web

? Sanni, S.A. and Zainab, A.N. (2011), Measuring the influence of a journal using impact and diffusion factors. *Malaysian Journal of Library & Information Science*, **16** (2), 127-140.

Full Text: [2011\Mal J Lib Inf Sci16, 127.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%20127.pdf)

Abstract: Presents the result of the calculated IS! equivalent Impact Factor, Relative Diffusion Factor (RDF), and Journal Diffusion Factor (JDF) for articles published in the Medical Journal of Malaysia (MJM) between the years 2004 and 2008 in both their synchronous and diachronous versions. The publication data are collected from MyAis (Malaysian Abstracting & Indexing system) while the citation data are collected from Google Scholar. The values of the synchronous JDF ranges from 0.057 - 0.14 while the diachronous JDF ranges from 0.46 - 1.98. The high diachronous JDF is explained by a relatively high number of different citing journals against the number of publications. This implies that the results of diachronous JDF is influenced by the numbers of publications and a good comparison may be one of which the subject of analysis have similar number of publications and citations period. The yearly values of the synchronous RDF vary in the range of 0.66 - 1.00 while diachronous RDF ranges from 0.62 - 0.88. The result shows that diachronous RDF is negatively correlated with the number of citations, resulting in a low RDF value for highly cited publication years. What this implies in practice is that the diffusion factors can be calculated for every additional year at any journal level of analysis. This study demonstrates that these indicators are valuable tools that help to show development of journals as it changes through time.

Keywords: Bibliometrics, Citation, Citations, Development, Impact, Journal, Journal Diffusion Factor, Journal Evaluation Measures, Journal Impact Factor, Journals, Malaysia, Publication, Publications, Quality and Influence Assessment of Journals

? Karim, N.H.A. and Ansari, N.A. (2011), Examining the effects of gender, nationality and bibliographic instruction on library anxiety. *Malaysian Journal of Library & Information Science*, **16** (2), 141-154.

Full Text: [2011\Mal J Lib Inf Sci16, 141.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%20141.pdf)

Abstract: A 49-item modified version of Sharon L. Bostick’s (1992) Library Anxiety Scale was tested among 367 undergraduate students drawn randomly from a population of 8,432 undergraduate students. The 49-item instrument was administered during classroom hours using a self-reported questionnaire. An 84% response rate was achieved resulting in 308 questionnaires that were returned and were found to be useful. The analysis of data was based on these 308 usable returns. Gender, nationality and bibliographic instruction were employed as independent variables to examine their effects on each of the five (5) library anxiety sub-scales: barriers with service providers, comfort with library services, affective barriers, cognitive barriers and comfort with library technology. The results of running independent sample t-tests on each of the five(5) sub-scales with gender as the independent variable was found to be statistically significant only on the “cognitive barriers “sub-scale, t (303) = 2.22, p < .05 between male students (M = 7.64, SD = 2.90) and female students (M = 8.42, SD = 2.79). The results of running independent sample t-tests on each of the five (5) library anxiety sub-scales with nationality as the independent variable was found to be statistically significant only on the “affective barriers” sub-scale, t (301) = 2.47, p < .05 between Malaysian students (M = 8.14, SD = 2.22) and non-Malaysians (M = 7.33, SD = 2.17). The results of running independent sample t-tests on each of the five (5) library anxiety sub-scales with bibliographic instruction as the independent variable were found to be not statistically significant on all of the five (5) library anxiety sub-scales, p > .05. A 2 X 2 factorial ANOVA was performed to test each of the main effects and interaction effects hypotheses. The results showed that there was a statistically significant interaction effect between gender and bibliographic instruction on the library anxiety sub-scales: (a) affective barriers, F (1, 295) = 5.21, p < .05; (b) comfort with library technology, F (1, 299) = 5.32, p < .05. Statistically significant interaction effects was also found between gender and nationality on the library anxiety sub-scales: (a) barriers with service providers, F (2, 294) = 3.85, p < .05; (b) affective barriers, F (2, 295) = 3.44, p < .05. No statistically significant interaction effects were found between nationality and bibliographic instruction on any of the five (5) library anxiety sub-scales, p > .05. Additionally, no statistically significant main effects were found for each of the independent variables (gender, nationality and bibliographic instruction) on any of the five library anxiety sub-scales, p > .05. Findings suggest that gender acted as a moderating variable for the independent variables nationality and bibliographic instruction. Hence, the variable gender moderates the relationship between the two independent variables (nationality and bibliographic instruction) with the library anxiety sub-scales: affective barriers, barriers with service providers and comfort with library technology. This study represents one of the first to have identified the variable gender as a moderator in explaining the variance in library anxiety among undergraduate library users in a Malaysian university library environment. More studies need to be carried out to identify not only moderators but mediators in the library anxiety phenomenon.

Keywords: Academic Libraries, Barriers, Bibliographic, Bostick’s Library Anxiety Scale, Environment, Gender, Library Anxiety Assessment, Psychometric Analysis, Questionnaire, Questionnaires, Scale, Students, University, User Perceptions of Libraries

? Mohammadhassanzadeh, H., Samadikuchaksaraei, A., Saemi, N. and Salimi-Asl, M. (2011), Two new scientometric indices for measurement of collaboration activities of departments and their researchers in academic institutions. *Malaysian Journal of Library & Information Science*, **16** (3), 1-7.

Full Text: [2011\Mal J Lib Inf Sci16, 1.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%201.pdf)

Abstract: In general, scientific collaboration represents the quality of research work of co-researchers and the related research institutes. Knowledge exchange is known as one of the principle methods of spreading the science. Lack of collaboration leads to research institutional isolation and prevents science expansion. The previous indices that have been proposed for measurement of the degree of scientific collaboration do not base their assessment on the context of the main goal of the research groups and their scientists. As a scientist’s maximum achievement will happen when he/she work as part of a team with a defined goal, and a team succeeds when it focuses on a defined subject, only the collaborations that are formed for promotion of the goals of the team would be considered constructive. Here, we propose two new indices entitled “collaboration h-index” and “collaborative researchers h-index”, to assess the extent of collaboration activities focused on the main goals of a research team.

Keywords: Achievement, Activities, Assessment, Collaboration, Collaborations, Evaluation Indices, Knowledge, Knowledge Exchange, Measurement, Promotion, Research, Research Productivity, Research Work, Researchers, Science, Scientific Collaboration, Scientists, Scientometrics

? Ye, F.Y., Zhao, S.X. and Rousseau, R. (2011), An empirical relation between k-shells and the h-index in scale-free networks. *Malaysian Journal of Library & Information Science*, **16** (3), 9-16.

Full Text: [2011\Mal J Lib Inf Sci16, 9.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%209.pdf)

Abstract: After clarifying the definitions of h-index and k-shells in a graph, it is shown that the largest k value for which there exists a non-empty k-shell, denoted as k(max)(G), satisfies the relation k(max)(G) <= h(G), where h(G) is the degree h-index of graph G. Next we determine an empirical relation between the h-index, the number of nodes in a small scale-free network, i.e. with maximum degree centrality <100, and the coreness and degree centrality of its nodes. In this contribution we embed the information sciences among other fields involved in network studies.

Keywords: Centrality, Collaboration, Contribution, Core, Definitions, Graphs, h Index, h-Index, Hirsch-Index, Information, K-Shells, Model, Network, Power Laws, Scale-Free Networks, Sciences, Topology

? Tajeddini, O., Azimi, A., Sadatmoosavi, A. and Sharif-Moghaddam, H. (2011), Death of web citations: A serious alarm for authors. *Malaysian Journal of Library & Information Science*, **16** (3), 17-29.

Full Text: [2011\Mal J Lib Inf Sci16, 17.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2017.pdf)

Abstract: The study explores availability and/or decay of URLs cited in articles of six Library and Information Sciences (LIS) journals published by Emerald, Science Direct and Sage. The research was performed using a descriptive survey method. Initially, all issues of the six journals including Information Processing & Management, Library & Information Science Research, Journal of Librarianship and Information Science, Journal of Information Science, Online Information Review, and Journal of Documentation from 2005 to 2008 were downloaded directly from their publisher websites. Afterwards, all the journals’ citations in either print or Web formats were calculated manually. Then, availability and/or decay of individual cited URLs were examined in the Web environments. Two groups of URLs were identified as accessible (without any accessibility error) or inaccessible (with accessibility errors). Two groups of accessible URLs were “accessible through first-check” and “accessible through second check”. Research findings indicated that 66% of articles had web citations. Original accessibility of web citations was 66% which improved to 95% by second check availability using the Wayback Machine and the Google. Overall, from 4562 cited URLs 34% had error messages mostly related to “File error” type. The study recommends that the best solution to prevent decay or disappearance of Web citations and diminish URLs decay is to check availability of citations from while they are being published. The Wayback Archive and the Google can revive the decayed citations.

Keywords: Accessibility, Authors, Citation Analysis, Citations, Decay, Information Science, Information-Science, Internet, Journal, Journal of Documentation, Journals, Library And Information Science Journals, LIS, Management, Permanence, Persistence, References, Research, Review, Science, Sciences, Stability, Survey, Uniform Resource Locators, URL Accessibility, URL Decay, Web Citations, Websites

? Zahidah, Z., Noorhidawati, A. and Zainab, A.N. (2011), Exploring the needs of Malay manuscript studies community for an e-learning platform. *Malaysian Journal of Library & Information Science*, **16** (3), 31-47.

Full Text: [2011\Mal J Lib Inf Sci16, 31.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2031.pdf)

Abstract: Philology studies are often associated with traditional methods of teaching and learning. This study explores the possibility of e-learning adoption amongst Malay manuscripts learning community. The Soft System Methodology (SSM) is used to guide the investigation. SSM emphasises on understanding the problem situations faced by Malay manuscript learning community and expresses the situations in rich pictures. The manuscript learning community comprises lecturers, students and researchers in the field of philology. Data were gathered from interviews, focus group discussions and observations. Academy of Malay Studies, University of Malaya is the case study setting, focusing on lecturers who teach and students who enrol in a philology course as well as doctoral students researching on manuscript studies. The findings highlight problems faced by the various stakeholders and propose solutions in the form of a conceptual model for a collaborative electronic platform to improve teaching and learning as well as utilizing digitized manuscript surrogates held in a digital library of Malay manuscripts.

Keywords: Digital Libraries, Digital-Library, E-Learning, Learning, Malay Manuscripts Studies, Malaya, Methodology, Model, Philology, Researchers, Soft System Methodology, Students, Teaching, Traditional, Transliterating And Annotation Tools, University

? Luy, B., Lee, S.S. and Yong, N.Y. (2011), Gender representations and stereotypes in Singaporean picture books: 1970 to 2008. *Malaysian Journal of Library & Information Science*, **16** (3), 49-65.

Full Text: [2011\Mal J Lib Inf Sci16, 49.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2049.pdf)

Abstract: Research done in other countries has found that picture books under-represent females and contain gender stereotypes. Little research exists for the case of picture books published by Singaporean authors. Using a content analysis approach a random sample of 80 Singaporean picture books published from the 1970s to the present was coded. In particular the following elements were examined: male and female names in book titles and of main characters, male and female illustrations, and portrayal of males and females in outdoor and indoor scenes. The findings show that by the 2000s rough gender parity had been attained with one key finding being that the 1980s was a pivotal turning-point in the representation of gender. Two potential explanations are provided for why this might be so.

Keywords: Analysis, Authors, Children’s Literature, Childrens-Literature, Content Analysis, Gender, Gender Stereotypes, Male, Parity, Picture Books, Preschool-Children, Research, Sexism, Singapore, Update

? Ismail, M.A. and Kareem, S.A. (2011), Identifying how novice researchers search, locate, choose and use web resources at the early stage of research. *Malaysian Journal of Library & Information Science*, **16** (3), 67-85.

Full Text: [2011\Mal J Lib Inf Sci16, 67.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2067.pdf)

Abstract: This paper describes the process of identifying novice researchers’ information needs. The study sampled postgraduate students at the Faculty of Computer Science and Information Technology, University of Malaya, Malaysia. The study utilized three types of data gathering techniques: (a) observations to gauge further understanding the novice researchers’ information seeking behaviour while searching for research related sources on the Web; (b) a questionnaire-based survey to identify the artifact or the resources they use for the research activities; and (c) interviews with expert researchers to gauge further information needs of novice researchers. Results indicate that novice researchers rely on thesis, e-book, journals and conference proceedings as major scholarly resources. The facilitation of searching for research information on the Web is poorly supported by existing search engines. As such, the information seeking behaviour of novice researchers needs to be supported by specific research tools. Five important research information that novice researchers need to be acquainted with are: related literature, centre of research excellence, research trend, experts in specific research area and the specific databases and online resources. The paper put forward features of an institutional repository system that would support novice researchers’ scholarly activities based on their research information needs.

Keywords: Activities, Artifact, Behavior, Databases, Digital Repositories, Information, Information Behaviour, Information Needs, Journals, Library, Literature, Malaya, Malaysia, Novice Researchers, Research, Research Trend, Researchers, Science, Students, Survey, Thesis, Trend, University, Web-Resources

? Abazari, Z., Isfandyari-Moghaddam, A. and Ghorbabi, M. (2011), An evaluation of Iranology CD-ROM databases. *Malaysian Journal of Library & Information Science*, **16** (3), 87-102.

Full Text: [2011\Mal J Lib Inf Sci16, 87.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%2087.pdf)

Abstract: This article aims to evaluate Iranology CD-ROM databases using survey method. Data were collected using a researcher-developed checklist which is composed of four main criteria namely storage, search and retrieval, software design, and indexing. The study sampled all Iranology CD-ROMs recorded by the Iranian High Council of Informatics (IHCI). As a result, 35 CD-ROMs were identified for final evaluation. It was found that the most critical point of Iranology CD-ROMs which its defined indices have been less observed by the softwares is related to criterion “search and retrieval”, while the most observed indices belonged to criterion “software design”. Findings of this study may assist related bodies improve the status of information flow especially in the field of tourism as this resource has a variety of information about different aspects of Iranian history, literature, art and cultural heritage.

Keywords: CD-Roms, Databases, Design, Evaluation, History, Indexing, Information, Information Retrieval, Iranology, Library, Literature, Software, Software Design, Survey, System

? Wu, T.Y., Yeh, K.C., Chen, R.S., Chen, Y.C. and Chen, C.C. (2011), Integrated library service application platform based on the smart book shelf. *Malaysian Journal of Library & Information Science*, **16** (3), 103-119.

Full Text: [2011\Mal J Lib Inf Sci16, 103.pdf](2011/Mal%20J%20Lib%20Inf%20Sci16,%20103.pdf)

Abstract: With the advent of the knowledge economy and the prevailing of the information technology, libraries are gradually introducing the automation mechanism to provide more convenient service. The time lag of the information retrieval still has influence on librarians’ and readers’ knowledge of the actual status of the library collections. The current practice is that the circulation record and circulation status are updated at the time when the book is borrowed or returned, with the identification component on the book or media being sensed. However, some readers use the reference books, periodicals and audio-video media in the library, therefore before the books are registered on the counter, the status of books in the library cannot be precisely confirmed, often making the information of the book shelves presented by the library database information not precisely reflecting their actual status. The “Integrated Library Service Application Platform” in this paper employs the RFID (Radio Frequency Identification) technology to construct the smart book shelf, and it is used as the trigger point for updating the retrieval status of the book to eliminate bottleneck at the counter that cannot render the real-time circulation status of book in the library upon borrowing or returning the book. With the help of software agent system to integrate the information architecture of the library and provide intelligent service applications, the overall structure is conducive in enhancing the circulation efficiency of the library collections and improving the satisfaction of readers.

Keywords: Application, Information, Information Retrieval, Information Technology, Information-Retrieval, Knowledge, Library Circulation Function, Library Operation Management, Management, Mechanism, Periodicals, Practice, Radio Frequency Identification (RFID), Reference Books, RFID Technology, Smart Shelf, Software, Software Agent, System

# Title: Malaysian Journal of Science

Full Journal Title: [Malaysian Journal of Science](http://ejum.fsktm.um.edu.my/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Khan, N.A., Ibrahim, S. and Subramaniam, P. (2004), Elimination of heavy metals from wastewater using agricultural wastes as adsorbents. *Malaysian Journal of Science*, **23** (1), 43-51.

Full Text: Mal J Sci23, 43.pdf

Abstract: The adsorption process is being widely used by various researchers for the removal of heavy metals from waste streams, and activated carbon has been frequently used as an adsorbent. Despite its extensive use in the water and waste water treatment industries, activated carbon remains an expensive material. In recent years, the need for safe and economical methods for the elimination of heavy metals from contaminated waters has necessitated research interest towards the production of low cost alternatives to commercially available activated carbon. Therefore, there is an urgent need that all possible sources of agro-based inexpensive adsorbents should be explored and their feasibility for the removal of heavy metals should be studied in detail. The objective of this study is to contribute in the search for less expensive adsorbents and their utilization possibilities for various agricultural waste byproducts such as sugarcane bagasse, rice husk, oil palm shell, coconut shell, and coconut husk, for the elimination of heavy metals from waste water.

# Title: Management of Engineering & Technology, 2009. PICMET 2009

Full Journal Title: [Management of Engineering & Technology, 2009. PICMET 2009](http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=5230479)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Su, H.N. and Lee, P.C. (2009), Dynamic and quantitative exploration on technology evolution mechanism: The case of electrical conducting polymer nanocomposite. *Management of Engineering & Technology, 2009. PICMET 2009*, **Aug.**, 2433-2440.

Full Text: [2009\Man Eng Tec, 2433.pdf](2009/Man%20Eng%20Tec,%202433.pdf)

Abstract: This study aims to obtain global overview on electrical conducting polymer nanocomposite development along time horizon as well as to obtain dynamic and quantitative exploration on technology evolution mechanism, a total of 1421 electrical conducting polymer related nanocomposite patents are retrieved from USPTO patent database and patent citation network is generated by combing both patent citation and social network analysis. A patent citation network can therefore be visually obtained and network properties, e.g. degree centrality, betweenness centrality, closeness centrality, representing several technology evolution mechanisms are calculated. Each patent can be positioned at a specific location of the patent citation network and technology evolution mechanisms for each patent can be quantitatively analyzed.

? Su, H.N. and Lee, P.C. (2009), Knowledge map of publications in research policy. *Management of Engineering & Technology, 2009. PICMET 2009*, **Aug.**, 2507-2516.

Full Text: Man Eng Tec, 2507.pdf

Abstract: Research policy as a leading journal among others in the fields of social science, plays as an important platform for policy researchers to have their research results published, documented and shared internationally. This study uses research policy as a window or an indicator to understand overview of global sci-tech and innovation policy/management researches, as well as unveil how papers in research policy are correlated to each other and how quantitative technology management can be possibly obtained. This study positions research foci in research policy by keyword-based network analysis. A keyword-based network which is also named as ldquoresearch focus parallelship networkrdquo can be visually obtained and network properties, e.g. degree centrality, betweenness centrality, closeness centrality, can be calculated. The keyword-based network can be depicted differently to reflect its research focus parallelship as well as knowledge linkage implication by choosing different information as network actors such as keyword, first author, institute, or country. Totally 2014 keywords contained in 934 papers published in Research Policy in the period of 1998-2008.

# Title: Management Learning

Full Journal Title: Management Learning

ISO Abbreviated Title: Manage. Learn.

JCR Abbreviated Title: Manage Learn

ISSN: 1350-5076

Issues/Year: 6

Journal Country/Territory: England

Language: English

Publisher: Sage Publications Ltd

Publisher Address: 1 Olivers Yard, 55 City Road, London EC1Y 1SP, England

Subject Categories:

Management: Impact Factor 0.568, / (2003)

Holloway, J. (2002), Fashions in management research: An empirical analysis by Thomas P. *Management Learning*, **33** (2), 264-270.

Full Text: [M\Man Lea33, 264.pdf](M/Man%20Lea33,%20264.pdf)

Keywords: Diffusion

# Title: Management Science

Full Journal Title: Management Science

ISO Abbreviated Title: Manage. Sci.

JCR Abbreviated Title: Manage Sci

ISSN: 0025-1909

Issues/Year: 12

Journal Country/Territory: United States

Language: English

Publisher: Inst Operations Research Management Sciences

Publisher Address: 901 Elkridge Landing Rd, Ste 400, Linthicum Hts, MD 21090-2909

Subject Categories:

Management: Impact Factor 1.468, / (2003)

Cohen, W.M., Nelson, R.R. and Walsh, J.P. (2002), Links and impacts: The influence of public research on industrial R&D. *Management Science*, **48** (1), 1-23.

Full Text: [M\Man Sci48, 1.pdf](M/Man%20Sci48,%201.pdf)

Zucker, L.G., Darby, M.R. and Armstrong, J.S. (2002), Commercializing knowledge: University science, knowledge capture, and firm performance in biotechnology. *Management Science*, **48** (1), 138-153.

Full Text: [M\Man Sci48, 138.pdf](M/Man%20Sci48,%20138.pdf)

Abstract: A robust indicator of a firm’s tacit knowledge capture (and strong predictor of its success) is the number of research articles written jointly by firm scientists and discovering star scientists, nearly all working at top universities. An operationally attractive generalization of the star measure - collaborative research articles between firm scientists and top research university scientists - replicates the impact on firm success. In panel analyses, publications by firm scientists with stars and/or top 112 university scientists increase the number and citation rate for firm patents. Further, star articles increase these rates significantly more than other top 112 university scientists’ articles. Cross-sectional analyses of products and employment show a similar pattern of positive effects on firms’ success of collaborations with stars or top university scientists, but estimates of differential effects are nonrobust due to multicollinearity. Venture capital funding has significant, usually positive effects on firm success.

# Title: Managerial Finance

Full Journal Title: Managerial Finance

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

Cox, R.A.J. and Kleiman, R.T. (2002), Superstardom and institutional investor’s all-British research team. *Managerial Finance*, **28** (1), 1-13.

Full Text: [M\Man Fin28, 1.pdf](M/Man%20Fin28,%201.pdf)

Abstract: In this paper, we investigate the superstar phenomenon in the security analysis industry through an analysis of the probabilistic mechanism by which security analysts are selected for inclusion in Institutional Investor’s All-British Research Team (ABRT). Specifically, we examine whether the statistical distribution of the number of first team appearances by security analysts conforms to the Yule distribution, which implies that luck rather than differential talent explains success. This is an important issue since an analyst’s position on the All-British Research Team is an important determinant of the individual’s pay and reputation. Our research results reject the Yule distribution. Thus, consistent with previous empirical studies, for the United States, by Stickel (1992, 1995) and Brown and Chen (1991), we find that selection to the ABRT can be attributed to skill rather than luck.

# Title: Managing Service Quality

Full Journal Title: Managing Service Quality

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Tan, K.C., Goudarzlou, A. and Chakrabarty, A. (2010), A bibliometric analysis of service research from Asia. *Managing Service Quality*, **20** (1), 89-101.

Full Text: [2010\Man Ser Qua20, 89.pdf](2010/Man%20Ser%20Qua20,%2089.pdf)

Abstract: Purpose The purpose of this paper is to investigate the contribution of Asian researchers towards the literature on service science. In achieving this aim, a review of papers published in five top service research journals is carried out. Design/methodology/approach Papers from the following five service research journals are reviewed: International Journal of Service Industry, Management, Journal of Services Marketing, Journal of Service Research, Managing Service Quality, and Service Industries Journal. The review considers all papers published in the journals over a 14-year period from 1995 to 2008. The abstract and main body of the papers are analyzed for content. Findings This paper identifies the core contribution of researchers from Asian countries. The top five Asian countries identified are Taiwan, Singapore, Hong Kong, Israel, and South Korea. Also identified are patterns and emphases in service research across different countries. Research limitations/implications This paper focuses on five top service research journals over a 14-year period. Patterns of research emphasis in over 280 publications are analyzed. Further studies can include other journals and/or conferences in service science. Practical implications Scholars can benefit from insights into the contribution by Asian researchers in services. Specifically, the paper notes the particular emphases of research from different Asian countries while acknowledging the reach and richness of their contributions. Originality/value The main value of this paper is its uniqueness in discussing the contribution of researchers specific to Asian countries in top service journals. This paper provides valuable insights into the nature of academic publishing of Asian researchers in this burgeoning area.

Keywords: Agenda, Asia, Authorship, Future-Research, Journals, Operations Management, Research, Research Work, Science, Serials, Service Industries

# Title: Manual Therapy

Full Journal Title: [Manual Therapy](http://www.sciencedirect.com/science/journal/1356689X); [Manual Therapy](http://portalt.wok.mimas.ac.uk/portal.cgi?DestApp=WOS&Func=Frame)

ISO Abbreviated Title: Man. Ther.

JCR Abbreviated Title: Manual Ther

ISSN: 1356-689X

Issues/Year: 4

Journal Country/Territory: United States

Language: English

Publisher: Churchill Livingstone

Publisher Address: Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith Walk, Edinburgh EH1 3AF, Midlothian, Scotland

Subject Categories:

Rehabilitation: Impact Factor 1.189 (2003)

Gosling, C.M., Cameron, M. and Gibbons, P.F. (2004), Referencing and quotation accuracy in four manual therapy journals. *Manual Therapy*, **9** (1), 36-40.

Full Text: [2004\Man The9, 36.pdf](2004/Man%20The9,%2036.pdf)

Abstract: The aim of the study was to investigate the reference and quotation accuracy in four peer-reviewed manual therapy journals. A stratified random sample of original research (n = 7) was collected from each of the journals spanning the years January 2000 to December 2001. A further random selection of 80 references from each journal paper sampled was then reviewed (Total N = 320) for citation and quotation accuracy. Numbers of citations with errors were determined, then classified as either major or minor and categorized by bibliographic headings (author, title, journal, year, volume, page and irretrievable). Each quotation was individually assessed for accuracy and judged to be either correct or incorrect. A quotation was deemed correct if it accurately substantiated and reported the original authors assertions. One hundred and fifteen citations across all journals contained errors (35.9%). Some citations exhibited multiple major and minor errors. Bibliographically classified errors for all journals showed 61 author, 51 title, 6 journal, 4 year, 12 volume and 25 page errors. JMPT showed the lowest referencing error rate (20%) while JBWMT recorded the highest (58.8%). The total number of quotation errors across all journals was 69 (12.3%). JMPT showed the lowest quotation error rate of 6 (4.7%), NIT had 12 errors (7.3%), JOM produced 21 errors (13.3%), while JBWMT recorded the highest error rate with 32 (27.6%). Poor citation and quotation is a reflection on the scholarly work of the authors and the journal. The trend for errors in quotation is more worrying than citation errors as it reflects poor diligence on the part of the investigators. (C) 2003 Elsevier Ltd. All rights reserved.

Keywords: Reference, Citation, Quotation, Accuracy, Medical Journals, Citations

? Smith, D.R. and Rivett, D.A. (2009), Bibliometrics, impact factors and manual therapy: Balancing the science and the art. *Manual Therapy*, **14** (4), 456-459.

Full Text: [2009\Man The14, 456.pdf](2009/Man%20The14,%20456.pdf)

Keywords: Association, Bibliometrics, Citation Analysis, Core Journals, Dermatology, Impact, Impact Factors, Manual Therapy, Medical Journals, Millennium, Occupational-Medicine, Physical-Therapy, Physiotherapy, Publishing, Rehabilitation, Rehabilitation, Relevance

# Title: Manufacturing and Chemical Industries

Longman Scientific and Techical, Harlow New York

Barnes, D., Forster, C.F. and Hrudey, S.E. (1987), in *Surveys in Industrial Wastewater Treatment Manufacturing and Chemical Industries*, Longman Scientific and Techical, Harlow New York.

Kiff, R.J. (1987), General inorganic effluents. in *Surveys in Industrial Wastewater Treatment Manufacturing and Chemical Industries*. (Edited by Barnes, D., Forster, C.F. and Hrudey, S.E.), Longman Scientific and Techical, Harlow New York, 1-20.

Wild, J. (1987), Liquid wastes from the metal finishing industry. in *Surveys in Industrial Wastewater Treatment Manufacturing and Chemical Industries*. (Edited by Barnes, D., Forster, C.F. and Hrudey, S.E.), Longman Scientific and Techical, Harlow New York, 21-64.

# Title: Managerial Finance

Full Journal Title: Managerial Finance

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Dallas, D.B. (1973), Basics of lamination dies, .2. in this article, second of two on subject, attention is given to top shoe and press - emphasis is also given to preferred methods of grinding lamination dies. *Manufacturing Engineering & Management*, **71** (4), 22-25.

Keywords: Attention

# Title: Mapping excellence in science and technology across Europe: Life sciences

? Noyons, E.C.M., Buter, R.K., van Raan, A.F.J., Schmoch, U., Heinze, T., Hinze, S. and Rangnow, R. (2003). Mapping excellence in science and technology across Europe: Life sciences. Leiden, the Netherlands: Centre for Science and Technology Studies (CWTS), Leiden University.

Full Text: [2003\Map Exc Sci Tec Acr Eur Lif Sci.pdf](2003/Map%20Exc%20Sci%20Tec%20Acr%20Eur%20Lif%20Sci.pdf)

# Title: Mapping excellence in science and technology across Europe: Nanoscience and nanotechnology

? Noyons, E.C.M., Buter, R.K., van Raan, A.F.J., Schmoch, U., Heinze, T., Hinze, S. and Rangnow, R. (2003), Mapping excellence in science and technology across Europe: Nanoscience and nanotechnology. Leiden, the Netherlands: Centre for Science and Technology Studies (CWTS), Leiden University.

Full Text: [2003\ Map Exc Sci Tec Acr Eur Nan Nan.pdf](2003/%20Map%20Exc%20Sci%20Tec%20Acr%20Eur%20Nan%20Nan.pdf)

# Title: Marine Biology

Full Journal Title: [Marine Biology](http://springerlink.metapress.com/app/home/journal.asp?wasp=2dyrcfdcwjdvuwaeaevl&referrer=parent&backto=searchpublicationsresults,1,2;)

ISO Abbreviated Title: Mar. Biol.

JCR Abbreviated Title: Mar Biol

ISSN: 0025-3162

Issues/Year: 12

Journal Country/Territory: Germany

Language: Multi-Language

Publisher: Springer Verlag

Publisher Address: 175 Fifth Ave, New York, NY 10010

Subject Categories:

Marine & Freshwater Biology: Impact Factor

Dodge R.E. and Gilbert, T.R. (1984), Chronology of lead pollution contained in banded coral skeletons. *Marine Biology*, **82**, 9-13.

? Spicer, J.I. and Weber, R.E. (1992), Respiratory impairment by water-borne copper and zinc in the edible crab cancer-pagurus (L) (Crustacea, Decapoda) during hypoxic exposure. *Marine Biology*, **112** (3), 429-435.

Abstract: Specimens of the edible crab Cancer pagurus (L.) collected in the Skagerrak, Denmark, between June and August 1990 were examined in the laboratory. Impairment of respiratory function after pre-exposure (7 d) to sub-lethal concentrations of Cu and Zn (0.4 mg l-1) was only detectable during hypoxic exposure [PO2 (partial pressure of oxygen) = 60 torr]. This was indicated by a decrease in the transfer factor (TO2), due principally to an increase in the PO2 differential across the gills. Cu and Zn exposure did not cause significant changes in ventilation or perfusion although there was some indication that cardiac output may increase in respiratory-impaired individuals. After 28 d exposure no difference was noted in the respiratory responses to hypoxia of treated and untreated crabs. It is concluded that respiratory impairment was due to an increase in the diffusion barrier thickness at the gills and that this was reversible even during continued exposure to trace metal contamination.

Keywords: Acid-Base-Balance, Heavy-Metal Ions, Carcinus-Maenas, Oxygen-Consumption, Crangon-Crangon, Brown Shrimp, Fish Gill, Hemolymph, Cadmium, Osmoregulation

Huet, M., Paulet, Y.M. and Le Pennec, M. (1996), Survival of *Nucella lapillus* in a tributyltin-polluted area in west Brittany: A further example of a male genital defect (Dumpton syndrome) favoring survival. *Marine Biology*, **125**, 543-549.

Abstract: A male genital defect was reported in a Nucella lapillus (L.) population at Dumpton Gap (England). This defect was termed ‘Dumpton syndrome’ (DS) and appears to be a genetic feature. Its main characteristic is the absence of penis (aphally) in males and in females. In 1992, such a phenomenon was discovered in populations in the vicinity of Brest (Brittany, France). DS-affected females exhibit fewer tributyltin-induced imposer characteristics than expected in normal individuals. The percentage of female sterilization is thus lower, favouring population survival. In consequence, the DS is considered to be a ‘pollution-resistance’ feature. Comparison with the Dumpton population revealed similarities and differences in the DS characteristics. It is thus hypothesized that the DS observed at the two locations is due to two different biological mechanisms. Indeed, aphallic males with a split prostate were observed but no underdevelopment of their vas deferens and testis was noted in the present study. In this gonochoristic gastropod species, the most DS-affected males in Brest possess an ovotestis and it is thus hypothesized that feminity is remnant in N. lapillus. Incidence of abnormality is ten times higher in females than in males. This suggested that a sex-difference operates in the Brest phenomenon.

# Title: Marine Biotechnology

Full Journal Title: Marine Biotechnology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Cengiz, S. and Cavas, L. (2010), A promising evaluation method for dead leaves of *Posidonia oceanica* (L.) in the adsorption of methyl violet. *Marine Biotechnology*, **12** (6), 728-736.

Full Text: [2010\Mar Bio12, 728.pdf](2010/Mar%20Bio12,%20728.pdf)

Abstract: *Posidonia oceanica* (Linnaeus) Delile is an endemic species in the Mediterranean Sea. In the present study, dead leaves of *P. oceanica* (L.) which are accumulated on the beach seasonally were used as an alternative low cost biosorbent to remove methyl violet (MV) from aqueous solution. In order to explain the adsorption kinetics, pseudo first-order and pseudo second-order kinetic models were investigated. It was obtained that the pseudo second-order model was well in line with our experimental results. Equilibrium data were analyzed according to Langmuir, Freundlich, and Dubinin-Radushkevich equations. Langmuir isotherm model corresponded well with equilibrium data than the others, and the maximum adsorption capacity of the biomass was found to be 119.05 mg g(-1) at 45Aº C. Thermodynamic parameters, ΔGAº, ΔHAº, and ΔSAº, were calculated according to van’t Hoff equation. Negative values of Gibbs free energy imply that the process is spontaneous. Consequently, dried biomass of this species can be an alternative and low cost material for the removal of MV from wastewaters. Moreover, since the remarkable adsorption capacity of these dead leaves compared to other low cost adsorbents has been observed, this beach waste could provide an economic contribution to the countries in the Mediterranean region.

Keywords: Activated Carbon, Adsorbents, Adsorption, Adsorption Capacity, Adsorption Kinetics, Agricultural Waste, Alternative, Aqueous Solution, Aqueous-Solution, Basic-Dyes, Beach Waste, Biomass, Biosorbent, Biosorption, Biosorption, Blue, Capacity, Cost, Data, Dye Removal, Economic, Energy, Equilibrium, Experimental, First Order, Freundlich, Gibbs Free Energy, Isotherm, Isotherm Model, Kinetic, Kinetic Models, Kinetics, Langmuir, Langmuir Isotherm, Langmuir Isotherm Model, Low Cost, Low Cost Adsorbents, Macroalga Caulerpa-Lentillifera, Malachite Green, Mediterranean, Mediterranean Region, Mediterranean Sea, Methyl Violet, Model, Models, Nov, P, *Posidonia oceanica* (L.), Pseudo First Order, Pseudo First-Order, Pseudo Second Order, Pseudo Second-Order, Pseudo-First-Order, Pseudo-Second-Order, Removal, Second Order, Second-Order, Second-Order Model, Solution, Species, Thermodynamic, Thermodynamic Parameters, Waste, Wastewaters, Wood Sawdust

# Title: Marine Chemistry

Full Journal Title: [Marine Chemistry](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5942&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=92520941dd3c4312dd22b93b5ceee306)

ISO Abbreviated Title: Mar. Mar. Chem.

JCR Abbreviated Title: Mar Chem

ISSN: 0304-4203

Issues/Year: 6

Journal Country/Territory: Netherlands

Language: Multi-Language

Publisher: Elsevier Science BV

Publisher Address: PO BOX 211, 1000 AE Amsterdam, Netherlands

Subject Categories:

Chemistry: Impact Factor 2.286, 16/121

Oceanography: Impact Factor 2.286, /

? Plavsic, M. and Cosovic, B. (1991), Study of cadmium interaction with humic-acid at the mercury water interface. *Marine Chemistry*, **36** (1-4), 39-49.

Full Text: Mar Che36, 39

Abstract: The influence of humic acid on the cathodic (reduction) and the anodic (oxidation) waves of cadmium was examined by electrochemical methods. At low pH values (pH = 1.6) the decrease of both the cathodic and anodic waves of cadmium follow the adsorption isotherm of humic acid (HA) studied, because the adsorbed layer of the protonated HA represents a barrier for the interaction of cadmium with the electrode surface. At higher pH values (pH = 6.7 and 9.0) the influence of HA on the cathodic and anodic wave of cadmium is completely different. While the anodic wave of cadmium became gradually suppressed in the presence of humic acid the cathodic wave increased high above the initial height of the cadmium reduction wave without the presence of humic acid. It is supposed that before the formation of the Cd-HA complex in solution the binding of cadmium on the electrode surface occurs which leads to this increase in relative height of the cadmium reduction wave. This feature is dependent on the pH of solution, ionic strength and the presence of major ions (chloride, calcium, and magnesium ions).

Keywords: Anodic-Stripping Voltammetry, Surface-Active Substances, Natural-Waters, Trace-Metals, Sea-Water, Complexation, Copper, Ions, Speciation, Media

? Gerringa, L.J.A., Herman, P.M.J. and Poortvliet, T.C.W. (1995), Comparison of the linear Van Den Berg/Ružić transformation and a non-linear fit of the Langmuir isotherm applied to Cu speciation data in the estuarine environment. *Marine Chemistry*, **48** (2), 131-142.

Full Text: [1995\Mar Che48, 131.pdf](1995/Mar%20Che48,%20131.pdf)

Abstract: Copper complexation measurements in estuarine organic-rich samples with differential pulse anodic stripping voltammetry (DPASV) and differential pulse cathodic stripping voltammetry (DPCSV) show a relatively large scatter in the data, due to a high organic matter content. Two methods for the estimation of the complexation parameters according to the Langmuir isotherm are compared: the linear transformation of Van den Berg/Ruzic and the non-linear method according to Wilkinson.

For DPASV measurements in estuarine samples the values of the conditional stability constant (K’), estimated with the linearization method are systematically lower than those estimated with the Wilkinson method. The Van den Berg/Ruzic linearization is more susceptible to outliers or data points that do not follow the model of the Langmuir isotherm. For DPCSV measurements, where the data followed the Langmuir isotherm more closely, this difference could not be demonstrated.

The non-linear method is to be preferred because this method is more suited to the error structure of the data, which is of constant absolute magnitude. Moreover it offers the advantage that the standard error of the estimated parameters can be calculated consistently.

Keywords: Cathodic Stripping Voltammetry, Natural Organic-Ligands, Conditional Stability-Constants, Diatom Nitzschia-Closterium, Copper Complexation, Sea-Water, Seawater, Toxicity, Phytoplankton, Equilibration

Ružzić, I. (1996), Trace metal complexation at heterogeneous binding sites in aquatic systems. *Marine Chemistry*, **53** (1-2), 1-15.

Full Text: [M\Mar Che53, 1.pdf](M/Mar%20Che53,%201.pdf)

Abstract: A critical review of the existing theories of trace metal complexation in aquatic systems is presented. It was demonstrated that original titration curves, the corresponding log-log plot as well as different linearizing plots are not suitable for accurate determination of complexation parameters without additional correction procedures. Models of discrete and continuous distribution of binding strengths were compared. In both cases, the complexing capacity can be determined using the same method from the van den Berg-Ruzic-Lee plot. The complexation of trace metals in aquatic systems is equivalent to the adsorption at heterogeneous binding sites (surface complexation). Exact numerical and analytical solutions for surface complexation at heterogeneous binding sites have been proposed for the analysis of titration data, based on the Langmuirian type of local isotherm and the Boltzmann distribution function of binding energies. This exact solution was compared with different semi-empirical isotherms, derived in literature and proposed for the analyses of titration data as well. These isotherms are mainly based on different quasi-Gaussian distribution functions. Disadvantages of these isotherms and their multicomponent versions are discussed. The generalized Langmuir and van Riemsdijk isotherms have a completely different shape (at large additions of trace metals during titration) from the shape of rigorous solution which agrees well with titration experiments of a wide titration window. In addition, the generalized Freundlich isotherm which has a shape similar to the shape of the rigorous solution is shifted from the rigorous solution in order to predict well the complete monolayer. It is concluded that the Boltzmann distribution function of binding energies should be used instead of the quasi-Gaussian type of distribution functions which are not suitable for the interpretation of titration experiments. The rigorous solution can predict the Langmuir, Freundlich, Dubinin-Radushkewich and Henry isotherms observed experimentally at different regions of surface coverages (trace metal concentrations).

Keywords: Fulvic-Acid, Humate Interactions, Titration Curves, Natural-Waters, Adsorption, Copper, Models, Speciation, Surfaces, Ligands

Wells, M.L., Kozelka, P.B. and Bruland, K.W. (1998), The complexation of ‘dissolved’ Cu, Zn, Cd and Pb by soluble and colloidal organic matter in Narragansett Bay, RI. *Marine Chemistry*, **62** (3-4), 203-217.

Full Text: [M\Mar Che62, 203.pdf](M/Mar%20Che62,%20203.pdf)

Abstract: It is widely accepted that the speciation of most bioactive metals in seawater is regulated by natural organic ligands, but the nature of these molecules has remained a mystery. We used a combination of physical and chemical separation schemes to better characterize organic molecules complexing Cu, Zn, Cd, and Pb in Narragansett Bay, RI. Conventionally filtered (< 0.2 µm) surface water samples were partitioned by cross-flow ultrafiltration into < 8 kDa and < 1 kDa size fractions and the chemical speciation of metals was determined in each fraction. The results show that organic molecules which complex bioactive metals have markedly different size distributions. The majority (similar to 90%) of chelated Zn and Cd, along with their respective unbound ligands, resided in the operationally-defined soluble (< 1 kDa) phase. In contrast, similar to 50% of the chelated Cu was colloidal (>1 kDa), with the bulk of it found in the 1-8 kDa colloidal size range. of the three Cu-binding ligand classes measured, the strongest class occurred mainly in the soluble fraction while the weaker Cu-binding ligand classes were predominantly colloidal (> 1 kDa). Approximately 40% of chelated Pb was colloidal but, in contrast to Cu, the bulk of these ligands resided in the larger colloidal size range (8 kDa-0.2 µm). Thus, a continuum of metal complexing ligand size exists, spanning from truly soluble to colloidal, the nature of which differs for individual bioactive metals. These findings support the hypothesis that metal complexation in seawater is dominated by distinct, metal-specific ligand molecules. A central question that now emerges is whether these ligand molecules function predominantly to buffer metal ion activities in seawater, thereby decreasing metal sorption to particulates, or to facilitate metal removal by sweeping organically bound metals into particulate phases via colloid aggregation. (C) 1998 Elsevier Science B.V. All rights reserved.

Keywords: Metals, Speciation, Ultrafiltration, Seawater, Ligands, Colloidal Organic Matter, Narragansett Bay, Continental-Shelf Waters, Trace-Metal Speciation, Central North Pacific, San-Francisco Bay, Natural-Waters, Sea-Water, Dunaliella-Tertiolecta, Copper Complexation, Humic Acids, Carbon

? Kozarac, Z., Risović, D., Frka, S. and Möbius, D. (2005), Reflection of light from the air/water interface covered with sea-surface microlayers. *Marine Chemistry*, **96** (1-2), 99-113.

Full Text: [M\Mar Che96, 993.pdf](M/Mar%20Che96,%20993.pdf)

Abstract: The sea-surface microlayer as a boundary between the ocean and the atmosphere, where important physicochemical, biological, and photochemical processes take place, plays a major role in the exchange processes of gases, materials, and energy.

However, its chemical composition, structure, and involved interactions are very complex and yet not fully understood. Here, we have applied optical/spectroscopic methods and fractal analysis to gain better insight and information regarding composition, structure, and processes in sea-surface microlayer. Regarding the optical properties of sea surface, the material known as chromophoric dissolved organic matter (CDOM) represents the predominant light-absorbing part of dissolved organic material. The enrichment of light-absorbing material in the microlayers has significant effect on transformation processes at the interface and on the properties of interface itself. Original and reconstructed sea-surface microlayer samples have been characterized and visualized by reflection spectroscopy and Brewster angle microscopy (BAM). Due to the presence of chromophores at the air/water interface, the spectrum of reflected light is changed within the spectral range of chromophore absorption, depending on the chromophore density and orientation at the interface. On the other hand, BAM provides information about the homogeneity of the film, existence and formation of domains, phase transitions, and adsorption of material from the aqueous phase to the interface. In this study we have analyzed original and *ex-situ* reconstructed sea-surface microlayer samples from the middle Adriatic (salt lake Rogoznica) and from Norwegian fjords in the vicinity of Tromso. The reflection spectra and BAM images of microlayers have been taken at different surface pressures. Also, the film formation on initially clean surface was monitored by BAM. It was found that the mechanisms responsible for initial film formation and its later development are diffusion from the bulk and adsorption on the interface followed by subsequent aggregation. Fit of experimental data with theoretical results indicates that the adsorption obeys Frumkin-type isotherm with attractive lateral interaction. Fractal analysis applied to the BAM images detected and identified a second-order phase transition during reconstructed layer compression and provided information on mechanisms involved in spontaneous formation and structural changes of the sea-surface microlayer sample.

Keywords: Sea-Surface Microlayer, Optical Properties, Reflection Spectroscopy, Brewster Angle Microscopy, Fractal Analysis

? Herrero, R., Cordero, B., Lodeiro, P., Rey-Castro, C. and Sastre de Vicente, M.E. (2006), Interactions of cadmium(II) and protons with dead biomass of marine algae *Fucus sp*. *Marine Chemistry*, **99** (1-4), 106-116.

Full Text: [2006\Mar Che99, 106.pdf](2006/Mar%20Che99,%20106.pdf)

Abstract: Samples of dead biomass from the marine brown algae Fucus ceranoides, Fucus vesiculosus and Fucus serratus were studied for their ability to remove cadmium from aqueous solutions. The metal sorption process is rapid, with 90% of the metal uptake completed within the first 25 min of contact. The kinetic data was described successfully by a pseudo second order chemical sorption process with rate constants of ca. 0.6 g mmol−1 min−1. At pH 4.5, the raw biomass of the three species exhibited equilibrium uptake capacities for Cd as high as 0.8 mmol g−1 (90 mg g−1), on a dry weight basis, without chemical pretreatment. These sorption capacities are much higher than those reported for activated carbon and chitin. The sorption of Cd was found to increase as pH increases, reaching a plateau at pH 5.

Batch sorption experiments and continuous potentiometric titrations of acid-treated biomass samples in 0.05 M NaNO3 were used to derive thermodynamic binding parameters according to the NICCA model. The total amount of acid sites was 2.4–2.9 mmol g−1, with median values of the affinity distribution for protons and cadmium ions, log K˜H and log K˜Cd, of 3.7 and 2.69, respectively (conditional values). The apparent heterogeneity of the sorbent was successfully taken into account by the empirical NICCA isotherm, which described very well the competition between protons and metal ions, in contrast with a simpler discrete competitive Langmuir model.

The experimental results demonstrate that these seaweeds constitute a promising, efficient, cheap and biodegradable sorbent biomaterial for cadmium removal from wastewaters. This use would represent an example of exploitation of a renewable marine resource in water treatment technologies for the prevention of heavy metal pollution in the environment.

Keywords: Biosorption, Wastewater Treatment, Heavy Metals, Marine Algae, Potentiometric Titration, Voltammetry

# Title: Marine Ecology-Progress Series

Full Journal Title: [Marine Ecology-Progress Series](http://www.int-res.com/journals/meps/meps-home/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Gattuso, J.P., Dawson, N.A., Duarte, C.M. and Middelburg, J.J. (2005), Patterns of publication effort in coastal biogeochemistry: A bibliometric survey (1971 to 2003). *Marine Ecology-Progress Series*, **294**, 9-22.

Full Text: [2005\Mar Eco-Pro Ser294, 9.pdff](2005/Mar%20Eco-Pro%20Ser294,%209.pdf)

Abstract: A bibliographic database comprising 17 604 references on biogeochemistry and disturbances in coastal ecosystems was compiled for the period 1971 to 2004 from the Aquatic Science and Fisheries Abstracts and the Web of Science databases. The coastal ocean received increased attention starting in the early 1990s, as shown by the increase in the rate of publication, both in absolute number (2-fold increase of the yearly rate) and relative to the publication rate of all disciplines (3-fold increase). The number of publications on each ecosystem type and the geographic location of study sites are not proportional to their respective surface area. By this measure, estuaries and the open continental shelf are, respectively, over- and under-investigated, and the research effort is disproportionately high in some areas (e.g. the North Atlantic Ocean and Mediterranean Sea, the subjects of 41% of the publications) and low in other areas (e.g. high-latitude coastal zones and the western Pacific). The cycling of inorganic nutrients is the biogeochemical process receiving the highest research effort (46% of the publications). Although controversial, exchanges with the atmosphere, including CO2, have been poorly investigated, with only 1.3% of the publications. The magnitude of scientific community publishing increased 13-fold during the period of investigation, also demonstrating the growing interest in coastal biogeochemistry and disturbances. Moreover, the lists of authors have become longer, perhaps indicating research projects wider in scope. Senior authors from 137 countries contributed papers; the EU25 and the USA contributed about. 1, 3 of the publications each, The number of publications per million inhabitants is highly correlated to the gross domestic product per inhabitant, but some countries perform better (the Scandinavian countries, Australia, New Zealand and Canada) or less well (Japan, the USA and Italy) than average. The number of citations of the publications is highly variable and indicates that barriers between disciplines still exist. At least 2 specialized journals (Estuaries and Estuarine, Coastal and Shelf Science) are among the most relevant journals, but Marine Ecology Progress Series is the single most important source of literature in the fields of coastal biogeochemistry and disturbances. This diagnostic should be useful to the research community and funding agencies to address the present imbalances in research allocation and to steer attention to geographical areas and processes that remain poorly investigated. Only then can the role of the coastal ocean on the global biogeochemical cycles and its response to climatic and anthropogenic disturbances be clarified.

Keywords: Affiliation, Bibliometric, Bibliometric Survey, Bibliometry, Biogeochemistry, Carbon, Citations, Coastal Ecosystems, Coral-Reefs, Cycle, Disturbances, Journals, Metabolism, Nitrogen, Ocean, Progress, Publication, Publications, Research, Study Sites, Web of Science, Zone

? Stevens, D., Richardson, A.J. and Reid, P.C. (2006), Continuous Plankton Recorder database: Evolution, current uses and future directions. *Marine Ecology-Progress Series*, **316**, 247-255.

Full Text: [2006\Mar Eco-Pro Ser316, 247.pdf](2006/Mar%20Eco-Pro%20Ser316,%20247.pdf)

Abstract: The Continuous Plankton Recorder (CPR) survey, operated by the Sir Alister Hardy Foundation for Ocean Science (SAHFOS), is the largest plankton monitoring programme in the world and has spanned > 70 yr. The dataset contains information from -200 000 samples, with over 2.3 million records of individual taxa. Here we outline the evolution of the CPR database through changes in technology, and how this has increased data access. Recent high-impact publications and the expanded role of CPR data in marine management demonstrate the usefulness of the dataset. We argue that solely supplying data to the research community is not sufficient in the current research climate; to promote wider use, additional tools need to be developed to provide visual representation and summary statistics. We outline 2 software visualisation tools, SAHFOS WinCPR and the digital CPR Atlas, which provide access to CPR data for both researchers and non-plankton specialists. We also describe future directions of the database, data policy and the development of visualisation tools. We believe that the approach at SAHFOS to increase data accessibility and provide new visualisation tools has enhanced awareness of the data and led to the financial security of the organisation; it also provides a good model of how long-term monitoring programmes can evolve to help secure their future.

Keywords: Abundance, Biodiversity, Climate, CPR Data, Data Accessibility, Diversity, Ecosystems, Long-Term Changes, Model, North-Atlantic Ocean, Phytoplankton, Publications, Research, Sea Calanoid Copepods, Statistics, Survey, Variability, Visualisation Tools

? Todd, P.A., Guest, J.R., Lu, J.X. and Chou, L.M. (2010), One in four citations in marine biology papers is inappropriate. *Marine Ecology-Progress Series*, **408**, 299-303.

Full Text: [2010\Mar Eco-Pro Ser408, 299.pdf](2010/Mar%20Eco-Pro%20Ser408,%20299.pdf)

Abstract: Citing sources that do not support the assertion being made can misinform readers, perpetuate mistakes and deny credit to the researchers who should have been acknowledged. To quantify citation fidelity in marine biology, we retrieved 198 papers from 2 recent issues of 33 marine biology journals. From each paper we randomly selected 1 citation, recovered the source material, and evaluated its appropriateness. We discovered that the assertion was ‘clearly supported’ by the citation in only 75.8% of cases, the support was ‘ambiguous’ in 10.6% of cases and the citation offered ‘no support’ to the original statement in 6.0% of cases. The remaining 7.6% of cases were classified as ‘empty’ (citations to secondary sources). We found no relationship between citation appropriateness and the position of the assertion in the paper, number of authors, number of references, article length and Journal Impact Factor. That 1 in 4 citations in marine biology should be viewed with scepticism is alarming and has important ramifications for both scholarship and bibliometrics.

Keywords: Bias, Bibliometrics, Biology, Citation, Citations, Ecology, Impact, Impact Factor, Impact Factors, Impact-Factor, Indicators, Journal, Journal Impact Factor, Journals, Marine Biology, Performance Indicators, Quotation Accuracy, References, Researchers, Scholarship, Science, Self-Citation, Sources, Support

# Title: Marine Environmental Research

Full Journal Title: [Marine and Freshwater Research](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5843&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=12bf62f6dca2f64888d2e85a9207f229)

ISO Abbreviated Title: Mar. Freshw. Res.

JCR Abbreviated Title: Mar Freshwater Res

ISSN: 1323-1650

Issues/Year: 8

Journal Country/Territory: Australia

Language: English

Publisher: C S I R O Publishing

Publisher Address: 150 Oxford St, PO Box 1139, Collingwood, Victoria 3066, Australia

Subject Categories:

Fisheries: Impact Factor 0.662, 22/34

Limnology: Impact Factor 0.662, 8/12

Marine & Freshwater Biology: Impact Factor 0.662, 46/70

Oceanography: Impact Factor 0.662, 20/41

? Buikema, Jr., A.L., McGinniss, M.J. and Cairns, Jr., J. (1979), Phenolics in aquatic ecosystems: A selected review of recent literature. *Marine Environmental Research*, **2** (2), 87-181.

Full Text: [1960-80\Mar Env Res2, 87.pdf](1960-80/Mar%20Env%20Res2,%2087.pdf)

Abstract: This review surveys the pertinent literature on phenolics in the aquatic ecosystem. Approximately 2% of the total organics manufactured in the US were phenols. Of the total phenolics produced in the US, 96% were synthetic and 4% were naturally occurring. Synthetic phenols arise from coking of coal, gas works and oil refineries, chemical plants, pesticide plants, wood preserving plants and dye manufacturing plants. Natural phenolics occur from aquatic and terrestrial vegetation and much of this is released by the pulp and paper industry.

Toxicity of phenolics has been studied on selected microbes (e.g. protozoa, yeast and bacteria), algae, duckweed, and numerous invertebrates and vertebrates. Depending on the organism tested, the acute toxicity of phenol varies from 6.5 to 1840 mg/litre phenol. For other phenolics toxicity ranges from 0.084 to 555 mg/litre. The toxicity of phenolics varies with the type, position and number of substitutions on the parent molecule. Environmental factors affect the toxicity of phenolics and these include photolytic action, microbial degradation, pH, water hardness and temperature. Based on limited data, toxicity of phenolics may be less in continuous flow tests than in their sensitivity to phenolics as does the presence of oxygen. A seasonal factor may also affect the sensitivity of various fish. Starvation and lack of suitable substrate for bottom fauna increases organism sensitivity to phenol. The source of test animals may affect their sensitivity to phenolics and this effect may be due to short-term physiological acclimation and genetic selection.

Studies on the biological effects of phenolics are limited and varied. Fish development and embryo survival were not affected by phenol levels less than 25 mg/litre. Amphibian embryos were sensitive to 0.5 mg/litre phenol. Pentachlorophenols inhibited fish growth at levels down to 1.74, μg/litre.

Exposure of fish to phenol in concentrations as low as 4 mg/litre caused haemorrhaging at the base of the fins. Two hour exposure to 6.5 mg/litre phenol caused disruption of blood vessel walls and gill epithelium. Oedema and blood infiltration was a common effect observed in most major tissues studied from fishes exposed to phenol. Phenol, at 12.5 mg/litre, reduces the levels of neurohormones in fish exposed for 10 days. The effects of pentachlorophenol on blood glucose and blood lactate levels, and *in vivo* and *in vitro* activity levels of seven liver enzymes of eels are discussed. Pentachlorophenol, at 1.8 μg/litre, decreased assimilation conversion efficiency in underyearling salmon. Phenol also affects immunoglobin levels, blood protein levels and tissue micro-element levels. Feeding rates are affected by phenolics. Phenolics affect oxygen consumption rates and the effect may be on uncoupling of oxidative phosphorylation with a subsequent reduction of ATP formation.

Many aspects of behaviour are affected by phenolics and the phases of ‘intoxication’ leading to death have been described for fish and invertebrates.

Fish detoxify phenolics by forming conjugate glucuronides and sulphates. Body burdens of phenolics varied with exposure time and exposure concentration. When fish pre-exposed to phenol are transferred to clean water, body burdens drop up to 90% after three to four hours. Depuration rates for other phenolics took longer; up to 30 days for pentachlorophenol.

Little research has been done on the cycling of phenol and phenolics (other than pesticides) in aquatic ecosystems. Microbial degradation will decompose phenolics rapidly if suitable bacteria are present. Other factors affecting the loss of phenolics from aquatic ecosystems include photolysis, adsorption and dilution. Phenol entering subterranean aquifers may not dilute or degrade very quickly. In one documented case well-water levels up to 200 mg/litre were measured 18 months after a spill.

Shen, L. and Jaffé, R. (2000), Interactions between dissolved petroleum hydrocarbons and pure and humic acid-coated mineral surfaces in artificial seawater. *Marine Environmental Research*, **49** (3), 217-231.

Full Text: [M\Mar Env Res49, 217.pdf](M/Mar%20Env%20Res49,%20217.pdf)

Abstract: The adsorption of total petroleum hydrocarbons (TPHs) on suspended particles in the marine environment is an important process affecting the fate of oils spilled in the ocean. Adsorption kinetics and adsorption isotherms of the water-soluble fraction of Fuel Oil No. 6 were per formed on pure and humic acid-modified montmorillonite, alumina and kaolinite. The rates of adsorption on all sorbents are very fast and a pseudo-equilibrium is reached within 0.5 h. Linear adsorption isotherms were obtained for TPH and individual aromatic hydrocarbons on all sorbents. Higher sorption coefficients (Kd) were obtained for the humic acid-coated clays compared to the pure clays. However, a great contribution of mineral surface to overall adsorption was found on humic acid-modified particles in this study. A linear relationship between the log K and log Kow was also found for individual compounds on both pure alumina (log Km) and humic acid-coated alumina (log Koc). (C) 2000 Published by Elsevier Science Ltd. All rights reserved.

Keywords: Oil Spills, Hydrocarbons, Sediment Pollution, Minerals, Humic Substances, Adsorption, Partitioning, Octanol/Water, Geochemistry, Hydrophobic Organic-Compounds, Performance Liquid-Chromatography, Natural Sediments, Unsaturated Conditions, Halogenated Organics, Aquifer Materials, Clay-Minerals, Model Solids, Sorption, Soil

# Title: Marine and Freshwater Research

Full Journal Title: Marine and Freshwater Research

ISO Abbreviated Title: Mar. Freshw. Res.

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Publisher Address: 150 Oxford St, PO Box 1139, Collingwood, Victoria 3066, Australia

Subject Categories:

Fisheries Limnology Marine & Freshwater Biology Oceanography: Impact Factor

? Scanes, P.R. (1997), Uptake and depuration of organochlorine compounds in Sydney rock oysters (Saccostrea-commercialis). *Marine and Freshwater Research*, **48**, 1-6.

Abstract: Field experiments were done to determine the rates of uptake and depuration of chlordane, dieldrin, heptachlor epoxide, PCBs, DDT, DDD and DDE in Sydney rock oysters (Saccostrea commercialis). Oysters from a clean source were placed in a contaminated location and concentrations of organochlorines determined in samples collected at a number of times during the deployment After 209 days (which was long enough for equilibrium to have been reached), the oysters were moved to an uncontaminated location and concentrations of the compounds were determined at various times. Mean weight of the oysters changed during the study, but not in any consistent manner. Mean content of lipids did not change significantly during the study. Detectable concentrations of all organochlorines were present after 3 days. Times to equilibrium and biological half-lives were calculated using kinetic models. Generally, rates of depuration were of the same order, but slower, than rates of uptake. There was a strong correlation between percentage lipid and organochlorine concentration, but little difference in times to equilibrium and biological half-lives derived from concentrations per wet weight and those per weight of lipid. The experiments show that times to equilibrium for each compound differ and that this should be taken into account when designing a programme to monitor these compounds.

# Title: Marine Geology

Full Journal Title: [Marine Geology](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5818&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=c59ef3636d858973cd0d5be0601454fc)

ISO Abbreviated Title: Mar. Geol.

JCR Abbreviated Title: Mar Geol

ISSN: 0025-3227

Issues/Year: 12

Journal Country/Territory: Netherlands

Language: Multi-Language

Publisher: Elsevier Science BV

Publisher Address: PO Box 211, 1000 AE Amsterdam, Netherlands

Subject Categories:

Geosciences, Interdisciplinary Oceanography: Impact Factor

French, P.W. (1996), Implications of a salt marsh chronology for the severn estuary based on independent lines of dating evidence. *Marine Geology*, **135** (1-4), 115-125.

Full Text: [M\Mar Geo135, 115.pdf](M/Mar%20Geo135,%20115.pdf)

Abstract: There has been much work done on metal trends in salt marsh sediment sequences, but relatively little on radiometric dating of these same deposits. Using the example of the Severn Estuary, southwest England, both of these techniques are used to demonstrate how temporal metal pollution trends can be spatially correlated throughout the estuary to provide a series of dated time planes representing 1840, 1936, 1951 and 1958. Using these time planes a stratigraphic correlation of the cyclic saltmarshes of the system is demonstrated. Using this correlation, it has been shown how vertical marsh accretion rates vary in the Severn Estuary with respect to both time and space and that the elevation and spatial position of the marsh surface is of fundamental importance when considering vertical accretion rates. From this, it becomes evident that the potential misconceptions which can arise when quoting single estimates of accretion for an estuary can be very misleading in an understanding of macro-scale estuarine processes.

Perissoratis, C. and Papadopoulos, G. (1999), Sediment instability and slumping in the southern Aegean Sea and the case history of the 1956 tsunami. *Marine Geology*, **161** (2-4), 287-305.

Full Text: [M\Mar Geo161, 287.pdf](M/Mar%20Geo161,%20287.pdf)

Abstract: The Aegean and Ionian seas, in Greece and adjacent regions, constitute the most tsunamigenic areas in Europe. The most recent large tsunami was a 20 m high wave that generated on 9 July 1956 in the Amorgos Basin, South Aegean Sea, in association with a *M*s=7.5 earthquake. We first present new evidence for sea floor sediment instability from bathymetric, shallow and intermediate penetration seismic profiles and a number of gravity cores. Second, we investigate the generation mechanism of the 1956 large tsunami. The determination of the mean repeat time of the minimum seismic ground acceleration required for slump triggering of sediment masses showed that in particular South Aegean basins, like the Argolikos and Amorgos ones, the mean recurrence of massive sediment slumping ranges between 50 and 100 years. In other basins, however, it is around or more than 500 years. In the southern Amorgos Basin, a large-scale sediment slump has been identified. This was probably triggered by the 1956 mainshock and/or its aftershock of *M*s=7.2 that occurred in the slump source area 13 min after the mainshock. The generation of the 1956 tsunami is attributed to the combined action of a reactivated large normal fault to the south of the Amorgos Island and to the occurrence of the large sediment slump.

Author Keywords: Sediment Slumping, Tsunami Generation, Seismic Stratigraphy, South Aegean Sea

Tappin, D.R., Watts, P., McMurtry, G.M., Lafoy, Y. and Matsumoto, T. (2001), The Sissano, Papua New Guinea tsunami of July 1998 - offshore evidence on the source mechanism. *Marine Geology*, **175** (1-4), 1-23.

Full Text: [M\Mar Geo175, 1.pdf](M/Mar%20Geo175,%201.pdf)

Abstract: The source of the local tsunami of 17th July 1998 that struck the north shore of Papua New Guinea remains controversial, and has been postulated as due either to seabed dislocation (fault) or sediment slump. Alternative source mechanisms of the tsunami were addressed by offshore investigation using multibeam bathymetry, sub-bottom profiling, sediment sampling and observation from the JAMSTEC Dolphin 3 K Remotely Operated Vehicle and Shinkai 2000 Manned Submersible. The area offshore of Sissano is a complex active convergent margin with subduction taking place along the New Guinea Trench. Dominant transpressional convergence results in diachronous collision of the highstanding North Bismarck Sea Plate in a westerly direction. The result is a morphological variation along the Inner Trench Slope, with the boundary between eastern and western segments located offshore Sissano in an area of on- and offshore subsidence. This subsidence, together with nearshore bathymetric focusing, is considered to increase the tsunamigenic potential of the Sissano area. The offshore data allow discrimination between tsunami generating mechanisms with the most probable source mechanism of the local tsunami as a sediment slump located offshore of Sissano Lagoon. The approximately 5-10 km(3) slump is located in an arcuate, amphitheatre-shaped structure in cohesive sediments that failed through rotational faulting. In the area of the amphitheatre there is evidence of recent seabed movement in the form of fissures, brecciated angular sediment blocks, vertical slopes, talus deposits and active fluid expulsion that maintains a chemosynthetic vent fauna. Dating of the slump event may be approximated by the age of the chemosynthetic faunas as well as by a seismic signal from the failing sediment mass. Faults in the area offshore Sissano are mainly dip-slip to the north with recent movement only along planes of limited lateral extent. A possible thrust fault is of limited extent and with minimal (cm) reverse movement. Further numerical modelling of the tsunami also supports the slump as source over fault displacements. (C) 2001 Elsevier Science B.V. All rights reserved.

Keywords: Tsunami, Papua New Guinea, Slumping, Seismology, Subduction, Current Plate Motions, Gulf-Of-Mexico, Underwater Landslides, Continental-Margin, Carbonate Cements, Growth, Waves, Seeps, Sea, Earthquake

Fryer, G.J., Watts, P. and Pratson, L.F. (2004), Source of the great tsunami of 1 April 1946: A landslide in the upper Aleutian forearc. *Marine Geology*, **203** (3-4), 201-218.

Full Text: [M\Mar Geo203, 201.pdf](M/Mar%20Geo203,%20201.pdf)

Abstract: The Unimak (eastern Aleutians) earthquake of April 1, 1946 is an enigma. The earthquake (*M*S=7.1) produced a disproportionately large tsunami (*M*t=9.3) which killed 167 people. The tsunami was highly directional, and projected its largest waves along a beam perpendicular to the Aleutian arc. Those waves passed just east of the Hawaiian Islands, ran the length of the Pacific, and were still large when they ran ashore in Antarctica. In the near field, the tsunami had very high runup (42 m at Scotch Cap) but rapid lateral decay (6 m at Sanak Village, 120 km to the east). No earthquake source can simultaneously explain the narrow beam of large waves in the far field and the rapid variation in near-source runup. The slow rupture, the tsunami directivity, the rapid variation in near-source wave heights, the period of the waves, and the strong *T*-phase generation, together suggest an earthquake-triggered landslide rather than a purely tectonic source. From USGS GLORIA imagery we have identified a candidate landslide within the aftershock zone of 1946. The slide bites into the Aleutian shelf at a depth of only 120 m, is 25 km across, 65 km long, and has a volume of 200–300 km3. A slide with these dimensions would produce a tsunami matching the observations while still satisfying the seismic data. Such slope failures appear to be common along the Aleutian forearc, which has serious implications for tsunami warning.

Keywords: Tsunami, Submarine Landslides, Aleutians, Glacial Sediments, Geologic Hazards

Maramai, A., Graziani, L. and Tinti, S. (2005), Tsunamis in the Aeolian Islands (southern Italy): A review. *Marine Geology*, **215** (1-2), 11-21.

Full Text: [M\Mar Geo215, 11.pdf](M/Mar%20Geo215,%2011.pdf)

Abstract: The Aeolian Islands, located in the south Tyrrhenian Sea to the west of Calabria and to the north of Sicily, constitute the Aeolian Volcanic Arc, characterized by a relevant volcanic activity with an established tsunamigenic potential. According to the documentary sources that are available for the Aeolian tsunamis, and that cover unfortunately only about the last 100 years, Stromboli is responsible for the majority of the events. Some cases are also known to have occurred at the islands of Salina and Vulcano. In terms of intensities, the most destructive events are those originated by the Stromboli volcano, reported to have produced severe destruction to boats and houses, and to have even caused injuries and fatalities. In this work, we focus on the historical events, and discard the paleotsunami occurrences that were probably associated with the ascertained flank collapses of the volcanic cones. We also neglect the recent destructive tsunamis of 30 December 2002, which were caused by a series of mass failures at the Sciara del Fuoco, since observations and analyses are of such an amount that deserve to be illustrated in devoted papers. The bulk of the present research consisted in collecting all the available data on the historical cases (the first in order of time is the July 1916 Stromboli tsunami) with the purpose of casting more light on their generation mechanism and on their effects, and consequently of contributing to the studies on assessment of tsunami hazard and risk in the Aeolian Islands and in the southern Tyrrhenian sea.

Keywords: Aeolian Islands, Historical Data, Tsunami, Volcanic Activity

Fine, I.V., Rabinovich, A.B., Bornhold, B.D., Thomson, R.E. and Kulikov, E.A. (2005), The Grand Banks landslide-generated tsunami of November 18, 1929: preliminary analysis and numerical modeling. *Marine Geology*, **215** (1-2), 45-57.

Full Text: [M\Mar Geo215, 45.pdf](M/Mar%20Geo215,%2045.pdf)

Abstract: On November 18, 1929, a *M*=7.2 earthquake occurred at the southern edge of the Grand Banks, 280 km south of Newfoundland. The earthquake triggered a large submarine slope failure (200 km3), which was transformed into a turbidity current carrying mud and sand eastward up to 1000 km at estimated speeds of about 60–100 km/h, breaking 12 telegraph cables. The tsunami generated by this failure killed 28 people, making it the most catastrophic tsunami in Canadian history. Tsunami waves also were observed along other parts of the Atlantic coast of Canada and the United States. Waves crossing the Atlantic were recorded on the coasts of Portugal and the Azores Islands. Tsunami waves had amplitudes of 3–8 m and runup of up to 13 m along the coast of the Burin Peninsula (Newfoundland). To simulate the slide-generated tsunami from this event, our initial analysis uses a shallow-water model; the slide was assumed to be a viscous, incompressible fluid layer; water was inviscid and incompressible. The preliminary results of the numerical modeling are encouraging, with computed and observed tsunami arrival times in reasonable agreement.

Keywords: Tsunami, Submarine Landslide, 1929 Grand Banks Earthquake, Numerical Modeling

Day, S.J., Watts, P., Grilli, S.T. and Kirby, J.T. (2005), Mechanical models of the 1975 Kalapana, Hawaii earthquake and tsunami. *Marine Geology*, **215** (1-2), 59-92.

Full Text: [M\Mar Geo215, 59.pdf](M/Mar%20Geo215,%2059.pdf)

Abstract: Our objective is to produce a mechanically realistic model for the 1975 Kalapana event that explains the overall deformation and geological evolution of the south flank of Kilauea, and reproduces most known earthquake and tsunami observations. To do this, we present a new structural interpretation of geological data from Kilauea, along with modeling of the tsunami using recent seismic analyses. In so doing, we hypothesize an offshore north-facing normal fault that we call the Kalapana fault, because of its limited onshore expression near Kalapana. We argue that several different interpretations of seismic data are simultaneously true, each coinciding with a specific geological structure. We perform a direct numerical simulation of the 1975 Kalapana tsunami, and we report results for the near field and the far field simultaneously. Our interpretation of geological structures provides sufficient constraints to derive three tsunami sources: the Kalapana fault, a slump, and a thrust fault. These three tsunami sources are mechanically coupled according to our model of Kilauea evolution, although their contributions to tsunami generation remain relatively distinct. Slump displacement predicts a small shear stress beneath Kilauea volcano. We find that our geological interpretation and tsunami sources are sufficiently robust to reproduce almost all tsunami observations. Repeated earthquakes like the 1975 Kalapana event will produce extension and subsidence in the upper flank of Kilauea, as well as compression and uplift of the toe region, accompanied by limited slump movement. These deformations appear to stabilize Kilauea and make catastrophic failure of the volcano flank less likely at this time.

Keywords: Kalapana, Hilo, Kahului, Honolulu, Hilina, Hawaii, Earthquake, Slump, Tsunami, Volcano, Kilauea, Extension, Subsidence, Thrust, Landslide, Shear Stress, Observation, Prediction, Generation, Propagation, Runup

# Title: Marine Policy

Full Journal Title: [Marine Policy](http://www.sciencedirect.com/science/journal/0308597X)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Parker, J., Doulman, D. and Collins, J. (2010), Citation analysis for the 1995 FAO Code of Conduct for Responsible Fisheries. *Marine Policy*, **34** (1), 139-144.

Full Text: [2010\Mar Pol34, 139.pdf](2010/Mar%20Pol34,%20139.pdf)

Abstract: This paper presents the results of a 2008 citation-analysis study that was undertaken for the 1995 FAO Code of Conduct for Responsible Fisheries and its associated instruments. The overall objective of this study was to contribute towards a strategy for improved dissemination, awareness raising and communication about the Code and its implementation. For each citation, additional information was collected to identify patterns by year, topic, author affiliation or type of literature. Results support previously suggested anecdotal patterns, in particular related to the diversity of publishing outlets and the high proportion of fisheries information published as grey literature. The results also point to areas of concern for long-term preservation and dissemination of fisheries information.

Keywords: Code of Conduct for Responsible Fisheries, Responsible Fisheries, Information, Citation Analysis

? Rose, N.A., Janiger, D., Parsons, E.C.M. and Stachowitsch, M. (2011), Shifting baselines in scientific publications: A case study using cetacean research. *Marine Policy*, **35** (4), 477-482.

Full Text: [2011\Mar Pol35, 477.pdf](2011/Mar%20Pol35,%20477.pdf)

Abstract: The marine sciences have undergone a sequence of historical changes related to new methodologies, approaches and challenges. Most recently, deteriorating natural ecosystems and threatened component species have prompted a renewed change in the focus of scientific research on the marine environment. This study analyzes the scientific literature on cetaceans during the period 2005-2008 to demonstrate that a key focus of modern research is on conservation-related topics, and then compares it to the period 1970-1973 to demonstrate that this new focus represents a shift from basic biological and ecological issues. On average, approximately 46% of papers published on whales, dolphins and porpoises in 2005-2008 were categorized as conservation oriented versus focused on biology or ecology. This contrasts to approximately 10% in 1970-1973. This shift parallels other marine research subjects, such as benthic communities, coral reefs and sea turtles and reflects a general paradigm shift in marine research towards anthropogenic impacts. This is important guidance for institutions and organizations that wish to base their agendas and decisions on state-of-the-art scientific priorities. (C) 2010 Elsevier Ltd. All rights reserved.

Keywords: Bibliometric Analysis, Cetaceans, Ecosystems, Funding, International Whaling Commission, Literature, Marine Conservation, Research Focus

# Title: Marine Pollution Bulletin

Full Journal Title: [Marine Pollution Bulletin](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5819&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=77d97b3f1c8ba21b3f2365a7ae1f3736)

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Subject Categories:

Environmental Sciences: Impact Factor 2.359, 51/192 (2010)

Marine & Freshwater Biology: Impact Factor 2.359, 15/92 (2010)

Wu, R.S.S. (1995), Selected papers from the international conference on marine pollution and ecotoxicology: Hong Kong, January 1995: Introduction. *Marine Pollution Bulletin*, **31** (4-12), 143.

Full Text: [M\Mar Pol Bul31, 143.pdf](M/Mar%20Pol%20Bul31,%20143.pdf)

Chan, K.M. (1995), Concentrations of copper, zinc, cadmium and lead in rabbitfish (*Siganus Oramin*) collected in Victoria Harbor, Hong Kong. *Marine Pollution Bulletin*, **31** (4-12), 277-280.

Full Text: [M\Mar Pol Bul31, 277.pdf](M/Mar%20Pol%20Bul31,%20277.pdf)

Abstract: The urban area of Hong Kong supports a population of about 4 million people, with an annual production of several hundred million tonnes of untreated domestic and industrial effluent. This causes significant marine pollution problems in Victoria Harbour. Moreover, urban runoff also brings pollutants to Victoria Harbour, This paper presents preliminary data on the concentrations of heavy metals from different parts of the rabbitfish (Siganus oramin) taken from Hung Hem, Wan Chai and the Central Ferry Pier, close to urban and sewage outfalls in Victoria Harbour, from June to September 1983, Metal concentrations in the seawaters and from the gills, viscera, vertebrae and muscle were determined by atomic absorption spectrophotometry. Concentrations of copper, zinc and lead in the muscle were found to be the lowest in the muscle as compared with other parts of the body (cadmium concentrations were similar in muscle and viscera), but concentrations were nevertheless still high (mean±SD, dry weight): 5.7±4.0 ppm for copper, 66.6±31.8 ppm for zinc, 3.3±1.1 ppm for cadmium and 19.1±6.3 ppm for lead, Cadmium and lead concentrations in the rabbitfish samples of this study were significantly higher than those previously reported in fish from the nearby Pearl River estuary.

Sze, P.W.C. and Lee, S.Y. (1995), The potential role of mucus in the depuration of copper from the mussels *Perna viridis* (L.) and *Septifer virgatus* (Wiegmann). *Marine Pollution Bulletin*, **31** (4-12), 390-393.

Full Text: [M\Mar Pol Bul31, 390.pdf](M/Mar%20Pol%20Bul31,%20390.pdf)

Abstract: Experiments were conducted to measure the mucus secretion rate in two common mussels in Hong Kong, Perna viridis (L.) and Septifer virgatus (Wiegmann), when chronically exposed to Cu (50 µgl-1). After a 3-month exposure period, the mucus production rate of P. viridis at 25°C in the metal treatment was 2.65 times that of the control (10.7 vs 4.0 mgg-1 dry wt h-1), while S. virgatus showed a 1.85 times difference (4.41 vs 2.38 mgg-1 dry wt h-1). Mucus secretion by P. viridis under acute Cu exposure (0.5 mgl-1) was significantly higher in the metal treatment than the control (13.43 vs 9.16 mgg-1 dry flesh wt). Metal contents of the mucus secreted was about 18 times those in the control and 6 times in the soft tissues. Therefore, mucus appears to be an effective agent for Cu depuration in the mussel. The significance of these results to the local distribution and abundance of the mussels is discussed.

Chan, K.M. (1995), Metallothionein: Potential biomarker for monitoring heavy metal pollution in fish around Hong Kong. *Marine Pollution Bulletin*, **31** (4-12), 411-415.

Full Text: [M\Mar Pol Bul31, 411.pdf](M/Mar%20Pol%20Bul31,%20411.pdf)

Abstract: Metallothioneins (MTs) are a family of low-molecular-weight, cysteine-rich proteins that have a high affinity for divalent ions. Recently, MT level has become a major biomarker for monitoring metal pollution in fish. As a first step towards the development of a reliable and standard assay method for the detection of fish MTs in Hong Kong waters, reverse transcription-polymerase chain reaction (RT-PCR) was employed to obtain complementary DNAs (cDNA) coding for goldfish (Carrasius auratus) and tilapia (Tilapia mossambica) MTs. Based on the cloned tilapia MT cDNA sequence, specific primers were designed to detect MT mRNA levels in tilapia tissues using RT-PCR, Screening of a common carp liver cDNA library also yielded MT cDNAs. For the development of an immune-assay for monitoring MT levels in fish tissues, synthetic peptide, made according to the conserved teleost MT N-terminal amino acid sequences, was employed to raise anti-fish MT antibodies, These molecular and immunological probes will be useful in 1. testing the feasibility of using tilapia MT levels as a biomarker for monitoring metal pollution in Hong Kong fish and 2. determining the basic physiological significance of MT in metal tolerance in tilapia.

Smith, P.J. (1996), Selective decline in imposex levels in the dogwhelk *Lepsiella scobina* following a ban on the use of TBT antifoulants in New Zealand. *Marine Pollution Bulletin*, **32** (4), 362-365.

Full Text: [M\Mar Pol Bul32, 362.pdf](M/Mar%20Pol%20Bul32,%20362.pdf)

Abstract: The level of imposer, the imposition of male characters in female gastropods, was compared in populations of dogwhelks before and after restrictions were introduced on the use of organotin antifouling paints in New Zealand. In one area subject only to pleasure craft there has been a significant decline in the percentage of imposer and in the relative penis size index (RPSI) in female dogwhelks. In a harbour area subject to both pleasure craft and commercial vessels there has been no decline in the percentage of imposer, but a significant decline in the RPSI.

Wu, R.S.S. and Lau, T.C. (1996), Polymer-ligands: A novel chemical device for monitoring heavy metals in the aquatic environments. *Marine Pollution Bulletin*, **32** (5), 391-396.

Full Text: [M\Mar Pol Bul32, 391.pdf](M/Mar%20Pol%20Bul32,%20391.pdf)

Abstract: Major problems involved in using bio-indicators to monitor heavy metals in the marine environment include standardizing a great variety of physical and biological factors which have a significant effect on metal accumulation. The fact that different species may have different accumulation strategies for different metals and also that the natural distribution of indicator species is limited, often prevents comparison between monitoring results in different geographic areas and hydrographic conditions. Furthermore, environmental effects on the uptake and depuration of the metals in the biological indicators are not well understood. In the present study, uptake of Cd, Pb and Zn by four polymer-ligands (i.e. Chelex (R) 100, Poly (4-vinylpyridine), Sephadex Sp C-25 and Amberlite IR-122) were studied. Laboratory results showed that Chelex (R) 100 was most effective in taking up the soluble fractions of these three metals at low ambient concentrations (0.1-10 mgl-1). Equilibrium at low concentrations was reached in about 21 days. Concentration factors after 21 days exposure ranged from 2500 to 5500, depending upon the metalspecies and ambient concentration. Both uptake and release of metals by Chelex are directly responsive to ambient concentrations and exposure time. Results of field transplantation of Chelex and mussels (Perna virvidis) also showed that Chelex accumulated significantly higher levels of Cd, Cr and Pb, similar levels of Cu and a lower level of Zn than those of mussels under natural field conditions. Coefficients of variations of metal uptake were also much smaller with Chelex. The suitability of using Chelex (R) 100 as a novel chemical device for monitoring metal pollution in the aquatic environment is evaluated against selection criteria established for metal bioindicators.

Swaileh, K.M. (1996), Seasonal variations in the concentrations of Cu, Cd, Pb and Zn in *Arctica islandica* L. (Mollusca: Bivalvia) from Kiel Bay, Western Baltic Sea. *Marine Pollution Bulletin*, **32** (8-9), 631-635.

Full Text: [M\Mar Pol Bul32, 631.pdf](M/Mar%20Pol%20Bul32,%20631.pdf)

Abstract: Seasonal variations in the concentrations of Cu, Cd, Pb and Zn in soft dry tissues of the ocean quahog, Arctica islandica, from Kiel Bay, Germany were studied, Significant monthly variations in the concentrations of the four metals were observed, The two essential metals, Cu and Zn, had their maximum values during the summer months, when the dry soft tissue weight of A, islandica was reaching its maximum values as well, The highest values of the non-essential metals, Cd and Pb, were observed in winter when the dry soft tissue weight of A, islandica was reaching its minimum values.

Morton, B. (1996), The subsidiary impacts of dredging (and trawling) on a subtidal benthic Molluscan community in the southern waters of Hong Kong. *Marine Pollution Bulletin*, **32** (10), 701-710.

Full Text: [M\Mar Pol Bul32, 701.pdf](M/Mar%20Pol%20Bul32,%20701.pdf)

Abstract: The macrobenthic fauna of the southern waters of Hong Kong were surveyed in April 1992, notably with regard to the Mollusca, Subsequently, parts of the area were extensively suction dredged for major construction projects, Commercial trawling continued alongside the dredging. In October 1994, with dredging close to finishing, six of the original 50 stations were resurveyed using the same gear and the Mollusca again re-examined, This study demonstrates that close to dredged sites, i.e. within 2 km, species and individual numbers of both the Gastropoda and Bivalvia had declined by approximately two thirds in the intervening period. With regard to the Gastropoda, most of the species losses were of specialist neogastropod predators, Post-dredging, the gastropod fauna was virtually dominated by opportunistic scavengers, notably Nassarius siquijorensis, Bursa rana and Murex trapa, These, however, were also dominant pre-dredging and this lends support to an earlier argument that disturbed inshore marine sediments favour the presence of such species, The bivalve fauna was dominated by a few species that are resistant to disturbance, such as Placamen calophylla, Corbula crassa and Minnivola pyxidatus. These species are of no commercial value and the former two have solid shells that are resistant to trawl damage and which are, actually, adaptations to avoid predation. Possibly, Veremolpa micra and Paphia undulata are new colonizers of the perturbated sea-bed, but this remains to be substantiated, This study postulates that settling silt plumes associated with dredging activity have exacerbated the problems of a sea-bed already disturbed as a result of trawling and pollution.

Figueras, M.J., Polo, F., Inza, I. and Guarro, J. (1997), Past, present and future perspectives of the EU bathing water directive. *Marine Pollution Bulletin*, **34** (3), 148-156.

Full Text: [M\Mar Pol Bul34, 148.pdf](M/Mar%20Pol%20Bul34,%20148.pdf)

Abstract: The objectives of the EC Bathing Water Directive are to protect the environment and public health by reducing the pollution of bathing water and by protecting it from further deterioration (EEC, 1976; Gilles, 1992), For almost twenty years, the EU Directive has remained as it was originally postulated and during this time important contradictions have become evident, Furthermore, the microbiological indicators and their numerical standards need to be evaluated to see whether they are appropriate as they were postulated, This is the most controversial aspect, because there is no general agreement among the many different researchers about what the most appropriate indicators are (Saliba & Helmer, 1990; Fewtrell & Jones, 1992), It is generally accepted that the standards need to be updated on the basis of modern epidemiology and science but it is also recognized that this will be a slow process (Grantham, 1992), Recently a proposal for a new Directive has been published (EEC, 1994a) which introduced some important changes into the microbiological parameters, The purpose of this report is to use our experience and the available literature to discuss the limitations and contradictions of the present Directive and compare them with the new proposed modifications, (C) 1997 Elsevier Science Ltd.

Law, R.J., Dawes, V.J., Woodhead, R.J. and Matthiessen, P. (1997), Polycyclic aromatic hydrocarbons (PAH) in seawater around England and Wales. *Marine Pollution Bulletin*, **34** (5), 306-322.

Full Text: [M\Mar Pol Bul34, 306.pdf](M/Mar%20Pol%20Bul34,%20306.pdf)

Abstract: Surface seawater samples collected during the period 1993-1995 from 177 stations around England and Wales have been analysed for 15 individual parent PAH compounds, using high-performance liquid chromatography with fluorescence detection, The sampling sites included 50 of the stations designated under the UK National Monitoring Programme and comprised estuarine, coastal and offshore locations, PAH concentrations at offshore sites were generally low or undetectable. Higher concentrations were found in many coastal and estuarine samples, with Sigma PAH concentrations ranging from none detected to 10, 7 µgl-1, almost three orders of magnitude greater than the highest concentration recorded for offshore waters, Particularly high concentrations of 2-and 3-ring PAH were detected close to a steel manufacturing plant on the River Tees (N-E England), predominantly in the dissolved phase. Only at this one site were the PAH concentrations sufficiently high to pose a risk of immediate mortality in exposed organisms, but about 15% of the samples analysed in this study came from wafers (almost all in industrialized estuaries) that may have the potential to affect the long-term wellbeing of a range of aquatic organisms.

Wu, R.S.S. (1999), Eutrophication, water borne pathogens and xenobiotic compounds: Environmental risks and challenges. *Marine Pollution Bulletin*, **39** (1-12), 11-22.

Full Text: [M\Mar Pol Bul39, 11.pdf](M/Mar%20Pol%20Bul39,%2011.pdf)

Abstract: Recent advances in pollution control and monitoring technologies, improved analytical capability, changes in government priorities and results of scientific studies have substantially changed our views and perceptions towards marine pollution in the last two decades. Globally, the problems caused by eutrophication, water borne pathogens and xenobiotic compounds are likely to be exacerbated and pose significant ecological and/or public health risks in the coming years, especially in developing countries. The large amount of anthropogenic input of nutrients has caused major changes in the structure and function of phytoplankton, zooplankton, benthic and fish communities over large areas, and such a trend is likely to continue in many coastal waters. Escalated public health risks associated with the increases in frequency and severity of toxic algal blooms are also of growing concern. Reduction of nutrient input through changes in land-use and farming practises, and the development of cost-effective methods for nutrient removal are required. Water borne pathogens affect large numbers of people through consumption of contaminated seafood and direct contact with contaminated water, and such problems are much more serious in developing countries. Current techniques in monitoring bacterial indicators in water and shellfish have clear limitations and cannot afford adequate protection to safeguard public health. Emerging molecular techniques, such as multiplex PCR and specific gene probes, are likely to provide new and cost effective tools for monitoring water borne pathogens in the coming years. Nowadays, xenobiotic compounds can be found almost everywhere in any marine ecosystems. Although these compounds normally occur at very low concentrations and their effects are not well understood, there is growing concern about the chronic exposure and bioconcentration/biomagnification of xenobiotic compounds. In particular, endocrine disrupters which may cause reproductive dysfunction and threaten species survival, are of growing concern. At present, most of our knowledge on toxic effects of xenobiotic compounds is derived from short-term exposure of a single species to high (environmentally unrealistic) and uniform concentrations under laboratory conditions. Data so derived are largely inadequate in predicting ecological effects in the field, in which multi-species are being exposed to varying, low concentrations under an interacting and complex environment. NOEC and LOEC for population/community/ecosystem, as well as the time required for population/community/ecosystems to recover after toxicant insult, are poorly known. These important topics, will become the major endeavours for ecotoxicologists in the years to come. (C) 1999 Elsevier Science Ltd. All rights reserved.

? Iyer, A., Mody, K. and Jha, B. (2005), Biosorption of heavy metals by a marine bacterium. *Marine Pollution Bulletin*, **50** (3), 340-343.

Full Text: [M\Mar Pol Bul50, 340.pdf](M/Mar%20Pol%20Bul50,%20340.pdf)

Abstract: Heavy metal chelation property of exopolysaccharide produced by Enterobacter cloaceae, a marine bacterium, isolated from the West Coast of India, is reported in this paper. The exopolysaccharide demonstrated excellent chelating properties with respect to cadmium (65%) followed by copper (20%) and cobalt (8%) at 100 mg/l heavy metal concentration. However, it could not chelate mercury. A comparative study of the percentage biosorption of the above mentioned metals is presented here.

Keywords: Enterobacter Cloaceae, Heavy Metal, Marine, Pollution, Chelation, Bacteria, Biosorption

? Asaoka, S. and Yamamoto, T. (2010), Characteristics of phosphate adsorption onto granulated coal ash in seawater. *Marine Pollution Bulletin*, **60** (8), 1188-1192.

Full Text: [2010\Mar Pol Bul60, 1188.pdf](2010/Mar%20Pol%20Bul60,%201188.pdf)

Abstract: The deterioration of sediments is a serious environmental problem. Controlling nutrient release fluxes from sediments is important to alleviating eutrophication and to reducing terrigenous nutrient loads. The purpose of this study was to evaluate the phosphate removal performance of granulated coal ash (GCA) from seawater, which is produced from coal thermal electric power generation. Batch experiments were carried out to investigate the removal kinetics of phosphate from seawater under both oxic and anoxic conditions. Phosphate was removed well from seawater under both oxic and anoxic conditions. The adsorption isotherm for phosphate revealed that GCA could remove phosphate effectively from seawater above a concentration of 1.7 mu mol L-1. GCA can reduce the concentration of phosphate in seawater effectively under anoxic conditions where iron type adsorbents cannot be applied. Therefore, GCA could potentially be used to adsorb phosphate in the organically-enriched sediment, which generally occurs under highly reductive conditions. (C) 2010 Elsevier Ltd. All rights reserved.

Keywords: Acid, Adsorbents, Adsorption, Adsorption Isotherm, Aqueous-Solution, Blast-Furnace Slag, Calcium Phosphate, Coal, Coal Ash, Concentration, Environmental, Environmental Problem, Eutrophication, Experiments, Fluxes, Generation, Iron, Isotherm, Kinetics, L1, Loads, Nutrient, Nutrient Loads, Performance, Phosphate, Phosphate Adsorption, Phosphate Removal, Power, Purpose, Release, Removal, Rights, Seawater, Sediment, Sediments, Sorption

? Cao, X.Y., Yang, G.P., Wei, S.W. and Han, H. (2011), Sorption of heavy oil onto Jiaozhou Bay sediment. *Marine Pollution Bulletin*, **62** (4), 741-746.

Full Text: [2011\Mar Pol Bul62, 741.pdf](2011/Mar%20Pol%20Bul62,%20741.pdf)

Abstract: The sorption of heavy oil onto sediment collected from Jiaozhou Bay was studied in a series of kinetic and equilibrium experiments using NaCl solutions. The effects of temperature, salinity, and pH of the medium on sorption behavior were investigated. Sorption equilibrium of the heavy oil and sediment was established within 60 min. The process was shown to follow a pseudo-second-order kinetic rate model. The sorption rate decreased with increasing initial heavy oil concentration in the solution. Batch equilibrium experiments showed that the sorption isotherm could be described by the Freundlich model. The standard free energy change and enthalpy change at the temperatures studied (283, 288, 293, and 298 K) were negative. These findings indicated that the process was spontaneous and exothermic. Salinity, pH and temperature influenced sorption performance. Sorption was favored by higher concentrations of NaCl, by lower pH values and by lower temperatures. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords: Acid, Activated Carbon, Adsorptive Removal, Aqueous-Solution, Batch, Dye, Equilibrium, Freundlich, Heavy Oil, Isotherm, Kinetic, Kinetics, Kinetics, pH, Seawater, Sediment, Sorption, Thermodynamics, Thermodynamics

? Yang, G.P., Ding, H.Y., Cao, X.Y. and Ding, Q.Y. (2011), Sorption behavior of nonylphenol on marine sediments: Effect of temperature, medium, sediment organic carbon and surfactant. *Marine Pollution Bulletin*, **62** (11), 2362-2369.

Full Text: [2011\Mar Pol Bul62, 2362.pdf](2011/Mar%20Pol%20Bul62,%202362.pdf)

Abstract: The sorption behavior of nonylphenol (NP, a toxic endocrine disruptor) on marine sediments was studied in detail through a series of kinetic and thermodynamic sorption experiments. The results showed that the sorption reaction of NP on marine sediments reached equilibrium in 1.5 h and that it accorded well with the non-linear Ho-McKay pseudo-second-order model. The sorption isotherms of NP on H2O-treated sediments could be well described by the Linear isotherm model, while the sorption isotherm on H2O2-treated sediments could be well fitted with the Freundlich isotherm model. A positive correlation was found between the distribution coefficient (K(d)) and the sediment organic carbon contents. The medium salinity showed a positive relation with the K(d) and a negative relation with the dissolved organic carbon (DOC). Hexadecyl trimethyl ammonium bromide (CTAB) enhanced the sorption amount of NP the most, while sodium dodecylbenzenesulfonate (SDBS) enhanced it the least. The sorption reaction of NP on marine sediments was a spontaneous, physical, exothermic and entropy-decreasing process. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords: Adsorption, Ctab, Degradation, Desorption, Distributed Reactivity Model, Equilibrium, Freundlich, Freundlich Isotherm Model, Isotherm, Kinetic, Linear Isotherm Model, Marine Sediments, Matter, Nonylphenol, Polyethoxylates, River Estuary, Soils, Sorption, Systems

? Cao, X.Y., Han, H.Y., Yang, G.P., Gong, X.F. and Jing, J.N. (2011), The sorption behavior of DDT onto sediment in the presence of surfactant cetyltrimethylammonium bromide. *Marine Pollution Bulletin*, **62** (11), 2370-2376.

Full Text: [2011\Mar Pol Bul62, 2370.pdf](2011/Mar%20Pol%20Bul62,%202370.pdf)

Abstract: The sorption behavior of *p,p*’- and *o,p*’-dichlorodiphenyltrichloroethane (DDT) in the presence of a cationic surfactant cetyltrimethylammonium bromide (CTAB) on sediment was studied. Batch experiments were carried out to investigate the kinetics and thermodynamics of the process. The kinetic behavior of these three chemicals on sediment was described by pseudo-second-order kinetic equations, and the isotherms followed the Freundlich model well. The presence of CTAB was able to remarkably accelerate and enhance the sorption of DDT, whereas DDT showed no effect on the sorption of CTAB in our considered concentration ranges. The thermodynamic parameters, such as standard enthalpy change (ΔH(0)), standard entropy change (ΔS(0)) and standard Gibbs free energy change (ΔG(0)) showed that the sorption process of *p,p*’- and *o,p*’-DDT was physical, spontaneous and exothermic, and the randomness at the solid-liquid interface increased during the process. In the presence of CTAB, the sorption of DDT showed significantly negative ΔG(0) and ΔH(0) values. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords: Activated Carbon, Adsorption, Cationic Surfactant, Complex Pollution System, CTAB, DDT, Desorption, Equilibrium, Freundlich, Kinetic, Kinetics, Marine Sediment, Marine-Sediments, Model, Organic-Compounds, Organochlorine Pesticides, Sorption, Thermodynamics

? Sun, J.S., Wang, M.H. and Ho, Y.S. (2012), A historical review and bibliometric analysis of research on estuary pollution. *Marine Pollution Bulletin*, **64** (1), 13-21.

Full Text: [2012\Mar Pol Bul64, 13.pdf](2012/Mar%20Pol%20Bul64,%2013.pdf); [2011\Mar Pol Bul-Sun-1.pdf](file:///H:\HO-reference\2011\Mar%20Pol%20Bul-Sun-1.pdf); [2011\Mar Pol Bul-Sun.pdf](file:///H:\HO-reference\2011\Mar%20Pol%20Bul-Sun.pdf)

Abstract: A bibliometric method based on Science Citation Index-Expanded published by the Thomson Reuters was used to quantitatively assess the global estuary pollution research from 1991 to 2010. The main results were as follows: there had been a notable growth trend in publication outputs. Marine Pollution Bulletin was the most active journal. Environmental sciences were top popular subject categories. USA produced the most single, internationally collaborative, first authored and corresponding authored articles. The Chinese Academy of Sciences was the most productive institute for the total articles. Sediment was the most active research topic, which ranked 1st in article title, article abstract, author keyword, and Key-Words Plus analysis, respectively. Heavy metals received stable focus on a high degree in the field of estuary pollution research. Mostly refractory organic compounds (e.g. PAHs) became more active. Biomarkers and bioaccumulation both were active issues. Eutrophication of estuarine waters receives increasing concern in estuary pollution research.

# Title: Marketing Health Services

Full Journal Title: Marketing Health Services

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Weeks, W.B., Wallace, A.E. and Kimberly, B.C.S. (2001), The changing face of pharmaceutical advertising - A look at medical journals reveals a new era in advertising. *Marketing Health Services*, **21** (3), 27-30.

Keywords: Advertising, Journals, Medical, Medical Journals

# Title: Marketing Science

Full Journal Title: Marketing Science

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Stremersch, S. and Verhoef, P.C. (2005), Globalization of authorship in the marketing discipline: Does it help or hinder the field? *Marketing Science*, **24** (4), 585-594.

Full Text: [2005\Mar Sci24, 585.pdf](2005/Mar%20Sci24,%20585.pdf)

Abstract: Marketing scholars have reflected upon the marketing discipline’s internal evolution before. However, no prior study has assessed the globalization of authorship in our discipline, let alone assessed its consequences for the field. This paper addresses the following two questions: (1) Is there evidence of increasing globalization of authorship in the marketing discipline? (2) If so, does it help or hinder the field? Our work shows empirically how the globalization of our discipline evolved, how U.S. dominance is fading, and which countries experienced a rise in productivity of their affiliate and native scholars. Globalization hinders the field, because it has a negative effect on the impact of several major journals (most importantly, the Journal of Marketing and the Journal of Marketing Research). Globalization helps the field, because it has a positive effect on the diversity of our discipline. Important implications of our research are: (1) Journals and sponsoring organizations should strive for more international meetings. (2) Editors, reviewers, and authors should pay more attention to the global relevance of the research they publish, review, and submit. (3) Individual researchers should aim to be part of the global community of marketing scientists through, for instance, international research visits.

Keywords: Bibliometrics, Citation Analysis, Consumer Research, Economics, Globalization, Journal Citations, Journal Diversity, Journal Impact, Journals, Perspective, Philosophy of Science, Products, Research, Science, Truth

? Shugan, S.M. (2008), Introduction to the special classics issue. *Marketing Science*, **27** (1), 9-11.

Full Text: [2008\Mar Sci27, 9.pdf](2008/Mar%20Sci27,%209.pdf)

Abstract: This special classics edition of Marketing Science presents seven of our early, most highly rated articles according to the Social Sciences Citation Index (R) (developed by the Institute of Scientific Information), published before widespread library subscriptions to Marketing Science and before formal and systematic inclusion in the SSCI index. This issue includes Thaler (1985), Guadagni and Little (1983), Jeuland and Shugan (1983), Anderson (1985), Hauser and Shugan (1983), McGuire and Staelin (1983), and Pasternack(1985). Among other benefits, these articles should now enjoy widespread library access, inclusion in numerous databases, availability in electronically searchable format, and formal inclusion in citation services. This introduction to the special issue also summarizes some findings from our all-time most highly cited articles in Google Scholar: Thaler (1985), Anderson and Sullivan (1993), Anderson and Weitz (1989), Guadagni and Little (1983), Griffin and Hauser (1993), Jeuland and Shugan (1983), Novak et al. (2000), Bolton (1998), Anderson (1985), and Pasternack(1985). Finally, it summarizes articles excelling on citations per year: Acquisti and Varian (2005) and Lynch and Ariely (2000). The best is yet to come.

Keywords: Articles, Channel Strategy, Citation, Citations, Classic Articles, Competitive Channel Strategy, Customer, Databases, Defensive Strategy, Google Scholar, Greatest Hits, Highest Impact, Highly Cited Articles, Mental Accounting, Most-Cited Articles, Online, Return Policies, Satisfaction, Scanner Data, Science, SSCI, Transaction Cost Analysis

# Title: Massachusetts Nurse

Full Journal Title: Massachusetts Nurse

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

(2003), Health & safety news briefs. *Massachusetts Nurse*, **74** (3), 12.

Full Text: [M\Mas Nur74, 12.pdf](M/Mas%20Nur74,%2012.pdf)

# Title: Materiales de Construccion

Full Journal Title: Materiales de Construccion

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Rojas-Sola, J.I. and de San-Antonio-Gomez, C. (2010), Bibliometric analysis of Spanish scientific publications in the subject Construction & Building Technology in Web of Science database (1997-2008). *Materiales de Construccion*, **60** (300), 143-149.

Full Text: [2010\Mat Con60, 143.pdf](2010/Mat%20Con60,%20143.pdf)

Abstract: In this paper the publications from Spanish institutions listed in the journals of the Construction & Building Technology subject of Web of Science database for the period 19972008 are analyzed. The number of journals in whose is published is 35 and the number of articles was 760 (Article or Review). Also a bibliometric assessment has done and we propose two new parameters: Weighted Impact Factor and Relative Impact Factor; also includes the number of citations and the number documents at the institutional level. Among the major production Institutions with greater scientific production, as expected, the Institute of Constructional Science Eduardo Torroja (CSIC), while taking into account the weighted impact factor ranks first University of Vigo. On the other hand, only two journals Cement and Concrete Materials and Materials de Construction agglutinate the 45.26% of the Spanish scientific production published in the Construction & Building Technology subject, with 172 papers each one. Regarding international cooperation, include countries such as England, Mexico, United States, Italy, Argentina and France.

Keywords: Analysis, Argentina, Assessment, Bibliometric, Bibliometric Analysis, Bibliometric Assessment, Citations, Construction & Building Technology, Cooperation, CSIC, Database, England, First, France, Impact, Impact Factor, Impact Factors, Institutions, International, International Cooperation, Italy, Journals, Mexico, Papers, Publications, Research Centers, Scientific Production, Scientific Publications, Spanish Scientific Production, Spanish Universities, United States, Web of Science

# Title: Materials Chemistry and Physics

Full Journal Title: [Materials Chemistry and Physics](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5580&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=e5d4868174b5f91ab80c31a4a23c329c)

ISO Abbreviated Title: Mater. Chem. Phys.

JCR Abbreviated Title: Mater Chem Phys

ISSN: 0254-0584

Issues/Year: 18

Journal Country/Territory: Switzerland

Language: Multi-Language

Publisher: Elsevier Science SA

Publisher Address: PO Box 564, 1001 Lausanne, Switzerland

Subject Categories:

Materials Science: Impact Factor

? Kosmulski, M., Jaroniec, M. and Szczypa, J. (1983), Studies of isotope exchange kinetics at the electrolyte solution solid interface. *Materials Chemistry and Physics*, **9** (4), 351-358.

Full Text: [M\Mat Che Phy9, 351.pdf](M/Mat%20Che%20Phy9,%20351.pdf)

Abstract: Models of isotope exchange at the electrolyte solution/ solid Interface are discussed. These models distinguish between different steps of the exchange process of radioactive ions between the bulk solution and the solid phase. Mathematical description of the above models leads to a universal relationship describing the isotope exchange process. The experimental data for systems SrSO4 — Srx2+ ions and Al2O3 containing precipitated and adsorbed Fe(solid) — Fex3+ ions in the solution are discussed in the light of the models presented.

? Kosmulski, M., Dobrowolski, R., Jaroniec, M. and Szczypa, J. (1984), Studies of heterogeneous isotope exchange of Cd(II) between the solution and the surface-layer formed on aluminum-oxide and activated carbon. *Materials Chemistry and Physics*, **11** (2), 195-200.

Full Text: [M\Mat Che Phy11, 195.pdf](M/Mat%20Che%20Phy11,%20195.pdf)

Abstract: The dependence of the isotope exchange kinetic curves on *I*∞/*Io* is studied, where I∞ denotes the equilibrium activity and Io is the initial activity of the solution. Experimental kinetic curves of isotope exchange of Cd(II) ions between the bulk solution and the surface layer formed on aluminium oxide and activated carbon (charcoal) are compared with theoretical calculations.

Martinez, S. (2002), Inhibitory mechanism of mimosa tannin using molecular modeling and substitutional adsorption isotherms. *Materials Chemistry and Physics*, **77** (1), 97-102.

Full Text: [M\Mat Che Phy77, 97.pdf](M/Mat%20Che%20Phy77,%2097.pdf)

Abstract: A semiempirical approach involving quantum chemical calculations was used to rationalize the mimosa tannin inhibitory action. The molecular spatial structure, atomic charges, dipole moment, HOMO-LUMO energy gap and HOMO density of four types of flavanoid units that constitute mimosa tannin, have been theoretically investigated using HyperChem 5.11 computer package. Optimization of the molecular geometry yielded a non-planar structure with the electron charge density distributed non-uniformly. The HOMO-LUMO energy gap was used to determine the electron donating ability of the molecule. The highest values of the HOMO density was found in the vicinity of the functional groups indicating them as most probable adsorption centers.

A schematic representation of the different modes of adsorption of mimosa tannin is presented. The projected molecular area for a particular molecular orientation was compared to the area occupied by X water molecules displaced from the surface in the process of adsorption. X was determined from the Flory-Huggins, Dhar-Flory-Huggins and Bockris-Swinkels substitutional adsorption isotherms applied to the data obtained from the gravimetric experiments performed on low carbon steel specimen in 0.1 M H2SO4 solution at 30±1°C. The value of X approximate to 4, and most probable vertical orientation tannin molecules in the adsorbed state were deduced from these considerations. (C) 2002 Elsevier Science B.V. All rights reserved.

Keywords: Vcorrosion, Low Carbon Steel, Tannin, Substitutional Isotherm, Molecular Modeling, Acid Corrosion, Mild-Steel

Quraishi, M.A., Ansari, F.A. and Jamal, D. (2002), Thiourea derivatives as corrosion inhibitors for mild steel in formic acid. *Materials Chemistry and Physics*, **77** (3), 687-690.

Full Text: [M\Mat Che Phy77, 687.pdf](M/Mat%20Che%20Phy77,%20687.pdf)

Abstract: Selected thiourea derivatives have been synthesized and evaluated as corrosion inhibitors of mild steel in 20% formic acid by weight loss and potentiodynamic polarization methods All of these compounds have shown very good inhibition efficiency (IE) in the formic acid. IE of these compounds has been found to vary with the concentration of the compounds, solution temperature, immersion time and concentration of the acid solution. The adsorption of these compounds on the steel surface from the acid has been found to obey Temkin’s adsorption isotherm. The values of activation energy (*E*a) and free energy of adsorption (Δ*G*ads) indicated physical adsorption of these compounds on the steel surface. The potentiodynamic polarization studies revealed that all the compounds are mixed type inhibitors.

Keywords: Mild Steel, Potentiodynamic Polarization, Temkin’s Adsorption Isotherm, Thiourea Derivatives

Quraishi, M.A. and Sharma, H.K. (2002), 4-Amino-3-butyl-5-mercapto-1,2,4-triazole: A new corrosion inhibitor for mild steel in sulphuric acid. *Materials Chemistry and Physics*, **78** (1), 18-21.

Full Text: [M\Mat Che Phy78, 18.pdf](M/Mat%20Che%20Phy78,%2018.pdf)

Abstract: A new corrosion inhibitor namely 4-amino-3-butyl-5-mercapto-1,2, 4-triazole (ABMT) has been synthesized and its inhibitive performance towards the corrosion of mild steel in 1 N sulphuric acid (H2SO4) investigated by weight loss and potentiodynamic polarization techniques. Potentiodynamic polarization measurements clearly reveal that the investigated inhibitor is of mixed type. The adsorption of the inhibitor on the metal surface in the acid solution was found to obey Temkin’s adsorption isotherm. The influence of temperature, immersion time and acid concentration was also studied in the presence of ABMT in H2SO4.

Keywords: Corrosion Inhibition, Mild Steel, Sulphuric Acid, Triazole

Quraishi, M.A. and Sardar, R. (2002), Corrosion inhibition of mild steel in acid solutions by some aromatic oxadiazoles. *Materials Chemistry and Physics*, **78** (2), 425-431.

Full Text: [M\Mat Che Phy78, 425.pdf](M/Mat%20Che%20Phy78,%20425.pdf)

Abstract: 2-Hydroxyphenyl-5-mercapto-1-oxa-3, 4-diazole (HMO), 2-phenyl-5-mercapto-1-oxa-3, 4-diazole (PMO), and 2-cinnamyl-5-mercapto-1-oxa-3, 4-diazole (CMO) were synthesized in the laboratory and their influence on the inhibition of corrosion of mild steel in 1 N HCl and 1 N H2SO4 was investigated by weight loss and potentiodynamic polarization techniques. The inhibition efficiency (IE) of these compounds was found to vary with concentration, temperature and immersion time. Good IE was evidenced in both acid solutions. The adsorption of these compounds on mild steel surface for both acids were found to obey Temkin’s adsorption isotherm. The potentiodynamic polarization data have shown that compounds studied predominantly behaves as cathodic inhibitors in both acid solutions.

Keywords: Corrosion Inhibition, Steel, Aromatic Oxadiazoles

? Hosseini, M., Mertens, S.F.L., Ghorbani, M. and Arshadi, M.R. (2003), Asymmetrical Schiff bases as inhibitors of mild steel corrosion in sulphuric acid media. *Materials Chemistry and Physics*, **78** (3), 800-808.

Full Text: [2003\Mat Che Phy78, 800.pdf](2003/Mat%20Che%20Phy78,%20800.pdf)

Abstract: Two newly synthesised Schiff bases [H2A3, N,N’-ortho-phenylene(salicylaldimine-acetylacetone imine) and H2A4, N,N’-ortho-phenylene(salicylaldirnine-2-hydroxy-1-naphthaldimine)] were studied as inhibitors for the corrosion of mild steel in 0.5 mol dm-3 sulphuric acid. Results of weight loss, electrochemical impedance and Tafel polarisation measurements consistently identify both compounds as good inhibitors, with efficiencies of around 95% at a concentration of 400 ppm. The inhibition is in both cases of a mixed anodic-cathodic nature. Differences in inhibition efficiency between H2A3 and H2A4 are correlated with their chemical structures. Several adsorption isotherms are assessed, and the Temkin isotherm is found to provide an accurate description of the adsorption behaviour of the investigated Schiff bases. (C) 2002 Elsevier Science B.V. All rights reserved.

Keywords: Metals, Corrosion, Adsorption, Organic Compounds, Copper, Adsorption, Behavior, Iron

? Guo, J. and Lua, A.C. (2003), Textural and chemical properties of adsorbent prepared from palm shell by phosphoric acid activation. *Materials Chemistry and Physics*, **80** (1), 114-119.

Full Text: [2003\Mat Che Phy80, 114.pdf](2003/Mat%20Che%20Phy80,%20114.pdf)

Abstract: Textural and chemical characterisations of adsorbent prepared from palm shell, an abundantly available carbonaceous solid waste from palm oil processing mills in some tropical countries, by phosphoric acid (H3PO4) activation were carried out in this paper. The effects of activation temperature and H3PO4 impregnation on the textural and chemical properties of the adsorbent were investigated. Gas-phase adsorption of nitrogen dioxide (NO2) and ammonia (NH3) onto the palm shell adsorbents was studied. The discrepancies of adsorptive capacity between the adsorbent with H3PO4 impregnation and that by thermal activation, which had equivalent BET surface areas, were due to the presence of surface functional groups on the chemically activated samples, as detected by Fourier transform infrared spectroscopy (FTIR). The mechanism of H3PO4 activation of palm shell for the evolution of porosity was also proposed. (C) 2002 Elsevier Science B.V All rights reserved.

Keywords: Acid Activation, Activation, Activation Temperature, Adsorbent, Adsorbents, Adsorption, Ammonia, BET, BET Surface Area, Capacity, Carbons, Evolution, Fourier Transform Infrared, Fourier Transform Infrared Spectroscopy, FTIR, Gas Phase Adsorption, Gas-Phase Adsorption, H3PO4, H3PO4 Activation, Impregnation, Infrared, NH3, Nitrogen, Palm Shell, Porosity, Science, Surface Chemistry, Temperature, Thermal Activation, Wood

Guo, Y.P., Zhang, H., Tao, N.N., Liu, Y.H., Qi, J.R., Wang, Z.C. and Xu, H.D. (2003), Adsorption of malachite green and iodine on rice husk-based porous carbon. *Materials Chemistry and Physics*, **82** (1), 107-115.

Full Text: [M\Mat Che Phy82, 107.pdf](M/Mat%20Che%20Phy82,%20107.pdf)

Abstract: Adsorption isotherms of I2 and malachite green (MG) by rice husk-based porous carbons (RHCs) from aqueous medium have been studied. Three samples of carbons prepared by NaOH-activation, three samples prepared by KOH-activation and two samples of commercial carbons have been studied. and the adsorption isotherms have been determined after modifying the carbon surfaces by oxidation with nitric acid and hydrogen peroxide and after degassing at 800 degreesC. The results have been found to follow the Freundlich adsorption isotherm. Three samples of N series have larger capacity for removing I2 and MG from solution compared to that of the tested commercial carbons. The adsorption capacity of I2 is Similar for K series and commercial carbons. and the capacity of commercial carbons for MG is larger than K series. The adsorption capacity of I2 on oxidation carbons has increased for hydrogen peroxide treatment and decreased for nitric acid, and that of MG is decreased. But the adsorption capacities of I2 and MG increase on degassing. On the other hand, the adsorption of I2 increases after modifying the carbon surfaces by HCl without oxidation. Suitable mechanisms have been proposed. (C) 2003 Elsevier Science B.V. All rights reserved.

Keywords: Rice Husk, Carbon, Adsorption, Malachite Green, Double-Layer Capacitance, Activated Carbon, Mechanism, Removal, Shell

? Yin, C.Y., Aroua, M.K. and Daud, W.M.A.W. (2008), Polyethyleneimine impregnation on activated carbon: Effects of impregnation amount and molecular number on textural characteristics and metal adsorption capacities. *Materials Chemistry and Physics*, **112** (2), 417-422.

Full Text: [2008\Mat Che Phy112, 417.pdf](2008/Mat%20Che%20Phy112,%20417.pdf)

Abstract: This paper presents findings on polyethyleneimine (PEI) impregnation on palm shell activated carbon (AC) with regards to effects of impregnation amount and types of PEI used on surface characteristics as well as metal ions adsorption capacities of the AC. Fundamental interactions between PEI molecules and metal ions on textural surface (micro- and mesopores) of the AC are elucidated. Three types of low molecular weight PEI distinguished by their molecular numbers, Mn (423, 600 and 1200) are used for the impregnation process. Impregnation at 8.41 wt% 423-PEI/AC provides optimum increases for nickel and copper adsorption capacities by factors of 2.6 and 1.5 respectively at 49% reduction of Brunauer-Emmett-Teller (BET) surface area as compared to virgin AC. Only 423-PEI molecules are shown to have considerably filled the micropores of AC whereas the 600- and 1200-PEI molecules are too large (in terms of molecular sizes) to infiltrate the micropores.(c) 2008 Elsevier B.V. All rights reserved.

Keywords: Activated Carbon, Adsorption, Bet, Carbon, Copper, Copper Adsorption, Impregnation, Ions, Mechanism, Metal Adsorption, Metal Ions, Microporous Materials, Molecules, Nickel, Palm Shell, Polyethyleneimine, Process, Reduction, Removal, Surface Area, Surfaces, Weight

? Chen, N., Zhang, Z.Y., Feng, C.P., Li, M.A., Zhu, D.R. and Sugiura, N. (2011), Studies on fluoride adsorption of iron-impregnated granular ceramics from aqueous solution. *Materials Chemistry and Physics*, **125** (1-2), 293-298.

Full Text: [2011\Mat Che Phy125, 293.pdf](2011/Mat%20Che%20Phy125,%20293.pdf)

Abstract: This study evaluated the effectiveness of iron-impregnated granular ceramics in removing fluoride from aqueous solution. Kanuma mud, zeolite, starch and FeSO4 center dot 7H(2)O/ Fe2O3 mixed to prepare granular ceramic at room temperature by granulation procedure with the mass ratio of 4:3:2:1. Both the adsorbents were characterized by SEM, EDS and BET surface area. The various experimental parameters investigated for fluoride adsorption from aqueous solution were: contact time, initial pH, initial fluoride concentration and temperature. The GC (FeSO4 center dot 7H(2)O) is more effective for fluoride removal than GC (Fe2O3) in adsorption capacity. The optimum pH for fluoride removal on GC (Fe2O3 center dot 7H(2)O) and GC (Fe2O3) was 7.0 and 4.0, respectively. The experimental data fitted reasonably well to both Langmuir and Freundlich isotherm models for these two adsorbents. The two adsorption process followed pseudo-second-order kinetics with intra-particle diffusion as the rate determining step. The calculated thermodynamic parameters showed that both of the adsorption processes were thermodynamically favorable, spontaneous and endothermic in nature. (C) 2010 Elsevier B.V. All rights reserved.

Keywords: Adsorbents, Adsorption, Adsorption Capacity, Aqueous Solution, BET, BET Surface Area, Capacity, Carbon, Concentration, Data, Defluoridation, Diffusion, Drinking-Water, EDS, Effectiveness, Endothermic, Equilibrium Isotherms, Experimental, Fluoride, Fluoride Adsorption, Fluoride Removal, Freundlich, Freundlich Isotherm, Granular Ceramics, Granulation, Intra-Particle Diffusion, Intraparticle Diffusion, Iron-Impregnated, Isotherm, Kinetic Studies, Kinetics, Langmuir, Mechanism, Models, pH, Procedure, Pseudo Second Order, Pseudo Second Order Kinetics, Pseudo-Second-Order, Pseudo-Second-Order Kinetics, Red Mud, Removal, Rights, Room Temperature, SEM, Solution, Starch, Surface, Surface Area, Temperature, Thermodynamic, Thermodynamic Parameters, Zeolite

# Title: RMZ – Materials and Geoenvironment

Full Journal Title: RMZ – Materials and Geoenvironment

ISO Abbreviated Title:

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ISSN:

IDS Number:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Štrkalj, A., Malina, J. and Rađenović, A. (2009), Waste mould sand-potential low-cost sorbent for nickel and chrome ions from aqueous solution. *RMZ – Materials and Geoenvironment*, **56** (2), 11-18.

Full Text: [2009\RMZ Mat Geo57, 159.pdf](2009/RMZ%20Mat%20Geo57,%20159.pdf)

Abstract: In the present work investigated the sorption of the metal ions on waste mould sand, which is solid residue of gray iron foundry industry. Waste mould sand can be used as a new sorption material for removing some toxic metals from aqueous solution. The system variables studied include initial concentration of Ni(II) and Cr(VI) ions and agitation time. Metal ion sorption was strongly dependent on initial concentration and agitation time. The experimental data fitted well to the Freundlich and Langmuire isotherms.

Keywords: Waste Mould Sand, Sorption, Nickel Ions, Chromium Ions

? Fajfar, P., Bombač, D. and Markoli, B. (2010), Flow stresses and activation energy of BRCMO tool steel. *RMZ – Materials and Geoenvironment*, **57** (2), 159-164.

Full Text: [2010\RMZ Mat Geo57, 159.pdf](2010/RMZ%20Mat%20Geo57,%20159.pdf)

Abstract: Flow stresses and activation energy of BRCMO high-speed steel has been investigated. Hot compression tests in the temperature range of 900–1050 °C at strain rates of 0.001–10 s–1 and true strain of 0–0.9 were applied on Gleeble 1500D thermo-mechanical simulator. For entire hot working range the constants of the hyperbolic sine function and activation energy were calculated. The value of activation energy is 607 kJ mol–1. The microstructures of the samples after deformation were analysed by means of light microscopy.

Keywords: High-Speed Tool Steel, Flow Curves, Activation Energy

# Title: Materials Letters

Full Journal Title: [Materials Letters](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5585&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=3a82b882b153fb6e11053680a328acca)

ISO Abbreviated Title: Mater. Lett.

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Language: English

Publisher: Elsevier Science BV

Publisher Address: PO Box 211, 1000 AE Amsterdam, Netherlands

Subject Categories:

Materials Science Physics, Applied: Impact Factor

Rodríguez, R. and Salinas, P. (1997), A study of the kinetics of gelation of silica particles induced by lead ions in alcoholic solution. *Materials Letters*, **30** (1), 73-77.

Full Text: [M\Mat Let30, 73.pdf](M/Mat%20Let30,%2073.pdf)

Abstract: A study of the kinetics of aggregation of silica particles induced by the addition of lead ions in alcoholic solution is reported. The metal ions were added sequentially at regular time intervals until gelation was reached. The aggregation process was followed by monitoring the growth of the aggregates as a function of time by using dynamic light scattering. The active sites on the surface of particles produce an adsorption of the metal ions, which promotes the aggregation processes of silica particles accelerating gelation. Several experiments were performed by changing the sol and the lead ions concentrations.

Girgis, B.S. and Ishak, M.F. (1999), Activated carbon from cotton stalks by impregnation with phosphoric acid. *Materials Letters*, **39** (2), 107-114.

Full Text: [M\Mat Let39, 107.pdf](M/Mat%20Let39,%20107.pdf)

Abstract: Dried, crushed cotton stalks were impregnated with varying concentrations of phosphoric acid (20-85 wt.%), dried at 383 K and carbonized at 773 K for 2 h. Porosity was determined by analysis of N-2/77 K adsorption isotherms. High adsorbing carbons with well developed mesoporosity were obtained. Analysis for microporosity, by the alpha(S)-method, proved the presence of minor content in all products. Non-dried impregnated precursor produced a carbon with much lower adsorption capacity, whereas carbonization at 673 K furnished a carbon with comparatively lower texture parameters. TG analysis of the acid-impregnated precursor exhibited considerable modification in the pyrolysis characteristics. The effect of activant was associated with its effect as dehydrant, shift in decomposition to higher temperatures, suppression of volatiles, and space left by its leaching thereafter. (C) 1999 Elsevier Science B.V. All rights reserved

Keywords: Cotton Stalks, Phosphoric Acid, Porosity, Adsorption Characteristics, Pyrolysis, Isotherms, Shells, Stones, Plots, Wood

? Guo, J. and Lua, A.C. (2002), Characterization of adsorbent prepared from oil-palm shell by CO2 activation for removal of gaseous pollutants. *Materials Letters*, **55** (5), 334-339.

Full Text: [2002\Mat Let55, 334.pdf](2002/Mat%20Let55,%20334.pdf)

Abstract: Characterization of activated carbon prepared from oil palm shell an abundant agricultural solid waste from palm oil processing mills in some tropical countries by carbon dioxide (CO) activation was carried out in this paper. The effects of activation temperature on the textural and chemical properties of the activated carbon were studied It was found that significant weight losses occurred during the activation process due to continual release of volatile matter and carbon burn off through weak carbon-CO2 oxidation resulting in an increase of solid density and a decrease of apparent density. Hence the activated carbons prepared from oil palm shells possessed well developed porosities and predominant microporosities which were verified by Scanning Electron Microscopy (SEM) and Transmission Electron Microscopy (TEM) respectively. The development of microporosity for the oil palm shell activated carbon would lead to potential applications in gas phase adsorption for the removal of air pollutants. Adsorption test results showed a linear relationship between the BET surface area and the adsorptive capacity for both nitrogen dioxide (NO2) and ammonia (NH3) gases. This could be elucidated by the neutral surface functional groups of the oil palm shell activated carbon as detected by Fourier Transform Infrared Spectroscopy (FTIR). (C) 2002 Elsevier Science B.V. All rights reserved.

Keywords: Activated Carbon, Activation, Activation Temperature, Adsorbent, Adsorption, Ammonia, BET, BET Surface Area, Burn-Off, Capacity, Carbon, Carbon Dioxide, Carbons, Characterization, Co, CO2, CO2 Activation, Density, Development, FTIR, Lead, Microporosity, NH3, Nitrogen, Oil Palm Shell, Oil Palm Shell Activated Carbon, Oil-Palm Shell, Oxidation, Palm Shell, Pollutants, Process, Removal, Scanning Electron Microscopy, Science, Sem, Stones, Surface Area, Surface Chemistry, TEM, Temperature, Volatile Matter, Weight

Girgis, B.S., Yunis, S.S. and Soliman, A.M. (2002), Characteristics of activated carbon from peanut hulls in relation to conditions of preparation. *Materials Letters*, **57** (1), 164-172.

Full Text: [M\Mat Let57, 164.pdf](M/Mat%20Let57,%20164.pdf)

Abstract: Powdered dried peanut hulls were treated by one-step procedures to get activated carbon using chemical activation by H3PO4, ZnCl2, KOH and thermal activation by steam pyrolysis. Products were characterized by adsorption. of NZ at 77 K and Methylene blue (MB) from aqueous solution. Simple carbonization at 700-900 degreesC yields low adsorbing microporous carbons. Steam pyrolysis at 600 degreesC generates porosity in the mesopore range. KOH activation results in carbons of low surface area similar to steam pyrolysis, but with much developed. mesoporosity, whereas ZnCl2 activation yields a moderate adsorbing carbon, essentially microporous. Treatment with H3PO4 at increasing impregnation ratios creates abundant microporosity with extended surface area attaining a maximum at a ratio of 1.0. Considerable loss in porosity accompanies additional activating acid indicating the governing action of the amount of activant. A 50% diluted H3PO4 acid results in a carbon with considerable reduction in the internal porosity. Highest removal capacity of MB appears with H3PO4-activated carbons, whereas KOH- activated carbons show the weakest uptake for the dye. (C) 2002 Published by Elsevier Science B.V.

Keywords: Activated Carbon, Peanut Hulls, Porosity, Phosphoric Acid, Agricultural By-Products, Phosphoric-Acid, Porosity, Steam

Daifullah, A.A.M., Girgis, B.S. and Gad, H.M.H. (2003), Utilization of agro-residues (rice husk) in small waste water treatment plans. *Materials Letters*, **57** (11), 1723-1731.

Full Text: [M\Mat Let57, 1723.pdf](M/Mat%20Let57,%201723.pdf)

Abstract: Surplus, low-value agricultural by-product (rice husk) can be made into sorbent materials which are used in environmental remediation. This study characterized and evaluated two types of sorbents made from rice husk. The efficiency of both sorbents in the removal of the complex matrix containing six heavy metals was approximate to 100%. These metals are Fe, Mn, Zn, Cu, Cd and Pb, which are found in the drain containing the agriculture and sewage wastewater at El-Menofiya Governorate, Egypt. The two sorbent materials were prepared according to the scheme presented. The two sorbents made from the rice husk have considerable potential for adsorption of metals of environmental concern. (C) 2002 Elsevier Science B.V. All rights reserved.

Keywords: Rice Husk, Agro-Residues, Wastewater Treatment, Adsorption, Activated Carbon, Adsorption, Removal, Phenols

? (2007), Top 25 articles from the past 25 years. *Materials Letters*, **61** (14-15), 2862-2863.

Keywords: Articles, Jun

# Title: Materials Research Bulletin

Full Journal Title: [Materials Research Bulletin](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5587&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=767c77357e648d406415ce4ddea6ed50)

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Subject Categories:

Materials Science, Multidisciplinary: Impact Factor 1.144, 56/177 (2003)

Xie, Y.B. and Yuan, C.W. (2004), Characterization and photocatalysis of Eu3+-TiO2 sol in the hydrosol reaction system. *Materials Research Bulletin*, **39** (4-5), 533-543.

Full Text: [M\Mat Res Bul39, 533.pdf](M/Mat%20Res%20Bul39,%20533.pdf)

Abstract: In this paper, 3.0 mol% lanthanide europium ion modified TiO2 sol (Eu3+-TiO2) was fabricated by chemical coprecipitation-peptization method with TiCl4 as precursor. Eu3+-TiO2 Sol particles were characterized by X-ray diffraction (XRD), atomic force microscope (AFM), transmission electron microscope (TEM) and particle size distribution (PSD). Eu3+-TiO2 sol particles prepared at low temperature (70 degreesC) had anatase semicrystalline structure. Eu3+-TiO2 sol sample homogeneously dispersed in the aqueous medium and presented narrow distribution characterization with 7 nm in mean size. Interfacial adsorption experiment shows that small particle size and positive charge of Sol particles contributed to the good adsorption of X-3B dye on the TiO2, surface. The photoelectrochemical property was investigated about electrons transfer efficiency between dye molecule and TiO2 particles. A novel hydrosol reaction system was designed to conduct X-3B photodegradation reaction. The excellent photocatalytic activity for X-3B degradation under visible light irradiation was ascribed to effective scavenging electrons by Eu3+ ion. Moreover, X-3B photocatalytic degradation mechanism under visible light excitation was proposed as photosensitization-photocatalysis. (C) 2004 Elsevier Ltd. All rights reserved.

Keywords: Oxides, Chemical Synthesis, Photoelectron Spectroscopy, Catalytic Properties, Surface Properties Visible-Light, Nanoparticles, TiO2, Titania

Kim, Y., Kim, C. and Yi, J. (2004), Synthesis of tailored porous alumina with a bimodal pore size distribution. *Materials Research Bulletin*, **39** (13), 2103-2112.

Full Text: [M\Mat Res Bul39, 2103.pdf](M/Mat%20Res%20Bul39,%202103.pdf)

Abstract: Hierarchical channel or well-connected small and large pore networks show multiple advantages for application in catalysis or adsorbent in aqueous condition. Micro- and mesopores provide size or shape selectivity for a guest molecule, while additional macropores reduce transport limitations. In this study, we proposed a novel method to prepare bimodal porous aluminas, which have meso- and macropores with narrow pore size distribution and well defined pore channels. The framework of the porous alumina is prepared via a chemical templating method using alkyl carboxylates. Polystyrene (PS) beads are employed as a physical template for macropores. We examined polydiallyldimethylammonium chloride (PDDA)-treated aluminas as organic adsorbent in aqueous solution. Above 90% of the anionic dye (acid red 44) is removed within 10 min, and the adsorption rate of PDDA/P4 (supported on the bimodal porous alumina) is faster than that of PDDA/P2 (supported on the unimodal porous alumina) because macropore of P4 have reduced transport limitation and enhanced the accessibility to the active site of cationic charge.

Keywords: Amorphous Materials, Ceramic, Microporous Materials, Nanostructure, Sol–Gel Chemistry

? Khan, A.A., Inamuddin and Alam, M.M. (2005), Preparation, characterization and analytical applications of a new and novel electrically conducting fibrous type polymeric-inorganic composite material: Polypyrrole Th(IV) phosphate used as a cation-exchanger and Pb(II) ion-selective membrane electrode. *Materials Research Bulletin*, **40** (2), 289-305.

Full Text: [2005\Mat Res Bul40, 289.pdf](2005/Mat%20Res%20Bul40,%20289.pdf)

Abstract: ‘Polymeric-inorganic’ composite type of cation-exchanger ‘polypyrrole Th(IV) phosphate’ was prepared by mixing polypyrrole into fibrous inorganic precipitate of Th(IV) phosphate. This type of composite possesses a new class of hybrid ion-exchangers with good ion-exchange capacity (I.E.C.), higher stability, reproducibility and selectivity for heavy metals. The physicochemical properties of the material were determined using AAS, CHN elemental analysis, ICP-MS, UV-VIS spectrophotometry, FTIR, thermogravimetric analyses-differential thermal analysis (TGA-DTA), XRD and SEM studies. Ion-exchange capacity, pH-titrations, elution and distribution behavior etc. were also carried out to characterize the material. On the basis of distribution studies, the material was found to be highly selective for Pb(H), a heavy metal pollutant in the environment. its selectivity was examined by achieving some important binary separations like Pb(II)-Zn(II), Pb(II)-Ni(II), Pb(II)-Cu(II) and Pb(II)-Cd(II) on its column that indicate its utility in environmental pollution control in one-way or other. This electroactive material also showed the DC electrical conductivity in the range of 10(-6) to 10(-4) S cm(-1). A new heterogeneous precipitate based selective ion-sensitive membrane electrode was developed by using this composite cation-exchanger for the determination of Pb(II) ions in solutions. The analytical utility of this electrode was established by employing it as an indicator electrode in electrometric titrations. (C) 2004 Elsevier Ltd. All rights reserved.

Keywords: Acid, Analysis, Capacity, Cation-Exchanger, Characterization, Chemical Synthesis, Control, Electrical Conductivity, Environment, FTIR, Heavy Metal, Heavy Metals, Intercalation, Ion Exchange, Nanocomposites, Pb(II), Pollution, Polyaniline, Preparation, SEM, V2O5, Water, XRD

? Chen, T., Wang, T., Wang, D.J., Xue, H.R., Zhao, J.Q., Ding, X.C., Wu, S.C. and He, J.P. (2011), Synthesis of ordered large-pore mesoporous carbon for Cr(VI) adsorption. *Materials Research Bulletin*, **46** (9), 1424-1430.

Full Text: [2011\Mat Res Bul46, 1424.pdf](2011/Mat%20Res%20Bul46,%201424.pdf)

Abstract: Highly ordered mesoporous carbon with large accessible pores (OMC-P) was prepared by using laboratory-made poly(ethylene oxide)-b-polystyrene diblock copolymer as template via the evaporation-induced self-assembly method. The OMC-P was first used as adsorbent for removal of Cr(VI) ion from aqueous solution. Adsorption behavior was studied as a function of time, concentration of adsorbate, temperature, and pH. The kinetics of adsorption of Cr(VI) ion onto OMC-P is well fit to the pseudo-second order model. The Cr(VI) ion adsorption is favored at lower temperatures and at initial acid pH values in the equilibrium. The Freundlich and the Langmuir isotherm fit the equilibrium data satisfactorily. The influence of porosity on equilibrium adsorption capacity was investigated on three types of carbon materials, namely, OMC-P, ordered mesoporous carbon templated from amphiphilic triblock copolymer F127 (OMC-F) and commercial activated carbon (AC). The prepared OMC-P exhibits much higher adsorption performance than the other two carbons. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords: Activated Carbon, Activated Carbons, Adsorbent, Adsorption, Amorphous Materials, Aqueous Solution, Aqueous-Solution, Chemical Synthesis, Chromium, Cr(VI), Cr(VI) Adsorption, Diblock Copolymer, Equilibrium, Freundlich, Isotherm, Kinetics, Langmuir, Langmuir Isotherm, Mesoporous Carbon, pH, Removal, Silica, Sorption, Surface Properties, Synthesis, Temperature, Transformation, Triblock Copolymer

? Thanh, D.N., Singh, M., Ulbrich, P., Stepanek, F. and Strnadova, N. (2012), As(V) removal from aqueous media using α-MnO2 nanorods-impregnated laterite composite adsorbents. *Materials Research Bulletin*, **47** (1), 42-50.

Full Text: [2012\Mat Res Bul47, 42.pdf](2012/Mat%20Res%20Bul47,%2042.pdf)

Abstract: We present a novel way of enhancing the utility of low cost readily available laterite by impregnating it with the alpha-MnO2 nanorods, thus making a composite material suitable for the removal of As(V) from aqueous media. The composites were synthesized by two methods: (i) ball-milling of a physical blend of laterite with pre-synthesized MnO2; and(II) in situ formation of MnO2 in the presence of laterite. The BET surface area of composites prepared by both methods was markedly higher compared to un-modified laterite, and the presence of MnO2 in the composite was also confirmed by XRD analysis and TEM microscopy. The adsorption capacity for As(V) was found to be highly pH dependent and the adsorption kinetics followed a pseudo second-order kinetic model. The Langmuir adsorption isotherm was found to be the best model to describe the adsorption equilibrium of As(V) onto un-modified laterite as well both ball-milled and in situ formed composite. The adsorption capacities at room temperature and pH 7.0 were found to be 1.50 mg g-1, 8.93 mg g-1 and 9.70 mg g-1, for un-modified laterite, ball-milled and in situ formed composite, respectively. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords: Acid, Activated Carbon, Adsorbents, Adsorption, Adsorption Kinetics, Alpha-MnO2 Nanorods, Arsenic Removal, Behavior, BET, Chemical Synthesis, Composites, Equilibrium, Groundwater, Isotherm, Kinetic, Kinetics, Langmuir, Microstructure, Nanoparticles, Nanostructures, Oxidation, Oxides, pH, Temperature, Water, X-Ray Diffraction

# Title: Materials Science

Full Journal Title: [Materials Science](http://www.springerlink.com/content/106482/?p=21da0b796c7842d0aef777d91c17cf99&pi=0)

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Language:

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Publisher Address:

Subject Categories:

: Impact Factor

? Evard, E.A., Voit, A.P., Gordeev, S.K. and Gabis, I.E. (2000), Kinetics of sorption and release of hydrogen by nanoporous carbon. *Materials Science*, **36** (4), 499-505.

Full Text: [2000\Mat Sci36, 499.pdf](2000/Mat%20Sci36,%20499.pdf)

Abstract: We investigate the process of hydrogen sorption by nanoporous carbon at temperatures of 570-970 K by using the method of thermodesorption spectrometry. Thermodesorption spectra consist of several phases caused by chemisorption in several independent states on the surface of nanoporous carbon. Each of the states is characterized by the activation energy and pre-exponential factors of desorption rate constants. We obtain estimates for the efficient activation energy and heat of sorption.

Keywords: Nanotubes, Storage

# Title: Materials Science and Engineering A-Structural Materials Properties Microstructure and Processing

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? Chang, Y. and Su, Z.X. (2002), Preparation and characterization of thermosensitive magnetic particles. *Materials Science and Engineering A-Structural Materials Properties Microstructure and Processing*, **333** (1-2), 155-159.

Full Text: [2002\Mat Sci Eng A333, 155.pdf](2002/Mat%20Sci%20Eng%20A333,%20155.pdf)

Abstract: A new method for the preparation of magnetic particles were carried out by linking gamma-methylacryloyl oxypropyl trimethoxysilane (KH-570) with magnetic powder after it was hydroxylated and then graft copolymerizing with N-isopropylacrylamide. Thus, thermosensitive magnetic microsphere was produced. Modified magnetic particles were characterized by the method of IR, X-ray photoelectron spectroscopy and transmission electron microscopy. The studies of adsorption and desorption of emulsifiers on modified magnetic particles shows the modified magnetic particles have good thermosensitivity. (C) 2002 Elsevier Science B.V. All rights reserved.

Keywords: Adsorption, Characterization, Desorption, Electron Microscopy, Emulsifiers, Enzyme Immobilization, Graft, IR, Magnetic, Magnetic Particles, Microspheres, Modified, Particles, Preparation, Rights, Science, Spectroscopy, Thermosensitivity, Transmission, X-Ray, X-Ray Photoelectron Spectroscopy

# Title: Materials Science and Engineering: C

Full Journal Title: [Materials Science and Engineering: C](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5590&_auth=y&_acct=C000047720&_version=1&_urlVersion=0&_userid=2007471&md5=48ddde244a29ca87b123bdbb40591229)

ISO Abbreviated Title:

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Publisher Address:

Subject Categories:

: Impact Factor

Bouzaida, I. and Rammah, M.B. (2002), Adsorption of acid dyes on treated cotton in a continuous system. *Materials Science and Engineering: C*, **21** (1-2), 151-155.

Full Text: [M\Mat Sci Eng C21, 151.pdf](M/Mat%20Sci%20Eng%20C21,%20151.pdf)

Abstract: In this paper, we report the results obtained during a study on the adsorption on grafted cellulose, with quaternary ammonium cations, of acid dyes used by the textile industry: pollutants of aqueous effluents.

This study deals with the adsorption in a continuous system, according to the Bed Depth Service Time (BDST). The calculation of the exchange capacity and of the number of grafted sites from various grafting rates is reported.

Keywords: Acid Dyes, Cotton, Continuous System

# Title: Materials Science-Medziagotyra

Full Journal Title: [Materials Science-Medziagotyra](http://www.ktu.lt/lt/mokslas/zurnalai/medz/meniu.asp)

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? Joseph, C.G., Bono, A., Krishnaiah, D. and Soon, K.O. (2007), Sorption studies of Methylene blue dye in aqueous solution by optimised carbon prepared from guava seeds (*Psidium guajava* *L*.). *Materials Science-Medziagotyra*, **13** (1), 83-87.

Full Text: [2007\Mat Sci-Med13, 83.pdf](2007/Mat%20Sci-Med13,%2083.pdf)

Abstract: The aim of this investigation was to determine the adsorption behavior and kinetics of Methylene blue in aqueous solution on activated carbons prepared from guava seeds by way of the two stage activation method in self-generated atmosphere using a muffle furnace. The yield and ash contents of the activated carbons obtained decreased with the increase of activation temperature and time. FT-IR spectra indicated high surface functional groups present in the carbons. The optimised activated carbon, AK6, had a sorption kinetics that complied with the pseudo-second order kinetics and was fitted well to Langmuir isotherm model. The highest adsorption capacity was obtained when the samples (AK6) were subjected to activation temperature of 500°C for 45 minutes giving iodine number of 198.12 mg g-1 and the percentage of Methylene blue removal efficiency of 84.75%.

Keywords: Activated Carbon, Activated Carbons, Activated Carbons, Activation, Adsorption, Adsorption Behavior, Adsorption Capacity, Adsorption Kinetic, Aqueous Solution, Behavior, Capacity, Carbon, Charcoal, Dye, Efficiency, FT-IR, FTIR, FTIR Spectra, Functional Groups, Guava Seeds, Investigation, Isotherm, Isotherm Model, Kinetics, Langmuir, Langmuir Adsorption Isotherm, Langmuir Isotherm, Methylene Blue, Model, Pseudo Second Order, Pseudo Second Order Kinetics, Pseudo-Second Order, Pseudo-Second Order Kinetics, Pseudo-Second-Order, Removal, Removal Efficiency, Solution, Sorption, Sorption Kinetics, Surface Functional Groups, Temperature

# Title: Materials Research, Pts 1 and 2

Full Journal Title: Materials Research, Pts 1 and 2

ISO Abbreviated Title:

JCR Abbreviated Title:

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? Luo, X.G., Liu, F. and Lin, X.Y. (2009), Removal of Cu2+ from aqueous solution by alkaline-activated konjac glucomannan. *Materials Research, Pts 1 and 2*, **610-613**, 9-13.

Abstract: A raw adsorbent of konjac glucomannan was activated at strong alkaline condition, A comprehensive adsorption study of Cu2+ removal from aqueous solution by adsorption was conducted regarding the effects of initial pH, adsorbent dosage, time, temperature and Cu2+ initial concentration. The adsorption data were applied to Langmuir and Freundlich models and their contents were calculated. Thermodynamic parameter enthalpy change (ΔH degrees) showed that physisorption played an important role in Cu2+ loaded alkaline-activated konjac glucomannan system. Experimental data were also analysed in terms of kinetic characteristics and it was found that adsorption followed well pseudo-second-order kinetics. The results obtained showed that the new adsorbent had good efficiency for the removal of Cu2+.

Keywords: Adsorption, Alkaline-Activated Konjac Glucomannan, Biosorption, Cu2+, Heavy-Metals, Ions, Isotherms, Kinetics, Kinetics, Sorbents, Sorption, Thermodynamics

? Luo, X.G., Liu, F. and Lin, X.Y. (2009), Fast Removal of Pb2+ from aqueous solution by water insoluble konjac glucomannan. *Materials Research, Pts 1 and 2*, **610-613**, 65-68.

Abstract: Konjac glucomannan (KGM) was converted into water insoluble konjac glucomannan (WIKGM) by treating with NaOH through completely deacetylated reaction. Adsorption study was carried out for the adsorption of Pb2+ from aqueous Solution using water insoluble konjac glucomannan. The influences of pH, contact time, temperature and initial Pb2+ concentration on the absorbent were studied. Results of kinetic data showed that the Pb2+ adsorption rate was fast and good correlation coefficients were obtained for the pseudo second-order kinetic model. The equilibrium process was described well by the Langmuir isotherm model with maximum adsorption capacity of 9.18 mg/g on WIKGM at 250°C.

Keywords: Adsorption, Biosorption, Ions, Isotherm, Kinetics, Pb(II), Pb2+, Removal, Sorption, Water Insoluble Konjac Glucomannan

# Title: Materials Science and Engineering B-Advanced Functional Solid-State Materials

Full Journal Title: Materials Science and Engineering B-Advanced Functional Solid-State Materials

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JCR Abbreviated Title:

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Subject Categories:

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? Haron, M.J., Ab Rahim, F., Abdullah, A.H., Hussein, M.Z. and Kassim, A. (2008), Sorption removal of arsenic by cerium-exchanged zeolite P. *Materials Science and Engineering B-Advanced Functional Solid-State Materials*, **149** (2), 204-208.

Full Text:[2008\Mat Sci Eng B-Adv Fun Sol-Sta Mat149, 204.pdf](2008/Mat%20Sci%20Eng%20B-Adv%20Fun%20Sol-Sta%20Mat149,%20204.pdf)

Abstract: Modification of zeolite P was performed by exchanged of its sodium with cerium(III). The resulting cerium-exchanged zeolite P, (CeZP) did not change in its crystallinity compared to original zeolite. The CeZP was subsequently used to sorb As(V) from aqueous solution. Maximum sorption of As(V) by CeZP occurred at pH range 3-10. In addition, the sorption capacity increased with increasing initial As(V) concentrations. The sorption follows Langmuir model with maximum sorption capacity of 8.72 mg g-1 at 25°C and increased to 23.42 mg g-1 at 90°C, indicating an endothermic process. The arsenic sorption by CeZP was not affected by the present of nitrate, chloride, sulphate, carbonate and bromide but was reduced significantly in the presence of phosphate. This study shows that the as prepared CeZP was found effective for the removal of arsenic from wastewater sample of wood treatment industry. (C) 2007 Elsevier B.V. All rights reserved.

Keywords: Ce-Exchanged Zeolite, Arsenate Sorption, Langmuir Isotherm, Wasterwater, Oxide Adsorbent, Drinking-Water, Adsorption

# Title: Materials Science Forum

Full Journal Title: Materials Science Forum

ISO Abbreviated Title:

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Journal Country/Territory:

Language: English

Publisher: Transtec Publications Ltd

Publisher Address: Brandrain 6, CH-8707 Zurich-Uetikon, Switzerland

Subject Categories:

Materials Science: Impact Factor

? Spiegel, M., Schroer, G. and Grabke, H.J. (1997), Corrosion of high alloy steels and Fe-Cr-alloys beneath deposits from waste incinerator plants. *Materials Science Forum*, **251-2** (Part 1-2): 527-534.

Abstract: The corrosion of high alloy steels in N2-O2-HCl-SO2 and of Fe-Cr-alloys in N2-O2-HCl was investigated in exposures beneath different kinds of deposits from waste incineration plants at 600°C. In both kinds of deposits the formation of a ph and Zn containing sulfate melt was observed. The main corrosion process of high alloy steels is ‘hot corrosion’ by a sulfate melt. In N2-O2 basic fluxing of the oxide scales occurs by formation of PbCrO4 on Cr2O3 forming alloys and zinc-rich spinel on FeCr2O4 forming materials. In N2-O2-SO2 acidic fluxing was observed, whereas Cr2O3-scales are resistent. In N2-O2-HCl severe corrosion. occurs due to the formation of a sulfate-chloride eutectic by reaction of HCl with sulfates in the deposits to (K, Na)Cl. The (K, Na)CI reacts with the oxide scales to form Cl2, which initiates ‘active oxidation’ by metal-chloride formation at the metal\scale interface. Addition of SO2 leads to retardation of the corrosion process, because the sulfates are stabilized by SO2 and acidic fluxing was observed. The Fe-Cr alloys show active oxidation due to the formation of ZnCl2 and PbCl2 in the deposits and also basic fluxing by ZnO.

Keywords: Waste Incineration Atmospheres, Deposits, Hot Corrosion, Sulfate Melts, Basic Fluxing, Acidic Fluxing, Heavy Metal Compounds, Active Oxidation, High-Temperature Corrosion

? Nagano, H., Doi, T. and Yamashita, M. (1998), Study on water adsorption-desorption on metalsurfaces and the early stage of atmospheric corrosion in steels, *Materials Science Forum*, **289** (Pt1&2), 27-133.

Abstract: Atmospheric corrosion of steel is comparatively different from the corrosion in bulky water or seawater in the sense of smaller corrosion loss. In general, steel exposed to the air forms thin rust layers under wet and dry alternating atmospheric conditions, reaching a stabilized lower corrosion rate with time. This paper was aimed at studying the early stage of rust formation on steel for clarifying the mechanism of high corrosion resistance of weathering steel. First, water adsorption-desorption phenomena were measured with an ellipsometer and Kelvin microprobe for pure Fe, Ni, Cr, and weathering steel. Second, corrosion potential of weathering steel was measured with a Kelvin microprobe as a function of the thickness of water layers on the metalsurface. All specimens of as a wet polished surface condition increase water adsorption with relative humidity (RH), whereas the specimens pre-oxidized at 523K hardly adsorb water irrespectiveof RH. Work function phi calculated from Kelvin potential responds well to the amount of water adsorbed on metalsurfaces or trapped within oxides. Specimens as polished show decrease in phi with the amount of adsorbed water, on the other hand, specimens with pre-oxides on their surfaces indicate a little decrease in phi for pure Fe, Ni, and almost no change for pure Cr. The corrosion potential for the weathering steel under the 200 and above 200 µm thickness of 1M sodium sulfate solution was around-600mV (SHE), meaning that this steel corroded at an active dissolution potential under the control of oxygen diffusion through the Solution layer. When the thickness of the solution layer was reduced down to between 0.2 and 10 µm, the corrosion potential was shifted upward to-100mV, meaning that the steel was in a passive potential region where ferric oxyhydroxide could be formed.

# Title: Materials Science & Engineering C-Biomimetic and Supramolecular Systems

Full Journal Title: Materials Science & Engineering C-Biomimetic and Supramolecular Systems

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Subject Categories:

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? Yavuz, H., Say, R. and Denizli, A. (2005), Iron removal from human plasma based on molecular recognition using imprinted beads. *Materials Science & Engineering C-Biomimetic and Supramolecular Systems*, **25** (4), 521-528.

Full Text: [2005\Mat Sci Eng C-Bio Sup Sys25, 521.pdf](2005/Mat%20Sci%20Eng%20C-Bio%20Sup%20Sys25,%20521.pdf)

Abstract: The aim of this study is to prepare ion-imprinted polymers which can be used for the selective removal of Fe3+ ions from Fe3+-overdosed human plasma. N-Methacryloly-(L)-glutamic acid (MAGA) was chosen as the complexing monomer. In the first step, Fe3+ was complexed with MAGA and the Fe3+-imprinted poly(HEMA-MAGA) beads were synthesized by suspension polymerization. After that, the template (i.e., Fe3+ ions) was removed using 0.1 M EDTA solution. The specific surface area of the Fe3+-imprinted poly(HEMA -MAGA) beads was found to be 76.4 in m2/g with a size range of 63-140 μm in diameter and the swelling ratio was 75%. According to the elemental analysis results, the beads contained 84.7 μmol MAGA/g polymer. The maximum adsorption capacity was 92.6 μmol Fe3+/g beads. The relative selectivity coefficients of imprinted beads for Fe3+/Zn2+ and Fe3+/Cr3+ were 17.3 and 48.6 times greater than non-imprinted matrix, respectively. The Fe3+-imprinted poly(HEMA-MAGA) beads could be used many times without decreasing their adsorption capacities significantly. (c) 2005 Elsevier B.V. All rights reserved.

Keywords: Molecular Imprinting, Molecular Recognition, Iron Removal, Metal Detoxification, Affinity Binding, Solid-Phase Extraction, Suspension Polymerization, Cadmium Removal, Polymers, Preconcentration, Microspheres, Microbeads, Chelators, Separation, Membranes

? Odabasi, M., Say, R. and Denizli, A. (2007), Molecular imprinted particles for lysozyme purification. *Materials Science & Engineering C-Biomimetic and Supramolecular Systems*, **27** (1), 90-99.

Full Text: [2007\Mat Sci Eng C-Bio Sup Sys27, 90.pdf](2007/Mat%20Sci%20Eng%20C-Bio%20Sup%20Sys27,%2090.pdf)

Abstract: Molecular recognition-based separation techniques have received much attention in chemistry and biology because of their high selectivity for target molecules. The aim of this study is to prepare lysozyme-imprinted polymers which can be used for the purification of lysozyme from aqueous solutions and egg white. N-methacryloyl-(L)-histidinemethylester (MAH) was chosen as the metal-complexing monomer. In the first step, Cu2+ was complexed with MAH and the lysozyme-imprinted poly(HEMA-MAH) [Lys-MIP] particles were synthesized by UV-initiated bulk polymerization. After that, the template (i.e., lysozyme) were removed using 0.1 M NaCl solution. The specific surface area of the Lys-MIP particles was found to be 22.9 m2/g with a size range of 20-63 μm in diameter and the swelling ratio was 57%. According to the elemental analysis results, the particles contained 421 μmol MAH/g polymer. The maximum lysozyme adsorption capacity was 12.1 mg/g polymer. The relative selectivity coefficients of imprinted particles for lysozyme/human serum albumin and lysozyme/cytochrome c were 3.6 and 4.1 times greater than NIP particles, respectively. Purification of lysozyme from egg-white was also monitored by determining the lysozyme activity using Micrococcus lysodeikticus as substrate. The purity of the desorbed lysozyme was about 89% with recovery about 84%. The Lys-MIP particles could be used many times without decreasing their adsorption capacities significantly. (c) 2006 Elsevier B.V. All rights reserved.

Keywords: Molecular Imprinting, Molecular Recognition, Lysozyme Purification, Protein Adsorption, Affinity Binding, Solid-Phase Extraction, Bovine Serum-Albumin, Human Plasma, Immunoglobulin-G, Cadmium Removal, Adsorption, Separation, Beads, Preconcentration, Polymers

? Akkaya, B., Uzun, L., Candan, F. and Denizli, A. (2007), N-methacryloyl-(L)-histidine methyl ester carrying porous magnetic beads for metal chelate adsorption of Cytochrome C. *Materials Science & Engineering C-Biomimetic and Supramolecular Systems*, **27** (1), 180-187.

Full Text: [2007\Mat Sci Eng C-Bio Sup Sys27, 180.pdf](2007/Mat%20Sci%20Eng%20C-Bio%20Sup%20Sys27,%20180.pdf)

Abstract: A magnetic metal-chelate adsorbent utilizing N-methacryloyl-(L)-histidine methyl ester (MAH) as a metal-chelating ligand was prepared. MAH was synthesized using methacryloyl chloride and L-histidine methyl ester. Magnetic beads with an average diameter of 50-100 μm were produced by suspension polymerization of ethylene glycol dimethacrylate (EGDMA) and MAH carried out in a dispersion medium. Specific surface area of the magnetic beads was found to be 80 m2/g. Elemental analysis of the magnetic beads for nitrogen was estimated as 70 mu mol MAH/g polymer. Magnetic beads were complexed with the Cu2+ ions directly via MAH for the adsorption of cytochrome c from aqueous solutions. The cytochrome c adsorption on the mag-poly(EGDMA-MAH) beads was 51 mg/g. Cu2+ complexing increased the cytochrome c adsorption significantly. The maximum cytochrome c adsorption capacity of the Cu2+-chelated beads (carrying 68 μmol Cu2+ per gram of polymer) was found to be 222 mg/g at pH 8.0 in phosphate buffer. Cytochrome c adsorption decreased with increasing temperature. Cytochrome c molecules could be reversibly adsorbed and desorbed ten times with the magnetic adsorbents without noticeable loss in their cytochrome c adsorption capacity. The resulting magnetic chelator beads posses excellent long term storage stability. (c) 2006 Elsevier B.V. All rights reserved.

Keywords: Affinity Chromatography, Metal-Chelate Affinity Beads, Histidine, Cytochrome C, Magnetic Polymers, Ion Affinity-Chromatography, Stabilized Fluidized-Bed, Protein Adsorption, Albumin Adsorption, Immunoglobulin-G, Purification, Support, Sorbents, Microspheres, Separation

# Title: Materials Science & Engineering C-Materials for Biological Applications

Full Journal Title: Materials Science & Engineering C-Materials for Biological Applications

ISO Abbreviated Title:

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Subject Categories:

: Impact Factor

? Wang, X., Zhang, Y. and Li, Q.M. (2011), Characterization and determination of the thermodynamic and kinetic properties of the adsorption of molybdenum (VI) onto microcrystalline anthracene modified with 8-hydroxyquinoline. *Materials Science & Engineering C-Materials for Biological Applications*, **31** (8), 1826-1831.

Full Text: [2011\Mat Sci Eng C-Mat Bio App31, 1826.pdf](2011/Mat%20Sci%20Eng%20C-Mat%20Bio%20App31,%201826.pdf)

Abstract: A reliable and effective method for the determination of trace molybdenum in effluents is proposed. Molybdenum (VI) is analyzed by Microwave Plasma Torch Optical Emission Spectrometry (MPT-OES) based on the adsorption collection onto microcrystalline anthracene modified with 8-hydroxyquinoline. The possible reaction mechanism was discussed in detail and the optimum conditions for adsorption of Mo (VI) were confirmed. The experimental data were fitted well with the pseudo-second-order kinetic model and Langmuir model at all studied temperatures. The calculated thermodynamic parameters (ΔG. ΔH and ΔS) showed that the adsorption of molybdenum onto microcrystalline anthracene was feasible, spontaneous and endothermic at 280-320 K. The recovery of this method is in the range of 96.5%-103.3% with preconcentration factor of 100 and the limit detection after preconcentration is 0.078 mu g L-1. The proposed method has been successfully applied to the determination of trace Mo (VI) in environmental water samples with satisfactory results. (C) 2011 Elsevier B.V. All rights reserved.

Keywords: 8-Hydroxyquinoline, Adsorption, Atomic-Absorption-Spectrometry, Cloud-Point Extraction, ICP-AES, Kinetic, Langmuir, Microcrystalline Anthracene, Molybdenum, Preconcentration, Removal, Seawater, Separation, Silica-Gel, Steel Samples, Waste-Water

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: Impact Factor

? Eskandarpour, A., Sassa, K., Bando, Y., Okido, M. and Asai, S. (2006), Magnetic removal of phosphate from wastewater using schwertmannite. *Materials Transactions*, **47** (7), 1832-1837.

Abstract: A magnetic filtration has firstly been applied to the phosphate removal from wastewater by using schwertmannite, which is ferric oxyhydroxide sulfate with high capacity of phosphate adsorption. High efficiency of phosphate removal without using magnetic seeding was obtained at magnetic intensities of around I Testa, which means no necessity to use a superconducting magnet. The kinetics data of phosphate adsorption have been found to be fitted well with a pseudo-second-order model and adsorption equilibrium data have been explained by the Langmuir isotherm. The effect of pH on the phosphate adsorption in this process was characterized by zeta potential measurement. It is proposed that ligand exchange is a dominant mechanism responsible for phosphate adsorption on schwertmannite.

Keywords: Phosphate Removal, Magnetic Filter, Schwertmannite, Wastewater, Electromagnetic Processing of Materials, Sorption, Adsorption, Kinetics, Phosphorus, Stability, Drainage, Zeolite, As(V), Urea

? Song, K., Kim, W., Ryu, T., Ryu, K.W., Bang, J.H. and Jang, Y.N. (2011), Adsorption of Cd(II) on waste calcite produced by the carbonation of flue gas desulfurization (FGD) Gypsum. *Materials Transactions*, **52** (2), 224-228.

Full Text: [2011\Mat Tra52, 224.pdf](2011/Mat%20Tra52,%20224.pdf)

Abstract: The waste calcite, by-product of the carbonation reaction of flue gas desulfurization (FGD) gypsum, was evaluated as low-cost adsorbent for Cd(II) removal from wastewater. Batch experiments were performed in aqueous solution varying contact time, initial pH of Cd(II) solution, adsorbent dose, and Cd(II) concentration. The sorption rate of Cd(II) on the adsorbent was high during initial 1 h and decreased slowly reaching a plateau after about 12 h. The adsorption kinetics of Cd(II) could be best described by the pseudo-second order model while its isotherm was found to fit with the Langmuir model. The maximum adsorption capacity was 7.99 mg g-1. It is believed that waste calcite would be an addition to the list of low-cost adsorbents for Cd(II) removal in wastewater treatment. [doi: 10.2320/matertrans.M2010344].

Keywords: Adsorption, Adsorption Kinetics, Ammonium-Sulfate, Aqueous Solution, Batch, Cadmium, Cadmium, Calcite, Cd, Cd(II), Flue Gas Desulfurization (FGD) Gypsum, Ions, Isotherm, Kinetics, Langmuir, Low-Cost Adsorbent, Model, pH, Removal, Soil, Sorption, Sorption Processes, Waste, Wastewater, Wastewater Treatment, Water

? Kim, J.A., Dodbiba, G., Tanimura, Y., Mitsuhashi, K., Fukuda, N., Okaya, K., Matsuo, S. and Fujita, T. (2011), Leaching of rare-earth elements and their adsorption by using blue-green algae. *Materials Transactions*, **52** (9), 1799-1806.

Full Text: 2011\Mat Tra52, 1799.pdf

Abstract: In the present study. REEs were leached from a Vietnamese ore, by using (NH4)2SO4 and REEs were adsorbed from this leachate by blue-green algae (phormidium). In addition, the biosorption characteristics of phormidium or the adsorption of Nd has been studied. When the concentration of ammonium sulfide was 1%, leaching time was 3 h, and S/L ratio was 0.09. the leaching ratio of Nd was 67.3%. In the adsorption process, when dosage of phormidium was 0.2 kg/L. the contact time was 30 nun, and the temperature was 298 K. while pH was kept at the initial value (i.e. pH 5.6). the adsorption density of Nd was 182 mg/kg. These results were similar with the adsorption density of other absorbents, such as: activated carbon. Fe-based absorbent, and calcinated dolomite. Moreover, the equilibrium sorption isotherm of Nd onto phormidium was described by the Langmuir isotherm equation and the pseudo-second-order kinetic model its the experimental data well. [doi:10.2320/matertrans.M2011111].

Keywords: Adsorption, Biomass, Biosorption, Biosorption, Blue-Green Algae, Isotherm, Langmuir, Leaching, Pb2+, pH, Rare-Earth Elements (Rees)

# Title: Maternal and Child Health Journal

Full Journal Title: [Maternal and Child Health Journal](http://www.springerlink.com/content/105600/?p=201b8822371641759cf37ae31015ef26&pi=0)

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? Loria, A. and Arroyo, P. (2000), Research trends in mother-child healthcare, 1966-1995. *Maternal and Child Health Journal*, **4** (1), 59-66.

Full Text: [2000\Mat Chi Hea J4, 59.pdf](2000/Mat%20Chi%20Hea%20J4,%2059.pdf)

Abstract: OBJECTIVE: To explore trends in mother-child healthcare (MCHC) research over the past 30 years. METHODS: Classifications of MEDLINE articles were made at 5-year intervals using Medical Subject Headings (MeSH) as classifiers. Papers were classified in mutually and non-mutually exclusive categories by subject (mother and four age groups of children) and type of research (clinical, basic, epidemiologic, and unclassified) and its various combinations. RESULTS: The number of MCHC papers increased from 34,110 in 1966 to 65,028 in 1995, but the proportion of all MEDLINE articles (18-21%) was relatively stable. There were remarkable long-term temporal stabilities in the proportions of MCHC papers of mothers and the four age groups of children. Most papers dealt with child (46%) and adolescents (45%), and only 11% studied mother and children together. Regression analysis indicated that a linear increase in number of MCHC papers in MEDLINE (1053/year) was represented largely by single-age and combinations of age children, especially adolescence. However, the slope for mother-plus-children papers (113/year) was substantially higher than for mothers alone (64/year). Clinical papers (52%) were the dominant type of MCHC research, but the proportions of basic and epidemiologic papers and their combinations with clinical papers have increased substantially in the past decade. CONCLUSIONS: There has been a dominance of clinical and child-related papers in MCHC research, which may be a reflection of restricted outlooks of specialists in the area. This may change soon if the tendency toward increasing numbers of basic and epidemiologic papers holds.

Keywords: Adolescence, Adolescents, Age, Analysis, Child, Children, Clinical, Intervals, Long Term, Long-Term, Methods, Mother, Mothers, Papers, Reflection, Research, Temporal, Trends

? Schultz, D., Seid, M., Stoto, M.A. and Burstain, J.M. (2010), The agency for healthcare research and quality’s children’s health research portfolio. *Maternal and Child Health Journal*, **14** (1), 1-8.

Full Text: [2010\Mat Chi Hea J14, 1.pdf](2010/Mat%20Chi%20Hea%20J14,%201.pdf)

Abstract: The objective of this work was to describe and assess the potential impact of the Agency for Healthcare Research and Quality’s, AHRQ’s, children’s health activities. Using AHRQ databases and publications lists and generic search engines, we developed a comprehensive list of AHRQ’s funded children’s health activities (1990-2005) and related publications (1996-2002). We conducted bibliometric analyses and used Stryer’s (2000) approach to categorize their potential impact. We found that AHRQ’s child health portfolio has changed over time with an increase in activities related to patient safety and health information technology, reflecting trends at AHRQ as a whole. Further, AHRQ has contributed a substantial body of new knowledge as a result of its funding for children’s health activities. The bibliometric analysis suggests that AHRQ’s children’s health activities have successfully disseminated research findings and new knowledge through the published literature. Most of the publications present research findings that can be building blocks early in the translation continuum rather than findings that directly inform policy or change clinical practice. Through its funding of children’s health activities, AHRQ has contributed new knowledge that has been disseminated effectively in the published literature. However, while AHRQ has successfully engaged the child health services research community, efforts to broaden into policy, practice and patient arenas have been less successful.

Keywords: Bibliometric, Bibliometric Analysis, Child and Adolescent Health, Health Services Research, Impact, Needs, Outcomes Research, Publications, Research, Services

# Title: Maternal and Child Nutrition

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: Impact Factor

? Duijts, L., Ramadhani, M.K. and Moll, H.A. (2009), Breastfeeding protects against infectious diseases during infancy in industrialized countries. A systematic review. *Maternal and Child Nutrition*, **5** (3), 199-210.

Abstract: Firstly, this review was performed to assess the effect of breastfeeding on infections during infancy in industrialized countries. Secondly, the effect of duration and exclusiveness of breastfeeding were explored. Studies were identified using Medline, Cochrane Library, Science Citation Index and by a manual search from bibliographies of articles from August 1986 to January 2008. Follow-up, case-control and randomized controlled trial (RCT) studies performed in an industrialized country, published in English, with breastfeeding as a determinant, with overall infections, gastrointestinal or respiratory tract infections as a major outcome, and at least 40 participants in the study were included. Using Bauchner’s criteria published in a review in 1986, two reviewers and a peer reviewer assessed the internal validity of those studies. Twenty-one studies that met the inclusion and internal validity criteria were included. These included 16 follow-up and four case-control studies and one RCT. Four out of five studies observed decreased effects on overall infections in breastfed infants. With regard to gastrointestinal infections, six out of eight studies suggested that breastfeeding had a protective effect. Thirteen out of 16 studies concluded that breastfeeding protects infants against respiratory tract infections. Five studies combined duration and exclusiveness of breastfeeding. All studies observed a protective dose/duration-response effect on gastrointestinal or respiratory tract infections. These studies strongly suggest that breastfeeding protects infants against overall infections, gastrointestinal and respiratory tract infections in industrialized countries. The optimal duration of exclusive breastfeeding for protection against infectious diseases needs to be studied in more detail.

Keywords: 1st Year, Breastfeeding, Children, Citation, Duration or Exclusiveness of Breastfeeding, Gastrointestinal Infections, Health, Hospitalization, Infants, Life, Medline, Morbidity, Optimal Duration, Otitis-Media, Respiratory Tract Infections, Respiratory-Tract Infections, Review, Risk-Factors, Science, Science Citation Index, Systematic Review

# Title: Mathematical Biosciences

Full Journal Title: [Mathematical Biosciences](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=6078&_auth=y&_acct=C000047720&_version=1&_urlVersion=0&_userid=2007471&md5=609b68051c10696356063ee3c12414cc)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Buell, J. and Kalaba, R. (1969), Quasilinearization and the fitting of nonlinear models of drug metabolism to experimental kinetic data. *Mathematical Biosciences*, **5** (1-2), 121-132.

Full Text: [M\Mat Bio5, 121.pdf](M/Mat%20Bio5,%20121.pdf)

Abstract: In recent years it has been shown that the biotransformation of various drugs in the therapeutic dose range is not adequately described by linear models. For enzymatically mediated reactions, for example, the phenomena of saturation and substrate depletion lead to nonlinear effects.

A basic task is to fit nonlinear theoretical models to observed data for various metabolic processes. This is done for a process involving Michaelis and Menten kinetics. A numerical experiment is described, and various extensions are suggested.

# Title: Mathematical and Computer Modelling

Full Journal Title: [Mathematical and Computer Modelling](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5656&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=db2fb3505ab36394b321a0c65267aacb)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Egghe, L. (1993), Consequences of Lotka’s law in the case of fractional counting of authorship and of first author counts. *Mathematical and Computer Modelling*, **18** (9), 63-77.

Full Text: [M\Mat Com Mod18, 63.pdf](M/Mat%20Com%20Mod18,%2063.pdf)

Abstract: In a recent paper, Rousseau [1] notes the fact that if we given weights of 1/*m* to each author in an *m*-authored paper, Lotka’s law does not apply. However, he also notes that the function modeling the number of authors with weights *j*, *j* ≥ 0, starts increasing from zero to about one and then decreases. In that paper, the present author is quoted as stating that this is not a breakdown of Lotka’s law but merely a composition of two Lotka’s laws: one for *j* ≥ 1 modeling papers per author, and one for 0 ≤ *j* ≤ 1 modeling authors per paper. The stochastic problem of how these two laws fit into each other was not solved in Rousseau’s paper, however. This is done in this paper, where we will show that the weight-distribution function has indeed a maximum for the weight equal to one. We then study the same problem in the case where only the first author gets weight one and the others weight zero. We solve this case completely providing a formula for the probability of the weights. Also this function has a maximum for the weight equal to one. The main tool in these models is the technique of repeated convolution of continuous or discrete distribution functions.

? Egghe, L. and Rousseau, R. (2006), Lorenz theory of symmetric relative concentration and similarity, incorporating variable array length. *Mathematical and Computer Modelling*, **44** (7-8), 628-639.

Full Text: [2006\Mat Com Mod44, 628.pdf](2006/Mat%20Com%20Mod44,%20628.pdf)

Abstract: This paper extends the Lorenz theory, developed in [L. Egghe, R. Rousseau, Symmetric and asymmetric theory of relative concentration and applications, Scientometrics 52 (2) (2001) 261–290], so that it can deal with comparing arrays of variable length. We show that in this case we need to divide the Lorenz curves by certain types of increasing functions of the array length N.

We then prove that, in this theory, adding zeros to two arrays increases their similarity, a property that is not satisfied by the Pearson correlation coefficient.

Among the many good similarity measures satisfying the developed Lorenz theory, we deduce the correlation coefficient of Spearman, hence showing that this measure can be used as a good measure of symmetric relative concentration (or similarity).

Keywords: Applications, Author Cocitation Analysis, Concentration, Correlation, Lorenz, Paper, Pearson Correlation Coefficient, Pearsons-R, Requirements, Similarity, Spearman Correlation Coefficient, Symmetric Relative Concentration

? Egghe, L. (2007), Item-time-dependent Lotkaian informetrics and applications to the calculation of the time-dependent h-index and g-index. *Mathematical and Computer Modelling*, **45** (7-8), 864-872.

Full Text: [2007\Mat Com Mod45, 864.pdf](2007/Mat%20Com%20Mod45,%20864.pdf)

Abstract: The model for the cumulative nth citation distribution, as developed in [L. Egghe, I.K. Ravichandra Rao, Theory of first-citation distributions and applications, Mathematical and Computer Modelling 34 (2001) 81-90] is extended to the general source-item situation. This yields a time-dependent Lotka function based on a given (static) Lotka function (considered to be valid for time t = infinity). Based on this function, a time-dependent Lotkaian informetrics theory is then further developed by e.g. deriving the corresponding time-dependent rank-frequency function. These tools are then used to calculate the dynamical (i.e. time-dependent) g-index (of Egghe) while also an earlier proved result on the time-dependent h-index (of Hirsch) is refound. It is proved that both indexes are concavely increasing to their steady state values for t = infinity. (c) 2006 Elsevier Ltd. All rights reserved.

Keywords: Citation, Function, G Index, G-Index, General, h Index, h-Index, Hirsch, Hirsch-Index, Indicators, Informetrics, Lotka, Lotkaian Informetrics, Model, Ranking, Rights, Scientists, Steady State, T, Theory, Time-Dependent

# Title: Mathematical Methods, Computational Techniques, Non-Linear Systems, Intelligent Systems

Full Journal Title: Mathematical Methods, Computational Techniques, Non-Linear Systems, Intelligent Systems

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Papavlasopoulos, S. and Poulos, M. (2008), A global bibliometric index for a published article. *Mathematical Methods, Computational Techniques, Non-Linear Systems, Intelligent Systems*, 132-136.

Abstract: In this study is investigated an approach to the scholar evaluation problem by taking into account both social and scholar factors that affect the status of a research in a particular research area. We define the ideal global bibliometric indicator as a point of reference consisting of a set of factors such as the impact factor of the journal and the significant relation of the Journal to the scientific area considered for the evaluation.

Keywords: Affect, Approach, Bibliometric, Bibliometric Indicator, Bibliometrics, Evaluation, Factors, Impact, Impact Factor, Indicator, Journal, Problem, Reference, Research, Research Evaluation, Social, Status

# Title: Mathematical Problems in Engineering

Full Journal Title: Mathematical Problems in Engineering

ISO Abbreviated Title: Math. Probl. Eng.

JCR Abbreviated Title: Math Probl Eng

ISSN: 1024-123X

Issues/Year: 6

Language: English

Journal Country/Territory: United States

Publisher: Hindawi Publishing Corporation

Publisher Address: Po Box 1210, Sylvania, OH 43560

Subject Categories:

Engineering, Multidisciplinary: Impact Factor 0.204, 49/61 (2004)

Mathematics, Applied: Impact Factor 0.204, 153/162 (2004)

# Title: Mathematical Proceedings of the Cambridge Philosophical Society

Full Journal Title: [Mathematical Proceedings of the Cambridge Philosophical Society](http://journals.cambridge.org/action/displayBackIssues?jid=PSP)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0008-1981

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Fowler, R.H. (1935), A statistical derivation of Langmuir’s adsorption isotherm. *Mathematical Proceedings of the Cambridge Philosophical Society*, **31** (2), 260-264.

Full Text: [-1959\Mat Pro Cam Phi Soc31, 260.pdf](-1959/Mat%20Pro%20Cam%20Phi%20Soc31,%20260.pdf)

Abstract: The commonest form of Langmuir’s adsorption isotherm is

where θ is the fraction of the surface of the solid covered by adsorbed molecules, p the gas pressure in equilibrium with the adsorbed layer and A = A (T) a function of the temperature alone. This formula is usually derived by a kinetic argument which balances the rates of deposition and re-evaporation. It is perhaps not without interest to show that formula (1) and similar formulae can be obtained directly by the usual statistical methods which evaluate all the properties of the equilibrium state of any assembly. The ordinary derivation is apt to obscure the essentially thermodynamic character of (1) and to lead one to think that its form depends on the precise mechanisms of deposition and re-evaporation, whereas in fact it depends only on the whole set of states, adsorbed and free, accessible to the molecules in question. By suitable use of the usual technique for handling assemblies obeying the Fermi-Dirac statistics the saturation effect can be naturally incorporated in the theory ab initio.

? Rushbrooke, G.S. (1942), The thermodynamic derivation of Fowler’s adsorption isotherm. *Mathematical Proceedings of the Cambridge Philosophical Society*, **38** (2), 236-239.

Full Text: [-1959\Mat Pro Cam Phi Soc38, 236.pdf](-1959/Mat%20Pro%20Cam%20Phi%20Soc38,%20236.pdf)

# Title: Mathematical Structures in Computer Science

Full Journal Title: [Mathematical Structures in Computer Science](http://journals.cambridge.org/action/displayJournal?jid=MSC)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0960-1295

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Longo, G., Asarin, E., Barr, M., Berry, G., Coquand, T., Curien, P.L., De Nicola, R., Edalat, A., Ehrhard, T., Ehrig, H., Escardo, M., Girard, J.Y., Hasegawa, M., Honsell, F., Hyland, M., Kanovitch, M., Lack, S., Milner, R., Mislove, M., Moggi, E., Montanari, U., Palamidessi, C., Paul, T., Pierce, B., Pitts, A., Plotkin, G.D., Scedrov, A., Scott, D.S., Scott, P.J., Seely, R.A.G., Selinger, P., Simpson, A., Tiuryn, J. and Winskel, G. (2009), Editors’ note: Bibliometrics and the curators of orthodoxy. *Mathematical Structures in Computer Science*, **19** (1), 1-4.

Full Text: [2009\Mat Str Com Sci19, 1.pdf](2009/Mat%20Str%20Com%20Sci19,%201.pdf)

Keywords: Bibliometrics

# Title: Mathematics and Computers in Simulation

Full Journal Title: [Mathematics and Computers in Simulation](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5655&_auth=y&_acct=C000053193&_version=1&_urlVersion=0&_userid=1495547&md5=60a4f853c2fca6e71727a722ab2dd86b)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Smith, K. and Marinova, D. (2005), Use of bibliometric modelling for policy making. *Mathematics and Computers in Simulation*, **69** (1-2), 177-187.

Full Text: [M\Mat Com Sim69, 177.pdf](M/Mat%20Com%20Sim69,%20177.pdf)

Abstract: Bibliometric methods for analysing and describing research output have been supported internationally by the establishment and operation of organisations such as the Institute for Scientific Information (ISI) as well as the continual calculations and release of journal lists, bibliometric indicators and rankings. Policy makers in Australia have been relying on such bibliometric information and analyses in making funding decisions and encouraging the development of research potential and strengths. Does bibliometric modelling of research productivity reflect the real impact research has for Australia’s future? The paper is based on a study of three Australian research centres in the field of the geosciences. The analysis reveals a number of anomalies in the generalisations made when ISI models are used for policy decisions.

Keywords: Australia, Bibliometric, Development, Geosciences, Institute For Scientific Information, ISI, Journal, Policy Setting, Research, Research Centres, Research Performance, Research Productivity, Science

# Title: Mathematische Annalen

Full Journal Title: [Mathematische Annalen](http://www.springerlink.com/content/0025-5831/348/4/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Kasner, E. (1904), A characteristic property of isothermal systems of curves. *Mathematische Annalen*, **59**, 352-354.

Full Text: [-1959\Mat Ann59, 352.pdf](-1959/Mat%20Ann59,%20352.pdf)

# Title: The Mathematics of Diffusion

Clarendon Press, Oxford

? Crank, J. (1956), *Mathematics of Diffusion*, Oxford University Press, London.

Crank, J. (1979), *The Mathematics of Diffusion*, Clarendon Press, Oxford.

# Title: Maturitas

Full Journal Title: Maturitas

ISO Abbreviated Title: Maturitas

JCR Abbreviated Title: Maturitas

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Bostock, C.V., Soiza, R.L. and Whalley, L.J. (2009), Genetic determinants of ageing processes and diseases in later life. *Maturitas*, **62** (3), 225-229.

Abstract: Objective: To investigate the role of genetic factors in diseases of later life. Methods: Review of literature relevant to the role of genetic factors in variation of incidence of age-related diseases of later life using MEDLINE, Web of Science, to search publications in English since 1980 and Citations found in relevant publications. Results: The identity of ageing and longevity genes remains unknown despite lively interest in lipoprotein metabolism, genomic instability, oxidative stress, cellular response to damage, inflammatory processes, insulin/IGF1-signalling and Sirtuins. Genes involved in lifespan appear remarkably conserved across species but genes that convey increased susceptibility to specific age-dependent diseases are not yet identified. Conclusion: Individual differences in rates of ageing and incidence of the common diseases of later life require explanation. The Sirtuins and the Held of epigenetics are emerging as potentially informative research priorities. Further research includes the development of biomarkers and a greater understanding of the interaction between genes and the environment. The hypothetical treatment of ageing could retard or prevent age-associated diseases resulting in widespread health, social and economic benefit. (C) 2009 Published by Elsevier Ireland Ltd.

Keywords: Ageing, Alzheimers-Disease, Apolipoprotein-E, Associations, Biomarkers, Centenarians, Citations, Determinants, Development, Diseases, Environment, Epigenetics, Exceptional Longevity, Functional Variant, Genetic, Human Longevity, Incidence, Interest, Klotho Gene, Later Life, Lipoprotein, Literature, Methods, Oxidative Stress, Publications, Research, Review, Science, Social, Span, Stress, Susceptibility, Treatment, Web of Science

# Title: Mayo Clinic Proceedings

Full Journal Title: [Mayo Clinic Proceedings](http://www.mayoclinicproceedings.com/content/by/year)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Murali, N.S., Murali, H.R., Auethavekiat, P., Erwin, P.J., Mandrekar, J.N., Manek, N.J. and Ghosh, A.K. (2004), Impact of FUTON and NAA bias on visibility of research. *Mayo Clinic Proceedings*, **79** (8), 1001-1006.

Full Text: [2004\May Cli Pro79, 1001.pdf](2004/May%20Cli%20Pro79,%201001.pdf)

Abstract: OBJECTIVE: To determine whether availability of journals on MEDLINE as FUTON (full text on the Net) affects their impact factor. MATERIAL and METHODS: A comprehensive search identified 324 cardiology, nephrology, and rheumatology/immunology journals on-line until May 2003. The status of these journals was ascertained in MEDLINE as having FUTON, abstracts only, and NAA (no abstract available). Impact factors for all available journals from the Institute for Scientific Information (ISI) were abstracted. RESULTS: Of the 324 journals, 124 (38.3%) were FUTON, 138 (42.6%) had abstracts only, and 62 (19.1%) had NAA. The mean (±SEM) impact factor was 3.24 (±0.32), 1.64 (±0.30), and 0.14 (±0.45), respectively. Of the 324 current journals, 159 existed in both the pre- and the post-Internet era. An analysis of the change (ie, delta) in impact factor from the pre- to post-Internet era revealed a trend between journals with FUTON and abstracts only (P =.17, Wilcoxon rank sum test). Similar analyses of the delta of cardiology journals revealed a statistically significant difference between journals with FUTON and abstracts only (P =.04, Wilcoxon rank sum test). CONCLUSION: FUTON bias is the tendency to peruse what is more readily available. This is the first study to show that on-line availability of medical literature may increase the impact factor and that such increase tends to be greater in FUTON journals. Failure to consider this bias may affect a journal’s impact factor. Also, it could limit consideration of medical literature by ignoring relevant NAA articles and thereby influence medical education akin to publication or language bias.

Keywords: Analyses, Analysis, Availability, Bias, Education, First, Impact, Impact Factor, Institute for Scientific Information, ISI, Journals, Literature, Medical, Medical Education, Medical Literature, MEDLINE, Methods, Nephrology, P, Publication, Rank, Research, Trend, Visibility

? Falagas, M.E. and Zouglakis, G.M. (2006), Trends in the impact factor of scientific journals. *Mayo Clinic Proceedings*, **81** (10), 1401-1402.

Full Text: [2006\May Cli Pro81, 1401.pdf](2006/May%20Cli%20Pro81,%201401.pdf)

Keywords: Impact, Impact Factor, Journals, Scientific Journals

? Bardia, A., Tleyjeh, I.M., Cerhan, J.R., Sood, A.K., Limburg, P.J., Erwin, P.J. and Montori, V.M. (2008), Efficacy of antioxidant supplementation in reducing primary cancer incidence and mortality: Systematic review and meta-analysis. *Mayo Clinic Proceedings*, **83** (1), 23-34.

Full Text: [2008\May Cli Pro83, 23.pdf](2008/May%20Cli%20Pro83,%2023.pdf)

Abstract: OBJECTIVE: To estimate the association between antioxidant use and primary cancer incidence and mortality and to evaluate these effects across specific antioxidant compounds, target organs, and participant subgroups.

METHODS: Multiple electronic databases (MEDLINE, Cochrane Controlled Clinical Trials Register, EMBASE, Science Citation Index) were searched from their dates of inception until August 2005 to identify eligible randomized clinical trials. Random effects meta-analyses estimated pooled relative risks (RRs) and 95% confidence intervals (CIs) that described the effect of antioxidants vs placebo on cancer incidence and cancer mortality.

RESULTS: Twelve eligible trials, 9 of high methodological quality, were identified (total subject population, 104,196). Antioxidant supplementation did not significantly reduce total cancer incidence (IRR, 0.99; 95% CI, 0.94-1.04) or mortality (RR, 1.03; 95% CI, 0.92-1.15) or any site-specific cancer incidence. Beta carotene supplementation was associated with an increase in the incidence of cancer among smokers (RR, 1.10; 95% CI, 1.03-1.10) and with a trend toward increased cancer mortality (RR, 1.16; 95% CI, 0.98-1.37). Selenium supplementation was associated with reduced cancer incidence in men (RR, 0.77; 95% CI, 0.64-0.92) but not in women (IRR, 1.00; 95% CI, 0.89-1.13, value for interaction, P<.001) and with reduced cancer mortality (RR, 0.78; 95% CI, 0.65-0.94). Vitamin E supplementation had no apparent effect on overall cancer incidence (RR, 0.99; 95% CI, 0.941.04) or cancer mortality (RR, 1.04; 95% CI, 0.97-1.12).

CONCLUSION: Beta carotene supplementation appeared to increase cancer incidence and cancer mortality among smokers, whereas vitamin E supplementation had no effect. Selenium supplementation might have anticarcinogenic effects in men and thus requires further research.

Keywords: Antioxidant, Antioxidants, Association, Base-Line Characteristics, Beta-Carotene Supplementation, Cancer, Cardiovascular-Disease, Carotene, Citation, Clinical, Clinical Trials, Confidence, Confidence Intervals, Databases, Disease-Specific Mortality, Incidence, Interaction, Intervals, Long-Term Supplementation, Medline, Men, Meta-Analysis, Metaanalysis, Methods, Mortality, Nutrition Intervention Trials, Placebo, Population, Primary, Primary Liver-Cancer, Prostate-Cancer, Quality, Randomized, Randomized Controlled-Trial, Research, Review, Risks, Science, Science Citation Index, Site Specific, Site-Specific, Systematic Review, Trend, Value, Vitamin E, Vitamin-E, Women

# Title: Measurement: Interdisciplinary Research & Perspective

Full Journal Title: [Measurement: Interdisciplinary Research & Perspective](http://www.informaworld.com/smpp/title~db=all~content=t775653679)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? van Raan, A.F.J. (2005), For your citations only? Hot topics in bibliometric analysis. *Measurement: Interdisciplinary Research & Perspective*, **3** (1), 50-62.

Full Text: [2005\Mea Int Res Per3, 50.pdf](2005/Mea%20Int%20Res%20Per3,%2050.pdf)

# Title: Mechanical, Industrial, and Manufacturing Engineering

Full Journal Title: Mechanical, Industrial, and Manufacturing Engineering

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Yoon, B., Kim, A. and Jeon, W. (2011), Exploring a promising research theme based on academic knowledge map using the GTM Method. *Mechanical, Industrial, and Manufacturing Engineering*, 341-344.

Full Text: 2011\Mec Ind Man Eng, 341.pdf

Abstract: Since many researchers are looking for promising, novel research ideas, they normally want to explore research vacuum that has not been studied and is able to even suggest a breakthrough in existing research environment. However, traditional approaches just deal with qualitative method or are dependent of the individual capability to create promising research ideas. Therefore, this research aims at proposing a systemic process to explore influential research theme, using bibliometric data and methods. For this, first, a research area that is proper to this approach is selected and related academic papers are collected from academic database. Second, text mining is conducted to extract keywords from the papers. Third, academic knowledge map is visualized and research vacuums are derived by GTM. Fourth, the characteristics of the research vacuums are grasped by applying the algorithm of GTM. Finally, with keywords that can represent the features of the vacuums, existing research are investigated to evaluate the level of related research activities in the areas of interest.

Keywords: Academic Knowledge Map, Algorithm, Approach, Bibliometric, Bibliometric Analysis, Breakthrough, Characteristics, Data, Database, Environment, First, Generative Topology Mapping, Knowledge, Methods, Mining, Papers, Qualitative, Qualitative Method, Research, Research Theme, Text Mining, Vacuum

# Title: Measuring Academic Research: How to Undertake a Bibliometric Study

Full Journal Title: Measuring Academic Research: How to Undertake a Bibliometric Study

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Andres, A. (2009), Measuring academic research: How to undertake a bibliometric study. *Measuring Academic Research: How to Undertake a Bibliometric Study*, 1-169.

Full Text: 2009\Mea Acd Res1.pdf

Keywords: Journal Impact Factor, Web-of-Science, International Co-Authorship, Successive h-Indexes, Egghes G-Index, Self-Citation, Google-Scholar, Cocitation Analysis, Lotka Law, Scientific Collaboration

# Title: Mechanisms of Ageing and Development

Full Journal Title: [Mechanisms of Ageing and Development](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=4933&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=048f184df19435452034cdb845605b82)

ISO Abbreviated Title: Mech. Ageing. Dev.

JCR Abbreviated Title: Mech Ageing Dev

ISSN: 0047-6374

Issues/Year: 21

Journal Country/Territory: Switzerland

Language: Multi-Language

Publisher: Elsevier Sci Ireland Ltd

Publisher Address: Customer Relations Manager, Bay 15, Shannon Industrial Estate Co, Clare, IR

Subject Categories:

Biochemistry & Molecular Biology: Impact Factor

Cell Biology Geriatrics & Gerontology: Impact Factor 1.897, 155/310 (2000)

? Jaatinen, P., Kiianmaa, K. and Hervonen, A. (1992), Lifelong ethanol consumption enhances the age-related changes in rat sympathetic neurons. *Mechanisms of Ageing and Development*, **63** (2), 193-205.

Abstract: The effects of aging and chronic ethanol administration on the histochemical and morphometric features of rat superior cervical ganglion were studied in a rat strain selected for voluntary alcohol consumption. Ethanol was administered to the experimental group ad libitum (10% v/v in drinking water) from 3 months to 28 months of age, the average ethanol intake being 6.4-5.4 g/kg per day. The sympathetic neurons of the ethanol consuming rats showed several signs of enhanced degeneration, e.g. decreased neuronal packing density, increased, Amount of age-pigment and decreased intensity of catecholamine histofluorescence and tyrosine hydroxylase immunoreactivity. The results may indicate a selective vulnerability of peripheral sympathetic neurons rather than a universal accelerated aging due to chronic ethanol exposure.

Keywords: Aging, Alcohol, Sympathetic Neurons, Catecholamines, Tyrosine Hydroxylase, Lipopigment, Term Alcohol-Consumption, Nervous-System, Lipofuscin Granules, Projection System, Adrenal-Gland, Brain, Cells, Ganglia, Catecholamines, Accumulation

# Title: Médecine et Maladies Infectieuses

Full Journal Title: Médecine et Maladies Infectieuses

ISO Abbreviated Title: Med. Mal. Infect.

JCR Abbreviated Title: Med Maladies Infect

ISSN: 0399-077X

Issues/Year: 12

Journal Country/Territory: France

Language: Multi-Language

Publisher: Editions Scientifiques Medicales Elsevier

Publisher Address: 23 Rue Linois, 75724 Paris Cedex 15, France

Subject Categories:

Infectious Diseases: Impact Factor 0.339, / (2002)

Guery, B., Alfandari, S., Leroy, O., Georges, H., D’escrivan, T., Kipnis, E., Mouton, Y. and Yazdanpanah, Y. (1995), Syndrome respiratoire aigu sévère: Severe acute respiratory syndrome. *Médecine et Maladies Infectieuses*, **33** (6), 281-286.

Full Text: [M\Med Mal Inf33, 281.pdf](M/Med%20Mal%20Inf33,%20281.pdf)

Abstract: In the Fall of 2002 a report from Guangdong Province in China showed the occurrence of an outbreak of atypical pneumonia. This outbreak rapidly progressed from China to Hong Kong, Singapore, Toronto, and the USA, to more than 25 countries worldwide and almost 3500 cases to date in april 2003. The clinical features associate a fever with mild respiratory symptoms which can progress to a typical acute respiratory distress syndrome requiring intensive care unit admission. Enteric forms with diarrhea were recently described in Hong Kong. The medical community responded very rapidly and united in front of this major health crisis. In a couple weeks, the agent, a new *Coronavirus* was isolated, therapeutic guidelines were proposed and measures to limit the outbreak diffusion were started worldwide. We summarize here the history of the outbreak, the clinical, laboratory and radiological features of SARS. April 2003 therapeutic guidelines are also reported.

Keywords: Pneumonie, *Coronavirus*, SARSMots-clé: Pneumonia, *Coronavirus*, SARS

# Title: Medical & Biological Engineering & Computing

Full Journal Title: [Medical & Biological Engineering & Computing](http://www.springerlink.com/content/119997/?p=d608540807b94c56bc230a02e1b69e39&pi=0)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Spaan, J.A.E. (2009), Biomedical engineering and bibliometric indices for scientific quality. *Medical & Biological Engineering & Computing*, **47** (12), 1219-1220.

Full Text: [2009\Med Bio Eng Com47, 1219.pdf](2009/Med%20Bio%20Eng%20Com47,%201219.pdf)

Keywords: Output

# Title: Medical Care

Full Journal Title: Medical Care

ISO Abbreviated Title: Med. Care

JCR Abbreviated Title: Med Care

ISSN: 0025-7079

Issues/Year: 12

Journal Country/Territory: United States

Language: English

Publisher: Lippincott Williams & Wilkins

Publisher Address: 530 Walnut St, Philadelphia, PA 19106-3621

Subject Categories:

Health Care Sciences & Services: Impact Factor 2.079,

Public, Environmental & Occupational Health: Impact Factor 2.079, 13/85

? Brooks, C.H., Walker, L.R. and Szorady, R. (1991), Rating journals in health-care administration: The perceptions of program chairpersons. *Medical Care*, **29** (8), 755-765.

Full Text: [1991\Med Car29, 755.pdf](1991/Med%20Car29,%20755.pdf)

Abstract: The perceived quality of a journal is often a heavily weighted factor in the appraisal of faculty performance. We developed a listing of 53 prominent journals in the field of health care administration and surveyed the chairpersons of the 52 accredited graduate programs in the United States, Canada, and Puerto Rico, asking each to rate the level of achievement of a faculty member who published in each journal. Using the chi-square goodness-of-fit method for a multinomial experiment, we were able to identify six distinct “tiers” of journals and show a relationship between the subject category of a journal and its tier ranking. The implications of the study findings for faculty members are addressed, followed by a discussion of the data limitations and suggestions for future research.

Keywords: Academic Journals, Author, Canada, Economics Departments, Health Care, Journal, Journals, Management Journals, Publications, Puerto Rico, Ranking, Research, State, Subject Category

Notes: highly cited

? Ware, J.E. and Sherbourne, C.D. (1992), The MOS 36-Item short-form health survey (SF-36). I. Conceptual-framework and item selection. *Medical Care*, **30** (6), 473-483.

Full Text: [1992\Med Car30, 473.pdf](1992/Med%20Car30,%20473.pdf)

Abstract: A 36-item short-form (SF-36) was constructed to survey health status in the Medical Outcomes Study. The SF-36 was designed for use in clinical practice and research, health policy evaluations, and general population surveys. The SF-36 includes one multi-item scale that assesses eight health concepts: 1) limitations in physical activities because of health problems; 2) limitations in social activities because of physical or emotional problems; 3) limitations in usual role activities because of physical health problems; 4) bodily pain; 5) general mental health (psychological distress and well-being); 6) limitations in usual role activities because of emotional problems; 7) vitality (energy and fatigue); and 8) general health perceptions. The survey was constructed for self-administration by persons 14 years of age and older, and for administration by a trained interviewer in person or by telephone. The history of the development of the SF-36, the origin of specific items, and the logic underlying their selection are summarized. The content and features of the SF-36 are compared with the 20-item Medical Outcomes Study short-form.

Keywords: Activities, Care, Development, Distress, Energy, Fatigue, Health, Health Policy, Health Status, History, Impact, Life, Medical Outcomes Study, Mental Health, Outcomes, Pain, Perceptions, Physical Health, Physicians, Policy, Practice, Psychological, Quality, Research, Selection, SF-36, Shattuck Lecture, Social, Survey, Well-Being

? Dame, M.A. and Wolinsky, F.D. (1993), Rating journals in health-care administration - The use of bibliometric measures. *Medical Care*, **31** (6), 520-524.

Full Text: [1993\Med Car31, 520.pdf](1993/Med%20Car31,%20520.pdf)

? Dame, M.A. and Wolinsky, F.D. (1994), Reconciling differences in rating the quality of health-care administration journals between program chairs perceptions and citation counts - cutting edge, historical seniority, mainstream, measurement error, or political correctness. *Medical Care*, **32** (6), 653-655.

Full Text: [1994\Med Car32, 653.pdf](1994/Med%20Car32,%20653.pdf)

? Welch, H.G., Englert, E.T., Whitman, D. and Miller, M.E. (1995), Who is responsible for care given during the inpatient stay: A preliminary examination of attending and procedure physicians in medicare new data system. *Medical Care*, **33** (4), 417-422.

Full Text: [1995\Med Car33, 417.pdf](1995/Med%20Car33,%20417.pdf)

? Avis, N.E., Smith, K.W., Hambleton, R.K., Feldman, H.A., Selwyn, A. and Jacobs, A. (1996), Development of the multidimensional index of life quality: A quality of life measure for cardiovascular disease. *Medical Care*, **34** (11), 1102-1120.

Full Text: [1996\Med Car34, 1102.pdf](1996/Med%20Car34,%201102.pdf)

Abstract: OBJECTIVES. The purpose of this study was to design a multidimensional measure of health-related quality of life appropriate for patients with cardiovascular disease that was psychometrically sound, brief, and easy to administer.

METHODS. Qualitative interviews conducted with healthy subjects and patients with cardiovascular diseases identified nine major quality of life domains. Based on the responses of 129 cardiovascular disease patients recruited from hospitals and clinics, a criterion-based approach was used to select 35 questionnaire items that best tapped these domains. Psychometric properties of the Multidimensional Index of Life Quality (MILQ) were tested with a sample of 348 patients with various cardiovascular diseases.

RESULTS. Cronbach’s alpha was 0.76 or higher for eight of the nine MILQ domains. Test-retest reliability coefficients were 0.73 or greater in all but two domains. Individual domain scores as well as a weighted overall quality of life index were correlated highly with self-assessed health and the number of heart-related symptoms.

CONCLUSIONS. The Multidimensional Index of Life Quality is a psychometrically reliable and valid instrument for measuring quality of life in patients with cardiovascular diseases. The MILQ also may be a suitable measure for other types of chronic diseases.

Keywords: Primary Care Patients, Health-Status, Performance Status, Functional Health, of-Life, Scales, Reliability, Physicians, Validity, Surgery, Quality of Life, Measurement, Cardiovascular Disease

# Title: Medical Care Research and Review

Full Journal Title: Medical Care Research and Review

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Parkerton, P.H. (1999), Motives for health plan-academic health center relationships: Journal review of the first quarter century. *Medical Care Research and Review*, **56**, 111-138.

Abstract: Motives for health plan (HP)-academic health center (AHC) relationships, including both deterrents and inducements, are explored through a review of 153 articles, published from 1970 through 1997, in academic and health care industry journals about HP-AHC relationships. Every article that met inclusion criteria was coded for year, journal, author, audience, type of article, organization of focus, purposes, priorities, affiliation motives, and issues. Peak years were 1973 (the passage of HMO legislation) and the most recent years from 1994 through 1997. The motives to affiliate were found to be different for AHCs and HPs (e.g physician attitudes, a deterrent for AHCs and inducement for HPs; resources, a deterrent for HPs and inducement for AHCs). Increases in size of HPs and decreases in political power of AHCs have resulted in changes to motives to form relationships. Motives must be acknowledged to move from competitive to collaborative relationships.

Keywords: Affiliation, Attitudes, Care, Changes, Criteria, First, Health, Health Care, HMO, Journal, Journals, Legislation, Organization, Physician, Physician Attitudes, Power, Review, Size

# Title: Medical Physics

Full Journal Title: Medical Physics

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Otto, K. (2008), Volumetric modulated arc therapy: IMRT in a single gantry arc. *Medical Physics*, **35** (1), 310-317.

Full Text: [2008\Med Phy35, 310.pdf](2008/Med%20Phy35,%20310.pdf)

Abstract: In this work a novel plan optimization platform is presented where treatment is delivered efficiently and accurately in a single dynamically modulated arc. Improvements in patient care achieved through image-guided positioning and plan adaptation have resulted in an increase in overall treatment times. Intensity-modulated radiation therapy (IMRT) has also increased treatment time by requiring a larger number of beam directions, increased monitor units (MU), and, in the case of tomotherapy, a slice-by-slice delivery. In order to maintain a similar level of patient throughput it will be necessary to increase the efficiency of treatment delivery. The solution proposed here is a novel aperture-based algorithm for treatment plan optimization where dose is delivered during a single gantry arc of up to 360 deg. The technique is similar to tomotherapy in that a full 360 deg of beam directions are available for optimization but is fundamentally different in that the entire dose volume is delivered in a single source rotation. The new technique is referred to as volumetric modulated arc therapy (VMAT). Multileaf collimator (MLC) leaf motion and number of MU per degree of gantry rotation is restricted during the optimization so that gantry rotation speed, leaf translation speed, and dose rate maxima do not excessively limit the delivery efficiency. During planning, investigators model continuous gantry motion by a coarse sampling of static gantry positions and fluence maps or MLC aperture shapes. The technique presented here is unique in that gantry and MLC position sampling is progressively increased throughout the optimization. Using the full gantry range will theoretically provide increased flexibility in generating highly conformal treatment plans. In practice, the additional flexibility is somewhat negated by the additional constraints placed on the amount of MLC leaf motion between gantry samples. A series of studies are performed that characterize the relationship between gantry and MLC sampling, dose modeling accuracy, and optimization time. Results show that gantry angle and MLC sample spacing as low as 1 deg and 0.5 cm, respectively, is desirable for accurate dose modeling. It is also shown that reducing the sample spacing dramatically reduces the ability of the optimization to arrive at a solution. The competing benefits of having small and large sample spacing are mutually realized using the progressive sampling technique described here. Preliminary results show that plans generated with VMAT optimization exhibit dose distributions equivalent or superior to static gantry IMRT. Timing studies have shown that the VMAT technique is well suited for on-line verification and adaptation with delivery times that are reduced to similar to 1.5-3 min for a 200 cGy fraction. (c) 2008 American Association of Physicists in Medicine.

Keywords: Accuracy, Adaptation, Model

# Title: Medical Decision Making

Full Journal Title: Medical Decision Making

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0272-989X

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Beck, J.R., Pyle, K.I. and Lusted, L.B. (1983), A citation analysis of the field of *Medical Decision Making*: 1959-82. *Medical Decision Making*, **3** (3), 371.

Full Text: [M\Med Dec Mak3, 371.pdf](M/Med%20Dec%20Mak3,%20371.pdf)

Beck, J.R., Pyle, K.I. and Lusted, L.B. (1984), A citation analysis of the field of medical decision making, 1959-1982: Computer-aided diagnosis and clinical decision analysis. *Medical Decision Making*, **4** (4), 449-468.

Full Text: [1984\Med Dec Mak4, 449.pdf](1984/Med%20Dec%20Mak4,%20449.pdf)

Pyle, K.I., Lobel, R.W. and Beck, J.R. (1988), Citation analysis of the field of medical decision making: Update, 1959-1985. *Medical Decision Making*, **8** (3), 155-164.

Full Text: [1988\Med Dec Mak8, 155.pdf](1988/Med%20Dec%20Mak8,%20155.pdf)

? Greenberg, D., Rosen, A.B., Wacht, O., Palmer, J. and Neumann, P.J. (2010), A bibliometric review of cost-effectiveness analyses in the economic and medical literature: 1976-2006. *Medical Decision Making*, **30** (3), 320-327.

Full Text: [2010\Med Dec Mak30, 320.pdf](2010/Med%20Dec%20Mak30,%20320.pdf)

Abstract: Background. Cost-effectiveness analysis (CEA) presenting a cost per quality-adjusted life year (QALY) ratio is frequently used to determine “value for money” in health care. Despite the proliferation of CEA research, there has been no detailed study focusing on the bibliometric properties of this literature. Objectives. To describe and analyze trends in publications and coauthorship in the CEA literature from 1976 to 2006 and to identify the most prolific authors and research groups conducting CEAs. Methods. The authors used the Tufts Medical Center Registry of original CEAs published through 2006 (www.cearegistry.org). For each article, they recorded the year of publication, the journal title, and the number of contributing authors and their names. Authors were assigned credit based on their weighted contribution to the study (1 credit point for the first and last authors, point for the second author, and 1/n credit points for all other authors, where n reflects the number of coauthors). Results. Approximately 1400 CEAs presenting a cost/QALY ratio were published in 420 journals through 2006. The mean number of contributing authors was 4.7 +/- 2.4. Medical journals were characterized by a higher number of coauthors, as compared with the economic and health policy journals: 4.8 +/- 2.4 v. 4.2 +/- 2.0, P < 0.001. The lowest average number of coauthors was in Medical Decision Making (3.6) and the highest in the Journal of the American College of Cardiology (8.2). The most prolific authors were affiliated with Harvard and Tufts Universities and their affiliated hospitals. The authors identified 4 major research groups that contributed substantially to the field of cost-effectiveness analysis but did not find any substantial academic relationships across these groups. Conclusions. The CEA literature continues to proliferate. Coauthorship trends appear to follow the rapid increase in the mean number of authors found in other publication types.

Keywords: Authors, Authorship, Authorship, Bibliometric, Coauthorship, Contribution, Cost Effectiveness, Cost-Effectiveness Analysis, Economic, Field, Groups, Health, Health Care, Journal, Journals, Literature, Medical Journals, Publication, Publications, Qaly, Research, Research Groups, Review, Trends, Universities

# Title: Medical Education

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ISO Abbreviated Title: Med. Educ.

JCR Abbreviated Title: Med Educ

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Journal Country England

Language: English

Publisher: Blackwell Science Ltd

Publisher Address: PO Box 88, Osney Mead, Oxford OX2 0NE, Oxon, England

Subject Categories:

Education, Scientific Disciplines Medical Informatics: Impact Factor

? Chung, T.W.H., Lam, T.H. and Cheng, Y.H. (1996), Knowledge and attitudes about smoking in medical students before and after a tobacco seminar. *Medical Education*, **30**, 290-295.

Abstract: A 3-hour seminar on tobacco was introduced to second year (pre-clinical) medical students in Hong Kong in 1994. The differences in knowledge and attitudes were measured by a self-administered and anonymous questionnaire with 14 items before the seminar (n = 145) and again 2 weeks after the seminar (n = 151). The students also completed an evaluation form at the end of the seminar. Before the seminar, the students were most deficient in their knowledge on the exact magnitude of the risks from smoking and on the risks from smoking relative to the risks from air pollution and asbestos. After the seminar, their knowledge increased significantly (P < 0.005). As for attitudes, in the pre-test 35% strongly agreed that tobacco advertising should be completely banned and 50% did so in the post-test (P = 0.02). The corresponding figures for banning of all forms of tobacco promotion were 26% and 43% (P < 0.005). In the pre-test, one in four students strongly disagreed that doctor’s advice to their patients to stop smoking is totally ineffective, with this proportion increasing to 70% in the post-test (P < 0.005). The majority of the students stated that the seminar was useful. The preclinical medical curriculum should, at the very least, include a tobacco seminar. Our survey shows that it is effective in improving students’ knowledge and attitudes on tobacco control.

Bligh, J. (1998), What happens to manuscripts submitted to the Journal? *Medical Education*, **32** (6), 567-570.

Full Text: [M\Med Edu32, 567.pdf](M/Med%20Edu32,%20567.pdf)

? Wainwright, J.R., Sullivan, F.M., Morrison, J.M., MacNaughton, R.J. and McConnachie, A. (1999), Audit encourages an evidence-based approach to medical practice. *Medical Education*, **33** (12), 907-914.

Full Text: [1999\Med Edu33, 907.pdf](1999/Med%20Edu33,%20907.pdf)

Abstract: Objectives This study was designed in order to identify any changes taking place in students’ ability to incorporate research evidence into clinical practice after the introduction of an evidence-based medicine session into their audit teaching. Design We chose to look at the references cited in students’ audit projects as a way of making a retrospective assessment of their ability to use evidence. Each of a sample of 221 projects was analysed for the number and accuracy of references, the phase of the audit cycle in which the references were cited, the topic chosen and the use of computers. A smaller sample were assessed for quality. Setting The Department of General Practice at Glasgow University. Subjects Final-year medical students. Results We found that there was an increase in quality and quantity of citation of references by the students over a 3-year period which corresponded with changes in teaching methods. Conclusions It is possible that this increase in the quantity and quality of reference citation by final-year students was in response to a change in the content of teaching sessions, but there may be other reasons for this. The experience of researching and carrying out the projects has given students first-hand experience of the techniques of evidence-based medicine. Requiring students to state their information sources and include a copy of the abstracts from cited papers would assist further studies of this kind.

Keywords: Accuracy, Accuracy of References, Approach, Assessment, Audit, Changes, Citation, Clinical, Clinical Practice, Computers, Education, Medical, Undergraduate, Evidence, Evidence Based, Evidence Based Medicine, Evidence-Based, Evidence-Based Medicine, Experience, General-Practice, Information, Journals, Medical, Medical Audit, Medical Practice, Medical Students, Medicine, Methods, Papers, Practice, Quality, Quality of, Reference, References, Research, Research Design, Sources, State, Students, Teaching, Teaching,Methods, Techniques

? Salmi, L.R., Gana, S. and Mouillet, E. (2001), Publication pattern of medical theses, France, 1993-98. *Medical Education*, **35** (1), 18-21.

Full Text: [2001\Med Edu35, 18.pdf](2001/Med%20Edu35,%2018.pdf)

Abstract: Context and objective In many countries, medical training must be completed by presentation of a thesis. We report publication patterns of French medical theses. Materials We drew a random sample of theses presented in the 36 French medical universities between 1 January 1993 and 31 December 1997. The sample was stratified according to size of university, and drawn from the CD-ROM Doc-These. Methods We recorded the research area (medicine, surgery, biology) and study type (clinical, epidemiological, laboratory). We used the name of the student and supervisor to assess whether the thesis resulted in a publication indexed in MEDLINE. Results Most of the 300 theses included were from medicine (79.3%) and were clinical studies (69.3%). A total of 51 theses (17.0%) resulted in publication. The proportion of theses which were published, the median impact factor of the journals in which they were published, the proportion of publications in English and the proportion of publications in which the name of the student was missing varied with the research domain and type of study. Conclusions Most French medical theses are not made available to the scientific community. In the European context, where medical training and qualification have to be standardized, our study provides a simple method of assessing that publication objectives of thesis research are met. Further research is needed to explore the educational value of medical professional theses.

Keywords: Assessing, Biology, CD-ROM, Clinical, Clinical Studies, Community, Context, Dissertations,Academic, Education,Medical, France, French, Impact, Impact Factor, Journals, Medical, Medicine, Medline, Objective, Pattern, Presentation, Professional, Publication, Publications, Publications,Supply and Distribution, Random Sample, Research, Size, Student, Supervisor, Surgery, Training, Universities, University, Value

Gray, D.P. (2001), Historical analysis: A new approach comparing publications from inside and outside the discipline over time. *Medical Education*, **35** (4), 404-408.

Full Text: [M\Med Edu35, 404.pdf](M/Med%20Edu35,%20404.pdf)

Abstract: One new way of analysing a discipline is to track the major ideas it produces over time (outputs). This can also be done with the texts which the discipline acknowledges through citations (inputs). Using the criteria of citations in peer-reviewed journals and frequency of citation, it is possible to chart trends and even make predictions. A table for the discipline of general practice over 150 years is shown. This historical analysis suggests that the discipline of general practice was essentially clinical and primarily concerned with physical illness until 1965 and has since then been more concerned with psychosocial factors.

Keywords: Education, Medical, Trends, Organization, Family Practice, Trends, Literature Review (pt), Physicians, Family, Research Design, General-Practice, Care, Pain

? Hosking, E.J. and Albert, T. (2002), Bottom drawer papers: Another waste of clinicians’ time. *Medical Education*, **36** (8), 693-694.

Full Text: [2002\Med Edu36, 693.pdf](2002/Med%20Edu36,%20693.pdf)

? Chow, K.M., Ka-lun, A. and Szeto, C.C. (2003), Secular trend in medical education regarding infectious disease. *Medical Education*, **37** (10), 881-883.

Full Text: [2003\Med Edu37, 881.pdf](2003/Med%20Edu37,%20881.pdf)

Abstract: Objective The paradigm of global medical health has been re-characterised by a shift in its major focus from infectious disease to chronic illness. Opinions vary as to the declining emphasis on infectious disease. This paper provides clinicians with an understanding of a secular trend in medical education regarding the topic of infectious diseases over a period of 26 years.

Methods A survey was carried out to evaluate coverage of infectious disease topics within recent general medicine textbooks and journals.

Results The percentage of content dedicated to infectious disease has remained static in 2 major medical textbooks, whereas a trend towards decreasing coverage was shown in 4 major medical journals. Of 901 original articles published in 2000, 16.4% covered certain aspects of infectious disease, as compared with 20.9% of 790 articles published in 1985. Increasing rates of infectious disease mortality in developing countries were not consistently matched with the trend in coverage of infectious disease topics in either medical textbooks or journals.

Conclusions Our data demonstrate that coverage of infectious disease topics in publications issued in developed countries was more indicative of global trends in disease mortality rather than those of developing countries. Medical education and knowledge, which are usually delivered by the rich nations where influential medical textbooks and journals are published, place less emphasis on infectious disease relative to the burden infectious disease places on the developing world.

Keywords: Burden, Chronic, Coverage, Data, Developing, Developing Countries, Developing World, Diseases, Education, General, Global Trends, Health, Infectious Diseases, Journals, Knowledge, Medical, Medical Education, Medical Journals, Medicine, Mortality, Nations, Paradigm, Publications, Rates, Survey, Textbooks, Trend, Trends, Understanding, World

? Brice, L.J. and Bligh, J.G. (2004), How international is *Medical Education*? *Medical Education*, **38** (1), 96-102.

Full Text: [2004\Med Edu38, 96.pdf](2004/Med%20Edu38,%2096.pdf)

Abstract: Aims To consider Medical Education’s claim to international status in terms of the extent of international authorship within published articles, the degree to which authors draw on the international literature to support their work, and its self-citation rates and publication decisions.

Method We examined 6 journals’ citation rates for the period 1997-2001 to see if there was evidence of national publication bias; we calculated their self-citation rates to see if this had any influence on impact factor, and we examined Medical Education’s management files for trends which might indicate publication bias due to country of origin of authors.

Results All 6 journals exhibited a bias in favour of citing journals from their own countries. The US journals were more likely to cite journals from their own country. Medical Education was most likely to cite journals from non-UK countries. Self-citation rates did not appear to affect impact factors. The ratio of UK to non-UK papers published in Medical Education has not changed significantly over the period studied although non-UK submissions increased sharply in 2002 and the number of North American submissions has doubled since 1998.

Conclusion Medical Education is justified in calling itself an international journal to the extent that the majority of papers it publishes are from countries other than the UK, and it is more likely than other journals in the field to publish papers which cite work in journals published outside the UK. Nevertheless, there is some evidence of publication bias in the journal and more work is needed to discover why this is the case. Various strategies to address the issue of national bias in Medical Education are discussed.

Keywords: Authorship, Bias, Citation, Country, Country of Origin, Evidence, Field, Impact, Impact Factor, Impact Factors, International, Journal, Journals, Literature, Management, North, Origin, Papers, Publication, Publication Bias, Rates, Self-Citation, Support, Trends, UK, US, Work

? Satterfield, J.M. and Hughes, E. (2007), Emotion skills training for medical students: A systematic review. *Medical Education*, **41** (10), 935-941.

Full Text: 2007\Med Edu41, 935.pdf

Abstract: OBJECTIVE To identify emotion skills training methods and outcomes using a systematic review of medical student curricula studies. METHODS We searched the English language literature listed in the PUBMED, Educational Resources Information Center (ERIC), PsycINFO and Web of Science databases, from 1980 to the present, using a comprehensive list of emotion skills keywords and subsequent hand searches. A total of 828 articles were initially identified. A manual search yielded 161 articles on broadly defined emotion skills educational programmes for medical students. A more stringent review and hand search of reference lists yielded a final 26 articles that included ‘other-directed’ emotion skills (i.e. cognitive and behavioural skills intended to manage the emotions of others), a description of the training programme, and assessment data. RESULTS Emotion skills courses varied by total number of contact hours (2-64 hours), session frequency (from 1 session per day to 1 session every 6 months), duration (2 weeks to 2 years), pedagogy, patients targeted and educational outcomes. Student evaluation data were positive. Fifteen of 26 studies used objective emotion skills measures. Only 6/26 studies included a control or comparison condition and 5/26 used a randomised, controlled trial (RCT) design. All 5 RCTs showed positive outcomes with modest improvements in emotion communication skills, empathy, use of emotion words, supportive behaviours and enriched patient understanding. CONCLUSIONS The heterogeneity of emotion skills curricular studies makes direct comparisons difficult. However, all controlled trials showed positive outcomes, suggesting the importance and effectiveness of ‘other-directed’ emotion skills training. No specific recommendations about curricular amount and frequency, timing and pedagogy can be made.

Keywords: Assessment, Clinical Competence, Standards, Communication, Communication-Skills, Control, Counseling Skills, Databases, Distress, Education, Education, Medical, Undergraduate, Standards, Effectiveness, Emotion, Emotions, Empathy, Evaluation, Frequency, Hand, Intelligence, Literature, Medical, Outcomes, Physician, Primary-Care, Psychology, Education, Pubmed, Review, Review [Publication Type], School, Science, Self-Awareness, Students, Systematic, Systematic Review, Teaching, Standards, Training, Web of Science

# Title: Medical Hypotheses

Full Journal Title: [Medical Hypotheses](http://www.sciencedirect.com/science/journal/03069877)

ISO Abbreviated Title: Med. Hypotheses

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Journal Country/Territory: Scotland

Language: English

Publisher: Churchill Livingstone

Publisher Address: Journal Production Dept, Robert Stevenson House, 1-3 Baxters Place, Leith W

Subject Categories:

Medicine, Research & Experimental: Impact Factor

? Decker, D., Di Nardi, S.R. and Calabrese, E.J. (1984), Does chloroform exposure while showering pose a serious public health concern? *Medical Hypotheses*, **15** (2), 119-123.

Full Text: [1984\Med Hyp15, 119.pdf](1984/Med%20Hyp15,%20119.pdf)

Abstract: The problem of organic chemicals in drinking water has been well known since 1974-1975 when the National Organics Reconnaissance Survey (NORS) and the National Organics Monitoring Survey (NOMS) showed that drinking water contaminated by organics could be found throughout the nation. of special concern are the trihalomethanes (THMs) one of which, chloroform, is a suspected human carcinogen, and has been proven to be carcinogenic in test animals. In addition to chloroform exposure from drinking water, inhalation of chloroform from air while showering may constitute an additional source of exposure. Since the EPA has not included exposure to airborne chloroform in their risk-assessment calculations, the actual cancer risk to the population due to chloroform in drinking water may be significantly higher than the EPA estimated. It is suggested that a major research effort be directed at the determination of airborne chloroform levels in the domestic shower environment. Effort should also be made to determine what variables affect the magnitude of the chloroform levels if present. Once these variables are known it may be possible to educate the public about the potential hazard and ways to eliminate or reduce it.

? Charlton, B.G. (2007), Scientometric identification of elite ‘revolutionary science’ research institutions by analysis of trends in Nobel prizes 1947-2006. *Medical Hypotheses*, **68** (5), 931-934.

Full Text: [2007\Med Hyp68, 931.pdf](2007/Med%20Hyp68,%20931.pdf)

Abstract: Most research is ‘normal science’ using Thomas Kuhn’s term: checking, trial-and-error improvement and incremental extrapolation of already existing paradigms. By contrast, ‘revolutionary science’ changes the fundamental structures of science by making new theories, discoveries or technologies. Science Nobel prizes (in Physics, Chemistry, Physiology/Medicine and Economics) have the potential to be used as a new metric for measuring revolutionary science. Nobel laureates’ nations and research institutions were measured between 1947 and 2006 in 20 year segments. The minimum threshold for inclusion was 3 Nobel prizes. Credit was allocated to each laureate’s institution and nation of residence at the time of award. Over 60 years, the USA has 19 institutions which won three-plus Nobel prizes in 20 years, the UK has 4, France has 2 and Sweden and USSR 1 each. Four US institutions won 3 or more prizes in all 20 year segments: Harvard, Stanford, Berkeley and CalTech. The most successful institution in the past 20 years was MIT, with 11 prizes followed by Stanford (9), Columbia and Chicago (7). But the Western United States has recently become the world dominant region for revolutionary science, generating a new generation of elite public universities: University of Colorado at Boulder; University of Washington at Seattle; and the University of California institutions of Santa Barbara, Irvine, UCSF, and UCLA; also the Fred Hutchinson CRC in Seattle. Since 1986 the USA has 16 institutions which have won 3 plus prizes, but elsewhere in the world only the College de France has achieved this. In the UK Cambridge University, Cambridge MRC unit, Oxford and Imperial College have declined from 17 prizes in 1967-86 to only 3 since then. Harvard has also declined as a revolutionary science university from being the top Nobel-prize-winning institution for 40 years, to currently joint sixth position. Although Nobel science prizes are sporadically won by numerous nations and institutions, it seems that long term national strength in revolutionary science is mainly a result of sustaining and newly-generating multi-Nobel-winning research centres. At present these elite institutions are found almost exclusively in the USA. The USA is apparently the only nation with a research system that nurtures revolutionary science on a large scale. (c) 2006 Elsevier Ltd. All rights reserved.

Keywords: Analysis, California, Chicago, France, Identification, Inclusion, Institutions, Long-Term, Position, Research, Scale, Science, Strength, Sweden, Technologies, Thomas, Threshold, Trends, UK, United States, Universities, US, USA, USSR, Washington

? Charlton, B.G. (2007), Which are the best nations and institutions for revolutionary science 1987-2006? Analysis using a combined metric of Nobel prizes, Fields medals, Lasker awards and Turing awards (NFLT metric). *Medical Hypotheses*, **68** (6), 1191-1194.

Full Text: [2007\Med Hyp68, 1191.pdf](2007/Med%20Hyp68,%201191.pdf)

Abstract: I have previously suggested that Nobel prizes can be used as a scientometric measurement of,revolutionary science’; and that for this purpose it would be better if more Nobel prizes were awarded, especially in three new subjects of mathematics, medicine and computing science which have become major sciences over recent decades. In the following analysis of the last 20 years from 1987 to 2006, 1 use three prestigious prizes in mathematics (Fields medal), medicine (Lasker award for Clinical Medical Research) and computing science (A.M. Turing award) which are plausible surrogates for Nobel prizes. The combined Nobel-Fields-Lasker-Turing (NFLT) metric is strongly dominated by the USA. However the distribution implies that revolutionary science may be somewhat more broadly distributed than the pure Nobel metric suggests. The UK and France seem to be significant nations in some types of revolutionary science (although the UK has declined substantially as a centre of revolutionary science); and Germany, Switzerland, Japan, Russia, Denmark and Norway also feature. The top world institutions for revolutionary science according to NFLT are MIT, Stanford and Princeton - all in the USA - and the USA has 19 institutions with at [east three prize-winners. Second is France, with three institutions having three or more winners; the UK and Norway have one each. The NFLT metric confirms previous observations that many public universities in the Western USA have now become a major focus of revolutionary science; and that Harvard has declined from its previous status as the top world centre of revolutionary science to about seventh-place. This analysis confirms the potential value of increasing the number of Nobel prizes as a means of identifying and monitoring centres of excellence in revolutionary science. (C) 2006 Elsevier Ltd. ALL rights reserved.

Keywords: Analysis, Denmark, Distribution, France, Germany, Institutions, Japan, Measurement, Medicine, Monitoring, Norway, Recent, Russia, Science, Sciences, Surrogates, Switzerland, UK, Universities, USA

? Jahandideh, S., Abdolmaleki, P. and Asadabadi, E.B. (2007), Prediction of future citations of a research paper from number of its internet downloads. *Medical Hypotheses*, **69** (2), 458-459.

Full Text: [2007\Med Hyp69, 458.pdf](2007/Med%20Hyp69,%20458.pdf)

? Charlton, B.G. (2007), *Medical Hypotheses* 2006 impact factor rises to 1.3 - A vindication of the ‘editorial review’ system for revolutionary science. *Medical Hypotheses*, **69** (5), 967-969.

Full Text: [2007\Med Hyp69, 967.pdf](2007/Med%20Hyp69,%20967.pdf)

Abstract: The Thomson Scientific Impact Factor (IF) for *Medical Hypotheses* has risen to 1.299 for 2006. This means that the IF has more than doubted since 2004, when it stood at 0.607. Using Elsevier’s Scopus database; in 2004 there were 437 citations to Medical Hypotheses papers published in the previous two years - by 2006 this had trebled to 1216 citations. Monthly internet usage of *Medical Hypotheses* run at an average of about 26000 papers downloaded per month. An IF of 1.3 means that *Medical Hypotheses* has now entered the mainstream level of ‘respectable’ medical journals, in terms of its usage by other scientists. This is particularly pleasing given the aim of the journal is to publish radical and speculative ideas. A healthy IF is important to *Medical Hypotheses* because the journal deploys a system of editorial review, rather than peer review, for evaluation and selection of papers. Editorial review involves selection of a journal’s content primarily by an editor who has broad experience and competence in the field, assisted by a relatively small editorial advisory board. The great advantage of editorial review is that it is able, by policy, to favour the publication of revolutionary science. But since editorial review relies on hard-to-quantify and non-transparent individual judgments, it is important for its outcomes to be open to objective evaluations. Scientometric measures of usage such as citations, impact factors and downloads constitute objective evidence concerning a journal’s usefulness. Since *Medical Hypotheses* is performing adequately by such criteria, this provides a powerful answer to those who fetishize peer review and regard any other system of evaluation as suspect. Journal review procedures are merely a means to the end, and the end is a journal that serves a useful function in the dynamic process of science. Medical Hypotheses can now claim to perform such a role.

? Charlton, B.G. (2007), How can the English-language scientific literature be made more accessible to non-native speakers’? Journals should allow greater use of referenced direct quotations in ‘component-oriented’ scientific writing. *Medical Hypotheses*, **69** (6), 1163-1164.

Full Text: [2007\Med Hyp69, 1163.pdf](2007/Med%20Hyp69,%201163.pdf)

Abstract: In scientific writing, although clarity and precision of language are vital to effective communication, it seems undeniable that content is more important than form. Potentially valuable knowledge should not be excluded from the scientific literature merely because the researchers lack advanced language skills. Given that global scientific literature is overwhelmingly in the English-language, this presents a problem for non-native speakers. My proposal is that scientists should be permitted to construct papers using a substantial number of direct quotations from the already-published scientific literature. Quotations would need to be explicitly referenced so that the original author and publication should be given full credit for creating such a useful and valid description. At the extreme, this might result in a paper consisting mainly of a ‘mosaic’ of quotations from the already existing scientific literature, which are linked and extended by relatively few sentences comprising new data or ideas. This model bears some conceptual relationship to the recent trend in computing science for component-based or component-oriented software engineering - in which new programs are constructed by reusing programme components, which may be available in libraries. A new functionality is constructed by linking-together many pre-existing chunks of software. I suggest that journal editors should, in their instructions to authors, explicitly allow this ‘component-oriented’ method of constructing scientific articles; and carefully describe how it can be accomplished in such a way that proper referencing is enforced, and full credit is allocated to the authors of the reused linguistic components.

Keywords: Communication, Component-Based, Constructed, Data, Engineering, Journal, Journal Editors, Knowledge, Literature, Model, Papers, Precision, Publication, Referencing, Science, Scientific Literature, Software, Software Engineering, Trend

? Zavos, C., Kountouras, J., Zavos, N., Paspatis, G.A. and Kouroumalis, E.A. (2008), Predicting future citations of a research paper from number of its internet downloads: The *Medical Hypotheses* case. *Medical Hypotheses*, **70** (2), 460-461.

Full Text: [2008\Med Hyp70, 460.pdf](2008/Med%20Hyp70,%20460.pdf)

? Charlton, B.G. (2008), A book of ideas collected from *Medical Hypotheses*: Death can be cured by Roger Dobson. *Medical Hypotheses*, **70** (5), 905-909.

Full Text: [2008\Med Hyp70, 905.pdf](2008/Med%20Hyp70,%20905.pdf)

Abstract: A new collection of ideas from Medical Hypotheses by Roger Dobson is entitled Death can be cured and 99 other Medical Hypotheses. It consists of humorous summaries of Medical Hypotheses articles from the past 30 years. The book’s humour derives mainly from the subject matter, although sometimes also from the ‘unconventional’ approach of the authors with respect to matters such as evidence, argument or inference. Medical Hypotheses has generated such a lot of apparently- or actually-bizarre ideas because it aims to be open to potentially revolutionary science. The journal’s official stance is that more harm is done by a failure to publish one idea that might have been true, than by publishing a dozen ideas that turn out to be false. Bizarre ideas tend to catch attention, and may stimulate a valuable response - even when a paper is mostly-wrong. A paper may be flawed but still contain the germ of an idea that can be elaborated and developed. The journal review process is susceptible to both false positives and false negatives. False positives occur when we publish an idea that is wrong; false negatives occur when we fait to publish an important idea that is right, and a potential scientific breakthrough never happens. False positives are more obvious, since the paper wilt be ignored, refuted, or fail to be replicated - and often attracts criticism and controversy. Editors may therefore take the more cautious path of avoiding false positives more assiduously than false negatives; however, this policy progressively favours less-ambitious science. Consequently, in Medical Hypotheses the ‘set point’ of risk is nearer to the false positive end of the spectrum than for most journals - and the publication of many apparently- bizarre papers is a natural consequence of this policy. (C) 2008 Published by Elsevier Ltd.

Keywords: Approach, Breakthrough, Collection, Evidence, Failure, Inference, Journal, Journal Review, Journals, Open, Papers, Policy, Potential, Publication, Publishing, Review, Review Process, Right, Risk, Science

# Title: Medical Informatics

Full Journal Title: [Medical Informatics](http://informahealthcare.com/loi/mif)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0307-7640

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Hernandez-Borges, A., Macias, P. and Torres, A. (1998), Are medical mailing lists reliable sources of professional advice? *Medical Informatics*, **23** (3), 231-236.

Full Text: [1998\Med Inf23, 231.pdf](1998/Med%20Inf23,%20231.pdf)

Abstract: Professional mailing lists are one of the more useful and popular medical resources on the Internet. Some concern has been raised about the reliability of these uncontrolled forums. We have studied some quality aspects of a subset of Internet mailing lists on nephrology. From November 1996 to March 1997 the mailing lists NEPHROL, PDIAL-L and HYPERTEL were studied. The subscribers that posted, and a representative sample of the total number of subscribers of each list, were searched in the Medline(R) Silver-Platter database, and their individual impact factors were obtained from the Science Citation Index(R). In addition, the first authors of the original articles, and short communications from the more established nephrology journals, were searched similarly, in order to compare the mailing lists with the journals. NEPHROL was the most active list (7 postings/day on average). HYPERTEL had the best average impact factor among the subscribers who posted(6.6). In general, the journals showed higher average impact factors than the mailing lists, but without statistically significant differences. HYPERTEL, PDIAL-L and NEPHROL are high quality nephrology mailing lists, and can be considered as a complement to the specialized nephrology journals.

Keywords: Internet Nephrology Resources, Mailing Lists, Continued Medical Education, Clinical-Practice Issues, Newly Emerging Legal, Internet, Pediatrics

# Title: Medical Informatics and the Internet in Medicine

Full Journal Title: [Medical Informatics and the Internet in Medicine](http://www.swetswise.com/eAccess/viewTitleIssues.do?titleID=132802)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1463-9238

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Kawamura, M., Thomas, C.D.L., Kawaguchi, Y. and Sasahara, H. (1999), Lotka’s law and the pattern of scientific productivity in the dental science literature. *Medical Informatics and the Internet in Medicine*, **24** (4), 309-315.

Full Text: [M\Med Inf Int Med24, 309.pdf](M/Med%20Inf%20Int%20Med24,%20309.pdf)

Abstract: Statistical regularities can be observed in many natural and social phenomena. From empirical data on the authorship of scientific papers, Lotka deduced an inverse-square law: the number of authors publishing n papers is 1/n(2) of those publishing one paper. The general type for the relation (1/n(c)) has a wide range of applicability to a variety of phenomena. This study examined, by means of bibliometric tools, whether Lotka’s law could be applied to the literature of dental science. Data came from 20 leading dental science journals, as reported in Journal Citation Reports. The search was performed with a programme developed using Visual Basic for Applications, which counted the number of authors and analysed their contributions to the literature. Authorship for all contributions, as reported in MEDLINE, was compiled for each of these 20 journals for the last 25 years, 1971 through 1995. The total number of authors was 43 796, responsible for 124 556 authorships. The journals published in countries other than the USA exhibited higher degrees of author concentration. The dental science literature conformed very well to Lotka’s model with c = 1.95.

Keywords: Lotka’s Law, Scientific Productivity, Dental Science Literature, MEDLINE

Roussel, F., Darmoni, S.J. and Thirion, B. (2001), Cost effectiveness of a medical digital library. *Medical Informatics and the Internet in Medicine*, **26** (4), 325-330.

Full Text: [M\Med Inf Int Med24, 325.pdf](M/Med%20Inf%20Int%20Med24,%20325.pdf)

Abstract: The rapid increase in the price of electronic journals has made the optimization of collection management an urgent task. As there is currently no standard procedure for the evaluation of this problem, we applied the Reading Factor (RF), an electronically computed indicator used for consultation of individual articles. The aim of our study was to assess the cost effective impact of modifications in our digital library (i.e. change of access from the Intranet to the Internet or change in editorial policy). The digital OVID(R) library at Rouen University Hospital continues to be cost-effective in comparison with the interlibrary loan costs. Moreover, when electronic versions are offered alongside a limited amount of interlibrary loans, a reduction in library costs was observed.

Keywords: Bibliometrics, Cost and Cost Analysis, Hospitals, Teaching, Journals, Library, Medical/Economics, Library, Medical/Organization & Administration, Publishing, Journal Use

? Thomson, M.D. and Hoffman-Goetz, L. (2007), Readability and cultural sensitivity of web-based patient decision aids for cancer screening and treatment: A systematic review. *Medical Informatics and the Internet in Medicine*, **32** (4), 263-286.

Full Text: 2007\Med Inf Int Med32, 263.pdf

Abstract: Decision aids (DA) can inform cancer screening. We conducted a systematic review of web-based, cancer DA to evaluate their appropriateness for use with low literacy and diverse culture groups. Eighty-one Internet DA were found searching five databases (PUBMED-MEDLINE; Web of Science/SSCI,Cancerlit; CINAHL; and Google) and the Cochrane decision aid inventory. Twenty-three met key inclusion criteria of (1) informing cancer screening or treatment decisions, (2) being patient or consumer oriented, and (3) conforming to the Cochrane definition of DA. DA were evaluated using the International Patient Decision Aid Standards checklist, the Cultural Sensitivity Assessment Tool (CSAT), the Cultural Sensitivity Assessment Checklist (CSAC), and the SMOG readability formula. DA had a high readability with 74% (n = 17) written at the grade 10 - 13, 22% (n = 5) at the grade 9, and 4% (n = 1) at the grade 8 level. Visual aids were used in 35% (n = 8) to present probability information. Written information was complemented with video or audio components in 35 % (n = 8). Most (91 %, n = 2 1) were developed for generic audiences, while 9 % (n = 2) specified a cultural group. Although DA enabled a step-by-step movement through the website, none allowed key word searches and only 65% permitted document printing. Most DA included difficult texts and were not focused for specific cultural groups.

Keywords: Assessment, Beliefs, Cancer, Clinical-Trials, Cochrane, Comprehension, Consumer, Cultural Sensitivity, Culture, Databases, Decision Aids, Health Literacy, Information, Internet, Internet, Knowledge, Literacy, Movement, Prostate-Cancer, Randomized Controlled-Trial, Review, Screening, Systematic, Systematic Review, Treatment, Women

# Title: Medical Information

Full Journal Title: [Medical Information](http://e29.cnki.net/KNS50/Navi/item.aspx?NaviID=1&BaseID=YXXX&NaviLink=%e5%8c%bb%e5%ad%a6%e4%bf%a1%e6%81%af)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1006-1959

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Bai, Z.H., Li, X.H., Bai, P., Zhou, Y.H., Tian, Y. and Zhang, L.M. (2005), Evidence-based medicine literature published by the Chinese librarians: a bibliometric analysis. *Medical Information*, **14** (2), 55-57.

Full Text: [2005\Med Inf14, 55.pdf](2005/Med%20Inf14,%2055.pdf)

Abstract: the EBM literature published in the mainland journals by the Chinese librarians was searched from related databases combining with hand retrieval and machine retrieval. A bibliometric analysis was conducted based on the literature from the distribution of annual number of the articles, journals, document type and subject, and authors. The Chinese librarians are paying more and more attention to EBM and its methods, but only few follow the study of evidence-based librarianship at abroad with great inte

Keywords: Evidence-Based Medicine, Librarians, Bibliometrics

? Wang, B., Yu, L. and Li, X.H. (2006), Authorship patterns in Chinese Journal of Obstetrics and Gynecology from 1995 to 2004. *Medical Information*, **19** (2), 224-227.

Full Text: [2006\Med Inf19, 224.pdf](2006/Med%20Inf19,%20224.pdf)

Abstract: Objective To discuss the distribution of the writers, organizations and geography of the publications in the Chinese Journal of Obstetrics and Gynecology, and ascertain the core authors, core institutes and core regions. Methods According to the information of Chinese Medical Citation Index(CMCC), Bibliometric method was used to analyze its publications and the authorship between 1995 to 2004. Results 3333 articles were published during ten years, in which the number of publications written by co-auth..

Keywords: Author Analysis, Bibliometrics, Scientific and Technical Journal

? Geng, Y.L. (2006), Article and citation analyses for 《Journal of Peking University (Health Sciences)》from 2002 to 2005. *Medical Information*, **19** (7), 1155-1161.

Full Text: [2006\Med Inf19, 1155.pdf](2006/Med%20Inf19,%201155.pdf)

Astract: Objective: To probe into the characteristics of articles published and the quantitative characteristics and information value of the citations in Journal of Peking University (Health Sciences) (J PU HS) and offer quantitative thereunder for improving the quality of J PU HS. Methods: Bibliomet ric method was used to analyse papers published in J PU HS. Results: 686 papers and 27 columns have been published, the ratio of co - author papers to total papers is 93.44 %, the average co - author f requency is 4.67, 91.44 % of the authors are f rom Peking University; there are 363 fund granted papers (52.92 %); average publication time lag is 195d. The average quantity of citations is 12.66, the citing ration is 96. 36 %; the category of the citations were mainly periodicals and books, which accounted for 95.50 % and 3.84 %. The citations were mainly written in Chinese and English, which accounted for 83.10 % and 16.85 % respectively. Conclusion: The authors have showed adequate ability to cont rol necessary information. J PU HS is a high quality medical periodical.

Keywords: Academic Journal, Article Analysis, Citation Analysis, Bibliometric

? Zhu. Z.Q. and Zeng, Y. (2006), Bibliometric analysis of shantou literature embodied in MEDLINE. *Medical Information*, **19** (10), 1737-1739.

Full Text: [2006\Med Inf19, 1737.pdf](2006/Med%20Inf19,%201737.pdf)

Abstract: Based on MEDLINE database, retrieve Shantou academic literature from 1984 to 2004 and make bibliometric analysis on them by publication year, major author, country of publication, research institution and investigation contents.

Keywords: Bibliometric Analysis, Medline, Medical Literature

? Zhong, P. and Zhao, W.L. (2006), Bibliometric analysis of Proteomics in China. *Medical Information*, **19** (10), 1747-1750.

Full Text: [2006\Med Inf19, 1747.pdf](2006/Med%20Inf19,%201747.pdf)

Abstract: Objective To analyze the situation of proteomics in ten years in China and understand thoroughly the research of proteomics in our country. Methods:Search out the bibliography from CBMdisc, and use the method of bibliometric to analyze the index that include the amount of publishing each year, the degree and the rate of cooperation, periodical distribution locality distribution and founding, etc. Results 614 literature about proteomics were searched. The degree of cooperation is 3. 44, the rate of coo..

Keywords: Proteomics, Article Analysis, Bibliometrics

# Title: Medical Journal of Australia

Full Journal Title: [Medical Journal of Australia](http://www.mja.com.au/index.html)

ISO Abbreviated Title: Med. J. Aust.

JCR Abbreviated Title: Med J Australia

ISSN: 0025-729X

Issues/Year: 24

Journal Country/Territory: Australia

Language: English

Publisher: Australasian Med Publ Co Ltd

Publisher Address: Level 1, 76 Berry St, Sydney, Nsw 2060, Australia

Subject Categories:

Medicine, General & Internal: Impact Factor

? Okeeffe, P. (1981), Breast augmentation, acupuncture and cancer. *Medical Journal of Australia*, **1** (5), 254.

Full Text: 1981\Med J Aus1, 254.pdf

Aldrich, R., Wlodarczyk, J. and Hensley, M.J. (1993), Children’s blood lead level and environmental lead contamination. *Medical Journal of Australia*, **158**, 506.

Full Text: 1993\Med J Aus158, 506.pdf

? Bourke, P.F. and Butler, L. (1997), Mapping Australia’s basic research in the medical and health sciences. *Medical Journal of Australia*, **167** (11-12), 610-613.

Full Text: [1997\Med J Aus167, 610.pdf](1997/Med%20J%20Aus167,%20610.pdf)

Abstract: The institute for Scientific information indexes most of the major international basic research journals in science in the Science Citation Index (SCI). Australia’s presence in the medical and health sciences journals in the SCI and the citations ifs published research receives in these journals show that Australia’s basic medical research has high international “visibility”. Mapping the source of the most highly “visible” Australian medical research articles shows high impact research coming from several different sectors (research institutes, universities, hospitals, etc.), but with a concentration in the member institutions of the Australian Association of Medical Research institutes (AAMRI). Published research from the AAMRI is cited at a rate two-thirds higher than the Australian average for medical and health sciences.

Keywords: Articles, Basic Research, Citation, Citations, Health, Impact, International, Journals, Mapping, Medical, Research, Research Journals, SCI, Science, Science Citation Index, Scientific Information, Universities

? Hanna, J.N., Ritchie, S.A., Merritt, A.D., van den Hurk, A.F., Phillips, D.A., Serafin, I.L., Norton, R.E., McBride, W.J., Gleeson, F.V. and Poidinger, M. (1998), Two contiguous outbreaks of dengue type 2 in North Queensland. *Medical Journal of Australia*, **168** (5), 221-225.

Full Text: 1998\Med J Aus168, 221.pdf

Abstract: OBJECTIVES: To investigate two outbreaks of dengue type 2 in north Queensland, one in the Torres Strait beginning in late 1996, the other in a Cairns suburb in early 1997.

DESIGN: Epidemiological investigation of all laboratory-confirmed cases of dengue, entomological investigation of the local environment, and laboratory analysis of the isolated dengue viruses.

MAIN OUTCOME MEASURES: Numbers of confirmed and of locally acquired cases; virus serotype; comparison of nucleotide sequences between viruses isolated from the two outbreaks; and Breteau Index (BI = number of containers with larvae of the mosquito vector Aedes aegypti found per 100 houses investigated) on the affected islands and in the Cairns suburb.

RESULTS: There were 201 confirmed cases of dengue in the Torres Strait outbreak, which lasted nearly seven months, and seven confirmed cases in the Cairns outbreak, which lasted about nearly 11 weeks. Most (190) were confirmed as dengue type 2. Nucleotide sequencing of viruses isolated from the two outbreaks showed they were identical. Ae. aegypti breeding sites were very common on the five Torres Strait islands surveyed (BIs, 73-219--high risk), but less so in the Cairns suburb (BI, 23). The most common breeding sites were water storage reservoirs, particularly rainwater tanks, on the outer Torres Strait islands, discarded containers (such as plastic containers, buckets and tyres) on Thursday Island, and garden items (such as flowerpot bases and jars) in Cairns.

CONCLUSIONS: The virus responsible for the Cairns outbreak was most probably introduced from the Torres Strait, whereas the virus responsible for the Torres Strait outbreak was imported from Papua New Guinea. Preventive strategies tailored to specific locations are needed to reduce breeding of Ae. aegypti in north Queensland, and the consequent risk of future outbreaks of dengue.

Keywords: Antibodies, Fever

? Sinclair, M.I., Fairley, C.K. and Hellard, M.E. (1998), Protozoa in drinking water: Is legislation the best answer? *Medical Journal of Australia*, **169** (6), 296-297.

Full Text: 1998\Med J Aus169, 296.pdf

? Bolton, P.G. and Mira, M.W. (1999), Effect of contamination of Sydney drinking water on hospital primary care presentations. *Medical Journal of Australia*, **170** (5), 236.

Full Text: 1999\Med J Aus170, 236.pdf

? Walter, G., Bloch, S., Hunt, G. and Fisher, K. (2003), Counting on citations: A flawed way to measure quality. *Medical Journal of Australia*, **178** (6), 280-281.

Full Text: [2003\Med J Aus178, 280.pdf](2003/Med%20J%20Aus178,%20280.pdf)

Abstract: The journal Impact Factor and citation counts are misconstrued and misused as measures of scientific quality. Articles must be read in order to judge their quality. We have introduced a system, which may be easily replicated, to identify the best articles published in a journal.

Keywords: Journal Impact Factors

? Gregory, A.T. (2004), Jewels in the crown: The *Medical Journal of Australia*’s 10 most-cited articles. *Medical Journal of Australia*, **181** (1), 9-12.

Full Text: [2004\Med J Aus181, 9.pdf](2004/Med%20J%20Aus181,%209.pdf)

Keywords: Helicobacter-Pylori, Health

? Sanson-Fisher, R.W., Campbell, E.M., Perkins, J.J., Blunden, S.V. and Davis, B.B. (2006), Indigenous health research: A critical review of outputs over time. *Medical Journal of Australia*, **184** (10), 502-505.

Full Text: [2006\Med J Aus184, 502.pdf](2006/Med%20J%20Aus184,%20502.pdf)

Abstract: Objective: To determine the number and nature of publications on Indigenous health in Australia, Canada, New Zealand and the United States) in 1987-1988, 1997-1998 and 2001-2003. Data sources: MEDLINE and PsychLit databases were searched using the following terms: Aborigines or Aboriginal; Torres Strait Islander; Maori; American Indian; North American Indian, or Indian, North American; Alaska/an Native; Native Hawaiian; Native American; American Samoan; Eskimos or Inuit; Eskimos or Aleut; Metis; Indigenous. Study selection: Publications were included if they were concerned with the health of Indigenous people of the relevant countries. 1763 Indigenous health publications were selected. Data extraction: Publications were classified as either: original research; reviews; program descriptions; discussion papers or commentaries; or case reports. Research publications were further classified as either measurement, descriptive, or intervention. Intervention studies were then classified as either experimental or non-experimental. Data synthesis: The total number of publications was highest in 1997-1998 for most countries. The most common type of publication across all time periods for all countries was research publications. In Australia only, the number of research publications was slightly higher in 2001-2003 compared with other time periods. For each country and at each time, research was predominantly descriptive (75%-92%), with very little measurement (0-11%) and intervention research (0-18%). Overall, of the 1131 research publications, 983 were descriptive, 72 measurement and 76 intervention research. Conclusions: The dominance of descriptive research in Indigenous health is not ideal, and our findings should be carefully considered by research organisations and researchers when developing research policies.

Keywords: Australia, Canada, Case Reports, Country, Databases, Developing, Experimental, Extraction, Hawaiian, Health, Health Research, Intervention, Intervention Research, Measurement, MEDLINE, Native American, New Zealand, North, Papers, Policies, Publication, Publications, Research, Review, Reviews, Sources, Synthesis, United States

? Mendis, K. and McLean, R. (2006), Increased expenditure on Australian health and medical research and changes in numbers of publications determined using PubMed. *Medical Journal of Australia*, **185** (3), 155-158.

Full Text: [2006\Med J Aus185, 155.pdf](2006/Med%20J%20Aus185,%20155.pdf)

Abstract: Objective: To determine temporal trends in PubMed publications for Australian authors compared with changes in funding for health and medical research (HMR). Design: Retrospective observational study. Setting: Internet-based bibliometric study that collated Australian HMR expenditure from the Australian Institute of Health and Welfare and Australian (and other) research publications from PubMed. Main outcome measures: Australian expenditure on HMR and numbers of PubMed-cited publications from 1980 to 2004, with subgroup analyses for universities, clinical trials, and genetic and biotechnology research, and comparison with similar results from the United Kingdom and New Zealand. Results: From 1980-81 to 2003-04, Australian HMR expenditure increased from $66 million to $1503 million and total Australian PubMed publications increased from 844 to 13 836. From 1995-96 to 2003-04, Australian publications for university-derived research and for clinical trials increased at a fairly constant rate. Genetic and biotechnology publications increased about fivefold (49 to 277) between 1990-91 and 2003-04. Between 1990 and 2004, total publications increased from 1754 to 3288 for New Zealand and from 12 401 to 19 600 for the UK. Conclusions: There is an association between increased funding for HMR and increased publications, as determined using PubMed, in the past 10 years. Using PubMed may be a simple way to track output from HMR expenditure.

Keywords: Bibliometric, Bibliometric Study, Care, Clinical, Clinical Trials, Funding, Genetic, Grants, Health, Impact, Medical, New Zealand, Outcome, Outcome Measures, Outcomes, Output, Publications, Research, Temporal, Temporal Trends, Trends, UK, United Kingdom, Universities

? Clay, M.A., Donovan, C., Butler, L. and Oldenburg, B.F. (2006), The returns from cardiovascular research: the impact of the National Heart Foundation of Australia’s investment. *Medical Journal of Australia*, **185** (4), 209-212.

Full Text: [2006\Med J Aus185, 209.pdf](2006/Med%20J%20Aus185,%20209.pdf)

Abstract: Objective: To evaluate the outcomes of the research investment of the National Heart Foundation of Australia (NHF). Design and setting: The NHF Research Evaluation Working Group was established in 2002 to oversee evaluation of research funding and outcomes data collected over a 5-year period. The evaluation included a bibliometric analysis conducted by the Research Evaluation and Policy Project at the Australian National University. Outcome measures: Level and leverage of research funding; funding levels across the disciplines of biomedical, clinical, and public health research; and visibility and knowledge impact of NHF-supported research in international cardiovascular journals. Results: The NHF’s investment in research increased by 27% from 2001 to 2005. This increase resulted from leveraged support for fellowships and scholarships of $1.5 million over this period, and $2.2 million from the pharmaceutical industry. There was an increase in fellowship and scholarship funding from 26% in 2001 to 46% in 2005. There was a 75% increase in the funding allocated to public health research from 2002 to 2004. NHF-funded research publications were found in high impact journals at levels above Australian and world averages, but received fewer citations than expected based on citation rates for all similar articles. Conclusions: The NHF has been successful in implementing a policy to allocate 50% of its research funding to people and 50% to projects. This strategy has led to an increase in funding support for public health research. NHF-funded research has performed very well in terms of knowledge impact. The NHF is now well placed to strategically fund relevant research in the future.

Keywords: Analysis, Australia, Averages, Bibliometric, Bibliometric Analysis, Cardiovascular, Citations, Clinical, Evaluation, Fellowship, Funding, Health, Impact, Knowledge, Levels, NHMRC, Outcomes, Policy, Public Health, Publications, Research, Research Funding, Strategy, Support, Visibility

? Davies, M.J. (2008), NHMRC grant applications: a comparison of “track record” scores allocated by grant assessors with bibliometric analysis of publications. *Medical Journal of Australia*, **188** (6), 373-374

Full Text: [2008\Med J Aus188, 273.pdf](2008/Med%20J%20Aus188,%20273.pdf)

Keywords: Analysis, Bibliometric, Bibliometric Analysis, Comparison, Mar, Nhmrc, Publications

# Title: Medical Oncology

Full Journal Title: Medical Oncology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

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Publisher Address:

Subject Categories:

Impact Factor

? Wang, J., Zhan, P., Zhou, R.F., Xu, J.Y., Shao, X.Y., Yang, Y.G. and Ouyang, J.A. (2010), Prophylaxis with itraconazole is more effective than prophylaxis with fluconazole in neutropenic patients with hematological malignancies: A meta-analysis of randomized-controlled trials. *Medical Oncology*, **27** (4), 1082-1088.

Full Text: [2010\Med Onc27, 1082.pdf](2010/Med%20Onc27,%201082.pdf)

Abstract: Antifungal prophylaxis using fluconazole or itraconazole has been studied for many years but still no consensus has been reached regarding their safety and effectiveness. We performed a systematic meta-analysis to assess the efficacy of fluconazole compared to itraconazole in neutropenic patients with hematological malignancies. We gathered the data for our analysis from MEDLINE, EMBASE, Cochrane-controlled trials register, Cochrane Library, and Science Citation Index (1/1990 to 1/2009) searches. Risk ratio (RR) and 95% confidence intervals (CIs) were calculated using the random effect model. Nine RCTs were identified that were published in full text. Significantly, fewer patients were withdrawn from the studies due to the development of adverse effects with fluconazole prophylaxis when compared with itraconazole (RR 0.45, 95% CI 0.27-0.75, P = 0.002). There were statistically significant differences regarding fungal infections (RR 1.34, 95% CI 1.08-1.67, P = 0.009) and invasive fungal infections (RR 1.33, 95% CI 1.02-1.73, P = 0.03) between the two educations. There were no statistically significant differences regarding overall mortality (RR 0.95, 95% CI 0.77-1.17, P = 0.64), fungal-related mortality (RR 1.28, 95% CI 0.80-2.07, P = 0.31), and proven fungal infections (RR 1.38, 95% CI 0.75-2.53, P = 0.30). The analysis of published evidence reveals that itraconazole administration resulted in significantly fewer episodes of fungal infections and invasive fungal infections compared with fluconazole.

Keywords: Analysis, Antifungal Prophylaxis, Cell Transplant Recipients, Chemotherapy, Citation, Clinical-Trials, Confidence Intervals, Development, Embase, Fluconazole, Hematological Malignancies, Invasive Fungal-Infections, Itraconazole, Leukemia, Medline, Meta-Analysis, Model, Mortality, Multicenter, Prevention, Randomized Controlled Trials, Risk, Safety, Science, Science Citation Index

? Wang, J., Zhan, P., Ouyang, J., Chen, B., Zhou, R.F. and Yang, Y.G. (2011), Standard chemotherapy is superior to high-dose chemotherapy with autologous stem cell transplantation on overall survival as the first-line therapy for patients with aggressive non-Hodgkin lymphoma: A meta-analysis. *Medical Oncology*, **28** (3), 822-828.

Full Text: [2011\Med Onc28, 822.pdf](2011/Med%20Onc28,%20822.pdf)

Abstract: Randomized controlled trials (RCTs) have reported conflicting results on the impact of high-dose chemotherapy with autologous hematopoietic stem cell transplantation (HDCT) as the first-line treatment for patients with aggressive non-Hodgkin lymphoma (NHL). We performed a systematic meta-analysis to assess the efficacy of HDCT compared to conventional chemotherapy in patients with aggressive NHL with regard to overall survival (OS) at 3 years. We gathered the data for our analysis from MEDLINE, EMBASE, Cochrane controlled trials register, Cochrane Library, and Science Citation Index (1/1990 to 11/2008) searches. Hazard ratios (HRs) and 95% confidence intervals (CIs) were calculated using the random effect model. Fourteen RCTs were identified that were published in full text and included a total of 2,413 patients. There was evidence that HDCT showed decreased OS (HR 1.20, 95% CI 1.05-1.37, P = 0.006) at 3 years when compared with conventional chemotherapy. The variation in OS probabilities between studies was not statistically significant (test for heterogeneity, Q = 10.14, df = 13, P = 0.683). Thus, our meta-analysis showed that HDCT in aggressive non-Hodgkin lymphoma had decreased overall survival outcome compared with conventional chemotherapy.

Keywords: Autologous Stem Cell Transplantation, Bone-Marrow-Transplantation, Citation, Confidence Intervals, Conventional Chemotherapy, Efficacy, Embase, High-Dose Chemotherapy, Impact, Initial Treatment, Intermediate-Grade, International Prognostic Index, Italian Multicenter, Medline, Meta-Analysis, Model, Non-Hodgkin’s Lymphoma, Randomized-Trial, Science, Science Citation Index, Sequential Chemotherapy, Unselected High-Risk, Vacop-B

# Title: Medical Oncology and Tumor Pharmacotherapy

Full Journal Title: Medical Oncology and Tumor Pharmacotherapy

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Stevens, R.G. (1990), Iron and the risk of cancer. *Medical Oncology and Tumor Pharmacotherapy*, **7** (2-3), 177-181.

# Title: Medical and Pediatric Oncology

Full Journal Title: Medical and Pediatric Oncology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Cope, J.U., Tsokos, M. and Miller, R.W. (2001), Ewing sarcoma and sinonasal neuroectodermal tumors as second malignant tumors after retinoblastoma and other neoplasms. *Medical and Pediatric Oncology*, **36** (2), 290-294.

Abstract: Background. Excesses of various childhood cancers have been reported after retinoblastoma, including a trickle of Ewing sarcoma (ES) and perhaps histologically similar olfactory neuroblastoma, both of which are neural tumors. To update and advance this information, case reports were sought by an extensive review of the literature. Procedure. The search was made through the use of PUBMED, and the Web of Science (Citation Index Expanded), keying on primary references. Three sinonasal cancers diagnosed as ES were immunohistochemically stained for MIC-2 protein (positive in ES). Results. Retinoblastoma occurred before ES in ten cases (seven bilateral). In four others, retinoblastoma (three bilateral) developed before sinonasal neural tumors (poorly differentiated). ES also occurred after 14 cancers other than retinoblastoma (five lymphomas, four leukemias, and one each of five miscellaneous cancers). The predominance of retinoblastoma prior to ES differs markedly from the low-frequency of retinoblastoma among childhood cancers in the general population. On the contrary, cancers other than retinoblastoma were proportionate to those in the general population. Previously, retinoblastoma followed by excesses of osteosarcoma and soft tissue sarcomas has been attributed to the action of the inherited RB-1 gene. The sinonasal tumors stained negative for MIC-2 protein. Conclusions, Heritable retinoblastoma may predispose to ES and perhaps to a subset of poorly differentiated neuroectodermal tumors in the sinonasal region that may be related to olfactory neuroblastoma. Med. Pediatr. Oncol. 36:290-294, 2001. (C) 2001 Wiley-Liss, Inc.

Keywords: 2nd Nonocular Tumors, Bilateral Retinoblastoma, Bone, Case Reports, Childhood-Cancer, Children, Citation, Ewing Sarcoma, Gene, Hereditary Retinoblastoma, Hodgkins-Disease, Information, Literature, Neoplasms, Olfactory Neuroblastoma, Olfactory Neuroblastoma, Primary, Pubmed, Rb-1 Gene, Retinoblastoma, Review, Science, Second Malignant Neoplasms, Sinonasal Neuroectodermal Tumors, Soft Tissue, Survivors, Web of Science

# Title: Medical Problems of Performing Artists

Full Journal Title: Medical Problems of Performing Artists

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Krasnow, D., Wilmerding, M.V., Stecyk, S., Wyon, M. and Koutedakis, Y. (2011), Biomechanical research in dance: A literature review. *Medical Problems of Performing Artists*, **26** (1), 3-23.

Abstract: The authors reviewed the literature, published from 1970 through December 2009, on biomechanical research in dance. To identify articles, the authors used search engines, including PUBMED and Web of Science, five previous review articles, the Dance Medicine and Science Bibliography, and reference lists of theses, dissertations, and articles being reviewed. Any dance research articles (English language) involving the use of electromyography (EMG), forceplates, motion analysis using photography, cinematography or videography, and/or physics analysis were included. A total of 89 papers, theses/dissertations, and abstracts were identified and reviewed, grouped by the movement concept or specialized movements being studied: Alignment (n = 8), plie (8), releve (8), pass (3), degage (3), developpe. (7), rond de jambe (3), grand bcatement (4), arm movements (1), forward stepping (3), turns (6), elevation work (28), falls (1), and dance-specific motor strategies (6). Several recurring themes emerged from these studies: that elite dancers demonstrate different and superior motor strategies than novices or nondancers; that dancers perform differently when using a barre as opposed to without a barre, both in terms of muscle activation patterns and weight shift strategies; that while skilled dancers tend to be more consistent across multiple trials of a task, considerable variability is seen among participants, even when matched for background, years of training, body type, and other variables; and that dance teachers recommend methods of achieving movement skills that are inconsistent with optimal biomechanical function, as well as inconsistent with strategies employed by elite dancers. Measurement tools and the efficacy of study methodologies are also discussed. Med Probl Perform Art 2011; 26(1):3-23.

Keywords: Analysis, Authors, Ballet Dancers, Coordination, Demi-Plie, Efficacy, Electromyographic Analysis, Falls, Grand-Plie, Internal Joint Forces, Jump Distance, Landings, Literature, Literature Review, Measurement, Momentum-Transfer, Movement, Papers, Pubmed, Research, Review, Science, Training, Variability, Web of Science

# Title: Medical Reference Services Quarterly

Full Journal Title: [Medical Reference Services Quarterly](http://www.informaworld.com/smpp/title~content=t792306935~db=all)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0276-3869

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Jeffrey, T., William, K. and Maisie Kashka, R.N. (2000), HIV/AIDS and nutrition: A bibliometric analysis. *Medical Reference Services Quarterly*, **19** (4), 29-37.

Full Text: [2000\Med Ref Ser Qua19, 29.pdf](2000/Med%20Ref%20Ser%20Qua19,%2029.pdf)

Abstract: Diet and nutrition are directly involved in patient care protocols that reflect a shift in the treatment of HIV/AIDS as a chronic disease, with an emphasis on quality of life and expanded life trajectory. Research concerning HIV/AIDS and nutrition is multidisciplinary, yielding study results that appear in a wide variety of scholarly journals. The purpose of this research was to employ bibliometric techniques to evaluate the body of literature specific to HIV/AIDS and nutrition as well as to determine content overlap among major bibliographic citation databases

? Huber, J.T. and Gullion, J.S. (2003), Complementary and alternative medicine as represented in the HIV/AIDS body of knowledge: A bibliometric analysis. *Medical Reference Services Quarterly*, **22** (3), 23-32.

Full Text: [2003\Med Ref Ser Qua22, 23.pdf](2003/Med%20Ref%20Ser%20Qua22,%2023.pdf)

Abstract: Although the HIV/AIDS epidemic began more than twenty years ago, there still is no cure for the disease and no vaccine to prevent infection. As with the general population, individuals with HIV/AIDS have sought care using a variety of traditional and nontraditional approaches. The popularity of complementary and alternative interventions among the HIV/AIDS community continues. To understand better the distribution of the HIV/AIDS body of knowledge concerning complementary and alternative medicine (CAM), this study sought to (1) examine the literature specific to the use of complementary and alternative medicine where HIV/AIDS is concerned to determine publication patterns; (2) determine the degree of overlap among bibliographic citation databases that index the literature concerning the use of CAM practices in treating HIV/AIDS; and (3) facilitate access to this body of literature.

? Bronson Fitzpatrick, R. (2005), Essential science indicators(SM). *Medical Reference Services Quarterly*, **24** (4), 67-78.

Full Text: [2005\Med Ref Ser Qua24, 67.pdf](2005/Med%20Ref%20Ser%20Qua24,%2067.pdf)

Abstract: The Essential Science Indicators(SM) (ESI) database, published by Thomson Scientific/ISI, presents an array of data that ranks scientists/health professionals, their individual papers and the journals in which they are published, as well as countries and institutions that perform scientific research. By using this resource, it is possible to prepare ranked statistical lists, The resource covers 6,000 journals published in both the United States and from international publishers. Users should note that ESI covers scientific information in the broadest possible scope, so this is not just limited to biomedical topics and resources.

Keywords: Journals, Research, Science

# Title: Medical Science Monitor

Full Journal Title: Medical Science Monitor

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Grzybowski, A. (2009), The journal impact factor: How to interpret its true value and importance. *Medical Science Monitor*, **15** (2), SR1-SR4.

Abstract: In 1955, Garfield suggested that the number of references could be used to measure the “impact” of a journal, but the term “impact factor” was introduced 1963 by Garfield and Sher. The primary goal of impact factor analysis was to improve the management of library journal collections. Single-parameter measurements of the quality of a journal article have become increasingly popular as a substitute for scientific quality. The simplicity of its counting system and convenience of its use are significant benefits. Probably for these reasons, funding bodies, academic authorities, and some governments began using the impact factor to guide decisions about allocating grants, awarding appointments and academic degrees, and defining scientific policy. The journal impact factor, which is often recognized as a symbol of scientific prestige and relevance, can be, however, greatly influenced by the type of medical article (review vs original work), clinical specialty, and research. The true value and implications of the journal impact factor (JIF) are important to understand. It is critical to remember that JIF can be used only to evaluate journals. All comparisons should include only journals and never individuals or departments. Only similar journals (particularly those dedicated to the same scientific specialty) must be compared, because the value of the impact factor varies greatly by discipline.

Keywords: Academic, Analysis, Benefits, Bodies, Clinical, Decisions, Factor Analysis, Funding, Impact, Impact Factor, Journal, Journal Article, Journal Impact, Journal Impact Factor, Journals, Management, Measure, Medical, Parametrization of Science, Policy, Primary, Quality, Quality of, References, Relevance, Research, Review, Science, Scientific Policy, Scientometrics, Specialty, Term, Value, Work

? Makris, G.C., Spanos, A., Rafailidis, P.I. and Falagas, M.E. (2009), Increasing contribution of China in modern biomedical research. Statistical data from ISI Web of Knowledge. *Medical Science Monitor*, **15** (12), SR15-SR21.

Abstract: Background: China is one of the most rapidly developing countries with a huge population spreading on a chaotic area. For centuries Chinese medicine was based on tradition, religion and experience. However, the last two decades under the pressure of globalization Chinese medicine is turning gradually to evidence-based medicine, contributing in international biomedical research. Material/Methods: A bibliometric analysis through the ISI Web of Knowledge was performed. We collected data regarding the amount of Chinese publications in different biomedical fields, the presence of Chinese authors in high impact international journals, the contribution of China’s universities in research and finally the number and the quality of local Chinese journals, which have entered the ISI database. Results: According to ISI database a significant increase occurred in both the quantity and quality of the Chinese biomedical publishing activity. This was indicated by the major rise in the amount of published papers, the average augmentation of citations per paper and the constantly increasing presence of Chinese researchers in top medical journals. Chinese institutions appeared also more productive and local journals gained more representation in the ISI database. Conclusions: China’s contribution in biomedical research really blossomed after 1990 and especially after 2000. The extent of this contribution may not be proportional to the total research activity performed in China, but it is this part of knowledge that becomes exported and interacts with the rest of the international research activity, promoting research potential in biomedicine.

Keywords: Articles, Bibliometric, Bibliometric Analysis, Bibliometrics, Biomedical Research, China, Chinese Journals, Citations, Developing Countries, Evidence-Based Medicine, Impact, ISI, Journals, Medical, Medicine, Need, Publications, Publishing, Research, Science-Citation-Database, Universities

? Ji, X.Q., Ruan, X.J., Chen, H., Chen, G., Li, S.Y. and Yu, B. (2011), Somatostatin analogues in advanced hepatocellular carcinoma: An updated systematic review and meta-analysis of randomized controlled trials. *Medical Science Monitor*, **17** (8), RA169-RA176.

Full Text: [2011\Med Sci Mon17, RA169.pdf](2011/Med%20Sci%20Mon17,%20RA169.pdf)

Abstract: Background: The role of somatostatin analogues in advanced hepatocellular carcinoma (HCC) remains controversial. The aim of this study was to examine the effect of octreotide on the survival of patients with advanced HCC. Material, Methods: Electronic databases including Medline, Embase, Cochrane controlled trials register, Web of Science and PubMed (updated to Dec 2010) and manual bibliographical searches were conducted. A meta-analysis of all randomized controlled trials (RCTs) comparing octreotide versus placebo or no treatment was performed. Results: Eleven RCTs including 802 patients were assessed and 9 were included in the meta-analysis. Meta-analysis showed that the 6-mo and 12-mo survival rates in the octreotide group were significantly higher than those of the control group (6-mo: RR 1.41, 95%CI 1.12-1.77, P=0.003; 12-mo: RR 2.66, 95%0 1.30-5.44, P=0.008). When including the studies using no treatment as control, with high quality, being performed in China, including >50 patients and with follow-up >2 years, the sensitivity analyses tended to confirm the primary meta-analysis. Whereas, when including the studies using placebo as control or being performed in western countries, the difference was not significant. Conclusions: This meta-analysis demonstrates that octreotide could improve the survival of patients with advanced HCC, but possibly not in western countries. The role of detecting SSTR expression in the administration of octreotide in advanced HCC needs further investigation.

Keywords: Advanced Hepatocellular Carcinoma, Apoptosis, Cancer, Carcinoma, Cells, China, Cochrane, Control, Databases, Expression, Follow-Up, Hepatocellular Carcinoma, Long-Acting Octreotide, Medline, Meta Analysis, Meta-Analysis, Octreotide, Patients, Placebo, Primary, Pubmed, Quality, Randomized Controlled Trials, Receptors, Review, Science, Sensitivity, Survival, Systematic, Systematic Review, Therapy, Treatment, Web of Science

# Title: Medical Science Research

Full Journal Title: Medical Science Research

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ISSN: 0269-8951

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Journal Country/Territory: United States

Language: English

Publisher: Lippincott Williams & Wilkins

Publisher Address: 530 Walnut St, Philadelphia, PA 19106-3621

Subject Categories:

Medicine, Research & Experimental: Impact Factor

? Dixon, B. (1993), Does pancreatitis lead to pancreatic-cancer. *Medical Science Research*, **21** (15), 552-552.

# Title: Medical Teacher

Full Journal Title: [Medical Teacher](http://www.informaworld.com/smpp/title~db=all~content=t713438241~tab=issueslist)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Issenberg, S.B., McGaghie, W.C., Petrusa, E.R., Gordon, D.L. and Scalese, R.J. (2005), Features and uses of high-fidelity medical simulations that lead to effective learning: A BEME systematic review. *Medical Teacher*, **27** (1), 10-28.

Full Text: 2005\Med Tea27, 10.pdf

Abstract: Review date: 1969 to 2003, 34 years. Background and context: Simulations are now in widespread use in medical education and medical personnel evaluation. Outcomes research on the use and effectiveness of simulation technology in medical education is scattered, inconsistent and varies widely in methodological rigor and substantive focus. Objectives: Review and synthesize existing evidence in educational science that addresses the question, ` What are the features and uses of high-fidelity medical simulations that lead to most effective learning?’. Search strategy: The search covered five literature databases (ERIC, MEDLINE, PsycINFO, Web of Science and Timelit) and employed 91 single search terms and concepts and their Boolean combinations. Hand searching, Internet searches and attention to the ` grey literature’ were also used. The aim was to perform the most thorough literature search possible of peer-reviewed publications and reports in the unpublished literature that have been judged for academic quality. Inclusion and exclusion criteria: Four screening criteria were used to reduce the initial pool of 670 journal articles to a focused set of 109 studies: (a) elimination of review articles in favor of empirical studies; (b) use of a simulator as an educational assessment or intervention with learner outcomes measured quantitatively; (c) comparative research, either experimental or quasi-experimental; and (d) research that involves simulation as an educational intervention. Data extraction: Data were extracted systematically from the 109 eligible journal articles by independent coders. Each coder used a standardized data extraction protocol. Data synthesis: Qualitative data synthesis and tabular presentation of research methods and outcomes were used. Heterogeneity of research designs, educational interventions, outcome measures and timeframe precluded data synthesis using meta-analysis. Headline results: Coding accuracy for features of the journal articles is high. The extant quality of the published research is generally weak. The weight of the best available evidence suggests that high-fidelity medical simulations facilitate learning under the right conditions. These include the following: providing feedback - 51 (47%) journal articles reported that educational feedback is the most important feature of simulation-based medical education; repetitive practice - 43 (39%) journal articles identified repetitive practice as a key feature involving the use of high-fidelity simulations in medical education; curriculum integration - 27 (25%) journal articles cited integration of simulation- based exercises into the standard medical school or postgraduate educational curriculum as an essential feature of their effective use; range of difficulty level - 15 (14%) journal articles address the importance of the range of task difficulty level as an important variable in simulation- based medical education; multiple learning strategies - 11 (10%) journal articles identified the adaptability of high-fidelity simulations to multiple learning strategies as an important factor in their educational effectiveness; capture clinical variation - 11 (10%) journal articles cited simulators that capture a wide variety of clinical conditions as more useful than those with a narrow range; controlled environment - 10 (9%) journal articles emphasized the importance of using high-fidelity simulations in a controlled environment where learners can make, detect and correct errors without adverse consequences; individualized learning - 10 (9%) journal articles highlighted the importance of having reproducible, standardized educational experiences where learners are active participants, not passive bystanders; defined outcomes - seven (6%) journal articles cited the importance of having clearly stated goals with tangible outcome measures that will more likely lead to learners mastering skills; simulator validity - four (3%) journal articles provided evidence for the direct correlation of simulation validity with effective learning. Conclusions: While research in this field needs improvement in terms of rigor and quality, high-fidelity medical simulations are educationally effective and simulation- based education complements medical education in patient care settings.

Keywords: Accuracy, Acquisition, Assessment, Attention, Databases, Deliberate Practice, Education, Effectiveness, Environment, Evaluation, Expert Performance, Feedback, Internal-Medicine, Internet, Intervention, Interventions, Journal, Lead, Learning, Literature, Medical, Medical School, Medline, Meta-Analysis, Outcome, Outcomes, Outcomes Research, Peer-Reviewed Publications, Physical-Examination, Practice, Protocol, Publications, Reliability, Research, Review, Science, Screening, Search Strategy, Simulations, Skills, Strategy, Systematic, Systematic Review, Technology, Validity, Virtual-Reality, Web of Science

? Hamdy, H., Prasad, K. and Anderson, M.B. (2006), BEME systematic review: Predictive values of measurements obtained in medical schools and future performance in medical practice. *Medical Teacher*, **28** (2), 103-116.

Full Text: 2006\Med Tea28, 103.pdf

Abstract: Background: Effectiveness of medical education programs is most meaningfully measured as performance of its graduates. Objectives: To assess the value of measurements obtained in medical schools in predicting future performance in medical practice. Methods: Search strategy: The English literature from 1955 to 2004 was searched using MEDLINE, EMBASE, Cochrane’s EPOC (Effective Practice and Organization of Care Group), Controlled Trial databases, ERIC, British Education Index, Psych Info, Timelit, Web of Science and hand searching of medical education journals. Inclusion & exclusions: Selected studies included students assessed or followed up to internship, residency and/or practice after postgraduate training. Assessment systems and instruments studied (Predictors) were the National Board Medical Examinations (NBME) I and II, preclinical and clerkship grade-point average, Observed Standardized Clinical Examination scores and Undergraduate Dean’s rankings and honors society. Outcome measures were residency supervisor ratings, NBME III, residency in-training examinations, American Specialty Board examination scores, and on-the-job practice performance. Data extraction: Data were extracted by using a modification of the BEME data extraction form study objectives, design, sample variables, statistical analysis and results. All included studies are summarized in a tabular form. Data analysis and synthesis: Quantitative meta-analysis and qualitative approaches were used for data analysis and synthesis including the methodological quality of the studies included. Results: of 569 studies retrieved with our search strategy, 175 full text studies were reviewed. A total of 38 studies met our inclusion criteria and 19 had sufficient data to be included in a meta-analysis of correlation coefficients. The highest correlation between predictor and outcome was NBME Part II and NBME Part III, r = 0.72, 95% CI 0.30 - 0.49 and the lowest between NBME I and supervisor rating during residency, r = 0.22, 95% CI 0.13 - 0.30. The approach to studying the predictive value of assessment tools varied widely between studies and no consistent approach could be identified. Overall, undergraduate grades and rankings were moderately correlated with internship and residency performance. Performance on similar instruments was more closely correlated. Studies assessing practice performance beyond postgraduate training programs were few. Conclusions: There is a need for a more consistent and systematic approach to studies of the effectiveness of undergraduate assessment systems and tools and their predictive value. Although existing tools do appear to have low to moderate correlation with postgraduate training performance, little is known about their relationship to longer-term practice patterns and outcomes.

Keywords: 1st-Year Residents, Analysis, Assessment, Care, Data Analysis, Databases, Education, Effectiveness, Hand, Internal-Medicine, Journals, Literature, Medical, Medline, Meta-Analysis, Methods, Modification, Outcome, Outcomes, Part-I, Performance, Physical-Medicine, Practice, Professional Competence, Qualitative Approaches, Ratings, Residency, Review, Schools, Science, Search Strategy, Selection, Statistical, Strategy, Structured Clinical Examination, Students, Systematic, Systematic Review, Training, Undergraduate, Validity, Web of Science

? Guilbert, J.J. (2009), Is Harvard too often cited as the example to emulate? *Medical Teacher*, **31** (1), 64.

Full Text: 2009\Med Tea31, 64.pdf

? van Eyk, H.J., Hooiveld, M.H.W., Van Leeuwen, T.N., Van der Wurff, B.L.J., De Craen, A.J.M. and Dekker, F.W. (2010), Scientific output of Dutch medical students. *Medical Teacher*, **32** (3), 231-235.

Full Text: [2010\Med Tea32, 231.pdf](2010/Med%20Tea32,%20231.pdf)

Abstract: Aim: To assess the number of students who published at least one scientific paper during the course of their medical studies. Methods: Names and initials of all students who received their medical degree in 2006 or 2007 in one of the six participating university medical centers in the Netherlands were searched in the Web of Science database using a well-validated algorithm. Results: Of the 2973 students, 14.5% had published at least one scientific paper during the last 3 years of their medical studies. These papers were of good quality, as the average number of citations per paper is above the average for papers published in their field. Conclusion: Based on the results of our survey, we conclude that medical students in the Netherlands are productively involved in research during their studies. Due to publication delay, the true number of papers is likely to be higher than we counted, but the bibliometric index chosen gives a robust estimate of the effect on the output of the scientific climate of a medical school. Using such an index on a larger scale may stimulate medical faculties to recognize and cultivate academic talent among their students.

Keywords: Academic Medicine, Bibliometric, Bibliometric Index, Citations, Database, Medical, Netherlands, Opportunities, Physician-Scientist, Publication, Publication Delay, Research, Research Performance, Scale, Schools, Science, University, Web of Science

? Alfa-Wali, M. (2010), Techno-plagiarism. *Medical Teacher*, **32** (12), 1010.

Full Text: [2010\Med Tea32, 1010.pdf](2010/Med%20Tea32,%201010.pdf)

? Speyer, R., Pilz, W., Van Der Kruis, J. and Brunings, J.W. (2011), Reliability and validity of student peer assessment in medical education: A systematic review. *Medical Teacher*, **33** (11), E572-E585.

Full Text: [2011\Med Tea33, E572.pdf](2011/Med%20Tea33,%20E572.pdf)

Abstract: Background: Peer assessment has been demonstrated to be an effective educational intervention for health science students. Aims: This study aims to give an overview of all instruments or questionnaires for peer assessments used in medical and allied health professional educational settings and their psychometric characteristics as described in literature. Methods: A systematic literature search was carried out using the electronic databases Pubmed, Embase, ERIC, PsycINFO and Web of Science, including all available inclusion dates up to May 2010. Results: Out of 2899 hits, 28 studies were included, describing 22 different instruments for peer assessment in mainly medical educational settings. Although most studies considered professional behaviour as a main subject of assessment and described peer assessment usually as an assessment tool, great diversity was found in educational settings and application of peer assessment, dimensions or constructs as well as number of items and scoring system per questionnaire, and in psychometric characteristics. Conclusions: Although quite a few instruments of peer assessment have been identified, many questionnaires did not provide sufficient psychometric data. Still, the final choice of an instrument for educational purposes can only be justified by its sufficient reliability and validity as well as the discriminative and evaluative purposes of the assessment.

Keywords: Assessment, Communication, Competence, Databases, Education, Gross-Anatomy, Intervention, Literature, Medical, Medical Education, Methods, Overview, Performance, Professional, Professionalism, Questionnaire, Questionnaires, Ratings, Reliability, Review, Science, Self-Assessment, Skills, Students, Systematic, Systematic Review, Tutorials, Validity, Web of Science

# Title: Medical and Veterinary Entomology

Full Journal Title: Medical and Veterinary Entomology

ISO Abbreviated Title:

JCR Abbreviated Title:

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Journal Country/Territory:

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Publisher Address:

Subject Categories:

Impact Factor

? Erlanger, T.E., Keiser, J. and Utzinger, J. (2008), Effect of dengue vector control interventions on entomological parameters in developing countries: A systematic review and meta-analysis. *Medical and Veterinary Entomology*, **22** (3), 203-221.

Abstract: The aim of this review was to compare the effects of different dengue vector control interventions (i.e. biological control, chemical control, environmental management and integrated vector management) with respect to the following entomological parameters: Breteau index (BI), container index (0), and house index (HI). We systematically searched PUBMED, ISI Web of Science, Science Direct, the Den.-Lie Bulletin of the World Health Organization and reference lists of retrieved articles on dengue vector control interventions in developing Countries. We extracted data oil the effectiveness of different dengue vector control interventions (defined as the relative reduction of an entomological measure caused by the intervention compared with the control or pre-intervention phase) and calculated a measure of combined relative effectiveness, with 95% confidence intervals (95% c.i.). We identified 56 publications covering 61 dengue vector control interventions. Integrated vector management was found to be the most effective method to reduce the CI, HI and BI, resulting in random combined relative effectiveness values of 0.12 (95% c.i. 0.02-0.62), 0.17 (95% c.i. 0.02-1.28) and 0.33 (95% c.i. 0.22-0.48), respectively. Environmental management showed a relatively low effectiveness of 0.71 (95% c.i. 0.55-0.90) for the BI, 0.49 (95% c.i. 0.30-0.79) for the Cl and 0.43 (95%c.i. 0.31-0.59) for the HI. Biological control (relative effectiveness for the CI: 0. 18) usually targeted a small number of people (median population size: 200; range 20-2500), whereas integrated vector management focused on larger populations (median: 12450; range: 210-9600000). In conclusion, dengue vector control is effective in reducing vector populations, particularly when interventions use a community-based, integrated approach, which is tailored to local eco-epidemiological and Sociocultural settings and combined with educational programmes to increase knowledge and understanding of best practice. New research should assess the density-dependent effectiveness of each control measure in order to estimate whether reducing vector numbers has an impact oil dengue transmission when populations are at a critical threshold.

Keywords: Aedes, Aedes-Aegypti Control, Biological Control, Biological-Control, Chemical Control, Community Participation, Confidence Intervals, Control, Control Program, Cost-Effectiveness, Dengue, Developing Countries, Effectiveness, Environmental, Environmental Management, Environmental-Management, Field Trial, Health, Household Water Containers, Impact, Intearated Vector Management, Intervention, Interventions, ISI, Knowledge, Management, Mesocyclops-Longisetus, Meta-Analysis, Practice, Publications, Pubmed, Research, Review, Science, Systematic, Systematic Review, Toxorhynchites-Moctezuma, Vector Control, Web of Science

# Title: Medicina-Buenos Aires

Full Journal Title: Medicina-Buenos Aires

ISO Abbreviated Title:

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ISSN:

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Language:

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Publisher Address:

Subject Categories:

: Impact Factor

? Puche, R.C. (2011), Impact factor, its variants and its influence in academic promotion. *Medicina-Buenos Aires*, **71** (5), 484-489.

Full Text: [2011\Med-Bue Air71, 484.pdf](2011/Med-Bue%20Air71,%20484.pdf)

Abstract: Impact factor, its variants and its influence in academic promotion. Bibliometrics is a set of methods used to study or measure texts and information. While bibliometric methods are most often used in the field of library and information science, bibliometrics variables have wide applications in other areas. One popular bibliometric variable is Garfield’s Impact Factor (IF). IF is used to explore the impact of a given field, the impact of a set of researchers, or the impact of a particular paper. This variable is used to assess academic output and it is believed to affect adversely the traditional approach and assessment of scientific research. In our country, the members of the evaluation committees of intensive research institutions, e.g. the National Scientific and Technical Research Council (CONICET) use IF to assess the quality of research. This article revises the exponential growth of bibliometrics and attempts to expose the overall dissatisfaction with the analytical quality of IF. Such dissatisfaction is expressed in the number of investigations attempting to obtain a better variable of improved analytical quality.

Keywords: Assessment, Bibliometric, Bibliometric Methods, Bibliometrics, Evaluation, Growth, Impact, Impact Factor, Information, Information Science, Promotion, Quality, Research, Research Institutions, Researchers, Science, Scientific Research, Scientometrics, Traditional

# Title: Medicina Clinica

Full Journal Title: [Medicina Clinica](http://www.doyma.es/revistas/ctl_servlet?_f=7034&revistaid=2&anyosumario=2010); [Medicina Clinica](http://www.sciencedirect.com/science/journal/00257753)

ISO Abbreviated Title: Med. Clin.

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Subject Categories:

Medicine, General & Internal: Impact Factor 0.837, 41/112 (2001)

? Gervas, J.J., Fernandez, M.M.P. and Sagredo, P.G. (1990), Science-Citation-Index - Potential and use. *Medicina Clínica*, **95** (15), 582-588.

Full Text: Med Cli98, 582.pdf

Keywords: Science Citation Index

? Rozman, C. and Foz, M. (1992), *Medicina Clínica* in the Science-Citation-Index. *Medicina Clínica*, **98** (1), 17-18.

Full Text: Med Cli98, 17.pdf

Keywords: Science Citation Index

? Pinero, J.M.L. and Terrada, M.L. (1992), Bibliometric indicators and the evaluation of the Medical-Scientific activity. 1. Use and abuse of bibliometry. *Medicina Clínica*, **98** (2), 64-68.

Full Text: Med Cli98, 64.pdf

Keywords: Performance

? Pinero, J.M.L. and Terrada, M.L. (1992), Bibliometric indicators and evaluation of the Medical-Scientific activity. 2. Scientific communication in the different areas of the medical sciences. *Medicina Clínica*, **98** (3), 101-106.

Full Text: Med Cli98, 101.pdf

Keywords: Citation Analysis, Index

? Pinero, J.M.L. and Terrada, M.L. (1992), Bibliometric indicators and the evaluation of the Medical-Scientific activity. 3. The indicators of production, circulation and dispersion, consumption of the information and repercussion. *Medicina Clínica*, **98** (4), 142-148.

Full Text: Med Cli98, 142.pdf

Keywords: Multiple Authorship, Bradford’s Law, Citation, Reliability, Validity, Science

? Pinero, J.M.L. and Terrada, M.L. (1992), Bibliometric indicators and the evaluation of Medical-Scientific activity. 4. The application of the indicators. *Medicina Clínica*, **98** (10), 384-388.

Full Text: Med Cli98, 384.pdf

? Barenys, M., Recasens, M.A., Camps, J. and Salassalvado, J. (1992), Spanish scientific production concerning alimentation and nutrition from 1987 to 1990. *Medicina Clínica*, **99** (1), 9-12.

Full Text: Med Cli99, 9.pdf

Abstract: BACKGROUND: The aims of this study were: to quantify the Spanish scientific production with international repercussion, to determine the degree of world diffusion and the participation of the different autonomic communities and the organisms implicated with reference to the area of sciences of alimentation and nutrition between 1987 to 1990. METHODS: Articles published during this period of time were selected by the Medline system, delimiting Spanish production. The articles selected were classified according to autonomic communities and institutions and in relation to the subsection of the area in question. The impact factor obteined from the Science Citation index was used as an indicator of scientific diffusion. The autonomic communities of Catalonia and Madrid made up almost 50 % of the scientific production between 1987 and 1989 with greater participation being observed from the other communities in 1990. The institutions of greatest scientific contribution were the medical and science schools. Thirty percent of the articles referred to experimental nutrition and toxicology of alimentation. CONCLUSIONS: a) Spanish participation in the diffusion of scientific studies on nutrition is similar to global participation in medical sciences, b) in 1990 an attenuation was detected in the differences existing in the degree of participation by the autonomic communities in the national scientific production; c) the schools of Medicine make up the institutions with greater revalence in scientific production while this activity is not reflected within the hospitals.

Keywords: Articles, Citation, Citation Index, Contribution, Diffusion, Impact, Impact Factor, Journals, Medical, Medline, Science, Scientific Production, System

? Banos, J.E., Casanovas, L., Guardiola, E. and Bosch, F. (1992), Analysis of Spanish biomedical journals by impact factor. *Medicina Clínica*, **99** (3), 96-99.

Full Text: Med Cli99, 96.pdf

Abstract: BACKGROUND: One of the most frequently used parameters for evaluating scientific publications is that of impact factor (IF) published in the Science Citation Index-Journal Citation Reports (SCI-JCR) which evaluates the number of citations a journal receives on behalf of other journals. The present study analyzed the Spanish biomedical journals included in the SCI-JCR by the IF. METHODS: The IF were obtained from the SCI-JCR (198-89). The journals were evaluated by the IF and the weighed impact factor (WIF) calculated according to WIF = (IF/MIF) X 100 in which MIF = maximum IF of the considered area. RESULTS: Nine Spanish biomedical journals were included in the SCI-JCR, four being basic sciences (Histology and Histopathology, Inmunologia, Methods and Findings in Experimental and Clinical Pharmacology, Revista Espanola de Fisiologia) and five clinical journals (Allergologia et Immunopathologia, *Medicina Clínica*, Nefrologia, Revista Espanola de las Enfermedades del Aparato Digestivo, Revista Clinica Espanola). Their IF were much lower than the most important journals in each area with the mean (+/- standard deviation) being 0.21 +/- 0.22 (range 0.016-0.627). The mean WIF was 2.88 +/- 4.07 (0.16-12.82). The journals of basic sciences had higher IF and WIF than the clinical journals (p < 0.05). Only the four journals of basic sciences were included in the SCI. Four journals, those of basic sciences, are preferentially or exclusively published in English and other five are published in Spanish. The differences in IF among these groups were not significant (p = 0.06) while those of WIF were significant (p < 0.05). The number of Spanish biomedical journals in the SCI-JCR has risen from 1 in 1980 to 9 in 1989 with IF which have evoluted variably. CONCLUSIONS: In mind of impact factor, the contribution of Spanish journals is low, with that of biomedical sciences being higher than that of clinical journals. Language and inclusion in the Science Citation Index may explain, at least in part, the low impact factors obtained.

Keywords: Citation, Citations, Contribution, Groups, Impact, Impact Factor, Impact Factors, Journals, Medical Journals, Publications, SCI, Science, Science Citation Index, Scientific Publications

? Cami, J., Fernandez, M.T. and Caridad, I.G. (1993), The Spanish scientific production in biomedicine and health-care: A study through the Science-Citation-Index (1986-1989). *Medicina Clínica*, **101** (19), 721-731.

Full Text: Med Cli101, 721.pdf

Abstract: BACKGROUND: There is no detailed information on the scientific production in biomedicine from the perspective of the centers which make up the National Health Care System. Nor has any analysis on productivity by specialities compared with that of other countries of the European Community (EC) been carried out.

METHODs: The methodology used and the global results of a study performed from biomedical investigation documents indexed in the SCI from 1986 to 1989 and signed by a Spanish health care center are presented. Quantitative and qualitative indicators (Narin index, impact factor [IF], mean IF per speciality, expected and observed IF as well as denominators [PIB, number of inhabitants per area, cost and number of personnel of the centers]).

RESULTS: Twelve thousand seven hundred and six documents were studied of which 66.7 % were journal articles and 13.5 % were studies carried out in cooperation with foreign countries. The biomedical production was 41.5 % of all the Spanish scientific investigation collected in the SCI in the same period and represented 3.82 % of the contribution of all the biomedical investigation of the EC. Universities were responsible for 46 % of the documents analyzed followed by hospitals with 39 %. The autonomic communities of Madrid (32 %) and Catalonia (26 %) have the most productivity performed principally in hospitals, followed by Andalucia (10 %) and Valencia (7 %). The subject matters of greatest production were biochemistry, and molecular biology (14.7 %), pharmacology and pharmacy (7.6 %), neurosciences (6.8 %) and microbiology (5.7 %). Qualitative analysis showed that despite the investigation in some subject areas being carried out in journals with an IF higher than the world mean, the citations received by the studies are lower than expected.

CONCLUSIONs: Despite the growth in Spanish biomedical production, Spain only occupies seventh place in the EC. Madrid and Barcelona notably concentrate on biomedical investigation from the hospital network. The relativization of the data describes the existence of other noteworthy geographic areas not outside the university. The ever greater diffusion of the publications contrasts with the citations received for the studies which may be the result of phenomenae related with the quality of the studies and/or the recognition of the publications signed by Spanish authors.

Keywords: Authors, Bibliometric Indicators, Biology, Biomedicine, Citations, Contribution, Countries, Diffusion, Impact, Impact Factor, Impact-Factor, Indicators, Journal, Journal Articles, Journals, Microbiology, Molecular Biology, Network, Productivity, Publications, SCI, Scientific Production, Spain, Spanish, University

? Pinero, J.M.L. and Terrada, M.L. (1994), The consumption of national and foreign scientific-information in Spanish medical journals: A new repertory study. *Medicina Clínica*, **102** (3), 104-112.

Full Text: Med Cli103, 104.pdf

Keywords: Bibliometric Indicators, Citation, Sciences, Spanish

? Aleixandre, R., Sanchez, J.V.G., Terrada, M.L. and Pinero, J.M.L. (1994), Analysis of the consumption of information in the journal *Medicina Clínica*. *Medicina Clínica*, **103** (7), 246-251.

Full Text: Med Cli103, 246.pdf

Abstract: BACKGROUND: Scientific communication knowledge is specifically based in the analysis of the bibliographic references inside the publications. Pattern and laws determining the information consumption in the items of the journal *Medicina Clínica* are investigated in the present study as its own aim.

METHODS: An analysis was performed on the 13.286 references downloaded from 618 papers published by the journal in 1990. With dBASE IV was generated a database for the management of the information; data was distributed in several tables through criteria of age, documentary types, countries, journals and Bradford zones.

RESULTS: The analysed references belong to 1.241 different journals, 110 from Spain. Being two thirds of the total sum, the publications from United States and United Kingdom have received more citations than those from Spain. The publications from european countries, like France, Germany and Italy, are scarcely present. Bradford core is constituted by the journals *Medicina Clínica* and The Lancet.

CONCLUSIONS: The analysis of the bibliographic references available from the articles in this journal is able to produce knowledge on the information consumption by the practitioners; its usefulness as a complementary utility to the Indice de Citas e lndicadores Bibliometricos de Revistas Españolas de Medicina lnterna y sus especialidades 1990 must be considered.

Keywords: Bibliographic References, Bibliometric Indicators, Citations, Countries, Germany, Journal, Journals, Knowledge, Papers, Publications, Sciences, Scientific Activity, Spain, United Kingdom, United States

? Serra, M.P., Bolumar, F., Alonso, J. and Alvarezdardet, C. (1994), Enclosed with only one toy. *Medicina Clínica*, **103** (18), 716-717.

Full Text: Med Cli103, 716.pdf

Keywords: Bibliometric Indicators, Medical-Scientific Activity

? Pulido, M., Gonzalez, J.C. and Sanz, F. (1994), Original articles published in *Medicina Clínica* (1962-1992): Number of authors, interval between acceptance and publication, and references. *Medicina Clínica*, **103** (20), 770-775.

Full Text: Med Cli103, 770.pdf

Abstract: BACKGROUND: To study different aspects of original articles published in *MEDICINA CLÍNICA* (Barcelona) over a 30-year period (1962-1992), with special emphasis on references.

METHODS: We selected 12 articles per year at 5-year intervals (1962, 1967, 1972, 1977, 1982, 1987, 1992) using a systematic sampling procedure. The following variables were assessed: number of authors, interval between acceptance of the manuscript and publication in the journal, total number of references, language, document type, and name of the journal.

RESULTS: The mean (±standard deviation) number of authors showed a statistically significant increase (ANOVA; F = 13.666; p = 0.0001) from 1.83±0.71 in 1962 to 6.41±1.97 in 1992. The interval between acceptance and publication decreased from 315.72±20.48 days in 1982 to 206.16±89.23 in 1992 (ANOVA, F = 6.074; p = 0.0058). A total of 1816 references were found (24.2 references per article). English was the language of publication most commonly found (76.76%) followed by Spanish (12.6%). There was a statistically significant increase in the use of references corresponding to English articles over the study period (chi(2) = 314.431; p = 0.0001). A significant change was also observed in the type of document use (chi(2) = 143.996; p = 0.0001); references from journals increased from 73.51% in 1962 to 91.40% in 1992. In addition, 50.46% of the articles were published in only 7.84% of the journals. Eight journals devoted to internal medicine (1.79% of all journals) included 23.46% of the references.

CONCLUSIONS: The number of authors has shown a significant increase during the study period. The time elapsed between acceptance and publication has decreased significantly. Spanish authors acquired information mostly from the English literature. Articles published in journals are also mostly used as references. A large percentage of references consisted of articles published in core general journals. These journals accumulate a remarkable percentage of the information.

Keywords: Authors, Bibliometric Indicators, Clinica, English, Journal, Journals, Literature, *Medicina Clínica*, Medicina-Clinica, Medicine, Publication, Scientific Activity, Spanish, Trends

? Pulido, M., Gonzalez, J.C. and Sanz, F. (1995), Errors in bibliographic references: A retrospective study in *Medicina Clínica* (1962-1992). *Medicina Clínica*, **104** (5), 170-174.

Full Text: 1995\Med Cli104, 170.pdf

Abstract: BACKGROUND: Mispellings of transcription or the copy of references of articles published in the literature without verifying the information with the original document may be the cause of incorrect citations. The purpose of this study was to determine the accuracy of citations to journal articles in 1962 to 1992 volumes of *MEDICINA CLÍNICA*. METHODS: A method of systematic sampling was used to choose five references for each of the 12 original articles per year selected at 5-year intervals (1962, 1967, 1972, 1977, 1982, 1987, 1992). In the final sample of 420 references, errors in the six standard bibliographic elements -authors’ names, article title, journal title, year, volume number, and page numbers-were analyzed. Major errors were defined when inaccuracies prevented identification of the cited article. RESULTS: Of the total 368 references verified, 132 (35,86%) were error free and the remaining 236 (64,13%) were inaccurate. Multiple errors were found in 45% of cases. The mean number of errors per references was 1.13. Twelve references were incorrect, 221 errors were found in the authors’ name, 131 in the title of the article, 14 in the name of the journal, 5 in the year of publication, 12 in the number of the volume, and 22 in the initial or final pages of the article. Major errors were detected in 94 (22.54%) cases and minor errors in 323 (77.45%). There were no statistically significant differences In the variation of the overall percentage of errors throughout the study period. CONCLUSIONS: A high rate of citation errors has been also documented in a Spanish medical journal. The importance of reference verification should be emphasized and authors should exercise more care in preparing bibliographies of their articles.

Keywords: Accuracy, Background, Bibliographies, Care, Citation, Citation Errors, Citations, Clinica, Error, Errors, Exercise, Identification, Information, Intervals, Journal, Journal Articles, Journals, Literature, Medical/Medicina-Clinica, Methods, Minor, Publication, Purpose, Reference, References, Sampling, Standard, Transcription, Verification, Volume

? Feliu, E. (1995), The secrets of a member of the editorial-board of a biomedical journal: The experience of *Medicina Clínica*. *Medicina Clínica*, **104** (7), 271-276.

Full Text: Med Cli104, 271.pdf

Keywords: Abuse, Articles, Barbarisms, Bibliometric Indicators, English, Information, Publication, Scientific Activity, Words

? Rodes, J., Trilla, A., Asenjo, M.A., Grau, J., Fernandezcruz, L., Lecha, M., Ballesta, A., Teres, J., Figueras, J., Salamero, M., Balasch, J., Coronas, R. and Font, J. (1995), Evaluation of the performance of sabbatical leaves - Hospital-Clinic-I-Provincial, Barcelona, Spain (1980-1991). *Medicina Clínica*, **104** (9), 321-328.

Full Text: Med Cli104, 321.pdf

Abstract: BACKGROUND: The development of an evaluation protocol for assessing the scientific contribution and the impact on medical care of the sabbatical leaves granted in a large Spanish teaching hospital. METHODS: The sabbatical leaves for all faculty staff of the Hospital Clinic I Provincial of Barcelona (HCPB) were analyzed since 1980 trough 1991. The scientific production analysis was done according to the impact factor (IF) score of the Science Citation Index. Descriptive statistical techniques as well as parametric and non-parametric tests were used for comparisons. RESULTS: A total of 52 sabbatical leaves was analyzed of all 60 leaves granted (87%). Mean duration of the leave was 7,94 +/- 3,86 months. The scientific production includes 89 original articles published in peer reviewed medical journals, with a total score of 300,82 IF points (mean score: 5,78 +/- 7,12 IF points by leave). There were significant differences In the mean duration, number of papers published and IF points score by sabbatical leave between the Medicine, Surgery and Other Departments. In 16 cases (31%) there was a professional promotion following the sabbatical leave and in 20 cases (39%) an academic promotion, In 27 cases (60%) there was no promotion after the leave. Most of the faculty staff physicians (96%) are still employed in the same institution, and believe that the sabbatical leave has significantly contributed to their promotion (67%). A high percentage (94%) has also been able to develop afterwards the methods and techniques learned during the sabbatical leave. CONCLUSIONS: The experience of the Hospital Clinic of Barcelona in granting sabbatical leaves has been highly positive. The scientific performance of the individuals on leave is high. Our institution has been able to add and develop most of the techniques and methods learned overseas. The future of the sabbatical leaves In other Spanish Universities and Hospitals should be regarded as a high priority target. The performance of these leaves Is supported by its scientific results, that could be quantified.

Keywords: Articles, Citation, Contribution, Evaluation, Gastric Alcohol-Dehydrogenase, Impact, Impact Factor, Insulin Release, Journals, Magnetic Stimulation, Maximal O-2 Uptake, Medical, Mucosal Blood-Flow, Neoplastic Thyroid-Tissue, Open Canalicular System, Pancreatic-Islets, Positive, Science Citation Index, Scientific Performance, Scientific Production, Spain, Spanish Universities, Surface-Activated Platelets, Ultrafast Computed-Tomography, Universities

? Rozman, C., Foz, M. and Feliu, E. (1996), Direction to 2000. *Medicina Clínica*, **106** (1), 19-20.

Full Text: Med Cli106, 19.pdf

Keywords: Bibliometric Indicators, Clinica, Medical-Scientific Activity

? Bordons, M., Barrigon, S. and Mendez, A. (1996), Spanish investigation in international pharmacy and pharmacology journals from 1980-1989. *Medicina Clínica*, **106** (2), 51-59.

Full Text: Med Cli106, 51.pdf

Abstract: BACKGROUND: During the last years, the usefulness and validity of bibliometric analyses in complementing other types of indicators has been put forward. Especially interesting is the performance of this type of studies in the pharmacological area, due to the important medical and economic repercusions of the research in this field.

METHODS: Documents of Spanish authors published in international pharmacological journals covered by the database Science Citation Index (1980-1989) were downloaded. Geographical and institutional distribution of the production, main publication journals and the basic or applied character of the research are some of the parameters analysed. The Expected Impact Factor (FIE) is used as an indicator of the potential influence of the research on the international scientific community.

RESULTS: An exponential growth was detected for the number of Spanish publications in international journals of Pharmacy & Pharmacology during the period of 1980-1989. Universities were the most productive institutions, followed by hospitals, the Consejo Superior de Investigaciones Cientificas, and industry, with only a small activity from private centers, Geographical distribution of production was very irregular, with Madrid, Barcelona and Valencia as the main productive cities. The increase in productivity was associated with a decrease over time in the FIE, although relatively high FIE journals were mainly used. Research in Pharmacy & Pharmacology showed as a mainly basic field, with a more clinical character for hospitals than for the remaining institutions. An increase in collaboration was observed, as supported by the increase in the coauthorship index, number of institutions per document and collaboration rate.

CONCLUSIONS: The international visibility of the Spanish pharmacological research showed and important growth during this period. It was mainly a quantitative growth, since a higher impact or potential influence of the Spanish research over the international scientific community was not detected.

Keywords: Bibliometric, Bibliometric Analysis, Clinical, Coauthorship, Collaboration, Community, Database, Growth, Hospitals, Indicator, Indicators, Institutions, International, Investigation, ISI, Journals, Medical, Pharmacology, Pharmacy, Potential, Publication, Publications, Research, SCI 1984-89, Science Citation Index, Scientific Production, Small, Subfields, Validity, Visibility

? Ramalle Gomara, E. (1996), Collective authorship. *Medicina Clínica*, **106** (19), 756.

Full Text: Med Cli106, 756.pdf

? Navarro, F.A. (1996), The language of medicine, based on the bibliographical references from the original articles published in *Medicina Clínica* during 50 years (1945-1995). *Medicina Clínica*, **107** (16), 608-613.

Full Text: Med Cli107, 608.pdf

Abstract: BACKGROUND: To describe and analyse the frequency of the Various languages in the bibliographical references from the original articles published in *MEDICINA CLÍNICA* during the past 50 years (1945-1995).

METHODS: The languages of publication of 12, 807 references from 540 original works published in *MEDICINA CLÍNICA* between 1945 and 1995 were determined (at the rate of near 50 articles per year at intervals of five years).

RESULTS: The percentage of references in English increased constantly until 1980, but has decreased since then (26.3% in 1945, 42.1% in 1955, 57.7% in 1970, 84.2% in 1980 and 78.5% in 1995). In contrast, the percentage of references in Spanish decreased until 1980, but has increased since then (27.4% in 1945, 18.4% in 1955, 15.8% in 1970, 8.1% in 1980 and 20.0% in 1995). initially the percentage of references in French remained more or less constant, but decreased markedly from 1970 on ward (23.1% in 1945, 22.5% in 1955, 17.1% in 1970, 5.9% in 1980 and 0.5% in 1995). The percentage of references in German decreased almost continuously during the whole period studied (19.6% in 1945, 10.7% in 1955, 5.8% in 1970, 0.3% in 1980 and 0.3% also in 1995).

CONCLUSIONS: In 1965, English became the undisputed language of medicine in Spain. The importance of English increased from 1945, then stabilised and even started to decrease in 1980. The importance of Spanish has evolved inversely to that of English, decreasing until 1980 and increasing since that time. The importance of French remained stable until 1970, since when it has decreased, although it continued to be mentioned relatively frequently until 1990. The importance of German decreased constantly from 1945, until this language almost completely disappeared from 1985 onward.

Keywords: Scientific Activity, English, Communication, Sciences

? Acosta, F., Mulero, J.F., Ferre, C. and Parrilla, P. (1997), The contribution of liver transplantation to the scientific production of a hospital. *Medicina Clínica*, **108** (14), 556.

Full Text: Med Cli108, 556.pdf

Keywords: Contribution, Science-Citation-Index, Scientific Production, Spanish, Transplantation

? Cami, J., Zulueta, M.A., Fernandez, M.T., Bordons, M. and Gomez, I. (1997), Spanish scientific production in biomedicine and health sciences during the period 1990-1993 (Science Citation Index and Social Science Citation Index) and comparison to period 1986-1989. *Medicina Clínica*, **109** (13), 481-496.

Full Text: Med Cli109, 481.pdf

Abstract: BACKGROUND: In 1993 a first study on the scientific production of Spain in 1986-1989 on Biomedicine and Health Sciences, through the Science Citation Index (SCI) was published. The analysis attained the level of centres, with special emphasis in those related to the Health Care System. This paper analyses the period 1990-1993. offers a wider coverage including the Social Science Citation Index (SSCI) database, and compares both time periods.

MATERIAL and METHODS: Documents indexed by SCI and SSCI, CD-ROM version, with at least one Spanish address, published in biomedical and medical journals during the years 1990, 1991, 1992 and 1993, have been studied. Quantitative and qualitative bibliometric indicators for the analysis by subject matter, geographic distribution, institutional sector and centre of origin have been used. Global data were also analysed according to economic and human resources.

RESULTS: A total of 21,434 documents were studied, of which 67.9% were journal articles. The highest contributors were Universities (48.8% of the documents) and Hospitals (45.3%). The autonomous communities of Madrid (31.9%) and Catalonia (26.9%) concentrate more than half the production-developed principally by hospitals-followed by Andalucia (11.7%) and C. Valenciana (7.8%), The most active disciplines were biochemistry/molecular biology (13%), neurosciences/neurology (8.4%), pharmacology/pharmacy (8.4%) and medicine, general/internal (7.9%). Comparing the results with period 1986-1989, some of the differences observed could be explained by the fact of *MEDICINA CLÍNICA* being included in SCI since 1992. An increase in the number of citable items (72.9%), number of journals used (from 1,086 to 1,346) and international cooperation rate (13.5% to 18.3%) was detected. The institutional sectors with the highest growth rate were Hospitals (92.9%) and Consejo Superior de Investigaciones Cientificas (CSIC) (119.3%). Scientific production and visibility of publications (measured as impact factor of journals used) grew in most disciplines, being the quantitative increase greater in cancer/oncology, gastroenterology/hepatology, genetics/heredity and cardiovascular system. No substantial changes as to geographic distribution of documents or most active centres were observed.

CONCLUSIONS: Spanish scientific activity grew steadily every year and its visibility improved, being the Health sector one of the main actors. When comparing both four-year periods, Spain moved up from the seventh to the sixth position in the ranking of EU countries according to its scientific output in biomedicine and health sciences.

Keywords: 50 Nations, Analysis, Autonomous, Bibliometric, Bibliometric Indicators, Biology, Biomedical, Biomedicine, Cardiovascular, Changes, Chemistry, Clinica, Comparison, Concentrate, Cooperation, Database, Eighties, EU, First, Growth, Growth Rate, Health, Health Sciences, Human, Impact Factor, Indicators, International, International Cooperation, Journal, Journal Articles, Journals, Life Sciences, Mathematics, Medical, Medical Journals, *Medicina Clínica*, Medicina-Clinica, Medicine, National Performances, Origin, Physics, Publication Output, Publications, Qualitative, Ranking, SCI, Science Citation Index, Sciences, Scientific Output, Scientific Production, Scientometric Weight, Sector, Social Science Citation Index, Spain, SSCI, Visibility, World Science

? Gomez, I., Coma, L., Morillo, F. and Cami, J. (1997), *Medicina Clínica* (1992-1993) seen through the Science Citation Index. *Medicina Clínica*, **109** (13), 497-505.

Full Text: Med Cli109, 497.pdf

Abstract: Background: *Medicina Clínica* has been indexed in the science citation index (Sci) Database since 1992, listed in the category medicine, general & internal, and its impact factor in 1993 was 0.909. Two years as source journal in the sci database provide enough information to assess its contribution to the international scientific scenario. Material and methods: Publications of spanish authors in *Medicina Clínica* during 1992 and 1993 were retrieved from the sci. Document types, geographic distribution, institutional sectors, subjects and most productive centers were analyzed. All documents retrieved from the sci were compared manually with those published in the journal itself. Citations received until november 1996 were collected and reference patterns assessed. Results: *Medicina Clínica* was in the upper third of the list of journals of its category ranked by their impact factor. As other general medical journals, it was characterized by the publication of a high number of letters to the editor (48% Of documents) and of articles susceptible of being classified in other disciplines according to their contents. Main topics of documents authored by spanish authors included: Infectious diseases (15%), Pharmacy/pharmacology (8.8%), Cancer/oncology (7.2%), Cardiovascular system (4.9%), Epidemiology/public health (4.5%), Endocrinology/metabolism (4%) and neurosciences/neurology (4%). Only 32% of studies corresponding to citable items had been carried out in barcelona, the city in which the journal is published, 19.5% In madrid, and almost 9% in andalucia. Around 66% of articles and only 25% of letters have received at least one citation, with a mean number of citations of 2.83 For articles and 1.3 For letters. Self-citations from other documents published in the same journal were high (77.8% For articles) As compared with citations received from other international sci journals. Reference patterns found in *Medicina Clínica* were similar to those of high-ranking journals of the same category. The comparison of documents published in *Medicina Clínica* to those retrieved from sci showed a lack of consistency in document types. In respect to the authors’ last names, potential problems due to heterogeneity of the bibliographic names of spanish authors are added to sci-derived typing errors. Conclusions: *Medicina Clínica* appears open to a broad spectrum of authors, centers and topics. Highly productive health centers in *Medicina Clínica* are also highly productive in other international journals. Differences between what is published in the journal and how this information is indexed in the sci database constitute an important obstacle, not only for the journal’s visibility, but also for a comprehensive retrieval of the authors’ output. Changes in the classification of documents and consistent criteria in the use of bibliographic names of authors are recommended.

Keywords: Articles, Citation, Citations, Classification, Contribution, Database, Heterogeneity, Impact, Impact Factor, Journals, Medical, Medicine, Publication, Publications, Science, Science Citation Index, System, Topics, Visibility

? Pestana, A. (1997), Suitability of MedLine for the study of the Spanish scientific production in biomedicine and medical sciences. A comparative appraisal with the Science Citation Index. *Medicina Clínica*, **109** (13), 506-511.

Full Text: Med Cli109, 506.pdf

Abstract: BACKGROUND: MedLine (ML) database in CD-ROM, one of the most popular sources for bibliographic citations and abstracts of medical-biomedical literature, is also being widely used as a bibliometric tool, The usefulness of MedLine for bibliometric purposes needs to be evaluated.

MATERIAL and METHODS: A database (BDML) of the Spanish publications in medical-biomedical journals has been derived from ML in the period 1990-1994 searching for SPAIN or ESPANA in the author adress (AD) and/or in the country of publication (CP) fields. Retrieved documents correspond to original and review articles. The journals were asigned to SCI categories and impact factors according to the Journal Citation Reports (1990 and 1994 issues). BDML contents were compared with the documents indexed in SCI-SSCI databases (1990-1993) as reported (Cami J et al. Med Clin [Barc] 1997; 109: 481-496).

RESULTS: Spanish production in medical and biomedical publications indexed in BDML amounts to 27,452 documents in 1,639 journals or 19,915 documents in the 1,339 journals listed in JCR. This represents 3,983 articles and reviews in SCI journals per year on average. Similar calculation for the Spanish articles and reviews indexed in SCI-SSCI databases (1990-93) gives a rate of 3,727 documents/year. Coverage of biomedical literature in ML is much lower than in SCI + SSCI (11,729 and 15,723 documents respectively) although the differences can be lowered taking into account that SCI documents include case reports and letters to the Editor which can not he retrieved from ML searchs in the AD field. On the contrary, more Spanish articles in medical disciplines were retrieved from ML (15,723) than SCI + SSCI databases (7,858). ML indexes more Spanish medical journals than SCI (36 journals and 11,400 articles in ML90-94 against 12 journals and 1,622 documents in SCI90-93).

CONCLUSIONS: The results validate the usefulness of MedLine for bibliometric studies in medical sciences.

Keywords: Bibliometric, Bibliometric Studies, Biomedical, Biomedicine, Citation, Citations, Database, Impact Factors, Journal, Journals, Literature, Medical, Medical Journals, MEDLINE, Methods, Needs, Publication, Publications, Review, Science Citation Index, Sciences, Scientific Production

? Cami, J. (1997), Impactolatry: Diagnosis and treatment. *Medicina Clínica*, **109** (13), 515-524.

Full Text: Med Cli109, 515.pdf

Keywords: 27 Science Areas, 50 Nations, Bibliometric Analysis, Diagnosis, Life Sciences, Mathematics, Publications, Publish, Quality, Scientometric Weight

? Bordons, M., Zulueta, M.A. and Barrigon, S. (1998), Scientific activity of the most productive Spanish research teams in pharmacology and pharmacy during the period 1986-1993 as covered by the Science Citation Index (SCI). *Medicina Clínica*, **111** (13), 489-495.

Full Text: Med Cli111, 489.pdf

Abstract: BACKGROUND: Bibliometric analyses at the research team level in the pharmacology and pharmacy (F&F) subfield allow in-depth analysis of the findings obtained at higher aggregation levels.

MATERIAL and METHODS: Publications of Spanish authors in pharmacological journals covered by the Science Citation Index (SCI) are studied and the most productive Spanish teams during 1986-1989 and 1990-1993 are identified through in-house programmes based on co-authorship analysis, Team composition is defined and team size, scientific output, productivity, expected impact factor and collaboration pattern of the most productive teams are analysed as well as its evolution over time.

RESULTS: The observed annual increasing rate in the number of publications and authors in the field (11%) was similar to that of the number of researchers in the Spanish scientific system (8%). The number of highly productive teams doubled from the first to the second period (28 and 61 teams, respectively). The average team size was 8 researchers, showing an average scientific output of 3 documents/year and an average, productivity of 1.7 publications per author and team in each period. Over the years, an increase in the expected impact factor (EIF) of the publication journals and significant changes in the team composition were observed, A total of 13 stable teams were identified, with a greater size and output than the rest of the groups, and showing an upward trend in their expected impact factor and international collaboration rate. Stable teams did not show the negative correlation between team size and productivity observed for the total of the highly productive teams.

CONCLUSIONS: The F&F subfield is in a very dynamic stage, with a great increase in the number of researchers, starting of new teams and consolidation of others. A trend was observed towards the concentration of activity in the most productive teams, that are the most visible internationally both in number of publications in the SCI and in the impact factor of the publication journals.

Keywords: Biomedicine, Size

? Solar, M.A., Gonzalez, M.L.L. and Espinar, A.C. (1998), Bibliometric indicators, subjects analysis and methodology of research published in Spain on epidemiology and public health care (1988-1992). *Medicina Clínica*, **111** (14), 529-535.

Full Text: 1998\Med Cli111, 529.pdf

Abstract: BACKGROUND: To describe Spanish scientific output in epidemiology and public health through the bibliometric indexes utilization and with regard to subjects, design and statistical methods employed, as well as its appropriateness, importance and funding.

MATERIAL and METHODS: Descriptive, longitudinal and retrospective study over 594 originals published in Spanish medical journals and listed in the Spanish Medical Index (Indice Medico Espanol) during the 5 years period 1988-1992.

RESULTS: The average authors by article was of 4.9 and the Lotka’s index, for the authors that publish articles on the topic, was -2.92; 82% of the authors have a productivity index equal to zero. Almost 70% of the articles are signed by an isolated institution, being a hospital in 51% of the cases. The journal that publishes most articles on the topic is

*MEDICINA CLÍNICA*. The average references by article is about 24. The Price’ index is 36.5% and the isolation’ index is 36.2%. ‘The non AIDS infections, the descriptive designs and the lack of inferential statistics methods, characterize the content of the articles. Regarding to the criteria established by the study, more than half of the analyzed research (56.5%) was appropriate and almost a fourth (22%) could be considered that was about important topics.

CONCLUSIONS: Concerning bibliometric indicators, research on epidemiology and public health in Spain does not seem to differ from other medical specialities. The epidemiology as scientific method is widely used over the medical specialities, something which could explain the wide dispersion of scientific literature on this topic. There seems to be a certain lack of agreement between the research topics and the real health problems of Spain.

Keywords: AIDS, Articles, Authors, Bibliometric, Bibliometric Indicators, Clinica, Clinical Research, Communication, Frequency, Funding, Impact, Indicators, Journals, Literature, Medical, Medical Journals, Medical-Scientific Activity, *Medicina Clínica*, Medicina-Clinica, Methods, Productivity, Research, Science-Citation-Index, Scientific Output, Spain, Spanish, Spanish Medical Journals, Statistical Methods, Statistical Techniques, Statistics

? de los Monteros, J.E., Diaz, V., Toribio, M.A., Farre, E.R., Larraga, V., Conde, J., Claveria, L.E. and Munoz, E. (1999), Biomedical research in Spain (I). Evaluation of the Fondo de Investigaciones Sanitarias (FIS) through research projects in Health Care Institutions (hospitals) financed from 1988 to 1995. *Medicina Clínica*, **112** (5), 182-197

Full Text: Med Cli112, 182.pdf

Keywords: Evaluation, Research, Science-Citation-Index, Spain, Spanish Scientific Production

? Lluch, J.O., Rojo, J.A.D. and Minguez, O. (1999), Bibliometric study of reports on medical terminology published in Spanish journals and included in the Indice Medico Espanol database. *Medicina Clínica*, **112** (5), 198-199.

Full Text: Med Cli112, 198.pdf

Keywords: Journals, Medical, Spanish, Terminology

? Pulido, M. (1999), Autorship of multicenter studies. *Medicina Clínica*, **113** (14), 534-536.

Full Text: Med Cli113, 534.pdf

Keywords: Impact Factor, Long Live, Authorship, Contributors, Articles, Faculty, Science

? Rio, F.G., varez-Sala, R., Mendieta, A.G., Pena, A.R., Pena, S.S., Garcia, J.M.P., varez-Sala, J.L. and Leon, J.V. (2000), Evolution of Spanish scientific production in international respiratory system journals from 1987 to 1998. *Medicina Clínica*, **115** (8), 287-293.

Full Text: Med Cli115, 287.pdf

Abstract: BACKGROUND: A relevant increase in the clinical relevance of respiratory system area has occurred in the last few years. The aims of this study were: to analyze the evolution of production and impact of Spanish scientific activity in the respiratory system area between 1987 to 1998; and to assess the participation of the different Spanish autonomic communities in this activity. METHODS: Papers published in 38 international journals of respiratory system during this period of time were selected by the MedLine system, delimiting Spanish production. Geographical and institutional distribution of the production, specialist of authors, main publication journals and type of publication were recorded. Production and impact bibliometric indicators were estimated. RESULTS: The number of Spanish documents from 1987 to 1998 multiplied by eight, reaching the 1.49% of the total published documents in 1998. However, the growth model of scientific production during this period was lineal. The increase in the scientific production was associated with a increase over time in the expected impact factor. In 1998, expected impact factor was 2.206. Forty-two percent of the papers were signed by pneumologists. The highest contributor were hospitals. The most productive autonomous communities were Catalonia, Cantabria and Madrid. The communities with the highest expected impact factor were Balears and Catalonia CONCLUSIONS: A relevant increase has occurred in the scientific production and impact of Spanish biomedical activity in respiratory system area.

Keywords: Bibliometric, Bibliometric Indicators, Bibliometry, Biomedicine, Evolution, Impact, Impact Factor, Impact-Factor, Indicators, International Journals, Journals, Publication, Respiratory, Science-Citation-Index, Scientific Information, Scientific Production, Spain, Spanish, Statistics, System

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Full Text: Med Cli117, 645.pdf

Abstract: BACKGROUND: To analyze the research output of Spanish authors on human immunodeficiency virus (HIV) infection/AIDS.

METHODS papers published over 1991-1999 which were recorder in the MedLine database (CD-ROM) were selected by using the key words much less than Spain much greater than or much less than Espana much greater than in the address of author field and much less than HIV much greater than, much less than AIDS much greater than, much less than VIH much greater than or much less than sida much greater than in any field. papers were analyzed according to publication journal specialty of authors, subjecte matter of the paper, institution, center of origin and geographical distribution.

RESULTS: A total of 2,065 papers were studied. Their number doubled, from 148 in 1991 to 295 in 1999 (r = 0.917; p < 0.0001). The number of papers published in foreign journals trebled, from 51 to 182 (r = 0.933; p < 0.001). The journal with the highest number of papers published was *MEDICINA CLÍNICA* 241 (11.7%). Although the main topic was the clinical manifestations of HIV infection (64.6%), the proportion of papers on this subject decreased from 71.4% in 1991-93 to 58.3% in 1997-99 (p < 0.001). On the other hand, the percentage of articles on antiretroviral therapy increased from 3.6% in 1991-93 to 12.4% in 1997-99 (p < 0.001). The greatest number of contributions came from hospitals (79.8% of papers), followed by universities (9.5%). Centers with the highest output were the Hospital Clinic (Barcelona) (5.7%) and the Hospital Carlos III (Madrid) (5.5%). The Autonomous Communities of Madrid (33.1%) and Catalonia (25.3%) concentrated more than half of the total output, followed by Andalusia (11.5%) and the Valencian Community (8.1%).

CONCLUSIONS: Spanish output on HIV infection/AIDS research grew during the 1991-1999 period. There was a remarkable increase in the papers published in foreign journals. Moreover, topics changed according to the epidemiological changes observed in HIV infection during the past decade.

Keywords: Human Immunodeficiency Virus (HIV), Acquired Immunodeficiency Syndrome (AIDS), Bibliometry, Scientific Information, Bibliometric Indicators, Health-Care, Biomedical-Research, Spain, Journals, AIDS

? Benavent, R.A., Zurian, J.C.V., Gomez, M.C., Melendez, R.S. and Molina, C.N. (2004), Impact factor of the Spanish medical journals. *Medicina Clínica*, **123** (18), 697-701.

Full Text: Med Cli123, 697.pdf

Abstract: Background and objective: The 2001 edition of the journal citation reports (JCR) Includes only 13 Spanish medical journals. The impact factor (IF) of the rest of Spanish medical journals is unknown. The aim of this study is to determine the if of the main Spanish medical journals, taking also into account the references from journals not covered by the sci. Material and method: A set of 87 Spanish medical journals was selected from the national database IME and other international databases. All citable articles published in these journals in 2001 were analyzed, extracting their bibliographic references to articles published in 1999, 2000 and 2001. The indicators obtained for each journal were the number of cites, the if and the immediacy index. Results: Among the 87 source journals, 74 were not included in the JCR. From them, 5,388 bibliographic references were examined, identifying the journals cited. Final indicators were obtained adding these results to the ones obtained by using the science citation index. The if i d b were ATTA ne y most cited journal was *Medicina Clínica* (768 Cites), and the highest histology and histopathology (IF 1.866), International journal of developmental biology (IF = 1.654) and *Medicina Clínica* (IF 1.125). Conclusions: This work has permitted to obtain the if of 87 Spanish medical journals. Already detected in previous works, the leadership of the journal *Medicina Clínica* in Spanish medicine is confirmed. Spanish medical journals published in English have received a small number of cites from the ones published in Spanish. A low impact factor is not necessarily related to lack of quality, merit or relevance.

Keywords: Bibliometric Indicators, Bibliometrics, Biology, Citation, Clinica, Database, Histopathology, Immediacy Index, Immediacy Index, Impact Factor, Indicators, Information, International, Journal, Journals, Leadership, Medical, Medical Journals, *Medicina Clínica*, Medicine, Quality, Relevance, Science, Science Citation Index, Scientific Activity, Scientific Journals, Small, Work

? Cami, J., Sunen-Pinol, E. and Mendez-Vazquez, R. (2005), Bibliometric map of Spain 1994-2002: Biomedicine and health sciences. *Medicina Clínica*, **124** (3), 93-101.

Full Text: Med Cli124, 93.pdf

Abstract: Background and objective: The present study is a 1994-2002 update of the Spanish biomedical bibliometric map that follows other reports already published in Medicina Cunica concerning the previous periods 1986-1989 and 1990-1993. Material and method: The results are restricted to citable documents, items that were classified in 70 categories according to 1996 JCR. Bibliometric analysis was based on simple (Number of documents and number of received citations) and composite indicators (International collaboration, or percent of non cited documents). Results: Spain occupies the eleventh place in the world, and the seventh place among the European countries. Despite Spanish contribution to the world biomedical production is 2.4 % It accounts for only 1.8 % Of the whole citations. Spanish health sector is responsible for nearly the half of the total biomedical output. The 24.8 % Of documents are published in international collaboration, a proportion that accumulates the 45.5 % Of biomedical citations received. Catalonia stands out for its clinical research profile, Madrid for its CSIC high density centres while Andalusia and Valencia for their activity from university sector. Conclusions: Although the sustained growth in the number of documents, the ratio of citations per document remains below the international average. Despite of the international publication is greater than the world average, it remains under the European countries average. The analysis of the geographical and centre documents distribution shows a similar structure of biomedical scientific system when compared to preceding analyses, nevertheless with better results.

Keywords: Bibliometric, Bibliometrics, Biomedical and Health Sciences Research, Citation-Index, Citations, Collaboration, Cooperation, Countries, Publication, Research, Research Evaluation, Sciences, Spain, Spanish Scientific Production

? Cami, J. (2005), Bibliometric map of Spain 1994-2002: Biomedicine and health sciences (vol 124, pg 93, 2005). *Medicina Clínica*, **124** (11), 414.

Full Text: Med Cli124, 414.pdf

Keywords: Spain

? Gomez, C.E., Santos, I.M. and de la Paz, M.P. (2005), Analysis of Spanish scientific production in rare diseases: 1990-2000. *Medicina Clínica*, **125** (9), 329-332.

Full Text: Med Cli125, 329.pdf

Abstract: Background and objective: To analyze the Spanish scientific production in a group of rare diseases selected during the period 1990-2000. Material and method: Analysis of the following disease groups: Congenital anomalies, metabolism inborn errors and primary immunodeficiences. Bibliometric tools were used to assess and analyze the evolution of research in this area. The medline database was utilized for references search. Results: Total references recovered for the study were 2978: 82.5% Original articles and 17.3% Reviews. The number of authors was 14.752 and the mean author, article was 4.9%. Seven types of institutions were coded with hospitals being the most productive with 78% of articles published. The Bradford nucleus was formed by 1,288 articles and 43.2% Of the total had been published in 12 journals (2.1%). Conclusions: Despite rare diseases research is still scarce, important efforts have been made at a national level focused on the development and strengthening of research in this field. Nevertheless, it is necessary to join efforts in this field to facilitate an appropriate research policy making that may help improve the current status.

Keywords: Bibliometric Study, Biomedicine, Health-Sciences, Journals, Rare Diseases, Science-Citation-Index, Spain, Statistical Studies

? Figueredo-Gaspari, E. (2005), Curricular evaluation of scientific publications. *Medicina Clínica*, **125** (17), 661-665.

Full Text: Med Cli125, 661.pdf

Keywords: Bad, Bibliometric Indicators, Citation Measures, Evaluation, Journal Impact, Multiple Authorship, Publications, Scientific Publications

? de Dios, J.G., eixandre-Benavent, R. and Valderrama-Zurian, J.C. (2006), Bibliometric analysis of rare diseases in Spain: Need for adaptation of the methodology to the objective. *Medicina Clínica*, **126** (12), 477-478.

Full Text: Med Cli126, 477.pdf

Keywords: Adaptation, Analysis, Diseases, Indicators, Medical-Scientific Activity, Methodology, Spain

? Escudero-Gomez, C., Millan-Santos, I. and de la Paz, M.P. (2006), Bibliometric analysis of rare diseases in Spain: Need for adaptation of the methodology to the objective - Reply. *Medicina Clínica*, **126** (12), 478-479.

Full Text: Med Cli126, 478.pdf

Keywords: Adaptation, Analysis, Diseases, Methodology, Spain

? Mendez-Vasquez, R.I., Sunen-Pinyol, E., Cervello, R. and Cami, J. (2008), Bibliometric map of Spain 1996-2004: Biomedicine and health science. *Medicina Clínica*, **130** (7), 246-253.

Full Text: Med Cli130, 246.pdf

Abstract: Background and objective: The study presents the bibliometric analysis of the Spanish scientific output in biomedicine during 1996-2004. This is the last edition of a series of bibliometric studies aimed to characterize the Spanish scientific performance in biomedicine. Material and method: The analysis was restricted to citable documents for which simple and composite bibliometric indicators were obtained at different aggregation levels: Fields, autonomous regions, institutional sectors and research centres. The documents were selected according to the journal citation reports, and were assigned to affiliation centres following an integer counting scheme after an exhaustive normalization of the affiliation addresses. Results: Compared to the period 1994-2002, research activity in biomedicine grew as much as Spain: 8.9% In the number of documents; 22.5% Citations; 12.5% Citation per document average and 27.2% International cooperation. Besides, biomedicien showed the highest citation per document average compared to other major fields. International cooperation in biomedicine (27.2%) Reached the European average. The documents published in international cooperation account for the half of citations to documents in biomedicine. The number of documents and citations belonging to the clinic medicine subfield and to the health sector showed the highest growth. Conclusions: In general, these results reproduce the tendencies described in prior studies. The documents in biomedicine showed a highly asymmetric distribution among institutional sectors, autonomous regions, scientific fields and research centres. The remarkably increase in the output of clinical medicine field and in the health sector could be the consequence of important science policy actions undertaken in these areas in the last years.

Keywords: Affiliation, Affiliation Addresses, Analysis, Bibliometric, Bibliometric Analysis, Bibliometric Indicators, Bibliometric Studies, Bibliometrics, Biomedical and Health Sciences Research, Citation, Citation-Index, Citations, Growth, Health, Indicators, International Cooperation, Journal Citation, Medicine, Research, Research Centres, Research Evaluation, Science, Science Policy, Scientific Output, Scientific Performance, Spain, Spanish Scientific Production

? Aguayo-Albasini, J.L. and Campillo-Soto, A. (2008), Evaluation of research activity by means of the Hirsch h index. *Medicina Clínica*, **131** (6), 239.

Full Text: Med Cli131, 239.pdf

Keywords: h Index, h-Index, Hirsch, Ranking, Research, Scientists

? Jimenez-Contreras, E., Torres-Salinas, D., Ruiz-Perez, R. and Lopez-Cozar, E.D. (2010), Research excellence in Spain: main or secondary roles for researchers? *Medicina Clínica*, **134** (2), 76-81

Full Text: Med Cli134, 76.pdf

Keywords: Authorship, Bibliometric Map, Biomedicine, Health-Sciences, Impact-Factor, Order, Publication, Research, Researchers, Science-Citation-Index, Spain, Spanish Scientific Production

# Title: Medicina Española

Full Journal Title: Medicina Española

ISO Abbreviated Title:

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ISSN: 0723-5003

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Notes: Ttopic

? Lopezpinero, J.M. and Terrada, M.L. (1979), Historical stages of medical journalism in Spain - Bibliometric study. *Medicina Española*, **78** (459), 95-108.

Keywords: Bibliometric, Spain

Notes: TTopic

? Salom, R., Bujosa, F. and Caballe, C. (1979), Paraplegic medical literature from 1800 to 1930 - Bibliometric study. *Medicina Española*, **78** (461), 304-311.

# Title: Medicina Intensiva

Full Journal Title: [Medicina Intensiva](http://www.sciencedirect.com/science/journal/02105691)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? (2011), Intensive medicine in Spain. *Medicina Intensiva*, **35** (2), 92-101.

Full Text: 2011\Med Int35, 92.pdf

Abstract: Intensive care medicine is a medical specialty that was officially established in our country in 1978, with a 5-year training program including two years of common core training followed by three years of specific training in an intensive care unit accredited for training. During this 32-year period, intensive care medicine has carried out an intense and varied activity, which has allowed its positioning as an attractive and with future specialty in the hospital setting. This document summarizes the history of the specialty, its current situation, the key role played in the programs of organ donation and transplantation of the National Transplant Organization (after more than 20 years of mutual collaboration), its training activities with the development of the National Plan of Cardiopulmonary Resuscitation, with a trajectory of more than 25 years, its interest in providing care based on quality and safety programs for the severely ill patient. It also describes the development of reference registries due to the need for reliable data on the care process for the most prevalent diseases, such as ischemic heart disease or ICU-acquired infections, based on long-term experience (more than 15 years), which results in the availability of epidemiological information and characteristics of care that may affect the practical patient’s care. Moreover, features of its scientific society (SEMICYUC) are reported, an organization that agglutinates the interests of more than 280 ICUs and more than 2700 intensivists, with reference to the journal MEDICINA INTENSIVA, the official journal of the society and the Panamerican and Iberian Federation of Critical Medicine and Intensive Care Societies. MEDICINA INTENSIVA is indexed in the Thompson Reuters products of Science Citation Index Expanded (Scisearch) and Journal Citation Reports, Science Edition. The important contribution of the Spanish intensive care medicine to the scientific community is also analyzed, and in relation to the future of intensive care medicine in Spain and in Europe, recommendations are made towards specialization in intensive care medicine incorporating in the training program those competences (knowledge, skills and attitudes) that should be present an intensivist in Europe and that are extensively fulfilled by the current Spanish training program. The trajectory followed by intensive care medicine in Europe and recently in China, shows the increasing need of intensive care and the progressive recognition of the specialty in economically growing countries, and emphasizes the need of homogenization in the training of future specialists in intensive care medicine globally. (C) 2010 Elsevier Espana, S.L. and SEMICYUC. All rights reserved.

Keywords: Attitudes, Availability, Care, Care Medicine, Characteristics, China, Citation, Collaboration, Community, Country, Data, Development, Disease, Diseases, Europe, Experience, Heart, History, Homogenization, Hospital, Infections, Information, Intensive Care, Intensive Care Unit, Intensive Medicine, Ischemic Heart Disease, Journal, Journal Citation Reports, Knowledge, Long Term, Long-Term, Mar, Medical, Medical Specialty, Medicine, Organ Donation, Organization, Quality, Recommendations, Reference, Registries, Rights, Role, Safety, Science, Science Citation Index, Science Citation Index Expanded, Society, Spain, Speciality, Specialty, Training, Trajectory, Transplantation

# Title: Medicina del Lavoro

Full Journal Title: Medicina del Lavoro

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Baldasseroni, A., Olimpi, N. and Bonaccorsi, G. (2009), A systematic review of the effectiveness of workplace safety interventions. *Medicina del Lavoro*, **100** (4), 268-271.

Full Text: 2009\Med Lav100, 268.pdf

Abstract: “A systematic review of the effectiveness of workplace safety interventions”. Introduction: The authors carried out a systematic review of the effectiveness of workplace safety interventions, as a part of a wider project funded by CCM, Centre for Disease Control. Methods: Several electronic bibliographic databases were checked, using a standardized string selection. The string contained the following four items: the intervention; job features; type of injury; efficacy/effectiveness. Results: of the various databases consulted, Web of Science was the most efficient. Overall 5531 articles were selected. After reading the title and abstract, 4695 were excluded and eventually 35 systematic reviews were selected, which synthesized 769 original articles. Discussion and conclusions: The main topics of the selected systematic reviews were: certain sectors (building industry, agriculture, health care); personal protective equipment; work organization and prevention management at plant level; evaluation of prevention policies by national and regional authorities. A clear need for multiple bibliographical data-base search emerged at the end of this study.

Keywords: Authors, Bibliographic, Bibliographic Databases, Bibliographical Database, Databases, Effectiveness, Evaluation, Evidence-Based Prevention, Health Care, Industry, Injury, Intervention, Interventions, Management, Methods, Occupational Accidents, Personal Protective Equipment, Plant, Policies, Prevention, Primary Prevention, Review, Safety, Science, Systematic, Systematic Review, Systematic Reviews, Topics, Web of Science

? Franco, G. (2011), Scientific research and academic promotion in Occupational Medicine: What are the rules of the game? *Medicina del Lavoro*, **102** (2), 167-173.

Full Text: [2011\Med Lav102, 167.pdf](2011/Med%20Lav102,%20167.pdf)

Abstract: “Scientific research and academic promotion in Occupational Medicine: what are the rules of the game?”. Introduction: Recently, the National University Council (CUN) recognized the importance of bibliometric indicators in assessing scientific output and the Ministry of Education, University and Research established that the selection committees’ decision must be guided by internationally recognized metrics including the impact factor (IF). Aim: To analyse methods and tools of metrics to assess scientific performance in Occupational Medicine by examining some critical aspects for entry-level positions and academic promotion in the Universities. Methods: By means of different databases (Web of Knowledge (R), Scopus (R), SCImago), the h-index was studied to assess the scientific output in the field of Occupational Medicine. The h-index was used as an index of both output and quality of overall output of researchers, disciplines, journals, and countries. Results: Italian scientific output in the Public, Environmental & Occupational Health subject category (h-index=62) was lower than almost the total of other medical disciplines and, at an international level, is ranked at 12(th) place (other disciplines ranked 3(rd) to 9(th)). Output was 32% compared to that of the USA (other disciplines ranged from 42% and 61%). However, it should be noted that most scientific papers of Occupational Medicine researchers are published mainly in journals of different disciplines (with a higher IF) rather than in journals of Public, Environmental & Occupational Health (with a lower IF). Conclusion: Assuming that selection committees’ decisions will be guided by metrics and will respect the minimum standard proposed by CUN, Occupational Medicine researchers aiming at academic promotion will have good reason to ask themselves not only which journals are most useful but also which journals have the greatest impact. This fact could have profound implications for the future of the discipline.

Keywords: Academic Promotion, Academics, Assessing, Bibliometric, Bibliometric Indicators, Citations, Core Journals, Databases, Decision, Environmental, Field, h Index, h-Index, Health, Impact, Impact Factor, Impact Factor, Index, Indicators, International, Journals, Medical, Medicine, Methods, Metrics, Minimum, Occupational Medicine, Papers, Performance, Promotion, Quality, Quality of, Research, Scientific Output, Scientific Performance, Scimago, Scopus, Set, Standard, University, USA

# Title: Medicinal Chemistry Research

Full Journal Title: [Medicinal Chemistry Research](http://www.springerlink.com/content/113050/?p=72ee4013b53440049500ff14fce78159&pi=0)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Rivera, G., Puras, G., Palos, I., Ordaz-Pichardo, C. and Bocanegra-Garcia, V. (2010), Bibliometric analysis of scientific publications in the field of medicinal chemistry in Latin America, the People’s Republic of China, and India. *Medicinal Chemistry Research*, **19** (6), 603-616.

Full Text: [2010\Med Che Res19, 603.pdf](2010/Med%20Che%20Res19,%20603.pdf)

Abstract: This study was designed as a bibliometric analysis of scientific production on medicinal chemistry (MC) individually and collectively in ten countries from Latin America together with the People’s Republic of China (China), and India. The bibliometric analysis was performed using the Journal Citation Reports (JCR) Database of the Institute of Scientific Information. The number of indexed journals in the JCR of each country is associated with the Gross Domestic Product at Purchasing Power Parity (GDP-PPP). The journals with the greatest number of published articles from the ten Latin American countries, individually and collectively, together with India had an impact factor between 1.0 and 2.0, and China had an impact factor > 2.0. China and India, in contrast to Latin America, have achieved diversification of their publications in all areas included. Latin American countries must adopt educational politics that allow it to be more competitive in the field of MC.

Keywords: Bibliometric Analysis, India, Latin America, Medicinal Chemistry, People’s Republic of China, Structure-Activity Relationships

# Title: Medicinal Research Reviews

Full Journal Title: Medicinal Research Reviews

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Li, Q., Mitscher, L.A. and Shen, L.L. (2000), The 2-pyridone antibacterial agents: Bacterial topoisomerase inhibitors. *Medicinal Research Reviews*, **20** (4), 231-293.

Abstract: Many attempts have been made to prepare analogs of 4-quinolone antibacterial agents bearing novel ring systems, which might retain the favorable properties of these widely used antibacterial agents and at the same time increase activity against multidrug-resistant bacteria, streptococci, and anaerobic microorganisms. One such attempt involved bioisosteric exchange of the 1-N atom and 4a-C atom of naphthyridones, quinolones, and benzoxazines to produce a family of highly active pyridopyrimidines, quinolizines, and ofloxacin bioisosteres. These new antibacterial agents have born named collectively as the 2-pyridones. Many hundreds of 2- pyridones have been synthesized and evaluated in vitro and in vivo, and selected members are advancing toward human clinical trials, Preparation of these bioisosteres required the development of enabling chemistry, as previous methods were unsuccessful in producing the needed core structures. This review compares the structure-activity relationships of these agents with known trends among 4-quinolones, from which it is seen that then are many parallels, but also some significant departures as well. Generally, 2-pyridones are more highly active in vitro and in vivo and more water soluble than comparable 4-quinolones. These propel ties are posited to arise from electronic and conformational alternations in these new substances. Selected members show excellent pharmacodynamic properties, justifying the view that this is a very promising new class of totally synthetic antibacterial agents. (C) 2000 John Wiley & Sons, Inc

Keywords: Antibiotic-Resistance, Antiinfective Agents, Bacterial Resistance, Benzoxazines, Bioisosteres, DNA Gyrase Inhibitors, Escherichia-Coli, Fluoroquinolones, Gyrase Inhibitors, II DNA Topoisomerases, in Vitro Activity, in Vivo Activity, In-Vitro Activity, Mycobacterium- Tuberculosis, Naphthyridinones, Pyridopyrimidines, Quinolizines, Quinolone Antibacterials, Quinolones, Side-Effect Relationships, Staphylococcus-Aureus, *Streptococcus pneumoniae*

# Title: Medicine and Science in Sports and Exercise

Full Journal Title: [Medicine and Science in Sports and Exercise](http://ovidsp.uk.ovid.com/sp-2.3/ovidweb.cgi?&S=BDOPPDEELEHFAJBAFNELBHFHCJEBAA00&WebLinkReturn=Full+Text%3dL%7cS.sh.15.16%7c0%7c00005768-200905000-00011&Browse=Toc+Children%7cYES%7cS.sh.15.18.19%7c1%7c60)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Arnold, B.L., De la Motte, S., Linens, S. and Ross, S.E. (2009), Ankle instability is associated with balance impairments: A meta-analysis. *Medicine and Science in Sports and Exercise*, **41** (5), 1048-1062.

Full Text: [2009\Med Sci Spo Exe41, 1048.pdf](2009/Med%20Sci%20Spo%20Exe41,%201048.pdf)

Abstract: Arnold, b. L., S. De la motte, s. Linens and s. E. Ross. Ankle instability is associated with balance impairments: A meta-analysis. Med. Sci. Sports exerc., Vol. 41, No. 5, Pp. 1048-1062, 2009. Purpose: Our primary purpose was to determine whether balance impairments were associated with functional ankle instability (Fai). Methods: Our literature search consisted of four parts: 1) An electronic search of pubmed, cinahl, pre-cinahl, and sportdiscus 2) A forward search of articles selected from the electronic search using the science citation index; 3) A]Land search of the previously selected articles; and 4) A direct contact with corresponding authors of the previously selected articles. We initially identified 145 articles and narrowed these to 23 for inclusion in the meta-analysis. Identified outcomes were categorized by measurement units and balance task type (I.E., Dynamic or static). Each study was coded based oil whether inclusion or exclusion criteria were identified. Our statistical analysis included fixed, random, or mixed effect analyses based oil the presence of within study heterogeneity and whether categories were being compared. Results: Fai was associated with poorer balance (Standard difference of the mean [Sdm] = 0.455, 95% Confidence interval = 0.334-0.577, Z = 7.34, P < 0.001), But no difference existed between dynamic and static measure categories (Q = 3.44. P = 0.063). However, there was a significant difference between the dynamic measures (Q = 6.22, P = 0.013) With both time to stabilization and the star excursion balance test producing significant sdm and between static measures (Q = 13.00, P = 0.012) With the linear, time, velocity, and other measurement categories (But not area) Producing significant sdm. Examination of individual outcomes revealed that time in balance and foot lifts produced very large sdm (3.3 and 4.8, Respectively). Conclusion: Fai is associated with impaired balance. Due to the relatively large effect sizes and simplicity of use of time in balance and foot lifts, we recommend that further research should establish their clinical validity and clinical cutoff scores.

Keywords: Chronic, Citation, Citation Index, Deficits, Dynamic, Functional Instability, Individuals, Joint, Meta-Analysis, Outcomes, Postural Control, Posturography, Research, Sprain, Stability, Stabilization, Stabilometry, Static, Time, Unstable Ankles

# Title: M S-Medecine Sciences

Full Journal Title: [M S-Medecine Sciences](http://www.erudit.org/revue/ms/2006/v22/n10/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0767-0974

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Baudoin, L., Haeffner-Cavaillon, N., Pinhas, N., Mouchet, S. and Kordon, C. (2004), Bibliometric indicators: Realities, myth and prospective. *M S-Medecine Sciences*, **20** (10), 909-915.

Full Text: [2004\Med Sci20, 909.pdf](2004/Med%20Sci20,%20909.pdf)

Abstract: The impact factor of scientific reviews, calculated by the Institute for Scientific Information (61), is increasingly used to evaluate the performance of scientists and programmes. Bibliometric indicators, originally designed for other purposes than individual evaluation, are very useful tools provided their interpretation is not extrapolated beyond their limits of validity. Here we present a critical analysis of appropriate uses and misuses of bibliometric data based on case studies. We also outline anticipated consequences of new information technologies, such as electronic journals or open access schemes, on the mode of science production, evaluation and dissemination in biomedical sciences.

Keywords: Impact Factor, Journals

? Baudoin, L., Peltier, C., Graillot-Gak, C. and Haeffner-Cavaillon, N. (2004), Zoom on the excellence of the biomedical research in France. *M S-Medecine Sciences*, **20** (12), 1149-1155.

Full Text: [2004\Med Sci20, 1149.pdf](2004/Med%20Sci20,%201149.pdf)

Abstract: Among the key benchmarks in assessing research excellence is the production and recognition of scientific discoveries for innovation. Despite the growing use of bibliometric indicators for policy-making purposes, there is still no consensus concerning the appropriate measures of research excellence. In this study, we examine the performance of France in biomedical sciences using several ISI-based indicators. We focus on the results provided by these two selective indicators: the absolute numbers and proportion of papers published in the very high-impact journals (above 20) and in the 1% of the most highly cited papers. Furthermore, we present the detailed analysis of the Top 1% French biomedical articles. On this basis we identify the crucial fields, the most active centres per speciality and the networks and the degree of international collaboration resulting from different types of research. These results provide an objective demonstration that the French biomedical research meets with high international standards and contributes to the world core research.

Keywords: Bibliometric, Biomedical Research, Collaboration, Indicators, Innovation, Journals, Research, Sciences

# Title: MAEJO International Journal of Science and Technology

Full Journal Title: MAEJO International Journal of Science and Technology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Commins, T., Songkasiri, W., Tia, S. and Tipakorn, B. (2008), Science and technology research in Thailand: Some comparisons from the data regarding Thailand’s position in the region based on volume of published work. *MAEJO International Journal of Science and Technology*, **2** (3), 508-515.

Abstract: Three different sources were used to examine the growth or otherwise in the volume of published research from Thailand. One source compares growth over the last two decades, another over the last six years, while a third examines the current status of Thailand’s position in relation to neighbouring countries in ASEAN. All three methods are based primarily on publication in international literature, with an emphasis on science and engineering. The figures do not include publication in local or regional literature and thus do not reflect the total picture in terms of volume. It was not possible using these sources to obtain a publication-per-head-per-researcher to better illustrate output on an annual basis. Despite these drawbacks, indicators from international sources can be viewed with some confidence and the overall picture is encouraging. Thailand has seen dramatic growth over the last twenty years and consistent growth over the last six. Thailand ranks second in the ASEAN region behind Singapore, in terms of volume of output, and is ahead of Singapore when this output is compared to GDP.

Keywords: Citation Index, Confidence, Data, Engineering, Growth, Indicators, International, Journals, Literature, Local, Methods, Publication, Regional, Research, Science, Science Publication, Scientometrics, Singapore, Source, Sources, Status, Technology, Thailand, Volume, Work

# Title: MEDINFO

Full Journal Title: MEDINFO

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0723-5003

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Thirion, B., Darmoni, S.J. and Benichou, J. (2001), Reading factor: A bibliometric tool to manage a virtual library. *MEDINFO*, 385-389.

Full Text: [M\MEDINFO385.pdf](M/MEDINFO385.pdf)

Abstract: Among the many bibliometric criteria used to evaluate biomedical journals, the impact factor is the most commonly used. Despite its limitations, it quantifies the influence of a journal on secondary publications. It does not however evaluate the practical usefulness of primary documents. Usefulness is field-related and varies greatly among specialities. We introduce a new bibliographic criterion, the ‘reading factor’, and define it as the ratio between the number of electronic consultations of a particular journal (i.e., number of clicks on a hyper-link) and the mean number of electronic consultations of all the journals studied (itself calculated by dividing the total number of electronic accesses by the number of journals in the database). We describe its observed distribution, relative to that of the impact factor, based on electronic consultation records from our University Hospital medical digital library, where full-text electronic versions of 45 major biomedical journals have been available since December 1997. From this analysis we found no correlation between the 1999 reading factor and the 1998 impact factor of these 45 journals, and we observed a dramatic change in the hierarchy of journals upon using the reading factor as the yardstick rather than the impact factor. Moreover, we describe how using the reading factor has helped in managing the collection of our University Hospital’s virtual library. The selection of journals to be discarded from the virtual library for the year 2001 was based on journals’ RF values and this process will repeated over the coming years. The reading factor also permits a cost-analysis of a virtual library. Conclusion: The measurement of the reading factor is highly automated, practical and efficient. It appears as a new tool for electronic collection management by librarians, well fitting with economical data.

Keywords: Bibliometrics, Hospitals, Teaching, Journals, Medical Library/Organization & Administration, Publishing

# Title: Medizinische Klinik

Full Journal Title: Medizinische Klinik

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0723-5003

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Kaltenborn, K.F. and Kuhn, K. (2003), The journal impact factor as a parameter for the evaluation of researchers and research. *Medizinische Klinik*, **98** (3), 153-169.

Abstract: The journal impact factor (IF), which is published annually by the Institute for Scientific lnformation(R), (Philadelphia, USA), is meanwhile in widespread use as a scientometric parameter for the evaluation of research and researchers in Germany and other European countries. The present article subjects the IF to critical analysis. It first deals with processes of production, transfer, and use of medical knowledge, because the IF intervenes in these processes on account of its reflexivity. Secondary effects of the IF resulting from its reflexivity are discussed with the focus on the level of the author, the journal and the medical discipline as well as on social knowledge processes in society. In addition, the extent to which the IF is appropriate for evaluating the quality of a specific article, of a journal or of individual and collective research achievements is discussed. The present article calls for (1) research evaluation in accordance with the recommendations of the Deutsche Forschungsgemeinschaft (German Research Council) and of the Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgeselschaften (Association of the Scientific Medical Societies) and (2) more intensive occupation with and organization of medical knowledge processes.

Keywords: Impact Factor, Research, Evaluation, Bibliometrics, Communication Media, Science-Citation-Index, Scientific Journals, Research Performance, Medical Journals, German, Publication, Indicators, Rates, Bias, Databases

# Title: Membrane Science and Technology

Full Journal Title: [Membrane Science and Technology](http://www.ceps.com.tw/ec/ecJnlIntro.aspx?jnlcattype=1&jnlptype=4&jnltype=27&Jnliid=1396&newIssueiid=10685)

ISO Abbreviated Title:

JCR Abbreviated Title: Mem Sci Rev Met

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Ma, H.W., Liao, X.P. and Shi, B. (2005), Preparation of collagen: Immobilized tannin membrane and its adsorption to U(VI). *Membrane Science and Technology*, **25** (2), 20-25.

Full Text: [2005\Mem Sci Tec25, 20.pdf](2005/Mem%20Sci%20Tec25,%2020.pdf)

Abstract: A novel adsorbent was obtained by immobilizing myrica rubra tannin to skin collagen membrane through aldehydic cross-linking reaction. Its ability of recovering U(VI) from aqueous solution was investigated in detail. The adsorption capacity of the collagen-immobilized tannin membrane was found to be 56.83mg/g at 303K and pH5.0 when the initial concentration of U(VI) in solution was 263.15mg/L, and the adsorption capacity increased with the rise of temperature. Higher pH value of solution led to bigger equilibrium adsorption capacity, and the proper pH range for adsorption was 5.0-8.0. The data obtained showed that the adsorption isotherms of the membrane to U(VI) could be described by the Freundlich isothermal and that the adsorption rate of U(VI) on the membrane could be well fitted by pseudo-second-order rate model. Continuous adsorption experiments indicated that adsorption quantity of mono-layer membrane to U(VI) was over 90% when the initial concentration of U(VI) was 263.15mg/L and effluent volume was 500mL. When three layers were used, no U(VI) was detected until 1000mL effluent volume was collected. The membrane was easy to be regenerated by 0.1mol/L HNO3 after continuous adsorption, and no considerable change of adsorption property was observed after adsorption-desorption cycles.

Keywords: Skin Collagen Fibre, Immobilized Tannin, Adsorption, Membrane, U(VI)

# Title: Memoires Scientifiques de la Revue de Metallurgie

Full Journal Title: Memoires Scientifiques de la Revue de Metallurgie

ISO Abbreviated Title:

JCR Abbreviated Title: Mem Sci Rev Met

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Raviv, S., Rabinovi, E. and Malkiely, S. (1966), Cathodic and kinetic polarization of adsorption of oxygen on metals. *Memoires Scientifiques de la Revue de Metallurgie*, **63** (1), 90-??.

# Title: Memórias do Instituto Oswaldo Cruz

Full Journal Title: [Memorias do Instituto Oswaldo Cruz](http://www.scielo.br/scielo.php?script=sci_issues&pid=0074-0276&lng=en&nrm=iso)

ISO Abbreviated Title: Mem. Inst. Oswaldo Cruz

JCR Abbreviated Title: Mem I Oswaldo Cruz

ISSN: 0074-0276

Issues/Year: 6

Journal Country/Territory: Brazil

Language: Multi-Language

Publisher: Fundaco Oswaldo Cruz

Publisher Address: AV Brasil 4365, 21045-900 Rio de Janeiro, RJ, Brazil

Subject Categories:

Parasitology Tropical Medicine: Impact Factor

? Yuan, H.C. (1995), Schistosomiasis control in China. *Memórias do Instituto Oswaldo Cruz*, **90** (2), 297-301.

Full Text: [1995\Mem Ins Osw Cru90, 297.pdf](1995/Mem%20Ins%20Osw%20Cru90,%20297.pdf)

Abstract: After three decades’ efforts, schistosomiasis japonica were controlled in one-third (4/12) of endemic provinces and 68.2% (259/380) of endemic counties throughout the country The remaining 121 endemic counties are located primarily in the lake and mountainous regions. The epidemiological and ecological features of the lake and mountainous areas are different from the other endemic areas. The major schistosomiasis control efforts in China can be characterized as follows (1) Application of centralized leadership and management, since schistosomiasis control is a task not only of the Ministry of Public Health, but also of all local governments in the endemic areas, (2) Integration of actions taken by various departments or bureaus, such as agriculture, water conservation and public health, (3) Promotion of mass participation; (4) Organization of strong professional teams; (5) Raising sufficient funds. Strategies on schistosomiasis control applied in different areas are divided into three levels: (1) In the areas where the schistosomiasis has been successfully controlled surveillance must be maintained and immediate action should be taken where new infections occur and/or vector snails are found, so that control can be reestablished quickly; (2) In the areas where schistosomiasis has been partially controlled, any residents and/or live-stock infected should be examined and treated promptly with due care, and environment modifying and/or mollusciding must be used to eliminate the remaining snails; (3) In the areas where transmission has not been controlled, the main strategy is to control morbidity. Mass or selective chemotherapy with praziquental should be applied to both infected persons and the live-stock and environment modification for the snail-ridden areas should be taken but should be coordinated with agriculture where possible. Advance cases must be treated; and epidemics of Katayama fever prevented; water supply and sanitation should be improved and health education emphasized. Annual mass or selective chemotherapy with praziquental both reduces the prevalence rate and decreases the intensity of the infection for inhabitants and live-stock. As a consequence of the therapy a low prevalence rate can be obtained in a short time. The length of such arrangement period can be decided in accordance with the prevalence of the infection before the drug program is begun. Therefore, a maintenance phase is urgently needed. As China’s economy expands and people’s living standard rises, schistosomiasis will be controlled more effectively and successfully.

? Hua, Y. (2005), The feature of papers and citation analysis of eleven journals in tropical medicine indexed by Science Citation Index Expanded. *Memórias do Instituto Oswaldo Cruz*, **100** (7), 805-810.

Full Text: [2005\Mem Ins Osw Cru100, 805.pdf](2005/Mem%20Ins%20Osw%20Cru100,%20805.pdf)

Abstract: To determine the features of papers, authors, and citation of eleven journals in tropical medicine indexed by Science Citation Index Expanded, the database of the Institute for Scientific Information, we analyzed original articles, editorials, reviews, corrections, letters, biographies, and news published in these journals. The results show that these journals covered 107 countries or regions on six continents. The average number of reference was 23.05, with 87.89% of the references from periodicals. The Price Index was 31.43% and the self-citing rate was 7.02%. The references in the first 20 journals ranked by the amount of citation accounted for 36.71% of the total citations. Brazil, United States, India, and England are more advanced in tropical medicine research. The conclusion is that these journals covered most research done in these countries or regions. Most researches were done by cooperation of the researchers, but many of the publications used outdated articles and should include newer information.

Keywords: Analysis, Authors, Biographies, Brazil, Citation, Citation Analysis, Citations, Cooperation, Database, England, Feature, First, Impact, India, Information, Institute For Scientific Information, Journals, Medical Literature, Medicine, NOV, Papers, Periodicals, Publications, Reference, References, Research, Reviews, Science Citation Index, Tropical, Tropical Medicine, United States

? Smith, D.R. (2008), Citation indexing and the development of academic journals in tropical medicine. *Memórias do Instituto Oswaldo Cruz*, **103** (3), 310-312

Full Text: [2008\Mem Ins Osw Cru103, 310.pdf](2008/Mem%20Ins%20Osw%20Cru103,%20310.pdf)

Keywords: Association, Bibliometric Analysis, Citation, Development, Evolution, Hygiene, Impact Factor, Indexing, Instituto-Oswaldo-Cruz, Journals, London, Medicine, Occupational-Health, Science

# Title: Memory & Cognition

Full Journal Title: Memory & Cognition

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mccabe, D.P., Roediger, H.L. and Karpicke, J.D. (2011), Automatic processing influences free recall: Converging evidence from the process dissociation procedure and remember-know judgments. *Memory & Cognition*, **39** (3), 389-402.

Full Text: [2011\Mem Cog39, 389.pdf](2011/Mem%20Cog39,%20389.pdf)

Abstract: Dual-process theories of retrieval suggest that controlled and automatic processing contribute to memory performance. Free recall tests are often considered pure measures of recollection, assessing only the controlled process. We report two experiments demonstrating that automatic processes also influence free recall. Experiment 1 used inclusion and exclusion tasks to estimate recollection and automaticity in free recall, adopting a new variant of the process dissociation procedure. Dividing attention during study selectively reduced the recollection estimate but did not affect the automatic component. In Experiment 2, we replicated the results of Experiment 1, and subjects additionally reported remember-know-guess judgments during recall in the inclusion condition. In the latter task, dividing attention during study reduced remember judgments for studied items, but know responses were unaffected. Results from both methods indicated that free recall is partly driven by automatic processes. Thus, we conclude that retrieval in free recall tests is not driven solely by conscious recollection (or remembering) but also by automatic influences of the same sort believed to drive priming on implicit memory tests. Sometimes items come to mind without volition in free recall.

Keywords: Adult Age-Differences, Alzheimers-Disease, Cognitive Impairment, Conscious Recollection, Divided Attention, Experiment, Familiarity, Free Recall, Inadvertent Plagiarism, Memory, Process Dissociation, Recognition Memory, Recollection, Recollective Experience, Remember-Know, Subjective Reports, Temporal-Lobe

# Title: Menopause-the Journal of the North American Menopause Society

Full Journal Title: Menopause-the Journal of the North American Menopause Society

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mann, E. and Hunter, M.S. (2011), Concordance between self-reported and sternal skin conductance measures of hot flushes in symptomatic perimenopausal and postmenopausal women: A systematic review. *Menopause-the Journal of the North American Menopause Society*, **18** (6), 709-722.

Abstract: Objective: Sternal skin conductance is considered the gold standard in hot flush and night sweat measurement, but results sometimes differ from women’s own self-reports. To date, there has been no systematic review of concordance between sternal skin conductance and self-report measures. An exploratory meta-analysis was conducted to quantify concordance between these measures and to explore the reasons for discordance between them. Methods: A search of MEDLINE, EMBASE, Web of Science, and PsychInfo from inception to December 2009 was conducted. Studies that measured self-reported hot flushes and/or night sweats and sternal skin conductance concurrently in symptomatic perimenopausal and postmenopausal women were retained for data extraction. Studies were included if data on concordance between the two measures were available. Results: Concordance rates overall were 29%, but variability between studies was too broad to identify a single typical concordance rate. However, concordance rates for ambulatory monitoring were more homogeneous and also had a 29% concordance rate. Nonambulatory studies tended to result in more concordant hot flushes (54%) than ambulatory studies did, and night sweats tended to be under-reported more often than over-reported (46% and 22%, respectively). Conclusions: Concordance rates were typically lower than early reports of sternal skin conductance measures but were highly variable between studies. Possible measurement error and study conditions might partly explain the discordance and variation in study findings, but further exploration of the effects of symptom perception is warranted. Use of both measures concurrently is likely to achieve more reliable and valid measurement of hot flushes and night sweats than either measure alone.

Keywords: Accuracy, Association, Breast-Cancer Survivors, Cognitive-Behavioral Intervention, Concordance, Embase, Flash Recorder, Hot Flashes, Hot Flushes, Measurement, Menopausal Symptoms, Menopause, Meta-Analysis, Metaanalysis, Methods, Monitoring, Night Sweats, Perception, Performance, Review, Science, Self-Report, Sleep, Sternal Skin Conductance, Systematic, Systematic Review, Temperature, Variability, Web of Science, Women

# Title: Meta

Full Journal Title: Meta

ISO Abbreviated Title: Meta

JCR Abbreviated Title: Meta

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Shaikevich, A.Y. (1992), Bibliometric analysis of ‘Index Translationum’. *Meta*, **37** (1), 67-96.

Keywords: Bibliometric, Bibliometric Analysis, MAR

? Poupaud, S., Pym, A. and Simon, E.T. (2009), Finding translations. On the use of bibliographical databases in translation history. *Meta*, **54** (2), 264-278.

Abstract: In any study of translations one must first decide what is to be counted as a “translation” and how such things are to be found, usually through recourse to bibliographical databases. We propose that, starting from the maximalist view that translations are potentially everywhere, various distribution processes impose a series of selective filters thanks to which some translations are more easily identified and accessible than others. The study of translation must be aware of these prior filters, and must know how to account for them, and sometimes how to overcome them. Research processes then necessarily impose their own selective filters, which may reduce or extend the number and kinds of translations given by prior filters. We present three research projects where the play of prior and research filters is very different. For one-off large-scale relational hypotheses, the Index Translationum is found to be relatively cost-efficient. For more detailed objects such as translation flows from Spanish into French in a specific period, a book-industry database offers significant advantages. and for a study marked by a paucity of texts, as is the case of translation from Korean into English following the Korean War, a combination of databases is necessary, the most useful turning out to be Amazon.

Keywords: Bibliometrics, Databases, Definitions of Translation, Research, Research Methodology, Translation History

# Title: Metal Finishing

Full Journal Title: [Metal Finishing](http://www.sciencedirect.com/science/journal/00260576)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? McLay, W.J. and Reinhard, F.P. (2000), Waste minimization and recovery technologies. *Metal Finishing*, **98** (1), 817-850.

Full Text: [2000\Met Fin98, 817.pdf](2000/Met%20Fin98,%20817.pdf)

# Title: Metal Pollution in the Aquatic Environment

Springer-Verlag, Berlin, Heidelberg and New York

Förstner, U. and Wittmann, G.T.W. (1981), *Metal Pollution in the Aquatic Environment*, Springer-Verlag, Berlin, Heidelberg and New York.

# Title: Metal Toxicity in Mammals, Physiologic and Chemical Basis for Metal Toxicity, Vol. 1

Plenum Press, New York and London

Luckey, T.D. and Venugopal, B. (1977), *Metal Toxicity in Mammals*, *Physiologic and Chemical Basis for Metal Toxicity*, *Vol. 1*, Plenum Press, New York and London.

# Title: Metallurgical and Chemical Engineering

? (1916), *Metallurgical and Chemical Engineering*, ??.

Full Text: [-1959\Met Che Eng.pdf](-1959/Met%20Che%20Eng.pdf)

# Title: Metallurgical and Chemical Engineering

Full Journal Title: Metallurgical and Chemical Engineering

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mutscheller, A. (1915), Action of certain colloids on ions during electrolysis. *Metallurgical and Chemical Engineering*, **13**, 353-357.

Abstract: An investigation of the influence of varying concentrations of gelatine on the transport number of the anions in solutions of silver nitrate and copper sulphate, shows that as the concentration of the gelatine increases the velocity of migration of the anions decreases, and gelatine, together with the adsorbed anions, migrates to the anode. A point is then reached where the gelatine-anion complex ceases to migrate, the relative migration velocity of the kathions being equal to 1. With further increase in the concentration of the gelatine the complex gathers on the kathode, where it deposits with the metal. The data show that 1/2 SO/sub 4/’ requires an addition of gelatine which is about 45 times that required to cause the same effect on the NO/sub 3/’-ion;that is, the valency of the ion has about the same effect as that noticed in ordinary adsorption phenomena. The phenomenon in question is therefore regarded as one of adsorption, and the author puts forward a scheme to explain the observed results, in which the gelatine is regarded as possessing a positive charge, by means of which it forms complexes with the anions. According to the proportion of gelatine to the anion, the complex migrates to the anode, is stationary, or migrates to the kathode. When the complex is neutral, the kathions migrate to the kathode as fast as they deposit and the deposit is then the smoothest and purest obtained.

Keywords: Adsorption, Copper, Electrolysis, Metal, Silver, Transport

# Title: Metallurgical and Materials Transactions B-Process Metallurgy and Materials Processing Science

Full Journal Title: [Metallurgical and Materials Transactions B-Process Metallurgy and Materials Processing Science](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=7035&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=9300e9b63d5829f414f6e892fa203f2b)

ISO Abbreviated Title: Metall. Mater. Trans. B-Proc. Metall. Mater. Proc. Sci.

JCR Abbreviated Title: Metall Mater Trans B

ISSN: 1073-5623

Issues/Year: 6

Journal Country/Territory: United States

Language: English

Publisher: Minerals Metals Materials Soc

Publisher Address: 420 Commonwealth Dr, Warrendale, PA 15086

Subject Categories:

Materials Science Metallurgy & Metallurgical Engineering: Impact Factor

Yapu, W., Segarra, M., Fernández, M. and Espiell, F. (1994), Adsorption kinetics of dicyanoaurate and dicyanoargentate ions in activated carbon. *Metallurgical and Materials Transactions B-Process Metallurgy and Materials Processing Science*, **25** (2), 185-191.

Abstract: A kinetic model describing the adsorption of dicyanoaurate and dicyanoargentate ions in activated carbon has been derived assuming that the dicyanoions adsorbed onto the external surface are in equilibrium with those in solution. This equilibrium may be described by a modified Langmuir-Hinselwood equation as is usual in heterogeneous catalysis systems. Once adsorbed onto the outer surface, the dicyanoions can diffuse toward the inner surface of the particle through the pores of the carbon, or they can be desorbed back to the liquid phase. The two exit stages are fast enough to maintain the outer surface in a pseudostationary state in normal experimental conditions. Finally, the kinetic parameters for the process are determined. The fitting of the model with experimental data is satisfactory and the range of applications is wide.

Keywords: Gold Cyanide, Mechanism, Aurocyanide, Complexes, Au(CN)2, Ag(CN)2, Model

? Gaballah, I., Goy, D., Allain, E., Kilbertus, G. and Thauront, J. (1997), Recovery of copper through decontamination of synthetic solutions using modified barks. *Metallurgical and Materials Transactions B-Process Metallurgy and Materials Processing Science*, **28** (1), 13-23.

Abstract: Decontamination of synthetic acetate, chloride, nitrate, and sulfate solutions containing 10, 100, 1,000, 10,000, and 50,000 ppm of copper using chemically treated barks has been studied. Metal percentage removal from solutions depends on the pH, the initial concentration, and, to some extent, the anion. It varies from 40 through 99 pct of the initial metallic ion’s content in the solution. The average retention capacity of the treated bark is about 43 mg of Cu, g of dry modified bark (0.68 mmole, g of dry bark). Extraction of copper cations from the saturated modified bark was made possible with dilute acid. Regeneration of bark for reuse as an ion exchanger was possible. Bark loaded with copper was analyzed by scanning electron microscopy (SEM) and infrared (IR) spectroscopy. Copper was uniformly distributed in the bulk of the bark. No copper segregation was observed. It seems that copper was bound to the acidic (phenolic) sites of the bark. Anions were not detected on the copper-loaded bark with either SEM electron probe microanalysis or IR spectroscopy. incineration of the bark loaded with copper resulted in ashes containing about 77 pet of copper oxides, while pyrolysis of the same sample led to ashes containing 10 pet of metallic copper and about 85 pct carbon.

Keywords: Acid, Bark, Binding, Copper, Decontamination, Fixation, Heavy-Metal Ions, Modified Barks, pH, Quaternary Ammonium-Salts, Removal, SEM, Treated Bark, Wood

? Fray, D.J. (2000), Aspects of technology transfer. *Metallurgical and Materials Transactions B-Process Metallurgy and Materials Processing Science*, **31** (6), 1153-1162.

Abstract: Bibliometric studies have shown that the number of articles and citations of these articles in extractivemetallurgy is relatively small compared to most other scientific and engineering disciplines. However, many of these other disciplines can have a significant influence on extractive metallurgy, and thisarticle gives examples drawn from such diverse areas as solid-state chemistry, materials for energystorage, solid-state physics, molten salt chemistry, and physical metallurgy. By use of this information, it is demonstrated that significant improvements in the extraction of metals are possible.

Keywords: Alloys, Aluminum, Carbon, Citations, Deoxidation, Model

# Title: Metallurgical and Materials Transactions B

Metallurgical Transactions B-Process Metallurgy

Full Journal Title: Metallurgical and Materials Transactions B

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1073-5615

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor,

? Belton, G.R. (1976), Langmuir adsorption, Gibbs adsorption isotherm, and interfacial kinetics in liquid metal systems. *Metallurgical and Materials Transactions B*, **7** (1), 35-42.

Full Text: [1960-80\Met Mat Tra B7, 35.pdf](1960-80/Met%20Mat%20Tra%20B7,%2035.pdf)

Abstract: The adsorption of strongly surface active solutes is considered in terms of the ideal sitetillage or Langmuir isotherm. The resulting equation for the depression of surface tension of a liquid metal by such a solute is

σP - σ = RTΓi0 ln (1 +Kai)

where uP- a is the depression of surface tension of the pure liquid metal, r ~ is the saturation coverage by the solute, *a*i is the bulk activity of the solute, and K is a coverage independent adsorption coefficient. The isotherm is found to give a very good description of the available data for Group VI solutes on several metals. The derived values of the adsorption coefficient are applied to several kinetic studies and they are found to give good relative and possibly absolute measures of the interference by such solutes on interfacial reaction rates. The iron-sulfur system appears to differ, but only by a factor of two. The application of these adsorption coefficients in aiding the interpretation of kinetic studies is considered.

? Cho, E.H. and Pitt, C.H. (1979), The adsorption of silver cyanide on activated charcoal. *Metallurgical and Materials Transactions B*, **10** (2), 159-164.

Full Text: [1960-80\Met Mat Tra B10, 159.pdf](1960-80/Met%20Mat%20Tra%20B10,%20159.pdf)

Abstract: Experiments have been carried out on the adsorption of silver cyanide on charcoal from solution having various concentrations of sodium, calcium, free cyanide, and hydrogen ion. It has been found that sodium and calcium ions enhance the adsorption of silver cyanide on charcoal while free cyanide ions reduce the adsorption. A qualitative description of the adsorption based on the structure of the electrical double layer has been proposed to explain the effect of sodium, calcium and free cyanide ions on the adsorption. Increasing acidity of solution enhances the adsorption of silver cyanide on charcoal except in a certain pH range. The adsorption of silver cyanide in acid solution seems to be influenced by the zeta potential of the charcoal particles rather than by the adsorption of hydrogen ions. The adsorbability of different size ions on charcoal has been determined. The larger ions have a greater adsorption potential as shown by the order of adsorption amount with gold cyanide > silver cyanide > cyanide.

? Cho, E.H. and Pitt, C.H. (1979), Kinetics and thermodynamics of silver cyanide adsorption on activated charcoal. *Metallurgical and Materials Transactions B*, **10** (2), 165-169.

Full Text: [1960-80\Met Mat Tra B10, 165.pdf](1960-80/Met%20Mat%20Tra%20B10,%20165.pdf)

Abstract: An investigation has been carried out on the adsorption of silver cyanide from solution onto activated charcoal. The isosteric heats of adsorption and equilibrium constants for adsorption were determined from adsorption isotherms. The isosteric heat and equilibrium adsorption constants were shown to decrease with increasing surface coverage at low surface coverages while at intermediate surface coverages they remain fairly constant. The experimental isotherm data was found t o fit the Langmuir adsorption isotherm in this intermediate range of surface coverage. A pore diffusion model was utilized to explain the experimental rate data. The experimental rates were found to be controlled by pore diffusion with the effective diffusivity having an activation energy of 2.6 kcal/mol. Good agreement between experimental rate data and predicted rate curve by the diffusion model was obtained.

? Cho, E.H., Dixon, S.N. and Pitt, C.H. (1979), Kinetics of gold cyanide adsorption on activated charcoal. *Metallurgical and Materials Transactions B*, **10** (2), 185-189.

Full Text: [1960-80\Met Mat Tra B10, 185.pdf](1960-80/Met%20Mat%20Tra%20B10,%20185.pdf)

Abstract: Adsorption rates of gold cyanide on activated carbon were determined as a function of temperature, free cyanide concentration and charcoal concentration. The experimental rate data is explained by use of a diffusion controlled model developed by Crank. The adsorption rates were determined to be controlled by pore diffusion with the effective diffusion coefficient having an activation energy of 3.3 kcal//mol. Good agreement between experimental rate data and predicted rate curves by the diffusion model was obtained.

? Rubcumintara, T. and Han, K.N. (1990), The effect of concentration and temperature on diffusivity of metal compounds. *Metallurgical and Materials Transactions B*, **21** (3), 429-438.

Full Text: [1990\Met Mat Tra B21, 429.pdf](1990/Met%20Mat%20Tra%20B21,%20429.pdf)

Abstract: The effect of concentration and temperature on diffusivity of various metal compounds which are frequently used in hydrometallurgical applications has been investigated. A diaphragm cell technique has been adopted in this study. Diffusivity of cobalt, nickel, copper, and iron compounds was measured in water with and without ammonia. The effect of chloride, nitrate, and sulfate on diffusivity of these metals in the above-mentioned solutions was studied. The effect of cyanide concentration on diffusivity of gold, silver, copper, and iron in solution was also investigated. The range of the concentration of solutions used in this study was l0 -4 to 0.5 M. Temperature was varied between 15 ~ and 45 ~ An empirical model for metal chloride, nitrate, and sulfate systems has been developed to predict diffusivity of various metal compounds when concentration, charge, size, and mobility of diffusing species are known. The predicted values of diffusivity of numerous metal compounds by this model are in good agreement with the observed values for the ionic strength less than 0.5 M.

# Title: Meteorologische Zeitschrift

Full Journal Title: Meteorologische Zeitschrift

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Wigand, A. (1913), Condensation nucleiin the atmosphere. *Meteorologische Zeitschrift*, **30**, 10-18.

Abstract: It is known that nuclei are necessary for condensation, and that the forces which cause water-vapour to condense on them are either molecular, including physical adsorption and chemical absorption, or electrical, as when the condensation takes place on tons. Physical forces include surface-tension effects whereby waler is more freely condensed /b on/ surfaces having small curvature than on those with large curvature;chemical forces include those producing condensation on hygroscopic substances;while the electrical forces favour condensation on small drops, but not on large ones, for the same charge. The amount of the so-called ‘dust’ upon which condensation takes place can be determined by means of Aitken’s dust-counter, and the number of nuclei per c.cm. thus computed, but the nature of the ‘dust’ has been little investigated. The author carried out experiments to show that ordinary dust, such as that from a carpet or from coal, does not readily form nuclei;but, on the other hand, smoke from a cigarette or a petroleum lamp provides an infinite number of nuclei. Pure carbon dioxide, however, does not contain favourable nuclei. It is probable that smoke contains SO/sub 2/ and other hygroscopic gases, but it is known that ions are produced when a flame burns, and condensation may take place on these, provided they are the so-called ‘large’ ions of low mobility, and not the ‘small’ ions which are the usual objects of observation in measurements of atmospheric electricity. The author suggests that haze, which is known to be electrically charged, and to provide favourable nuclei for condensation, is composed largely of matter which is similar to the large ions produced during the burning process.

Keywords: Absorption, Adsorption, Carbon, Mobility

# Title: Methods of Information in Medicine

Full Journal Title: [Methods of Information in Medicine](http://www.schattauer.de/de/magazine/uebersicht/zeitschriften-a-z/methods/contents/preprint-online.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0026-1270

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Windsor, D.A. (1977), Adverse-reactions literature: Bibliometric analysis. *Methods of Information in Medicine*, **16** (1), 52-54.

? Worthen, D.B. (1978), Short-lived technical literatures: Bibliometric analysis. *Methods of Information in Medicine*, **17** (3), 190-198.

? Sittig, D.F. and Kaalaassittig, J. (1995), A quantitative ranking of the biomedical informatics serials. *Methods of Information in Medicine*, **34** (4), 397-410.

Abstract: We have developed a quantitative serial ranking system based on multiple citation analysis techniques, library use statistics, expert opinion, and selected distinguishing publication characteristics. Evaluation criteria categories include: average Science Citation Index (Impact Factor, Immediacy Index, Total citations) rankings from 1987 to 1992; citation source counts of multiple ‘core’ biomedical informatics publications; a questionnaire sent to American College of Medical Informatics Fellows; publication delay; distinguishing characteristics (e. g., subscription cost, total circulation, year established, places indexed, affiliation with a professional society, major biomedical resource library holdings); and the total number of interlibrary loan requests to the U. S. National Library of Medicine. The top serials were Computers and Biomedical Research, MD Computing, Methods of Information in Medicine, Medical Decision Making and Computers in Biology and Medicine.

Keywords: Citation Analysis, Bibliometrics, Medical Informatics, Collection Development, Serial Ranking, Citation Analysis, Collection Management, Journal Deselection, Science, Library, Medicine, Impact, Selection, Tool

? Moorman, P.W. and van der Lei, J. (1999), An inventory of publications on electronic patient records. *Methods of Information in Medicine*, **38** (4-5), 294-297.

Abstract: This study describes an analysis of 1832 papers dealing with electronic patient records, and indexed in NLM’s MEDLINE. Of each retrieved publication the country of origin and the journal in which it was published was determined. Furthermore, insight into the subjects of the publication was obtained by analysing the MeSH terms by which it was indexed. Since 1990 the number of publications on electronic patient records has increased. Publications originated from 43 different countries rep resenting a II continents. However, 75% stemmed from only 4 countries. The publications appeared in 379 different journals, of which 26 journals had 10 or more publications. Of all publications, 5.3% had appeared in journals with an impact factor of at least 4.5. The topics most often dealt with were: Hospital Information Systems, Computer Communication Networks, User-Computer Interface, Confidentiality and Computer Security. No obvious trends, other than an increased interest in confidentiality and computer security, were observed.

Keywords: Analysis, Computer Security, Confidentiality, Country, Country of Origin, Impact, Impact Factor, Inventory, Journal, Journals, MEDLINE, Origin, Papers, Patient Records, Publication, Publications, Records, Security, Trends

? Moorman, P.W. and van der Lei, J. (2003), An inventory of publications on computer-based medical records: An update. *Methods of Information in Medicine*, **42** (3), 199-202.

Abstract: Objectives. In 1998, we reported a steady increase in the number of publications indexed in MedLine with the MeSH term ‘Medical Records Systems, Computerized’. No signs indicating an increasing interest of high-impact medical journals to publish on the computer-based patient record could be determined. In this review we provide an update. Methods. We retrieved and analyzed all English publications indexed before Feb 22 2002 in PubMed with the MeSH term ‘Medical Records Systems, Computerized’. Results: We retrieved a total of 5856 publications, of which 1824(31%) appeared in a journal with an impact factor in the year of publication. The total impact-score shows an upward trend. Conclusions. The results show that the earlier ob, served increase in number of publications did not persist in the second half of the nineteen-nineties. Since the mid-nineties, there has been a steady yearly production of publications indexed with the MeSH term, reflecting a sustained interest in the domain. However, the volume of publications appearing in journals with higher impact factors is increasing. Furthermore, high-impact journals, such as the “British Medical Journal” the “Lancet” and “Annals of Internal Medicine” regularly publish on the subject, reflecting an interest well beyond the medical informatics community.

Keywords: Community, Impact, Impact Factor, Impact Factors, Informatics, Inventory, Journal, Journals, Medical, Medical Informatics, Medical Journals, Medical Records, Publication, Publications, Pubmed, Record, Records, Review, Term, Trend, Volume

? Raghupathi, W. and Nerur, S. (2008), Research themes and trends in health information systems. *Methods of Information in Medicine*, **47** (5), 435-442.

Full Text: Met Inf Med47, 435.pdf

Abstract: Objectives: The health information systems (HIS) field is characterized as being associated with health care and information systems. Drawing on several disciplines, a body of knowledge has come together that help define the core internal structure of the field. This study attempts to identify the emerging sub-fields using the bibliometric technique of author-cocitation analysis. Methods. Co-citation data for members of editorial boards of several health information systems journals for the period of 1998-2006 was collected and analyzed (N = 166). We performed numerous multivariate analyses, including cluster analysis, factor analysis and multidimensional scaling to extract the sub-fields. Results. Our findings indicate the presence of several strong sub-fields, including HIS evaluation, communication and e-health, and clinical DSS. In addition, we identified other sub-fields that are distinct but still emerging, such as adoption, outcome and policy, and use and impact of HIS. The study also confirms the existence of several historical sub-fields and contrasts technology-oriented sub-fields with management-oriented sub-fields. Topics on the periphery of HIS provide links to other disciplines as well. Conclusions. The study provides a unique perspective on the field of HIS, and the results indicate opportunities for further research that explores collaborations and social networks among the sub-fields.

Keywords: Adoption, Analyses, Analysis, Author Co-Citation Analysis (ACA), Author Cocitation Analysis, Bibliometric, Bibliometrics, Bioinformatics, Boards, Care, Clinical, Cluster, Cluster Analysis, Co-Citation, Collaborations, Communication, Core, Data, Database, Discipline, DSS, Emerging, Evaluation, Factor Analysis, Field, Health, Health Care, Health Information, Health Information System (HIS), Impact, Information, Information Systems, Intellectual Structure, Journals, Knowledge, Medical Informatics, Multidimensional, Multidimensional Scaling, Multivariate, Multivariate Analyses, N, Networks, Outcome, Policy, Presence, Research, Scaling, Science, Serials, Social, Social Networks, Structure, Sub-Field, Systems, Technique

# Title: Mezhdunarodnyĭ Zhurnal Meditsinskoi Praktiki

Full Journal Title: Mezhdunarodnyĭ Zhurnal Meditsinskoi Praktiki

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Zorin, N.A. (2006), Scientometrics in medicine. *Mezhdunarodnyĭ Zhurnal Meditsinskoi Praktiki*, **5**, 18-36.

Full Text: 2006\Mez Zhu Med Pra5, 18.pdf

# Title: Micologia Italiana

Full Journal Title: Micologia Italiana

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mario, F.D., Galli, E., Rapana, P., Lorenzoni, P. and Angelini, R. (2002), Adsorption of heavy metals by micelia of saprophytic mushrooms. *Micologia Italiana*, **31** (1), 60-65.

Full Text: 2002\Mic Ita31, 60.pdf

Abstract: The paper presents data related to the adsorption of 5 heavy metals, Zn(II), Cu(II), Pb(II), Cd(II) and Ni(II), by 33 micelia of saprophytic mushrooms. Results show a general high adsorption of Pb and Cd and a great difference among the samples for Cu, Zn and Ni. Data show that metal adsorption does not depend on the genus or the species but to the characteristics of the single isolate.

# Title: Microbial Ecology

Full Journal Title: [Microbial Ecology](http://springerlink.metapress.com/app/home/journal.asp?wasp=e0gnnjrhupd9l4kmexej&referrer=parent&backto=searchpublicationsresults,1,1;)

ISO Abbreviated Title: Microb. Ecol.

JCR Abbreviated Title: Microbial Ecol

ISSN: 0095-3628

Issues/Year: 6

Journal Country/Territory: United States

Language: English

Publisher: Springer Verlag

Publisher Address: 175 Fifth Ave, New York, NY 10010

Subject Categories:

Ecology Marine & Freshwater Biology Microbiology: Impact Factor

? Rudd, T., Sterritt, R.M. and Lester, J.M. (1983), Mass balance of heavy metal uptake by encapsulated cultures of Klebsiella aerogenes. *Microbial Ecology*, **9** (3), 261-272.

? Jardim, W.F. and Pearson, H.W. (1985), Copper toxicity to cyanobacteria and its degradation. *Microbial Ecology*, **11** (2), 139-148.

? Kolbelboelke, J., Anders, E.M. and Nehrkorn, A. (1988), Microbial communities in the saturated groundwater environment. 2. Diversity of bacterial communities in a pleistocene sand aquifer and their invitro activities. *Microbial Ecology*, **16** (1), 31-48.

? Palmer, R.J., Siebert, J. and Hirsch, P. (1991), Biomass and organic-acids in sandstone of a weathering building: Production by bacterial and fungal isolates. *Microbial Ecology*, **21** (3), 253-266.

Abstract: Ten fungal and nine bacterial strains were isolated from a weathering sandstone building. Their growth, organic acid production, and acidification capacity were assessed in culture under nutritional conditions similar to those in situ. Biomass (10-50 nmol phospholipid-PO4 g-1) within the rock was small compared to soils. The isolated organisms were able to produce high amounts of those acids found in the sandstone, but acid production did not cause a drastic reduction in culture pH. It is suggested that the importance of acidification in microbial degradation of sandstone has been overestimated and that, under in situ pH and nutritional conditions, cation chelation by microbially produced organic acid anions may be more relevant to the weathering process.

Keywords: Microbial Biomass, Microorganisms

# Title: Microbiología (Madrid, Spain)

Full Journal Title: Microbiología (Madrid, Spain)

ISO Abbreviated Title: Microbiologia

JCR Abbreviated Title: Microbiologia

ISSN: 0213-4101

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mas-Castella, J. (1997), Four years of Microbiologia SEM (1994-1997). *Microbiología (Madrid, Spain)*, **13** (4), 509-516.

Abstract: Different aspects of Microbiologia SEM editorial process over the years 1994-1997 are analyzed: number of originals received, the process leading to their publication, rates of accepted and refused papers, time needed for each step of the editorial process -which comprises scientific, language editing, if needed-, as well as some characteristics that can define the patterns of the articles, such as number of authors, institutions where the authors work and mean number of references. The contents of the different sections (editorial, research and review articles, perspectives, opinion, books review) are commented on, as well as the role played by some of them as forums for the discussion of topics of current scientific interest, especially the editorials focusing on the state-of-the-art of microbiological research in Latin American countries. Characteristics and frequency of monographic issues are also presented. The information is complemented with data about the circulation and distribution of the journal, its inclusion in international indexes and its current electronic publication on the world wide web.

Keywords: Characteristics, Data, Distribution, Information, Institutions, International, Journal, Papers, Publication, Rates, Research, Review, Role, SEM, Web, Work, World

# Title: Microbiology and Immunology

Full Journal Title: Microbiology and Immunology

ISO Abbreviated Title: Microbiol. Immunol.

JCR Abbreviated Title: Microbiol Immunol

ISSN: 0385-5600

Issues/Year: 12

Journal Country/Territory: Japan

Language: English

Publisher: Center Academic Publ Japan

Publisher Address: 4-16 Yayoi 2-Chome, Bunkyo-Ku, Tokyo 113, Japan

Subject Categories:

Immunology Microbiology: Impact Factor

? Saidi, S.M., Iijima, Y., Sang, W.K., Mwangudza, A.K., Oundo, J.O., Taga, K., Aihara, M., Nagayama, K., Yamamoto, H., Waiyaki, P.G. and Honda, T. (1997), Epidemiological study on infectious diarrheal diseases in children in a coastal rural area of Kenya. *Microbiology and Immunology*, **41** (10), 773-778.

Abstract: Diarrheal diseases are major causes of morbidity and mortality among children in developing countries. We have analyzed the causative agents of diarrhea in children under five years of age who resided in rural environments but attended a hospital in Malindi, a coastal town in Kenya. Bacterial diarrhea was found in 239 (27.7%) of 862 patients with diarrhea. Diarrheagenic *Escherichia coli*, including enteropathogenic, enterotoxigenic, and enterohaemorrhagic strains, was isolated from 119 (13.8%) patients, followed by Salmonella spp. (63 cases, 7.3%) and Shigella spp. (56 cases, 6.5%). Intestinal parasites were found in 109 (12.6%) of the patients. Entamoeba histolytica and *Giardia lamblia* were found in 67 (7.8%) and 42 (4.9%) of the cases, respectively. Rotavirus was found in 69 (16.1%) of 428 cases, a part of the 862 cases. Significant differences in age distribution were seen in diarrheal cases due to *Campylobacter* spp., G. lamblia, and rotavirus. No significant seasonal incidence of specific pathogens was found, but the number of diarrheal patients was significantly correlated to rainfall. Drinking water was contaminated with bacteria at concentrations ranging from 10 (3) to 10 (6), C.F., U/ml in 98% of the households and by coliform bacteria at concentrations of 10 (2) to 10 (5), C.F., U/ml in 72% of the households. These results suggest that the main routes of infection may be contaminated drinking water and fecal-oral transmission of enteric pathogens. Consequently, we propose that the enhancement of hygienic practice through health education is a feasible control measure of diarrhea in the study area.

# Title: Microbiology and Molecular Biology Reviews

Full Journal Title: [Microbiology and Molecular Biology Reviews](http://mmbr.asm.org/contents-by-date.0.shtml)

ISO Abbreviated Title: Microbiol. Mol. Biol. Rev.

JCR Abbreviated Title: Microbiol Mol Biol R

ISSN: 1092-2172

Issues/Year: 4

Journal Country/Territory: United States

Language: English

Publisher: Amer Soc Microbiology

Publisher Address: 1325 Massachusetts Avenue, NW, Washington, DC 20005-4171

Subject Categories:

Microbiology: Impact Factor

? Kovárová-Kovar, K. and Egli, T. (1998), Growth kinetics of suspended microbial cells: From single-substrate-controlled growth to mixed-substrate kinetics. *Microbiology and Molecular Biology Reviews*, **62** (3), 646-666.

Full Text: [1998\Mic Mol Bio Rev62, 646.pdf](1998/Mic%20Mol%20Bio%20Rev62,%20646.pdf)

Abstract: Growth kinetics, i.e., the relationship between specific growth rate and the concentration of a substrate, is one of the basic toot in microbiology. However, despite more than half a century of research, many fundamental questions about the validity and application of growth kinetics as observed in the laboratory to environmental growth conditions are still unanswered For pure cultures growing with single substrates, enormous inconsistencies exist in the growth kinetic data reported. The law quality of experimental data has so far hampered the comparison and validation of the different growth models proposed and only recently have data collected from nutrient-controlled chemostat cultures allowed us to compare different kinetic models on a statistical basis. The problems are mainly due to (i) the analytical difficulty in measuring substrates at growth-controlling concentrations and (II) the fact that during a kinetic experiment, particularly in batch systems, microorganisms alter their kinetic properties because of adaptation to the changing environment. For. example, for Escherichia coli growing with glucose, a physiological long-term adaptation results in a change in K-s for glucose from some 5 mg liter-1 to ca. 30 mu g liter-1. The data suggest that a dilemma exists, namely, that either ‘intrinsic’ K-s (under substrate-controlled conditions in chemostat culture) or mu(max) (under substrate-excess conditions in batch culture) can be measured but both cannot be determined at the same time. The above-described conventional growth kinetics derived from single-substrate-controlled laboratory experiments have invariably been used for describing both growth and substrate utilization in ecosystems. However in nature, microbial cells are exposed to a wide spectrum of potential substrates, many of which they utilize simultaneously tin particular carbon sources). The kinetic data available to date for growth of pure cultures in carbon-controlled continuous culture with defined mixtures of two or more carbon sources (including pollutants) clearly demonstrate that simultaneous utilization results in lowered residual steady-state concentrations of all substrates. This should result in a competitive advantage of a cell capable of mixed-substrate growth because it can grow much faster at low substrate concentrations than one would expect from single-substrate kinetics. Additionally the relevance of the kinetic principles obtained from defined culture systems with single mixed, or. multicomponent substrates to the kinetics of pollutant degradation as it occurs in the presence of alternative carbon sources in complex environmental systems is discussed. The presented overview indicates that many of the environmentally relevant apects in growth kinetics are still waiting to be discovered established and exploited.

Keywords: Limited Continuous-Culture, Biological Phosphorus Removal, Klebsiella-Aerogenes NCTC-418, Sludge Model NO-2, Escherichia-Coli, Chemostat Cultures, Activated-Sludge, Marine-Bacteria, Steady-State, Hansenula-Polymorpha

Faruque, S.M., Albert, M.J. and Mekalanos, J.J. (1998), Epidemiology, genetics, and ecology of toxigenic *Vibrio cholerae*. *Microbiology and Molecular Biology Reviews*, **62** (4), 1301-1314.

Full Text: [M\Mic Mol Bio Rev62, 1301.pdf](M/Mic%20Mol%20Bio%20Rev62,%201301.pdf)

Abstract: Cholera caused by toxigenic *Vibrio cholerae* is a major public health problem confronting developing countries, where outbreaks occur in a regular seasonal pattern and are particularly associated with poverty and poor sanitation. The disease is characterized by a devastating watery diarrhea which leads to rapid dehydration, and death occurs in 50 to 70% of untreated patients. Cholera is a waterborne disease, and the importance of water ecology is suggested by the close association of *V. cholerae* with surface water and the population interacting with the water. Cholera toxin (CT), which is responsible for the profuse diarrhea, is encoded by a lysogenic bacteriophage designated CTXPhi. Although the mechanism by which CT causes diarrhea is known, it is not clear why *V. cholerae* should infect and elaborate the lethal toxin in the host. Molecular epidemiological surveillance has revealed clonal diversity among toxigenic *V. cholerae* strains and a continual emergence of new epidemic clones. In view of lysogenic conversion by CTXPhi as a possible mechanism of origination of new toxigenic clones of *V. cholerae*, it appears that the continual emergence of new toxigenic strains and their selective enrichment during cholera outbreaks constitute an essential component of the natural ecosystem for the evolution of epidemic *V. cholerae* strains and genetic elements that mediate the transfer of virulence genes. The ecosystem comprising *V. cholerae*, CTXPhi, the aquatic environment, and the mammalian host offers an understanding of the complex relationship between pathogenesis and the natural selection of a pathogen.

# Title: Microbiological Research

Full Journal Title: Microbiological Research

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Publisher Address: Branch Office Jena, P O Box 100537, D-07705 Jena, Germany

Subject Categories:

Microbiology: Impact Factor 0.531, 73/81 (2001)

? Guerzoni, M.E., Lanciotti, R., Sinigaglia, M. and Gardini, F. (1994), Analysis of the interaction between autochthonous bacteria and packaging material in PVC-bottled mineral-water. *Microbiological Research*, **149** (2), 115-122.

Abstract: A study with about 10.000 bottles produced by a mineral water company was undertaken in order to identify the causal agent of an off-odour occurrence in the bottled water. Some physiological attributes of the dominant species over an 8-month period, as well as their interaction with packaging material, were investigated. *Pseudomonas* maltophilia, P. acidovorans, Acinetobacter calcoaceticus var. lwoffi, frequently associated with bottles having an off-odour, seemed to play a decisive role in the phenomenon due to their elevated lipolytic activity, their cell hydrophobicity and adhesivity to the PVC walls. Their ability to attack the sodium polysulfide included in the ultramarine blue dye present in PVC, transforming it to H2S was investigated.

Keywords: Mineral Water, Packaging Material, Autochthonous Bacteria

# Title: Microbiological Sciences

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ISO Abbreviated Title:

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Subject Categories:

Impact Factor

? Codd, G.A. (1984), Toxins of freshwater cyanobacteria. *Microbiological Sciences*, **1** (2), 48-52.

Abstract: Animal deaths after drinking water containing toxic cyanobacteria have been known for over a century. Poisonings occur annually and the fate of the toxins in natural and man-made waters is unknown. This article reviews the formation, properties and effects of freshwater cyanobacterial toxins.

? Grimes, D.J., Atwell, R.W., Brayton, P.R., Palmer, L.M., Rollins, D.M., Roszak, D.B., Singleton, F.L., Tamplin, M.L. and Colwell, R.R. (1986), The fate of enteric pathogenic bacteria in estuarine and marine environments. *Microbiological Sciences*, **3** (11), 324-329.

Abstract: Sufficient laboratory and field data are now available to hypothesize that enteric pathogens survive for very long periods of time in sea-water. In fact, these Gram-negative bacteria probably enter into dormancy, during which they remain viable and potentially virulent, yet are non-culturable when traditional bacteriological methods are employed. Increasing use of the world’s oceans-for discharge of domestic wastes may result in public health problems in the future from the allochthonous human pathogens accumulating in the marine environment at disposal sites.

# Title: Microbios

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Journal Country/Territory: England

Language: English

Publisher: Faculty Press

Publisher Address: 88 Regent St, Cambridge, Cambs, England CB2 1DP

Subject Categories:

Microbiology: Impact Factor

? Greenham, L.W., Collins, M.A. and Smithson, W. (1973), Adsorption kinetics of Vaccinia virus - demonstration of reversible adsorption (Elution). *Microbios*, **7** (26-2), 103-115.

Townsley, C.C. and Ross, I.S. (1985), Copper uptake by *Penicillium spinulosum*. *Microbios*, **44**, 125-132.

? Chowdhury, M.A., Miyoshi, S., Yamanaka, H. and Shinoda, S. (1992), Ecology and distribution of toxigenic *Vibrio cholerae* in aquatic environments of a temperate region. *Microbios*, **72** (292-293), 203-213.

Abstract: The occurrence of a human pathogen, *Vibrio cholerae*, in aquatic environments and the distribution of toxigenic strains were studied for 2 years. The pathogen was isolated from freshwater, brackish and marine environments. *V. cholerae* non-01 was frequently recovered but the 01 serogroup was not detected. of the 57 environmental strains tested, eight (12%) were found to be potentially toxigenic. A number of atypical *V. cholerae* 01 strains were found which showed higher virulence potentials than the serogroup non-01 strains. A significant correlation of the incidence of the pathogen was noted with water temperature in freshwater environments. In marine environments, a reciprocal correlation of the *V. cholerae* count and salinity was observed. The present study describes the ecology of *V. cholerae* in aquatic environments of a temperate region and notes that the occurrence of potentially virulent strains could be of public health significance.

? Yao, H. and Ramelow, G.J. (1997), Evaluation of treatment techniques for increasing the uptake of metal ions from solution by nonliving biomass derived from several strains of lichen, Sphagnum (peat) moss, and Eichhornia crassipes (water hyacinth) root. *Microbios*, **90** (363), 97-109.

Abstract: The effects of different pretreatments on the subsequent uptake of metal ions from biomass solution derived from seven strains of dried, nonliving fructicose lichen, peat moss, and water hyacinth root were investigated. The lichens Ramalina stenospora, Parmotrema praesorediosum, Platismatia glauca, Cladonia abbreviatula, Cladina evansii, Letharia vulpina, and Alectoria sarmentosa, as well as Sphagnum (peat) moss, and water hyacinth (Eichhornia crassipes) root were treated separately with each of the following: cold water (25°C), warm water (60°C), acetone, 0.1% EDTA, 0.1 M HNO3, 0.1 M HNO3, 0.1 M NaOH, and 1 M NaOH for 15 min, except for 0.1 M HNO3 and 0.1 M NaOH treatments which were carried out for 15 and 30 min each. The percentages of Pb, Cu, Zn, Cd, Cr, Mn, Ni, Co, Au, and Ag subsequently removed from 5 ppm metal solutions at pH 2 to 6 by each treated biomass were compared with the percentage removal by untreated biomass under the same conditions. The treatments were most effective in increasing metal ion uptake for those elements which were not bound to a very high degree by untreated biomass. The pH binding dependence was altered to some extent with a greater degree of binding observed at low pH values by biomass treated with acid. Lead and copper binding was little affected by any treatment. For certain strains, 0.1 M NaOH treatment produced a subsequent uptake of Pb, Cu, Zn, and Cd at levels reaching 100% of the initial metal available. Both acidic and basic treatment increased the uptake of Au, and Ag to nearly 100%.

Keywords: Metal Ions, Biomass, Lichen, Moss, Water Hyacinth Root, Accumulation Lead, Heavy-Metals, Cadmium, Binding, Pollution, Exchange, Sphagnaceae, Zinc

# Title: Microchemical Journal

Full Journal Title: [Microchemical Journal](http://sdos.ejournal.ascc.net/cgi-bin/sciserv.pl?collection=journals&journal=0026265x)

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Publisher: Academic Press Inc

Publisher Address: 525 B St, Ste 1900, San Diego, CA 92101-4495

Subject Categories:

Chemistry, Analytical: Impact Factor

? Buckman, N.G., Hill, J.O. and Magee, R.J. (1983), Identification and determination of microgram amounts of phenol and chlorophenols by the ring oven technique. *Microchemical Journal*, **28** (4), 470-478.

Full Text: [1983\Mic J28, 470.pdf](1983/Mic%20J28,%20470.pdf)

Abstract: This paper reports investigations carried out on phenol and a number of chloro-substituted phenols using the Ring Oven technique in conjunction with the reagent 4-aminoantipyrine. The reactions with individual phenols and combined groups of phenols using in situ, and extraction methods are discussed.

? Calvo, M., Marina, M.L., Rodríguez, A.R. and González, V. (1986), Spectrophotometric and potentiometric study of the complexes originated by the trisodium salt of 2-(*p*-sulfophenylazo)-1,8-dihydroxynaphthalene-3,6-disulfonic acid (SPADNS) and several metal ions. *Microchemical Journal*, **34** (3), 289-294.

Full Text: [1986\Mic J34, 289.pdf](1986/Mic%20J34,%20289.pdf)

Abstract: A study of the complexes originated by U(VI), Cu(II), Pb(II), Ni(II), Co(II), Zn(II), Cd(II), Mn(II), Ca(II), Mg(II), Ba(II), and Sr(II), and SPADNS (trisodium salt of 2-(p-sulfophenylazo)-1,8-dihydroxynaphthalene-3,6-disulfonic acid) has been made by means of spectrophotometric and potentiometric methods. The dissociation constants of the ligand and the formation constants of the metal ion-SPADNS complexes have been determined at 25 ± 0.1 °C and ionic strength 0.1 (NaClO4).

Santarsiero, A. and Ottaviani, M. (1995), Evaluation of heavy-metals in slags from medical waste incinerator. *Microchemical Journal*, **51** (1-2), 166-169.

Full Text: [M\Mic J51, 166.pdf](M/Mic%20J51,%20166.pdf)

Abstract: The paper discusses the landfilling of solid residues from hospital waste incineration in Italy and its complex legal status (hazardous or nonhazardous). According to current regulations, the parameter to be controlled is the concentration of heavy metals before their final disposal in a landfill. Some results are reported on the heavy metal content in slag samples from a medical solid waste incinerator, analyzed by atomic absorption spectrometry. Their potential toxicity was analyzed with reference to the concentration of Cd, Cr, Cu, Ni, Pb, and Zn. Replicate digestion of a reference material (BCR 176 city waste incineration ash) showed a good degree of accuracy in the determination of all the elements investigated. The obtained results show that the absolute concentration of examined metals in slags is not such as to classify them as toxic and harmful. (C) 1995 Academic Press, Inc.

Park, S.H., Im, J.H., Im, J.W., Chun, B.H. and Kim, J.H. (1999), Adsorption kinetics of Au and Ag nanoparticles on functionalized glass surfaces. *Microchemical Journal*, **63** (1), 71-91.

Full Text: [M\Mic J63, 71.pdf](M/Mic%20J63,%2071.pdf)

Abstract: Well-defined two- or three-dimensional arrangements of nanosize Au and Ag particles were fabricated for surface-enhanced Raman scattering substrate applications and their unique optical properties. Two-dimensional arrays of colloidal films of Au and Ag were prepared on glass slides modified with silane compounds having bifunctional moieties that have specific affinity for gold or silver. During the formation of colloidal films of Au and Ag on glass slides, UV-vis absorption spectroscopy was used to monitor the progress of the surface immobilization reaction of colloidal particles on sold substrates. Adsorption characteristics could be accurately modeled by the well-known Michaelis-Menten kinetics. It was found that the k(3), k(1) values were proportional to particle size. This indicates that the rate of formation of the first monolayer with relatively small particles is faster than that of the multilayers, whereas for larger colloids the multilayer formation rate is much faster. SERS spectra of p-aminothiophenol (PATP) on a silver colloidal film were obtained with 514.5-nm excitation. SERS intensities of PATP increased significantly with morphological change of the colloidal film. This morphological alteration, parallel to water evaporation from the colloidal film, was presumably induced by the difference in dielectric constants of air and water, (C) 1999 Academic Press.

Keywords: Adsorption Kinetics, Ag Colloid, Atomic-Force Microscopy, Au Colloid, Colloid Monolayers, Colloidal Metal Film, Enhanced Raman-Spectroscopy, Gold, Island Films, Metal Particles, Optical-Properties, Resonance, Scattering, Self-Assembled Monolayer, Silver Electrode, Surface-Enhanced Raman Scattering Spectroscop

Saglam, A., Yalçinkaya, Y., Denizli, A., Arıca, M.Y., Genç, Ö. and Bektaş, S. (2002), Biosorption of mercury by carboxymethylcellulose and immobilized *Phanerochaete chrysosporium*. *Microchemical Journal*, **71** (1), 73-81.

Full Text: [M\Mic J71, 73.pdf](M/Mic%20J71,%2073.pdf)

Abstract: Phanerochaete chrysosporium basidiospores immobilized onto carboxymethylcellulose were used for the removal of mercury ions from aqueous solutions. The biosorption of Hg(II) ions onto carboxymethylcellulose and both immobilized live and heat-inactivated fungal mycelia of Phanerochaete chrysosporium was studied using aqueous solutions in the concentration range 30-700 mg l-1. The biosorption of Hg(II) ions by the carboxymethylcellulose and both live and heat-inactivated immobilized preparations increased as the initial concentration of mercury ions increased in the medium. Maximum biosorption capacity for immobilized live and heat-inactivated fungal mycelia of Phanerochaete chrysosporium was found to be 83.10 and 102.15 mg Hg(II) g-1, respectively, whereas the amount of Hg(II) ions adsorbed onto the plain carboxymethylcellulose beads was 39.42 mg g-1. Biosorption equilibria were established in approximately 1 h and the correlation regression coefficients show that the adsorption process can be well defined by a Langmuir equation. Temperature changes between 15 and 45 C did not affect the biosorption capacity. The effect of pH was also investigated and the maximum adsorption of Hg(II) ions onto the carboxymethylcellulose and both live and heat-inactivated immobilized fungal mycelia was observed at pH 6.0. The carboxymethylcellulose-fungus beads could be regenerated using 10 mM HCl, with up to 95% recovery. The biosorbents were used in three biosorption-desorption cycles and no significant loss in the biosorption capacity was observed. (C)2002 Elsevier Science B.V All rights reserved.

Keywords: Hg(II), Carboxymethylcellulose, Biosorption, Phanerochaete Chrysosporium, Heavy-Metals, Aqueous-Solutions, Removal, pH, Cadmium(II), Mechanisms

? Gardea-Torresdey, J.L., Dokken, K., Tiemann, K.J., Parsons, J.G., Ramos, J., Pingitore, N.E. and Gamez, G. (2002), Infrared and X-ray absorption spectroscopic studies on the mechanism of chromium(III) binding to alfalfa biomass. *Microchemical Journal*, **71** (2-3), 157-166.

Full Text: [2002\Mic J71, 157.pdf](2002/Mic%20J71,%20157.pdf)

Abstract: Previous studies have shown that alfalfa biomass possesses the potential to be a biosorbent for chromium(III) removal from contaminated and industrial wastewaters. However, the mechanism through which chromium(III) binds to alfalfa biomass has not been identified. Therefore, studies were conducted to determine how modification of chemical groups present on the alfalfa biomass affect the chromium(III) binding. Batch pH profile studies were performed on esterified, hydrolyzed and unmodified alfalfa biomasses. A comparison study with ion exchange resins containing carboxyl, thiol, amino, sulfonic, and phosphate groups were also performed. These studies showed that chromium(III) binds predominantly to the alfalfa biomass through carboxyl ligands and follows a binding trend similar to that of the carboxyl resin. In addition, Fourier transform infrared spectroscopy (FTIR) studies were conducted in order to better understand how the chemical modification affects the alfalfa biomass and the mechanism(s) by which chromium(III) binds to alfalfa. From these experiments, it was determined that chromium(III) may be coordinating with carboxyl ligands present on the surface of the alfalfa biomass through a bridging bidentate complex. X-Ray absorption spectroscopy (XAS) studies were also performed, which corroborate with batch modification and ion exchange resin comparison studies, further indicating carboxyl involvement in chromium(III) binding by inactivated alfalfa biomass. (C) 2002 Elsevier Science B.V. All rights reserved.

Keywords: Chromium(III) Binding, Alfalfa, Fourier Transform Infrared, X-Ray Absorption Spectroscopy, Modification, Ion Exchange Resins, Medicago-Sativa Alfalfa, Metal-Ion Binding, Chemical Modification, Copper Ions, Removal, Zinc, Biosorbent, Cr(III), Cadmium, Ligands

Bayramoğlu, G., Denizli, A., Bektaş, S. and Arıca, M.Y. (2002), Entrapment of *Lentinus sajor-caju* into Ca-alginate gel beads for removal of Cd(II) ions from aqueous solution: Preparation and biosorption kinetics analysis. *Microchemical Journal*, **72** (1), 63-76.

Full Text: [M\Mic J72, 63.pdf](M/Mic%20J72,%2063.pdf)

Abstract: A white rot fungus species *Lentinus sajor-caju* biomass was entrapped into alginate gel via a liquid curing method in the presence of Ca(II) ions. The biosorption of cadmium(II) by the entrapped live and dead fungal biomass has been studied in a batch system. The heat-treatment process enhanced the biosorption capacity of the immobilized fungal biomass. The effect of initial cadmium concentration, pH and temperature on cadmium removal has been investigated. The maximum experimental biosorption capacities for entrapped live and dead fungal mycelia of *L. sajur-caju* were found to be 104.8±2.7 mg Cd(II) g-1 and 123.5±4.3 mg Cd(II) g-1, respectively. The kinetics of cadmium biosorption was fast, approximately 85% of biosorption taking place within 30 min. The biosorption equilibrium was well described by Langmuir and Freundlich adsorption isotherms, The change in the biosorption capacity with time is found to fit pseudo-second-order equations. Cadmium binding properties of entrapped fungal preparations have been determined applying the Ruzic equations. Since the biosorption capacities are relatively high for both entrapped live and dead forms, they could be considered as suitable biosorbents for the removal of cadmium in wastewater treatment systems. The biosorbents were reused in three consecutive adsorption/desorption cycles without significant loss in the biosorption capacity. (C) 2002 Elsevier Science B.V. All rights reserved.

Keywords: Cd(II) Removal, Heavy Metal, Ca-Alginate, Entrapment, Biosorbent, Biosorption, *L. Sajur-Caju*, Wastewater Treatment, Heavy-Metal Biosorption, *Aspergillus-Niger*, Cadmium Removal, Fungal Biomass, *Phanerochaete-Chrysosporium*, Pretreated Biomass, *Rhizopus-arrhizus*, Immobilization, Mechanisms, Sorption

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Full Text: [M\Mic J81, 122.pdf](M/Mic%20J81,%20122.pdf)

Abstract: Studies were performed to determine the effect of pH on chromium (Cr) binding by native, esterified, and hydrolyzed saltbush (Atriplex canescens) biomass. In addition, X-ray absorption spectroscopy studies were performed to determine the oxidation state of Cr atoms bound to the biomass. The amounts of Cr adsorbed by saltbush biomass were determined by inductively coupled plasma-optical emission spectroscopy (ICP-OES). For Cr(III), the results showed that the percentages bound by native stems, leaves, and flowers at pH 4.0 were 98%, 97%, and 91%, respectively. On the other hand, the Cr(VI) binding by the three tissues of the native and hydrolyzed saltbush biomass decreased as pH increased. At pH 2.0 the stems, leaves, and flowers of native biomass bound 31%, 49%, and 46%, of Cr(VI), respectively. The results of the XAS experiments showed that Cr(VI) was reduced in some extend to Cr(III) by saltbush biomass at both pH 2.0 and pH 5.0. The XANES analysis of the Cr(III) reaction with the saltbush biomass parts showed an octahedral arrangement of oxygen atoms around the central Cr(III) atom. The EXATS studies of saltbush plant samples confirmed these results. (c) 2005 Elsevier B.V. All rights reserved.

Keywords: Saltbush, Chromium Binding, EXAFS, Xanes, ICP-OES, Medicago-Sativa Alfalfa, Hexavalent Chromium, Immobilized Biomass, Humic Substances, Aqueous-Solution, Heavy-Metals, Biosorption, Removal, Binding, Reduction

? Namasivayam, C. and Kavitha, D. (2006), IR, XRD and SEM studies on the mechanism of adsorption of dyes and phenols by coir pith carbon from aqueous phase. *Microchemical Journal*, **82** (1), 43-48.

Full Text: [2006\Mic J82, 43.pdf](2006/Mic%20J82,%2043.pdf)

Abstract: Adsorption interactions of dye, phenol and chlorophenol onto coir pith carbon from aqueous solution were investigated using FT-IR Spectroscopy, Scanning Electron Microscopy (SEM), and X-ray diffraction techniques. IR studies revealed the participation of some of the surface functional groups in the adsorption mechanism, SEM revealed the morphological observations of the unloaded adsorbent and thereby changes in the adsorbed carbon. X-ray diffraction studies exhibited a decrease in crystalline nature of the loaded adsorbent compared with unloaded adsorbent.

Keywords: Adsorption, Coir Pith Carbon, Chemical Structure

? Panahi, H.A., Kalal, H.S., Moniri, E., Nezhati, M.N., Menderjani, M.T., Kelahrodi, S.R. and Mahmoudi, F. (2009), Amberlite XAD-4 functionalized with m-phenylendiamine: Synthesis, characterization and applications as extractant for preconcentration and determination of rhodium (III) in water samples by Inductive Couple Plasma Atomic Emission Spectroscopy (ICP-AES). *Microchemical Journal*, **93** (1), 49-54.

Full Text: [2009\Mic J93, 49.pdf](2009/Mic%20J93,%2049.pdf)

Abstract: A dew chelating resin is prepared by coupling Amberlite XAD-4 with metaphenylendiamine through an azo spacer, characterized (elemental analysis, IR and thermogravimetric analysis (TGA)) and studied for preconcentration Rh (III) using Inductive Couple Plasma Atomic Emission Spectroscopy (ICP-AES) for rhodium monitoring. The optimum pH value for sorption of the metal ion was 6.5 (recovery 100%). The sorption capacity was found 0.256 mmol g-1 of resin for Rh (III). The method has a detection limit and limit of quantification of 0.05 and 0.08 mu g mL-1 at pH 6.5, respectively. The chelating resin can be reused for 10 cycles of sorption-desorption without any significant change in sorption capacity. A recovery of 100% was obtained for the metal ion with 1.5 M HCl as eluting agent. The equilibrium adsorption data of Rh (III) on modified resin were analyzed by Langmuir and Freundlich models. Adsorption data were modeled using the pseudo-first-order, pseudo-second-order and intra-particle diffusion kinetics equations. Isotherms have also been used to obtain the thermodynamic parameters such as free energy, enthalpy and entropy of adsorption. The positive value of the enthalpy change (2.48 kJ/mol) indicates that the adsorption is an endothermic process. The method was applied for rhodium ions determination from tap water sample. (C) 2009 Elsevier B.V. All rights reserved.

Keywords: Absorption-Spectrometry, Adsorption, Amberlit XAD-4, Amberlite XAD-4, Analysis, Cadmium(II), Capacity, Characterization, Chelating Resin, Data, Diffusion, Diffusion Kinetics, Endothermic, Energy, Enthalpy, Entropy, Equilibrium, Freundlich, Immobilization, Intra Particle Diffusion, Intra-Particle Diffusion, Intraparticle Diffusion, Ions, Ir, Isotherm Study, Isotherms, Kinetics, Langmuir, Lead(II), Metal, Metal Ion, Models, Modified, Monitoring, pH, pH Value, Preconcentration, Pseudo First Order, Pseudo Second Order, Pseudo-First-Order, Pseudo-Second-Order, Pyrocatechol, Quantification, Recovery, Resin, Rhodium, Rights, Solid Phase Extraction, Solid-Phase Extraction, Sorbent, Sorption, Sorption Capacity, Sorption-Desorption, Synthesis, System, TGA, Thermodynamic, Thermodynamic Parameters, Uranium(VI), Value, Water, Water Samples, XAD-4, Zinc(II)

? Aydin, F., Yasar, F., Aydin, I. and Guzel, F. (2011), Determination of lead separated selectively with ion exchange method from solution onto BCW in Sirnak, East Anatolia of Turkey. *Microchemical Journal*, **98** (2), 246-253.

Full Text: [2011\Mic J98, 246.pdf](2011/Mic%20J98,%20246.pdf)

Abstract: There are approximately 82 million of tons asphaltites reserves in Sirnak, East Anatolia of Turkey. The present study was investigated to employ ashes of Sirnak BCW (burned coal waste) as an ion exchange in removal of important toxic metal, Lead (Pb), in high yields by adsorption. The ion exchange characteristics of lead onto BCW from aqueous solution were investigated with respect to the changes in pH of solution, adsorbent dosage, initial metal ion concentration, contact time and temperature of solution. For the adsorption of lead, the Langmuir isotherm model fitted to equilibrium data better than the Freundlich isotherm model. Thermodynamic functions, the change of free energy (ΔGº), enthalpy (ΔNº) and entropy (ΔSº) of adsorption were also calculated for lead. These parameters showed that the adsorption was feasible, spontaneous and exothermic at 293-333 K. Experimental data were also evaluated in terms of kinetic characteristics of adsorption. The batch kinetic data were correlated to the pseudo-first order and pseudo-second order models. The data fitted better to the pseudo-second order equation. The activation energy of systems was determined. Experimental data have shown that BCW that was used in unmodified form; as low cost, readily available ion exchange; can be used for removal of lead from industrial waste waters. Analysis was determined using Flame Atomic Absorption Spectrometry (FAAS). (C) 2011 Published by Elsevier B.V.

Keywords: Activated Carbon, Adsorption, Aqueous Solution, Aqueous-Solutions, Coal Waste, Coconut Shell, Equilibrium, Expanded Perlite, Faas, Fly-Ash, Freundlich, Freundlich Isotherm, Heavy-Metal Ions, Insolubilized Humic-Acid, Ion Exchange, Isotherm, Kinetic, Langmuir, Langmuir Isotherm, Lead, Pb, pH, Removal, Rice Husk Ash, Thermodynamic, Turkey, Waste, Waste-Water

? Demirak, A., Dalman, O., Tilkan, E., Yildiz, D., Yavuz, E. and Gokce, C. (2011), Biosorption of 2,4 dichlorophenol (2,4-DCP) onto *Posidonia oceanica* (L.) seagrass in a batch system: Equilibrium and kinetic modeling. *Microchemical Journal*, **99** (1), 97-102.

Full Text: [2011\Mic J99, 97.pdf](2011/Mic%20J99,%2097.pdf)

Abstract: Batch biosorption experiments were carried out for the removal of 2-4-dichlorophenol (2,4-DCP) from aqueous solution using raw seagrass Posidonia oceanica (L.) fibers, a Mediterranean marine lignocellulosic biomass. The effects of physico-chemical parameters such as solution pH, contact time, biosorbent dosage and initial concentrations were investigated. It was found that the biosorption capacity was optimal using 3-7 solution pH range and the rate of sorption was very fast, during the first 6 h. Biosorption kinetics was analyzed using a pseudo-second-order reaction model. The pseudo-second-order kinetic model was suitable for all the data. The Freundlich isotherm was found to represent the measured sorption data well. The values of the constants were calculated for Freundlich isotherm. In addition, equilibrium data were well characterized by the Langmuir isotherm model. The results had showed that the initial part of the adsorption of 2,4-DCP was governed by a chemical adsorption process rather than by a physical adsorption process. (C) 2011 Elsevier B.V. All rights reserved.

Keywords: 2,4-Dichlorophenol, 2,4-Diclorophenol, Activated Carbon, Adsorption, Adsorption, Aqueous-Solutions, Biosorption, Chlorophenols, Equilibrium, Fibers, Isotherm, Kinetics, Langmuir Isotherm, Methylene-Blue, Model, pH, Phenolic-Compounds, Posidonia Oceanica, Pseudo-Second-Order, Rice Husk, Sorption

? Deniz, F. and Karaman, S. (2011), Removal of an azo-metal complex textile dye from colored aqueous solutions using an agro-residue. *Microchemical Journal*, **99** (2), 296-302.

Full Text: [2011\Mic J99, 296.pdf](2011/Mic%20J99,%20296.pdf)

Abstract: The pine leaves which are an agricultural residue were used in its natural form as biosorbent for the removal of Acid Yellow 220 (AY 220) dye from aqueous solutions. The sorption experiments were carried out as a function of solution pH, biosorbent dosage, biosorbent size, dye concentration, temperature, contact time and ionic strength. The sorption isotherms closely followed the Langmuir model. The monolayer sorption capacity of the pine leaves for AY 220 was found as 40.00 mg g-1. It was shown that pseudo-second order equation could best describe the sorption kinetics. The thermodynamic data indicated that the sorption system was spontaneous. endothermic and physical process. Based on the results of present investigation, the pine leaves could be used as a suitable alternative biosorbent for the elimination of AY 220 from aqueous solutions. (C) 2011 Elsevier B.V. All rights reserved.

Keywords: Acid Dye, Acid Yellow 220, Adsorption, Agricultural Residue, Biosorbent, Biosorption, Elovich Equation, Equilibrium, Kinetics, Langmuir, Low-Cost Adsorbents, Malachite Green, Methylene-Blue, pH, Pine Leaves, Pinus-Brutia Ten., Removal, Textile Dye

# Title: Microchimica Acta

Full Journal Title: [Microchimica Acta](http://www.springerlink.com/content/103392/)

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Subject Categories:

Chemistry, Analytical: Impact Factor 1.910, 29/70 (2008); 2.648, 17/70 (2009)

? Ding, Y.L., Li, J. and Fei, J. (2005), Adsorptive catalytic voltammetry of physcion in the presence of dissolved oxygen at a carbon paste electrode. *Microchimica Acta*, **150** (2), 125-130.

Full Text: [M\Mic Act150, 125.pdf](M/Mic%20Act150,%20125.pdf)

Abstract: A novel electroanalytical method for the determination of physcion is described for the first time. Physcion yields an adsorption catalytic voltammetric peak at -0.74V (vs. SCE) in 0.4 mol L-1 NH4Cl-NH3 center dot H2O buffer solution (pH 10.5) at a carbon paste electrode (CPE). The experimental results indicated that physcion is efficiently accumulated at a CPE by adsorption. In the subsequent potential scan, physcion was reduced to a homologous anthrahydroquinone compound. The compound was then immediately oxidized to physcion by the dissolved oxygen in the solution, and then physcion was again reduced at the CPE. As a result, a cyclic catalytic reaction was established. The second-order derivative peak current is proportional to the physcion concentration in the ranges of 2.0×10-10 similar to 4.0×10-9 mol L-1 (accumulation 90s) and 4.0×10-9 similar to 2.0×10-8 mol L-1 (accumulation 60 s). The limit of detection is 8×10-11 mol L-1 (S/N=3) for a 120 s accumulation time. The method was applied to the direct determination of physcion in the medicinal plant polygonum multiflorum Thumb with satisfactory results.

Keywords: Physcion, Carbon Paste Electrode, Adsorptive Catalytic Voltammetry, Wave, Polarography, Rhubarb; KIO3

? Li, J.N., Liu, S.M., Yan, Z.H., Mao, X. and Gao, P. (2006), Adsorptive voltammetric studies on the cerium(III)-alizarin complexon complex at a carbon paste electrode. *Microchimica Acta*, **154** (3-4), 241-246.

Full Text: [2006\Mic Act154, 241.pdf](2006/Mic%20Act154,%20241.pdf)

Abstract: A novel procedure was developed for the determination of trace cerium on the basis of anodic adsorption voltammetry of the Ce(III)-alizarin complexon (ALC) complex at a carbon paste electrode (CPE). The procedure is convenient to determine cerium individually in the presence of other rare earths because there is a 100 mV difference between the peak potentials of Ce(III)-ALC and other rare earth(III)-ALC complexes in a supporting electrolyte of 0.08 M HAc-NaAc and 0.012M potassium biphthalate (pH 4.7) when performing linear-scanning from -0.2 to 0.8 V (vs. SCE) at 100 mV/s. The second-order derivative peak currents are directly proportional to the Ce(III) concentration over a range of 6.0×10-9-3.0×10-7 M. The detection limit is as low as 2.0×10-9 M (S/N = 3) for a 120 s preconcentration. An RSD of 3.5% was obtained for 15 determinations of Ce(III) at a concentration of 4.0×10-8 M on the same CPE surface. The method was applied successfully to the determination of cerium in samples of rare earth nodular graphite cast iron.

Keywords: Cerium, Alizarin Complexon, Carbon Paste Electrode, Anodic Adsorptive Voltammetry, Alizarin-Red-S, Rare-Earths, Stripping Voltammetry, Trace Determination, Wave

? Li, Y.H., Zhao, Q.L. and Huang, M.H. (2007), Adsorptive anodic stripping voltammetry of zirconium(IV)-alizarin red S complex at a carbon paste electrode. *Microchimica Acta*, **157** (3-4), 245-249.

Full Text: [2007\Mic Act157, 245.pdf](2007/Mic%20Act157,%20245.pdf)

Abstract: A sensitive adsorptive anodic stripping procedure for the determination of trace zirconium at a carbon paste electrode (CPE) has been developed. The method is based on adsorptive accumulation of the Zr(IV)-alizarin red S(ARS) complex onto the surface of the CPE, followed by oxidation of adsorbed species. The optimal experimental conditions include the use of 0.10 mol center dot L-1 ammonium acetate buffer (pH 4.3), ARS, an accumulation potential of 0.20 V (versus SCE), an accumulation time of 2 min, a scan rate of 200 mV center dot s-1 and a second-order derivative linear scan mode. The oxidation peak for the complex appears at 0.69 V. The peak current is proportional to the concentration of Zr(IV) over the range of 1.0×10-9 - 2.0×10-7 mol center dot L-1, and the detection limit is 3×10-10 mol center dot L-1 for a 2 min adsorption time. The relative standard deviations (n = 8) for 5.0×10(-8) and 5.0×10-9 mol center dot L-1 Zr(IV) are 3.3 and 4.8%, respectively. The proposed method was applied to the determination of zirconium in ore samples with satisfactory results.

Keywords: Accumulation, Acetate, Adsorption, Adsorptive Voltammetry, Alizarin Red S, Ammonium, Ar, Buffer, Carbon, Carbon Paste Electrode, Complex, Concentration, Detection Limit, Determination, Oxidation, pH, Preconcentration, Range, Sce, Standard, Stripping Voltammetry, Surface, Voltammetry, Zirconium, Zirconium

? Zhang, L., Huang, T., Liu, N., Liu, X.Y. and Li, H.M. (2009), Sorption of thallium(III) ions from aqueous solutions using titanium dioxide nanoparticles. *Microchimica Acta*, **165** (1-2), 73-78.

Full Text: [2009\Mic Act165, 73.pdf](2009/Mic%20Act165,%2073.pdf)

Abstract: Titanium dioxide nanoparticles (NPs) were employed for the sorption of Tl(III) ions from aqueous solution. The process was studied in detail by varying the sorption time, pH, Tl(III) concentration, temperature, and amount of sorbent. The sorption was found to be fast and to reach equilibrium within 2 min, to be less efficient at low pH values, and to increase with pH and temperature. The sorption fits the Langmuir equation and follows a pseudo second order model. The mean energy of the sorption is approximately 15 kJ mol-1 as calculated from the Dubinin-Radushkevich isotherm. The thermodynamic parameters for the sorption were also determined, and the ΔH (0) and ΔG (0) values indicate endothermic behavior.

Keywords: Adsorption, Kinetics, Preconcentration, Removal, Removal, Separation, Solvent-Extraction, Sorption, Thermodynamics, Titanium Dioxide Nanoparticles, Tl(III)

? Wang, H.F., Bao, C.L., Li, F., Kong, X.F. and Xu, J.J. (2010), Preparation and application of 4-amino-4’-nitro azobenzene modified chitosan as a selective adsorbent for the determination of Au(III) and Pd(II). *Microchimica Acta*, **168** (1-2), 99-105.

Full Text: [2010\Mic Act168, 99.pdf](2010/Mic%20Act168,%2099.pdf)

Abstract: Crosslinked chitosan was modified with 4-amino-4’-nitroazobenzene and characterized by FT-IR and SEM. The adsorption of Au(III) and Pd(II) was optimum at pH 3.0 for Au(III) and at pH 2.0 for Pd(II), where maximum mass adsorption were 69.93 mg g-1 and 58.58 mg g-1, respectively. The adsorption isotherms obey the Langmuir equation in case of Au(III), and the Freundlich and Langmuir equations in case of Pd(II). The adsorption kinetics follows a pseudo-second-order model. This new adsorbent shows high affinity for Au(III) and Pd(II), while the adsorption is negligible for K , Na and Ca and no adsorption of several other metal ions occurs. The method was successfully applied to the determination and separation of Au(III) and Pd(II) in aqueous samples and ore.

Keywords: Adsorbent, Adsorption, Adsorption Behavior, Adsorption Isotherms, Adsorption Kinetics, Application, Au(III), Au, Azobenzene, Chitosan, Crosslinked Chitosan, Freundlich, FT-IR, FTIR, Gel Beads, Gold, Gold(III), Ions, Isotherms, Kinetics, Langmuir, Langmuir Equation, Metal, Metal Ions, Metal-Ions, Microspheres, Model, Modified, Modified Chitosan, Pd(II), Pd-Determination, pH, Precious Metal Ions, Preconcentration, Pseudo Second Order, Pseudo-Second-Order, Pseudo-Second-Order Model, Recovery, Resins, Selective, SEM, Separation, Sorption

? Pyrzynska, K. (2010), Sorption of Cd(II) onto carbon-based materials-a comparative study. *Microchimica Acta*, **169** (1-2), 7-13.

Full Text: [2010\Mic Act169, 7.pdf](2010/Mic%20Act169,%207.pdf)

Abstract: The sorption behaviour of Cd(II) on three carbon-based materials including activated carbon (AC), carbon nanotubes (CNTs) and carbon-encapsulated magnetic nanoparticles (CEMNPs) which were prepared under similar conditions by nitric acid treatment were investigated. Generally, sorption of cadmium on these materials increased with the increase of pH. For AC and CNTs very similar results were obtained, while CEMNPs exhibits much higher affinity for Cd(II) despite of almost the same surface acidity. Thus, cadmium retention on tested sorbents was more dependent on the concentration of specific active sites than the total surface area available. The equilibrium sorption data were better fitted to Langmuir isotherm. The theoretical saturation capacity of the monolayer derived from this model at pH 8.0 for AC, CNTs and CEMNPs are 9.91 mg g-1, 20.37 mg g-1 and 91.0 mg g-1, respectively. The kinetic of Cd(II) sorption is fitted for pseudo-second order equation and could be described as a combination of film diffusion and intra-particle diffusion, whereby the last one dominates. The experimental parameters for preconcentration of cadmium on a microcolumn packed with CEMNPs prior to its determination by flame atomic absorption spectrometry have been investigated. Cadmium can be quantitatively retained at pH 8 from sample volumes up to 150 mL and then eluted completely with 3 mL of 0.5 mol L-1 HNO3.

Keywords: Absorption, Acid Treatment, Acid-Treatment, Acidity, Activated Carbon, Activated Carbon, Adsorption, Aqueous-Solution, Atomic Absorption Spectrometry, Behaviour, Cadmium, Cadmium, Capacity, Carbon, Carbon Nanotubes, Carbon-Encapsulated Magnetic Nanoparticles, Cd(II), Comparative Study, Concentration, Data, Diffusion, Equilibrium, Experimental, Film Diffusion, Heavy-Metal Ions, Intra-Particle Diffusion, Intraparticle Diffusion, Isotherm, Kinetic, L1, Langmuir, Langmuir Isotherm, Magnetic, Magnetic Composites, Magnetic Nanoparticles, Model, Monolayer, Nanoparticles, Nanotubes, Online Preconcentration System, pH, Preconcentration, Pseudo Second Order, Pseudo-Second Order, Pseudo-Second-Order, Removal, Retention, Saturation, Sorbents, Sorption, Spectrometry, Surface, Surface Acidity, Surface Area, Treatment, Water, Water Samples

? Özkütük, E.B., Özalp, E., Ersöz, A., Açıkkalp, E. and Say, R. (2010), Thiocyanate separation by imprinted polymeric systems. *Microchimica Acta*, **169** (1-2), 129-135.

Full Text: [2010\Mic Act169, 129.pdf](2010/Mic%20Act169,%20129.pdf)

Abstract: Novel polymers for the specific recognition of thiocyanate ion (SCN) have been prepared by template polymerization of SCN with chitosan-Zn(II), the N-(2-aminoethyl)-3-aminopropyl-trimethoxysilan-Zn(II) complex, epichlorohydrin, and tetraethoxysilane. After removal of SCN, the imprinted beads have been used for solid-phase extraction of SCN from aqueous solutions. Optimised conditions for SCN separation are reported with respect to sample pH for the quantitative preconcentration and desorption. Competitive adsorption of fluoride and phosphate has been investigated and selectivity coefficients are given for these ions with respect to SCN.

Keywords: Adsorbents, Adsorption, Aqueous Solutions, Beads, Binding, Chitosan, Copper, Cyanide, Desorption, Extraction, Fluoride, Ion, Ion Imprinted Polymer, Ions, Microbeads, Oxidation, pH, Phosphate, Polymeric, Polymerization, Polymers, Preconcentration, Recognition, Removal, Selectivity, Separation, Sol-Gel, Solid Phase Extraction, Solid-Phase Extraction, Solutions, Sorbents, Systems, Template, Tetraethoxysilane, Thiocyanate, Thiocyanate Determination

? Ho, Y.S. (2010), Comments on “Preparation and application of 4-amino-4’-nitro azobenzene modified chitosan as a selective adsorbent for the determination of Au(III) and Pd(II)”. *Microchimica Acta*, **170** (1-2), 187.

Full Text: [2010\Mic Act170, 187.pdf](2010/Mic%20Act170,%20187.pdf); [2010\Mic Act-Ho.pdf](2010/Mic%20Act-Ho.pdf)

? Xu, P.P., Xu, W.Z., Zhang, X.J. and Yan, Y.S. (2010), A surface-imprinted polymer for removing dibenzothiophene from gasoline. *Microchimica Acta*, **171** (3-4), 441-449.

Full Text: [2010\Mic Act169, 441.pdf](2010/Mic%20Act169,%20441.pdf)

Abstract: A surface-imprinted polymer for the adsorption of dibenzothiophene (DBT) was obtained from DBT (the template), titanium dioxide (the support), methacrylic acid (the functional monomer), ethylene glycol dimethacrylate (the cross-linker), 2,2’-azobisisobutyronitrile (the initiator) and toluene (the porogen). The material was characterized by Fourier transform infrared spectroscopy, Brunauer-Emmett-Teller model and Scanning electron microscopy. Batch adsorption experiments were performed to study the adsorption of the material in terms of adsorption kinetics, isotherms, and thermodynamic parameters. The adsorption follows pseudo-second-order kinetics, the Freundlich adsorption equation fits the experimental data well, and there is strong evidence for multiple layer adsorption. The negative values of the Gibbs free energy (ΔG°) range from -6.04 kJ mol(-1) to -7.69 kJ mol(-1) between 298 and 318 K, which reveals that the adsorption is endothermic. The material can selectively recognize DBT over similar compounds present in gasoline (such as benzothiophene and 4-methyldibenzothiphene).

Keywords: Activated Carbon, Adsorption, Adsorption Equation, Adsorption Gasoline, Adsorption Kinetics, Batch, Compounds, Data, Desulfurization, Dibenzothiophene, Fourier Transform Infrared, Fourier Transform Infrared Spectroscopy, Freundlich, Freundlich Adsorption, Fuels, Gasoline, Infrared, Ionic Liquids, Isotherms, Kinetics, Model, Oxidative Desulfurization, Photocatalytic Oxidation, Polymer, Pseudo Second Order, Pseudo-Second-Order, Recognition, Scanning Electron Microscopy, Selective Adsorption, Sorbent, Submicrometer Particles, Support, Surface Molecular Imprinting Technique, Thermodynamic, Thermodynamic Parameters, Titanium Dioxide, Toluene, Ultra-Deep Desulfurization

? Tong, S.S., Zhao, S.J., Zhou, W.H., Li, R.G. and Jia, Q. (2011), Modification of multi-walled carbon nanotubes with tannic acid for the adsorption of La, Tb and Lu ions. *Microchimica Acta*, **174** (3-4), 257-264.

Full Text: [2011\Mic Act174, 257.pdf](2011/Mic%20Act174,%20257.pdf)

Abstract: We have prepared an environmental friendly sorbent by modifying multi-walled carbon nanotubes with tannic acid. The adsorption of La(III), Tb(III) and Lu(III) as a function of contact time, initial solution pH, and quantity of adsorbent was studied using a batch technique. Both Langmuir and Freundlich isotherms can be used to describe the process. The major adsorption mechanisms were attributed to ion exchange and surface complexation. The kinetics of the adsorption follows a pseudo-second-order model. The thermodynamic functions ΔH, ΔG, and ΔS indicate that the sorption is endothermically driven. The adsorbed ions can be readily desorbed from the surface with 1 M hydrochloric acid.

Keywords: Activated Carbon, Adsorbent, Adsorption, Aqueous-Solution, Atomic Emission-Spectrometry, Batch Technique, Complexation, Freundlich, Freundlich Isotherms, Ion Exchange, Ion-Exchange, Isotherms, Kinetics, Langmuir, Minor Actinides, Modification, Multi-Walled Carbon Nanotubes, Multiwalled Carbon Nanotubes, pH, Phase Extraction, Rare Earth Elements, Rare-Earth-Elements, Silica-Gel, Solid-Liquid Extraction, Sorbent, Sorption, Tannic Acid, Thermodynamic, Titanium-Dioxide, Water Samples

? Xu, W.Z., Zhou, W., Huang, W.H., Pan, J.M., Li, H., Wu, X.Y. and Yan, Y.S. (2011), Preparation and evaluation of a novel surface-imprinted polymer for selective adsorption of dibenzothiophene. *Microchimica Acta*, **175** (1-2), 167-175.

Full Text: [2011\Mic Act175, 167.pdf](2011/Mic%20Act175,%20167.pdf)

Abstract: We have prepared a novel surface molecular imprinted polymer (S-MIP) using dibenzothiophene (DBT) as the template molecule, 4-vinylpyridine as the functional monomer, and potassium hexatitanate whisker as the carrier. The S-MIP was characterized by Fourier transform infrared spectroscopy and and scanning electron microscopy. The kinetics and isotherms for the adsorption of DBT on the S-MIP followed pseudo-second-order and Freundlich models, respectively. Thermodynamic parameters were determined. The overall adsorption process was endothermic and spontaneous. Selectivity studies showed that the S-MIP selectively adsorbs DBT over its structural analogs and can be regenerated. Its adsorption capacity was still at 84.8% at the sixth cycle.

Keywords: Activated Carbon, Adsorbents, Adsorption, And Isotherms, Aqueous-Solutions, Carbon Nanotubes, Dibenzothiophene, Diesel Fuel, Electron Microscopy, Equilibrium, Freundlich, Isotherms, Kinetics, Mechanism, Oxidative Desulfurization, Potassium Hexatitanate Whisker, Preparation, Pseudo Second Order, Selective, Selective Adsorption, Selectivity, Surface Molecular Imprinted Polymer, Thermodynamic, Thermodynamic Parameters, Thermodynamics

# Title: Microcirculation

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Language: English

Publisher: Stockton Press

Publisher Address: Houndmills, Basingstoke RG21 6XS, Hampshire, England

Subject Categories:

Hematology Peripheral Vascular Disease: Impact Factor

? Yamada, S. and Ohkubo, C. (1999), The influence of frequent and excessive intake of glucose on microvascular aging in healthy mice. *Microcirculation*, **6** (1), 55-62.

Abstract: OBJECTIVE: The purpose of this study was to verify the following working hypothesis. Even in healthy individuals with normoglycemic adaptability, microvascular aging caused by the accumulation of advanced glycosylation end products (AGEs) in vascular walls would occur, when the blood glucose level is maintained intermittently high due to frequent and excessive sugar intake for a prolonged period.

METHODS: Male BALB/c mice were divided into four groups: the S group raised with glucose-enriched feed and the C group with ordinary feed, as well as the SG group with the glucose-enriched feed and special drinking water supplemented with 0.25% aminoguanidine (AG), and the CG group with ordinary feed and this special drinking water. After 6 months, a mouse dorsal skinfold chamber was mounted on the skin of the back for the intravital-microscopic observations of microvasculature.

RESULTS: Blood glucose levels were within normal ranges in all four animal groups, indicating their saccharometabolism to be normal. An autofluorescent AGE-positive ratio in the S group was 71.4%, and that in the C group was 33.3%. Mean caliber of arterial microvessels was smallest in the S group. The SG and CG group showed the caliber larger than the groups without AG. Vascular lesion indices were significantly larger in the S group than those of the groups with AG. The indices were particularly small in the SG group. A decrease of amplitudes in thicker vessels and an increase of vasomotor frequencies in thinner ones were demonstrated in the S group. The features of vasomotion differed in the groups with and without AG.

CONCLUSIONS: Microvascular aging was clearly noticed in the S group. It has been concluded that vasomotor inhibition was generated in addition to hypertrophy and fragility in arterial microvessels of the group. It is further concluded that AG protects blood vessels from hypertrophy and fragility, but it downregulates vasomotion.

# Title: Microfluidics and Nanofluidics

Full Journal Title: [Microfluidics and Nanofluidics](http://www.springerlink.com/content/111046/)

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Language:

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Subject Categories:

: Impact Factor

? Sun, Y., Kwok, Y.C. and Nguyen, N.T. (2007), Modeling and experimental characterization of peak tailing in DNA gel electrophoresis. *Microfluidics and Nanofluidics*, **3** (3), 323-332.

Full Text: [2007\Mic Nan3, 323.pdf](2007/Mic%20Nan3,%20323.pdf)

Abstract: Capillary electrophoresis (CE) is an efficient separation method in analytical chemistry. It exploits the difference in electrophoretic migration velocities between charged molecular species in aqueous or diluted polymer solution when an external electric field is applied to achieve separation. Despite the standard assumption that electrophoretic data obtained from pulse-loaded molecular species should have Gaussian peak shapes, experimentally observed peaks are frequently distorted or highly asymmetric. Interaction of charged species with the wall of the capillary is the primary source for serious band broadening and peak tailing. This paper reports a mathematical model for the peak profiles in capillary electrophoresis, taking adsorption on capillary wall into account. The model is based on the advection-diffusion equation, Langmuir second order kinetic equation and appropriate boundary conditions. It is applied to simulate the gel electrophoretic separation of the 11 fragment Phi X174-Hae III double stranded DNA ladders in a polymeric microchip. By using the migration velocities and diffusivities from the measurement, and properly selecting two fitting parameters, namely adsorption and desorption coefficients, the simulated peak shapes show remarkable similarity with the experimental electrophoretic results. The effect of adsorption and desorption coefficients are also investigated and the result shows that adsorption of analytes from the main analyte zone and desorption of these analytes appear to be the reasons of peak tailing, with the latter being the major cause.

Keywords: Adsorption, Analytical Chemistry, Boundary Conditions, Capillary Electrophoresis, Capillary-Zone-Electrophoresis, Ce, Characterization, Desorption, Dispersion, DNA, Dynamics, Electrophoresis, Gel, Gel Electrophoresis, Gel-Electrophoresis, Including Wall Adsorption, Kinetic, Langmuir, Mathematical Model, Measurement, Microchip, Migration, Model, Paper, Parameters, Peak Tailing, Polymer, Polymeric, Profiles, Separation, Similarity, Simulation, Source, Standard

# Title: Micronutrients in Agriculture

(Soil Sci. Soc. of Am., Madison, Wisconsin)

? Stevenson, F.J. and Ardakani, M.S. (1972), *Micronutrients in Agriculture*. Soil Sci. Soc. of Am., Madison, Wisconsin 79-114.

# Title: Microporous Materials

Full Journal Title: [Microporous Materials](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5273&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=0dbb7d4178d222b9c4429c6af74efbbc)

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Publisher Address: PO Box 211, 1000 AE Amsterdam, Netherlands

Subject Categories:

Materials Science: Impact Factor

Michard, P., Guibal, E., Vincent, T. and Le Cloirec, P. (1996), Sorption and desorption of uranyl ions by silica gel: pH, particle size and porosity effects. *Microporous Materials*, **5** (5), 309-324.

Full Text: [M\Mic Mat5, 309.pdf](M/Mic%20Mat5,%20309.pdf)

Abstract: Uranium sorption by silica gel was shown to be very sensitive to pH; the optimum pH range is ca. 5-5.5, which coincides with the appearance of hydrolysed forms of uranyl. A two-phase surface mechanism is proposed: first the adsorption of hydrolysed forms, which precipitate later on the surface of the oxide, then the removal of residue at the new sorbing surface by adsorption or precipitation. Particle size and pore characteristics have a limited effect on equilibrium concentration, but greatly influence sorption kinetics. A two-phase kinetic mechanism is proposed which gives external and intraparticle mass transfer coefficients of the order of 10-7-10-5 and 10-8-10-7 m min-1, respectively. Both a mesoporous and a microporous silica gel were examined in order to determine the influence of pore size on sorption kinetics: the ratio between solute size and pore diameter appears to be the major factor in governing the uptake rate. The desorption of silica gel was also studied, particularly concerning the nature and concentration of the elution agent. Acid solutions are most effective at removing uranium. Using a batch system the number of moles of acid needs to be eight times greater than those of uranium in order to obtain a desorption efficiency higher than 90%. In dynamic desorption, on the other hand, 0.5 M hydrochloric acid gives both total desorption and optimal metal recovery. Eluate concentrations as high as 100-200 gl-1 can be obtained. Furthermore, when seven sorption-desorption cycles were carried out using the column system, removal performances were maintained and the sorbent could be re-used.

Keywords: Uranium, Sorption, Desorption, Silica Gel, Diffusion, Pore Size Distribution, Metal-Ions, *Rhizopus-arrhizus*, Diffusion-Model, Adsorption, Uranium, Surface, Removal, Cations, Co(II), Water

Pansini, M., Colella, C., Caputo, D., de’Gennaro, M. and Langella, A. (1996), Evaluation of phillipsite as cation exchanger in lead removal from water. *Microporous Materials*, **5** (6), 357-364.

Full Text: [M\Mic Mat5, 357.pdf](M/Mic%20Mat5,%20357.pdf)

Abstract: The ability of phillipsite to remove lead from water was evaluated by determining lead exchange isotherms with sodium- or potassium-exchanged phillipsite and by studying the kinetics of sodium exchange for lead and, lastly, by testing lead uptake in a column, in which fixed beds of sodium-enriched phillipsite tuff grains were percolated by lead-containing solutions. The collected data evidenced a remarkable selectivity of sodium phillipsite for lead in equilibrium experiments, fast kinetics, and massive lead removal from water in column runs, even in the presence of substantial amounts of sodium as interfering cation. The favourable lead elution during regeneration of exhausted phillipsite together with the above mentioned results in the exchange experiments allow to forecast a profitable utilization of phillipsite in lead removal from waste water.

Keywords: Phillipsite, Zeolitized Tuff, Ion Exchange, Lead, Water Purification, Equilibria, Zeolites

# Title: Microporous and Mesoporous Materials

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Godelitsas, A., Charistos, D., Dwyer, J., Tsipis, C., Filippidis, A., Hatzidimitriou, A. and Pavlidou, E. (1999), Copper(II)-loaded HEU-type zeolite crystals: Characterization and evidence of surface complexation with N,N-diethyldithiocarbamate anions. *Microporous and Mesoporous Materials*, **33** (1-3), 77-87.

Full Text: [M\Mic Mes Mat33, 77.pdf](M/Mic%20Mes%20Mat33,%2077.pdf)

Abstract: Copper(II)-loaded HEU-type zeolite crystals (CuHEU) formed by wet-chemical procedures were studied through powder X-ray diffraction (PXRD), scanning electron microscopy-energy dispersive spectroscopy (SEM-EDS), electron paramagnetic resonance(EPR), diffuse reflectance UV-Vis spectroscopy [DRS(W-Vis)], X-ray photoelectron spectroscopy (XPS) and extended X-ray absorption fine structure (EXAFS) techniques. The copper in the non-stoichiometric and non-homoionic CuHEU crystals was identified as six-coordinated cupric ions, the Ligating atoms being both oxygen atoms of the framework basic Lewis sites and water molecules. The resulting Cu(II) complexes adopt a tetragonally distorted octahedral symmetry. Treating the CuHEU material with an aqueous solution of N,N diethyldithiocarbamato ligands (Et(2)dtc(-)) results in the product CuHEU-Et(2)dtc, the structure and properties of which were studied by means of PXRD, SEM-EDS, DRS(W-Vis), EPR and XPS techniques. The spectroscopic investigation of the material revealed the presence of both Cu-S and Cu-O coordination bonds in a novel type of coordination sphere around the Cu2+ ions forming a complex with the Et(2)dtc ligands supported on the surface of the zeolitic substrate. The surface complexation process does not affect either the oxidation state or the tetragonally distorted octahedral symmetry of the copper(II) grafted onto the zeolitic material, Strong evidence exists indicating that the coordination process involves the nucleophilic substitution of primary coordinated water molecules by the stronger sigma-donor Et(2)dtc(-) ligands. (C) 1999 Elsevier Science B.V. All rights reserved.

Keywords: Aqueous Solution, Cations, Clinoptilolite, Coordination, Copper, Cu(II), Dithiocarbamates, Heavy-Metals, Heu-Type Zeolite, Heulandite, Heulandite, Mineral Surfaces, Natural Zeolites, Removal, Sorption, Surface Complexation, Zeolite

Stolz, J., Yang, P. and Armbruster, T. (2000), Cd-exchanged heulandite: symmetry lowering and site preference. *Microporous and Mesoporous Materials*, **37** (1-2), 233-242.

Full Text: [M\Mic Mes Mat37, 233.pdf](M/Mic%20Mes%20Mat37,%20233.pdf)

Abstract: Fully Cd-exchanged heulandite was obtained from a Na-exchanged sample by treatment with 1 M Cd acetate solution at 373 K. Subsequent electron microprobe analyses revealed 4.0 Cd2+ per formula unit (pfu), that was in good agreement with 4.11 Cd pfu refined from single-crystal X-ray data collected at 293 K. Crystal structure refinements were performed in the space groups C2, m, C2, Cm, C (1) over bar, and C1, of which only the Cm model yielded reasonable agreement with the observed diffraction data. Cadmium preferentially occupied the center of the A channel, where it formed a distorted octahedral Cd2+(H2O)6 complex, and a central position in the B channel that was sevenfold coordinated by oxygen atoms of the framework and channel H2O molecules. Seven additional low-populated Cd sites were located in the channels. Cd-exchanged heulandite was refined in Cm symmetry in contrast to most other natural and cation-exchanged heulandites that commonly show C2, m symmetry. Symmetry lowering is attributed to Si,AI ordering in the tetrahedral framework as well as to the asymmetrical distribution of Cd2+ ions due to preferred Cd bonding of oxygen atoms sharing Al-enriched tetrahedra and cation-cation repulsion. (C) 2000 Elsevier Science B.V. All rights reserved.

Keywords: 100 K, Cadmium, Clinoptilolite, Crystal Structure, Crystal-Structure, Dehydration, Heulandite, Ion Exchange, Minerals, Natural Zeolites, NH4-Exchanged Heulandite, Removal, Sodium, Symmetry Lowering, X-Ray, Zeolite

Langella, A., Pansini, M., Cappelletti, P., de Gennaro, B., de’Gennaro, M. and Colella, C. (2000), NH4+, Cu2+, Zn2+, Cd2+ and Pb2+ exchange for Na+ in a sedimentary clinoptilolite, North Sardinia, Italy. *Microporous and Mesoporous Materials*, **37** (3), 337-343.

Full Text: [M\Mic Mes Mat37, 337.pdf](M/Mic%20Mes%20Mat37,%20337.pdf)

Abstract: Recent findings of clinoptilolite-bearing volcanoclastic deposits in northern Sardinia promoted a study aimed at evaluating the cation exchange properties of this zeolite in view of a possible future utilization of the parent rock. Isotherms of NH4+, Cu2+, Zn2+, Cd2+ and Pb2+ exchange for Na+ at 25°C and 0.1 total normality were obtained and the related thermodynamic quantities K-a and ΔG° computed. The maximal exchange level was in any case less than 100% for each cation investigated. Good selectivities were recorded for NH4+ and Pb2+, whereas clinoptilolite proved to be unselective for Cu2+, Zn2+ and Cd2+ The cation selectivity sequence NH4+ > Pb2+> Na+> Cd2+ >Cu2+ congruent to Zn2+ was obtained. The results are discussed in the light of literature data, and contrasting performances of various clinoptilolites were ascribed to different cationic compositions of the minerals, due to different minerogenetic conditions, which were proved to affect both cation exchange capacity and selectivity. This led to the conclusion that any practical utilization of a clinoptilolite-rich rock as cation exchanger should be preceded by basic studies on representative samples from the deposit under examination. (C) 2000 Elsevier Science B.V. All rights reserved.

Keywords: Ammonium, Cadmium, Cation Exchange, Clinoptilolite, Copper, Equilibria, Ferrierite, Ion-Exchange, Italy, Lead, Minerals, Mordenite, Natural Zeolites, Pb2+, Removal, Sardinia, Selectivity, Sodium, Zeolite, Zinc, Zn2+

Condon, J.B. (2000), Equivalency of the Dubinin-Polanyi equations and the QM based sorption isotherm equation. A. Mathematical derivation. *Microporous and Mesoporous Materials*, **38** (2-3), 359-376.

Full Text: [M\Mic Mes Mat38, 359.pdf](M/Mic%20Mes%20Mat38,%20359.pdf)

Abstract: It is demonstrated that the most widely used sets of the Dubinin-Polanyi (DP) isotherm equations may be derived from an isotherm equation that has its basis in simple quantum mechanical (QM) assumptions. These derivable isotherms include the Dubinin-Radushkevich (DR), the Dubinin-Astakhov (DA) and the Dubinin-Radushkevich-Kaganer (DRK) equations. The initial derivation in part A assumes no energy distributions other than that obtained in the QM treatment. Using this homogeneous assumption the DR, DA and DIRK equations were found to be valid within 2% over a pressure range that covered at least a factor of 100 for typical ceramic adsorbents. In the course of the derivation, the philosophical problem of dual use of the DR equation for both porosity and open surfaces (DRK equation) is resolved. The methodology for heterogeneous surfaces and comparisons to DP and other isotherms using the heterogeneous assumption are described in part B. (C) 2000 Elsevier Science B.V. All rights reserved.

Keywords: Adsorption, Porosity Measurements, Physical Adsorption, Isotherms, Physisorption, Microporous Structures, Adsorption, Adsorbents

Condon, J.B. (2000), Equivalency of the Dubinin-Polanyi equations and the QM based sorption isotherm equation. B. Simulations of heterogeneous surfaces. *Microporous and Mesoporous Materials*, **38** (2-3), 377-383.

Full Text: [M\Mic Mes Mat38, 377.pdf](M/Mic%20Mes%20Mat38,%20377.pdf)

Abstract: In part A, it was demonstrated that the most widely used sets of the Dubinin-Polanyi (DP) isotherm equations may be derived from an isotherm equation that has its basis in the simple quantum mechanical assumptions. These derivable isotherms include the Dubinin-Radushkevich (DR), the Dubinin-Astakhov (DA) and the Dubinin-Radushkevich-Kaganer (DRK) equations. Assuming no other energy distributions than that obtained in the QM treatment, the DR, DA and DRK equations were found to be valid within a specified error and pressure range. In this part, heterogeneous adsorption will be simulated to demonstrate the possibility of a wider range of validity, especially in the very low pressure ranges. With a logarithm-normal adsorption energy distribution of sigma = 0.25 (corresponding to about 2 kJmol-1 for liquid N2 adsorption on ceramics), the range of validity in coverage increases to an amazing factor of about 1010. Such a distribution also reveals the low pressure equivalence of the Freundlich isotherm, the QM and the DP formulations. (C) 2000 Elsevier Science B.V. All rights reserved.

Keywords: Adsorption, Porosity Measurements, Physical Adsorption, Isotherms, Physisorption

Girgis, B.S. and El Hendawy, A.N.A. (2002), Porosity development in activated carbons obtained from date pits under chemical activation with phosphoric acid. *Microporous and Mesoporous Materials*, **52** (2), 105-117.

Full Text: [M\Mic Mes Mat52, 105.pdf](M/Mic%20Mes%20Mat52,%20105.pdf)

Abstract: Date pits, a low-cost agricultural by-product, was tested as a precursor for the production of porous carbons in a chemical scheme using phosphoric acid. The raw material was impregnated with increasing concentrations of H3PO4 (30-70 vol.%) followed by pyrolysis at 300, 500 or 700°C. Texture characteristics of the products were determined by adsorption of N2 at 77 K, as well as iodine, phenol, and Methylene blue values. Carbons obtained at 300°C were very poorly porous, although with anomalously high capacity for the uptake of probe molecules from solution. This was attributed to the contribution of unsaturated chemical bonds initiated in the partially decomposed material. Carbons obtained at 500 and 700°C are good to excellent adsorbents and attain best developed porosity at 700°C, contrary to the earlier well-established temperature of 500°C recommended for treatment of agricultural precursors. Thermogravimetric/differential thermogravimetric tracings of the H3PO4-impregnated date pits indicated a delayed- decomposition effect shifted to higher temperature as compared to the raw material. Phosphoric acid is suggested to inflict physical and chemical modifications on the botanical structure by penetration, particle swelling, partial dissolution of the biomass, bond cleavage and reformation of new polymeric structures resistant to thermal decomposition. In addition, raw date pits are proposed to be composed of a low-porosity and compact cellular structure that needs higher acid concentrations and/or temperatures to attain the optimum effect normally reached at lower temperature in case of other feedstocks of botanical origin. (C) 2002 Elsevier Science B.V. All rights reserved

Keywords: Porosity, Activated Carbon, Date Pits, Dsorption Characteristics, Coconut Shell, Lignocellulosic Materials, Microporous Carbons, Aqueous-Solutions, Gasification, Pyrolysis, Isotherms, Wastes, H3PO4

? Ersoy, B. and Çelik, M.S. (2002), Electrokinetic properties of clinoptilolite with mono- and multivalent electrolytes. *Microporous and Mesoporous Materials*, **55** (3), 305-312.

Full Text: [2002\Mic Mes Mat55, 305.pdf](2002/Mic%20Mes%20Mat55,%20305.pdf)

Abstract: In this study, electrokinetic properties of clinoptilolite have been determined. A series of systematic zeta potential measurements have been performed to determine the isoelectric point (iep) and potential determining ions (pdi), and the effect of mono- and multivalent salts such as NH4Cl, CaCl2, Al(NO3)3 on the zeta potential of clinoptilolite. Clinoptilolite in water exhibits a negative surface charge and maintains this character even in very acidic conditions of pH 2-3. This reveals that clinoptilolite has no iep in the pH range of 2-12. H+ and OH- ions are the pdi for clinoptilolite. Excluding the trivalent Al3+ cations, monovalent and divalent cations are not able to reverse the surface sign of clinoptilolite. This is attributed to the ion exchange ability of clinoptilolite and the strong specific adsorption of the Al3+ counterions. A schematic adsorption model which accounts for the adsorption of mono- and multivalent ions in the electrical double layer of clinoptilolite is proposed. (C) 2002 Elsevier Science Inc. All rights reserved.

Keywords: Zeta Potential, Clinoptilolite, Zeolite, Isoelectric Point, Adsorption, Kaolinite, Suspensions, Coagulation, Stability, Chemistry, Zeolites, Minerals

Vasylechko, V.O., Gryshchouk, G.V., Kuz’ma, Yu.B., Zakordonskiy, V.P., Vasylechko L.O., Lebedynets, L.O. and Kalytovs’ka, M.B. (2003), Adsorption of cadmium on acid-modified Transcarpathian clinoptilolite. *Microporous and Mesoporous Materials*, **60** (1-3), 183-196.

Full Text: [M\Mic Mes Mat60, 183.pdf](M/Mic%20Mes%20Mat60,%20183.pdf)

Abstract: The adsorption properties of acid-modified Ukrainian Transcarpathian clinoptilolite towards aqueous cadmium(II) solutions under dynamic conditions have been investigated. It has been demonstrated that the adsorption capacity of the H-form of clinoptilolite depends on the nature and concentration of acid as well as the duration of contact of clinoptilolite with acid in the process of modification. The most effective adsorption of cadmium(II) was demonstrated by clinoptilolite pre-treated with 1 M of HCl during 24 h. It has been determined that the optimum for concentration of cadmium(II) is the H-form of clinoptilolite obtained without considerable dealumination. Under optimum conditions (diameter of zeolite grains equal to ca. 0.20-0.30 mm; flow rate of cadmium(II) solution of 500 ng/ml concentration through adsorbent equal to 3 ml/min; pH=5.6) the dynamic absorption capacity is 7.41 mg of cadmium per 1 g of acid-modified clinoptilolite. The conditions of desorption of cadmium from acid-modified clinoptilolite have been investigated. The solutions of potassium salts are the best desorbent of the ones that have been approved. The extraction of cadmium in these solutions reaches 88-92%.

Keywords: Cadmium, Adsorption, Acid-Modified Clinoptilolite

Inglezakis, V.J., Zorpas, A.A., Loizidou, M.D. and Grigoropoulou, H.P. (2003), Simultaneous removal of metals Cu2+, Fe3+ and Cr3+ with anions SO42- and HPO42- using clinoptilolite. *Microporous and Mesoporous Materials*, **61** (1-3), 167-171.

Full Text: [M\Mic Mes Mat63, 167.pdf](M/Mic%20Mes%20Mat63,%20167.pdf)

Abstract: In the present study the effect of SO42- and HPO42- on ion exchange of Cu2+, Fe3+ and Cr3+, on natural clinoptilolite is examined under normality of 0.01 N, temperature of 25±2 degreesC and pH 2-2.5 after four days of equilibration. It is observed that Cu2+ uptake is significantly decreased in the presence of HPO42- and SO42- The observed effect is less significant for Fe3+ and Cr3+ in the presence of SO42- and HPO42- respectively. This could possibly be due to the metal- anion complex formation and the nature and charges of the complex species present. Blank solutions show precipitation in the case of Fe3+, HPO42- solution, leading in complete removal of Fe3+ from solutions. Precipitation along with ion exchange is resulting in higher removal of Fe3+ from the solution than ion exchange or precipitation alone. Finally, anion co-removal is significant, reaching 80% for HPO42- ions. (C) 2003 Elsevier Inc. All rights reserved.

Keywords: Acid, Adsorption, Anion Complexes, Cd2+, Clinoptilolite, Complex-Formation, Heavy Metals, Ion Exchange, Ion-Exchange, Kinetics, Natural Clinoptilolite, Pb2+, Sedimentary, Sulfate, Zeolites

Yang, T. and Lua, A.C. (2003), Characteristics of activated carbons prepared from pistachio-nut shells by potassium hydroxide activation. *Microporous and Mesoporous Materials*, **63** (1-3), 113-124.

Full Text: [2003\Mic Mes Mat63, 113.pdf](2003/Mic%20Mes%20Mat63,%20113.pdf)

Abstract: High-surface-area activated carbons in granular form were prepared by chemical activation of pistachio-nut shells with potassium hydroxide. The effects of the preparation variables on the carbon pore structure were studied in order to optimize these parameters. It was found that the chemical to shell impregnation ratio, the activation temperature and the activation hold time were the important parameters that affect the characteristics of the activated carbons produced. For the experimental parameters investigated, the optimum conditions for preparing activated carbon with a high surface area and pore volume were identified. (C) 2003 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Activation, Adsorption, Characterization, Chemical Activation, Chemical Activation, Coal, Coconut Shell, High-Surface-Area, KOH, Physical Activation, Pistachio-Nut Shell, Pyrolysis, Surface Area, Water

? Maas, H., Khatyr, A. and Calzaferri, G. (2003), Phenoxazine dyes in zeolite L, synthesis and properties. *Microporous and Mesoporous Materials*, **65** (2-3), 233-242.

Full Text: [2003\Mic Mes Mat65, 233.pdf](2003/Mic%20Mes%20Mat65,%20233.pdf)

Abstract: The preparation and characterisation of brightly luminescent dye-zeolite L host-guest microcrystals and of nitro, amino, N-acetyl, and N-alkyl phenoxazine dyes is reported. The synthesis of 3-ethylamino-7-ethyliminophenoxazinium nitrate (9) is based on five steps including simple and highly efficient silver-catalysed oxidation at room temperature, which can also be used to synthesise oxonine (6). 6 and 9 are inserted in about 1.5 mum long zeolite L crystals by means of ion exchange. The former from an aqueous suspension and the latter from 1-butanol by applying a selective ionophore. The orientation of the electronic transition dipole moment of 9 inside of the linear channels of zeolite L, as observed by fluorescence microscopy, is compared with that of four other selected dye-zeolite L microcrystals. (C) 2003 Elsevier Inc. All rights reserved.

Keywords: Host-Guest Systems, Luminescence, Fluorescence Anisotropy, Oxonine, Zeolite L, Photonic Dye, Antenna, Nitrophenoxazines, Luminescence, Indicators, Kinetics, Ligands, Acid

? Aygün, A., Yenisoy-Karakaş, S. and Duman, I. (2003), Production of granular activated carbon from fruit stones and nutshells and evaluation of their physical, chemical and adsorption properties. *Microporous and Mesoporous Materials*, **66** (2-3), 189-195.

Full Text: [2003\Mic Mes Mat66, 189.pdf](2003/Mic%20Mes%20Mat66,%20189.pdf)

Abstract: An investigation of several agricultural wastes (almond shell, hazelnut shell, walnut shell and apricot stone) revealed that their suitability for granular activated carbon production is not determined by material specific (elemental composition) but type-specific features. Granular activated carbons were evaluated for their physical (attrition, bulk density), chemical (elemental composition, % weight loss), surface (surface area, surface chemistry) and adsorption properties (iodine number, phenol and Methylene blue adsorption). Pyrolysis temperature and activation time with ZnCl2 had influence on the phenol and Methylene blue adsorption capacities of especially for the activated carbons produced from hazelnut and walnut shells. Adsorption isotherm data were fitted to both Langmuir and Freundlich models. The following order of suitability of raw materials for activated carbon production was established: hazelnut shell > walnut shell approximate to apricot stone > almond shell. (C) 2003 Elsevier Inc. All rights reserved.

Keywords: Adsorption, Adsorption Isotherms, Agricultural By-Products, Almond Shells, Chemical Activation, Granular Activated Carbon, Physico-Chemical Characterization, Surface-Properties, Waste, Wastes Utilization

Manchón-Vizuete, E., Macías-García, A., Nadal Gisbert, A., Fernández-González, C. and Gómez-Serrano, V. (2004), Preparation of mesoporous and macroporous materials from rubber of tyre wastes. *Microporous and Mesoporous Materials*, **67** (1), 35-41.

Full Text: [M\Mic Mes Mat67, 35.pdf](M/Mic%20Mes%20Mat67,%2035.pdf)

Abstract: From residual rubber (RR) separated from tyre wastes, adsorbent materials were prepared by applying thermal, chemical and combined (thermal and chemical or vice versa) methods. In the preparation of samples, RR was heated at 200–900 °C for 2 h in N2 atmosphere. The material was also contacted with H2SO4, HNO3, and H2SO4/HNO3 solutions for 24 h. Finally, RR was first heated at 400 °C for 2 h in N2 and the resultant product was then treated chemically with an H2SO4/HNO3 solution for 24 h, or vice versa. Both RR and the products derived from it were characterised texturally by gas adsorption (N2, 77 K), mercury porosimetry, and helium and mercury density measurements. Usually, the yield is lower for the heat treatments than for the single chemical treatments (e.g., the smallest yield values are 33.0 and 60.5 wt.%). For the combined treatments, as compared to the single treatments, the yield is higher. RR is a nonporous solid. The treatments of RR as a rule result in a great porosity development mainly in the mesopore and macropore ranges for the heat and chemical treatments, respectively. The presence of HNO3 in the acid solution used in the treatments of RR has proved to be an essential factor for the development of the porosity made up of large pores. When RR is subjected to combined treatments, the predominant effect on the porosity development is that of the treatment effected first. By successive heat and chemical treatments, a product containing the same volumes of mesopores and macropores is obtained. The micropore content is low for all products, but especially for those prepared chemically.

Keywords: Carbonaceous Adsorbents, Tyre Wastes, Thermal Methods, Chemical Methods

Jang, M., Park, J.K. and Shin, E.W. (2004), Lanthanum functionalized highly ordered mesoporous media: implications of arsenate removal. *Microporous and Mesoporous Materials*, **75** (1-2), 159-168.

Full Text: [M\Mic Mes Mat75, 159.pdf](M/Mic%20Mes%20Mat75,%20159.pdf)

Abstract: A highly ordered mesoporous silica, SBA-15, was synthesized and various amounts of lanthanum oxide were incorporated into it. Several characterization techniques, such as X-ray diffraction (XRD), nitrogen gas isotherm, and Fourier transform infrared (FTIR) spectroscopy were used to investigate physicochemical properties of the media and to elucidate their arsenate adsorption behavior. The X-ray diffraction and N2 isotherm results showed that immoderate substitution of lanthanum in the silica network occurred at 80% lanthanum impregnation, even though the lanthanum was highly dispersed inside the mesopore structures of SBA-15 and lanthanum oxide particles did not form on the outside of the solid. As a result of FTIR, however, there was no structural collapse of the silica framework at 80% lanthanum impregnation since partial substitution of lanthanum precursors with silicon occurred; this may play an important role in structural stabilization, as shown by other studies. Although the arsenate adsorption densities increased with an increase in lanthanum impregnation up to 50% (the most efficient percentage of lanthanum impregnation), it abruptly decreased at 80% due to the substitution of lanthanum with silicon, leading to an overall reduction in arsenate adsorption capacity. At the arsenate concentration of 0.667 mmol(As)/l, the adsorption capacity of 50% lanthanum-impregnated SBA-15 by weight (designated as La(50)SBA-15) was 1.651 mmol(As)/g (123.7 mg(As)/g), which was approximately 10 and 14 times greater than La(III) impregnated alumina and La(III) impregnated silica gel, respectively. (C) 2004 Published by Elsevier Inc.

Keywords: Adsorption, Arsenate, Impregnation, Lanthanum, Mesoporous, SBA-15, Aqueous-Solutions, Molecular-Sieves, Adsorption, SBA-15, MCM-41, Silica, Equilibrium, Arsenic(V), Anions, Ions

? Wu, F.C., Tseng, R.L. and Hu, C.C. (2005), Comparisons of pore properties and adsorption performance of KOH-activated and steam-activated carbons. *Microporous and Mesoporous Materials*, **80** (1-3), 95-106.

Full Text: [M\Mic Mes Mat80, 95.pdf](M/Mic%20Mes%20Mat80,%2095.pdf)

Abstract: Carbonaceous adsorbents with controllable pore sizes derived from carbonized pistachio shells (i.e., char) were prepared by the KOH activation and steam activation methods in this work. The pore properties including the BET surface area, pore volume, pore size distribution, and pore diameter of these activated carbons were characterized by the t-plot method based on N2 adsorption isotherms. Through varying the KOH/char ratios from 0.5 to 3, the KOH-activated carbons exhibited BET surface areas ranging from 731 to 1687 m2/g with a similar micropore content (80-92%). The carbons activated by steam at 830°C for 2 h had a BET surface area of 821 m2/g with the micropore content of 42%. The micropore/total pore volume ratio (V-micro/V-pore) and average pore size (D-pore) were independent of the KOH/char ratio, revealing that KOH activation is a powerful method in developing and controlling the number of micropores with a very similar pore size distribution. The adsorption equilibria and kinetics of Methylene blue, basic brown 1, acid blue 74, 2,4-dichlorophenol, 4-chlorophenol, and phenol from water on all activated carbons at 30°C were investigated to demonstrate the fact that adsorption of organics is not only dependent upon the BET surface area but is also determined by the relative size between pores and molecules. The adsorption isotherms were subjected to the model fitting according to Langmuir and Freudlich equations. By comparing the projected area of adsorbates, the surface coverage of phenols is about 3.6 times of that of dyes (based on unit gram of activated carbon). The Elovich equation was found to suitably describe the adsorption process of all KOH-activated carbons while the adsorption behavior on the steam-activated carbon was reasonably fitted with the intraparticle diffusion model. (c) 2004 Elsevier Inc. All rights reserved.

Keywords: Activated Carbons, KOH Activation, Steam Activation, Pore Properties, Adsorption Equilibrium, Kinetics, High-Surface-Area, Liquid-Phase Adsorption, Double-Layer Capacitors, Fly-Ash, Physical Activation, Plum Kernels, Phenols, Water, Dyes, Adsorbents

? Wernert, V., Schäf, O., Ghobarkar, H. and Denoyel, R. (2005), Adsorption properties of zeolites for artificial kidney applications. *Microporous and Mesoporous Materials*, **83** (1-3), 101-113.

Full Text: [2005\Mic Mes Mat83, 101.pdf](2005/Mic%20Mes%20Mat83,%20101.pdf)

Abstract: A method of elimination of uremic toxins such as urea, uric acid, creatinine, *p*-cresol and indoxyl sulfate from solutions by adsorption onto zeolites is introduced. The physical and chemical properties of microporous materials are varied systematically (pore size, acidity, hydrophobicity, grain size, charge compensating cations, stabilization by high pressure hydrothermal treatment). Initial uremic toxins concentrations of solutions applied are close to the concentrations measured in blood of healthy persons and of patients having renal failure. The adsorption results obtained at 37 °C show that adsorption of uremic toxins onto zeolites is specific and not only depended on the size of the channels but also on the interactions between the substances and the zeolite lattices. For initial concentrations close to that of persons having renal failure, it is possible to eliminate 75% creatinine by adsorption onto an acidic mordenite (MOR) and 60% *p*-cresol by adsorption onto a hydrophobic silicalite (MFI). These results are comparable or better than conventional dialysis systems where the elimination is about 67% for creatinine and about 29% for *p*-cresol. Adsorption of uremic toxins onto active carbon is equal or better than onto zeolites, however, the application of this adsorbent has to be rejected as adsorption is non-specific.

Keywords: Adsorption, Uremic Toxins, Urea, Uric Acid, Creatinine, *p*-Cresol, Indoxyl Sulfate, Zeolites

? Alkan, M., Tekin, G. and Namli, H. (2005), FTIR and zeta potential measurements of sepiolite treated with some organosilanes. *Microporous and Mesoporous Materials*, **84** (1-3), 75-83.

? Alkan, M., Demirbas, O. and Dogan, M. (2005), Zeta potential of unexpanded and expanded perlite samples in various electrolyte media. *Microporous and Mesoporous Materials*, **84** (1-3), 192-200.

Abstract: In this study, electrokinetic properties of unexpanded (UEP) and expanded (EP) perlite samples have been extensively investigated as a function of concentration of various electrolytes such as NaCl, KCl, LiCl, NaNO3, NaCH3COO, MgCl2, CaCl2, BaCl2, NaCO3, Na2SO4, AlCl3, FeCl3, CoCl2, CuCl2, and Pb(NO3) 2. The zeta potential measurements have been performed to determine the isoelectric point (iep) and potential determining ions (pdi). Although pH strongly altered the zeta potential of perlite samples, perlite samples do not yield any isoelectric point in the pH ranges of 2-11. Both of the perlite samples remain negatively charged in the pH ranges studied. The expanded perlite has a more negatively charged surface than the unexpanded perlite. Monovalent cations or anions and divalent anions are indifferent electrolytes for both perlite samples whereas MgCl2,CaCl2, BaCl2, CoCl2, CuCl2, Pb(NO3)2, AlCl3 and FeCl3 change the interface charge from negative to positive for the expanded perlite but the potential determining ions for unexpanded perlite are CaCl2, BaCl2, AlCl3, and FeCl3 metal ions. (c) 2005 Elsevier Inc. All rights reserved.

Keywords: Adsorption-Kinetics, Aqueous-Solution, Clay-Minerals, Electrokinetic Properties, Electrolytes, Expanded Perlite, Hydroxyapatite, Kaolinite, Methyl Violet, Montmorillonite, Perlite, Surface, Suspensions, Zeta Potential

? Choi, J.H., Kim, S.D., Noh, S.H., Oh, S.J. and Kim, W.J. (2006), Adsorption behaviors of nano-sized ETS-10 and Al-substituted-ETAS-10 in removing heavy metal ions, Pb2+ and Cd2+. *Microporous and Mesoporous Materials*, **87** (3), 163-169.

Full Text: [2006\Mic Mes Mat87, 163.pdf](2006/Mic%20Mes%20Mat87,%20163.pdf)

Abstract: A new class of nano-sized large pored titanium silicate variety, ETS-10 and ETAS-10 with different Al2O3/TiO2 ratio were successfully synthesized and applied to the removal of heavy metals, in particular, Pb2+ and Cd2+. The study of equilibrium and adsorption isotherm at 298 K, 313 K and 328 K was conducted using batch mode. The uptake rates for both Pb2+ and Cd2+ were extremely rapid and fitted to the pseudo-second order. The sorption capacities of Pb2+ on ETS-10, ETAS-10(A) (Al2O3/TiO2 ratio of 0.1) and ETAS-10(B) (Al2O3/TiO2 ratio of 0.2) predicted by the pseudo-second order equation were to be 1.66 mmol/g, 1.68 mmol/g and 1.60 mmol/g while 1.25 mmol/g, 1.26 mmol/g and 1.12 mmol/g for Cd2+, respectively. Adsorption isotherms for both Pb2+ and Cd2+ were well fitted to Langmuir–Freundlich isotherm. The monolayer capacities predicted by Langmuir–Freundlich equation are quite well consistent with those by the pseudo-second order equation and those are, on the average for different temperature, 1.78 mmol/g on ETS-10, 1.80 mmol/g on ETAS-10(A) and 1.71 mmol/g on ETAS-10(B) for Pb2+ and 1.44 mmol/g, 1.33 mmol/g and 1.19 mmol/g for Cd2+, respectively. Finally, it is interesting to notice that as Al content increases in the framework of ETS-10, octahedrally coordinated Ti content decreases, indicating the partial incorporation of Al into octahedrally coordinated Ti as well as isomorphous substitution for tetrahedrally coordinated Si. It suggests that partial substitution of Al for octahedrally coordinated Ti rather leads to the reduction in sorption capacities due to the decrease in the number of exchangeable site in ETS framework.

Keywords: Nano-Sized ETS-10, ETAS-10(A), ETAS-10(B), Pseudo-Second Order, Langmuir–Freundlich Isotherm, Partial Incorporation, Number of Exchangeable Site

? Tekin, N., Kadıncı, E., Demirbaş, Ö., Alkan, M., Kara, A. and Doğan, M. (2006), Surface properties of poly(vinylimidazole)-adsorbed expanded perlite. *Microporous and Mesoporous Materials*, **93** (1-3), 125-133.

Full Text: [2006\Mic Mes Mat93, 125.pdf](2006/Mic%20Mes%20Mat93,%20125.pdf)

Abstract: Adsorption, electrokinetic properties and the interactions between polymer and clay minerals have recently received much attention, owing to the physicochemical properties of these materials. In this study, surface properties of poly(vinylimidazole)-adsorbed expanded perlite such as adsorption, adsorption kinetics and electrokinetic properties have been investigated as a function of temperature, ionic strength and pH. The zeta potential measurements have been performed to determine the isoelectric point (iep) and potential determining ions (pdi). Although pH strongly altered the zeta potential of expanded perlite sample, expanded perlite does not yield any isoelectric point in the pH ranges of 2–11, poly(vinylimidazole) (PVI) changes the interface charge from negative to positive for expanded perlite when adsorbed on its surface. Adsorbed amounts (qe) showed a great dependence on pH. The adsorption of PVI increases with increasing pH, ionic strength and temperature. The pH values where the maximum adsorbed mass occurred might be considered as the conditions where electrostatic attraction is the most favourable. Experimental adsorption data were investigated using Langmuir and Freundlich isotherm models and found that Langmuir isotherm model gave the best representation of the adsorption equilibrium. In order to investigate the mechanism of adsorption and potential rate controlling step, pseudo-first- and second-order kinetic equations, and intraparticle diffusion model have been used to test the experimental data. The rate constants and the related correlation coefficients were determined in order to assess which model provides the best-fit predicted data with experimental results. Pseudo-first-order kinetic equation provided the best fit to experimental data.

Keywords: Adsorption, Adsorption Kinetics, Zeta Potential, Expanded Perlite, Poly(Vinylimidazole)

? Choi, J.H., Kim, S.D., Kwon, Y.J. and Kim, W.J. (2006), Adsorption behaviors of ETS-10 and its variant, ETAS-10 on the removal of heavy metals, Cu2+, Co2+, Mn2+ and Zn2+ from a waste water. *Microporous and Mesoporous Materials*, **96** (1-3), 157-167.

Full Text: [2006\Mic Mes Mat96, 157.pdf](2006/Mic%20Mes%20Mat96,%20157.pdf)

Abstract: Nano-sized large pored titanium silicate zeolitic materials, ETS-10 and ETAS-10 with different Al2O3/TiO2 ratio were successfully applied to the removal of heavy metal ions, in particular, Cu2+, Co2+, Mn2+ and Zn2+. The study of equilibrium and adsorption isotherm at 298 K and 323 K for Cu2+, Co2+, Mn2+ and Zn2+ were conducted using batch mode.

The uptake rates for Cu2+, Co2+, Mn2+ and Zn2+ were extremely rapid and fitted to the pseudo-second order equation well. The equilibrium capacities by the pseudo-second order equation on ETS-10 and ETAS-10 synthesized by titanium oxysulfate as the titanium source were determined to be 1.31 mmol/g and 1.13 mmol/g for Cu2+, 1.05 mmol/g and 1.08 mmol/g for Zn2+, 0.96 mmol/g and 0.99 mmol/g for Mn2+, 0.93 mmol/g and 1.01 mmol/g for Co2+ at 30 mmol/l of initial concentration.

Adsorption isotherms for Cu2+, Co2+, Mn2+ and Zn2+ were fitted to Langmuir, Freundlich and Langmuir-Freundlich isotherms. The results show that Langmuir-Freundlich isotherm has fitted best to the current system. The selectivity of heavy metal ions both on ETS-10 and ETAS-10 at 298 K is in the order of Cu2+ > Zn2+ > Mn2+ > Co2+ while it is in the order of Cu2+ > Mn2+ > Zn2+ > Co2+ at 323 K. The monolayer capacities on ETS-10 and ETAS-10 synthesized by titanium oxysulfate as the titanium source at 298 K were determined to be 1.55 mmol/g and 1.62 mmol/g for Cu2+, 1.30 mmol/g and 1.32 mmol/g for Zn2+, 0.98 mmol/g and 1.11 mmol/g for Mn2+, 0.91 mmol/g and 0.89 numol/g for Co2+, respectively. However, at 323 K, the monolayer capacity of Mn2+ ion on ETS-10 and ETAS-10 was determined rather larger than that of Zn2+ ion.

Finally, thermodynamic parameters suggest that the adsorption process of Cu2+, Co2+, Mn2+ and Zn2+ on ETS-10 and ETAS-10 is endothermic and spontaneous process, being indicated by positive ΔH°and negative ΔG°. In addition, positive ΔS° suggests that heavy metal ions are not stable on the adsorption sites of ETS-10 and ETAS-10 probably due to the increase in translation energy of heavy metal ions displaced from the adsorption sites. (c) 2006 Elsevier Inc. All rights reserved.

Keywords: ETS-10, ETAS-10, Ion Exchange, Pseudo-Second Order, Langmuir, Freundlich, Langmuir-Freundlich, Microporous Titanosilicate ETS-10, Ion-Exchange Properties, Aqueous-Solutions, Zeolites, Bentonite, Sorption, Cu(II), Faujasite, Kinetics, Cadmium

? Alkan, M., Demirbaş, Ö., Doğan, M. and Arslan, O. (2006), Surface properties of bovine serum albumin – adsorbed oxides: Adsorption, adsorption kinetics and electrokinetic properties. *Microporous and Mesoporous Materials*, **96** (1-3), 331-340.

Full Text: [2006\Mic Mes Mat96, 331.pdf](2006/Mic%20Mes%20Mat96,%20331.pdf)

Abstract: Adsorption, electrokinetic properties and the interactions between biomolecules and clay minerals have recently received much attention, owing to the physicochemical and biological properties of these materials (biocompatibility, bioresorption or chromatography). In this study, the adsorption properties of bovine serum albumin (BSA) onto some oxide minerals such as sepiolite, kaolinite, expanded and unexpanded perlites were studied as a function of concentrations of BSA, sodium phosphate buffer and NaCl concentration, and pH of the solution. Furthermore, the electrokinetic properties of BSA-covered oxide particles were also investigated at the same conditions with adsorption process. The adsorption processes were very slow and attained to the equilibrium within: 10 h for sepiolite, 8 h for kaolinite, and 3 h for perlite samples. Maximum adsorption capacity values (*q*m) showed a great dependence on pH. It was found that *q*m–pH curves reached a maximum at around isoelectric point (iep) of BSA. The pH values where the maximum adsorbed mass occurred might be considered as the conditions where electrostatic attraction is the most favourable. Both structural and electrostatic effects must be invoked to explain the diminution of adsorbed BSA on either side of the iep. Structural effects were related to the different conformational states that BSA molecules adopted the changes with pH, whereas electrostatic effects were analysed assuming that BSA molecules behaved as soft particles. This reasoning also allows us to explain the independence of the *q*m–pH curves of electrolyte concentration. Experimental adsorption data were investigated using Langmuir and Freundlich adsorption isotherm models and found that Freundlich isotherm model gave the best representation of the adsorption equilibrium. In order to investigate the mechanism of adsorption and potential rate controlling step, pseudo-first- and second-order kinetic equations, and intraparticle diffusion model have been used to test the experimental data. The rate constants and the related correlation coefficients were determined in order to assess which model provides the best-fit predicted data with experimental results. Pseudo-first-order kinetic equation provided the best-fit to experimental data.

Keywords: Protein, Adsorption, Bovine Serum Albumin, Sepiolite, Kaolinite, Perlite, Zeta Potential, Adsorption Isotherm, Adsorption Kinetics

? Özdemir, Y., Doğan, M. and Alkan, M. (2006), Adsorption of cationic dyes from aqueous solutions by sepiolite. *Microporous and Mesoporous Materials*, **96** (1-3), 419-427.

Full Text: [2006\Mic Mes Mat96, 419.pdf](2006/Mic%20Mes%20Mat96,%20419.pdf)

Abstract: Batch sorption experiments were carried out to remove the cationic dyes, methyl violet (MV) and Methylene blue (MB), from its aqueous solutions using sepiolite as an adsorbent. Operating variables studied were pH, ionic strength and temperature. Adsorption process was attained to the equilibrium within 3 h. The adsorbed amount of MV and MB dyes on sepiolite increased with increasing pH, ionic strength and temperature. The experimental data were analysed by Langmuir and Freundlich isotherms, and found that the isotherm data were reasonably well correlated by Langmuir isotherm. Furthermore, for the removal of MV and MB dyes, a batch reactor was designed. Adsorption measurements showed that the process was very fast and physical in nature. (c) 2006 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Adsorption, Agricultural Solid-Waste, Banana Pith, Brilliant Blue, Cationic Dyes, Clay-Minerals, Coir Pith, Dyes, Ionic-Strength, Isotherm, Isotherms, Langmuir Isotherm, Low-Cost Adsorbents, Methyl Violet, Methyl-Violet, Reactive Dyes, Sepiolite, Sorption

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Full Text: [2006\Mic Mes Mat97, 21.pdf](2006/Mic%20Mes%20Mat97,%2021.pdf)

Abstract: Dynamic adsorption of an organic dye, Methylene blue, on mesoporous silica materials with different structures, MCM-41, MCM-48 and MCM-50, were investigated and it was found that dye adsorption presents reversible or irreversible behaviour in dye solution depending on the structure of mesoporous materials. MCM-41 and MCM-48 display a reversible adsorption after reaching equilibrium while MCM-50 exhibits irreversible adsorption. The kinetic studies show that the adsorption of dye on MCM-41, MCM-48 and MCM-50 mesoporous materials follows the second-order kinetics. The desorption of dye from MCM-41 and MCM-48 follows the pseudo-first-order kinetics and the desorption rate constants are much smaller than those of adsorption.

Keywords: Mesoporous Solids, Dye Adsorption, Kinetics, Reversible Adsorption

? Lv, L., Su, F. and Zhao, X.S. (2007), Incorporation of hybrid elements into microporous titanosilicate ETS-10: An approach to improving its adsorption properties toward Pb2+. *Microporous and Mesoporous Materials*, **101** (3), 355-362.

Full Text: [2007\Mic Mes Mat101, 355.pdf](2007/Mic%20Mes%20Mat101,%20355.pdf)

Abstract: In this study, B-, Al-, and Ga-substituted microporous titanosilicate ETS-10 (designed as ETBS-10, ETAS-10, and ETGS-10, respectively) were synthesized under hydrothermal conditions. The adsorption kinetics and equilibria of Pb2+ ions on the ETS-10 (without substitution), ETBS-10, ETAS-10, and ETGS-10 samples were measured in a batch mode. Upon isomorphous substitution of B, Al and Ga for the Si(4Si) sites, the resulting solids exhibited more surface-negative charges as revealed by Zeta potential profile. The kinetic data showed a similar adsorption rate of Pb2+ on the four samples because of the same crystalline structure and the similar particle sizes of the four samples. However, the equilibrium results demonstrated that the maximum adsorption capacities of Pb2+ ions on samples ETBS-10, ETAS-10, and ETGS-10 were increased about 11%, 16.9%, and 12.5%, respectively, in comparison with ETS-10 because of the substitution of Si atoms by the trivalent elements. (c) 2006 Elsevier Inc. All rights reserved.

Keywords: Microporous Titanosilicate ETS-10, Isomorphous Substitution, Heavy Metal Lead, Adsorption, Lead, Sorption, Substitution, Mechanisms, Avoidance, Zeolites, Kinetics, Removal, Cadmium, ETAS-10

? Alkan, M., Demirbas, O. and Dogan, M. (2007), Adsorption kinetics and thermodynamics of an anionic dye onto sepiolite. *Microporous and Mesoporous Materials*, **101** (3), 388-396.

Full Text: [2007\Mic Mes Mat101, 388.pdf](2007/Mic%20Mes%20Mat101,%20388.pdf)

Abstract: The adsorption kinetics of CI reactive blue 221 (RB221), an anionic dye, onto sepiolite was investigated in aqueous solution in a batch system with respect to stirring speed, contact time, initial dye concentration, pH, and temperature. Experimental results have shown that the acidic pH, increasing initial dye concentration and temperature favours the adsorption. Experimental data related to the adsorption of RB221 on sepiolite under different conditions were applied to the pseudo-first-order equation, the pseudo-second-order equation and the intra-particle diffusion equation, and the rate constants of first-order adsorption (k(1)), the rate constants of second-order adsorption (k(2)) and intra-particle diffusion rate constants (k(int),) were calculated, respectively. The experimental data fitted very well the pseudo-second-order kinetic model and also followed the intra-particle diffusion model up to 20 min, whereas diffusion is not only the rate controlling step. The activation energy of system (E-a) was calculated as 7.73 kj mol-1. The thermodynamics parameters of activation such as Gibbs free energy, enthalpy, entropy were also evaluated and found that Delta G(\*), Delta H-\*, and Delta S-\* are 47.9 (49.4,50.0,51.3) kj mol-1, 5.30 (5.21,5.13,5.05) kj mol-1, and -145.3 (-148.8,-142.7,-143.1) J K-1 mol-1 at 20 (30,40,50) °C, respectively. The results indicate that sepiolite could be employed as a low-cost material for the removal of textile dyes from effluents. (c) 2006 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Activation, Activation Energy, Adsorption, Adsorption Kinetics, Aqueous Solution, Aqueous-Solution, Basic-Dyes, Ci Reactive Blue 221, Coir Pith Carbon, Concentration, De-Oiled-Soya, Diffusion, Dye, Dyes, Effluents, Energy, Entropy, Intra-Particle Diffusion, Kinetic, Kinetic Model, Kinetic Models, Kinetics, Malachite Green, Methylene-Blue Adsorption, Model, Parameters, pH, Pseudo-Second-Order, Reactive Dyes, Removal, Rhizopus-Arrhizus, Sepiolite, Speed, Temperature, Textile, Textile Dyes, Thermodynamics, Waste-Water

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Full Text: [2007\Mic Mes Mat102, 265.pdf](2007/Mic%20Mes%20Mat102,%20265.pdf)

Abstract: Recent progress in nanotechnology has resulted in numerous nanoscale structures and devices with exceptional chemical, physical and biological properties and functions. in this study, we developed an ordered nano-structured adsorbent, iron-containing ordered mesoporous carbon (FeOMC), for arsenic adsorption from water. FeOMC preparation involved in synthesis of ordered silica template SBA-15, in situ polymerization of mono acrylic acid (AA) in the silica template followed by carbonization and template removal to obtain ordered mesoporous carbon (OMC), and iron impregnation. Sample characterizations by transmission electron microcopy, Xray diffraction, and nitrogen adsorption indicated that the prepared OMC and FeOMC had an ordered mesoporous structure with high specific surface area of 607 m(2)/g and 466 m(2)/g, respectively. Arsenic adsorption experiments showed that the maximum arsenic adsorption was primarily controlled by the amount of iron impregnated, and the molar ratio of iron and the maximum amount of arsenate adsorption was 5.53-7.97. The optimal pH values for adsorption depended on arsenic species: at an initial concentration of 9.98 mg/ L arsenic, the optimal pH range was 3.0-7.0 for arsenate removal and 6.0-9.5 for arsenite. The rate of arsenic removal by FeOMC was high, suggesting that it could be potentially applied in point-of-use systems where fast adsorption kinetics is needed. (C) 2007 Elsevier Inc. All rights reserved.

Keywords: Ordered Mesoporous Carbon (OMC), Iron (Hydro)Oxides, FeOMC, Arsenic Adsorption, Nanotechnology, Amino-Functionalized MCM-41, Activated Carbon, High-Capacity, Removal, Adsorbent, Silica, As(III), As(V), Ferrihydrite, Remediation

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Full Text: [2007\Mic Mes Mat103, 72.pdf](2007/Mic%20Mes%20Mat103,%2072.pdf)

Abstract: The well-known Dubinin-Radushkevich adsorption isotherm is extensively used for vapour adsorption on activated carbon and its use has been extended to cover the cases of the adsorption of organic compounds from aqueous solutions and the ion exchange of metals on several porous materials. In the later cases, the use of the Dubinin-Radushkevich adsorption isotherm is questionable as it is not taking into account the pore structure of the materials used. In the present paper the more general Dubinin-Astakhov adsorption isotherm is used modified by introducing a solubility-normalized adsorption potential. Then, it is applied in experimental isotherms in order to determine adsorption energy and heterogeneity parameter for the ion exchange of Pb2+ in the zeolite clinoptilolite. The results indicate that the Dubinin-Astakhov adsorption isotherm represents the experimental data well and in the same time provides the heterogeneity parameter of the material which is an important adsorbent physical parameter as well as the adsorption energy. The calculated values are found to be n = 5.2 and E congruent to 18 kJ/mol, respectively. An extended review is conducted by applying the proposed isotherm in experimental data found in the literature for clinoptilolite cation exchange systems (22 experimental isotherms, 175 equilibrium points). The average value of the heterogeneity parameter is n = 5.84 +/- 2.09 (35.8% deviation) with a range of 2.1-10.4. The results indicate that the heterogeneity parameter value is strongly influenced from the structure of the adsorbent and in lesser extend from the cation exchanged. The average value of the adsorption energy is E = 16.7 +/- 3.21 (19.2% deviation) with a range of 9.47-21.74 kJ/mol. (C) 2007 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Activated Carbons, Adsorbent, Adsorption, Adsorption Energy, Adsorption Isotherm, Adsorption on Activated Carbon, Adsorption Potential, Aqueous Solutions, Aqueous-Solutions, Bentonite, Carbon, Cation, Cation Exchange, Cation-Exchange, Clinoptilolite, Clinoptilolite, Dubinin-Astakhov Isotherm, Dubinin-Radushkevich Isotherm, Energy, Equilibrium, Experimental, Experimental Data, General, Heterogeneity, Heterogeneity Parameter, Ion, Ion Exchange, Ion-Exchange, Isotherm, Isotherms, Lead, Literature, Materials, Metals, Modified, Natural Zeolite, Order, Organic, Organic Compounds, Paper, Pb2+, Physical, Pore, Pore Structure, Porous, Porous Materials, Porous Structure, Potential, Range, Removal, Review, Solutions, Sorption, Structure, Time, Value, Vapour Adsorption, Zeolite

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Full Text: [2007\Mic Mes Mat103, 325.pdf](2007/Mic%20Mes%20Mat103,%20325.pdf)

Abstract: Mercury is one of the most toxic heavy metals present in aquatic systems, exhibiting a complex behaviour in the environment, where it may persist for decades after the source of pollution is stopped. Hence, it is important to, both, study the complex phenomena that control the transference of mercury to the environment, and develop new techniques for its removal from the aquatic systems. In this context, a particularly promising line of research is the synthesis of materials capable of uptaking mercury from aqueous systems. Microporous and layered titanosilicates have unique physical and chemical properties due to their structure. Here, the microporous materials ETS-10, ETS-4, AM-2 and layered AM-4 have been prepared and their capacity to uptake Hg2+ from aqueous media found to be ETS-4 > ETS-10 > AM-2 and AM-4. For these four materials, the kinetics of the Hg2+ removal from water is better described by a pseudo second-order model. The presence of the competitive Ca2+, Na+ and Mg2+, which are the dominant cations in freshwater, does not reduce the ETS-4 mercury uptake capacity, even when their concentrations are much larger than the concentration of Hg2+. Although the presence of these ions slows down slightly the kinetics of Hg2+ sorption by ETS-4, this process is still second-order. High Cl- concentrations greatly reduce the Hg2+ sorption capacity of ETS-4 and slow down the uptake kinetics, due to the formation of neutral or negatively charged mercury chloro-complexes. Thus, ETS-4 may not be efficient in the remediation of salty or sea waters. (c) 2007 Elsevier Inc. All rights reserved.

Keywords: Adsorbents, Adsorption, Aquatic, Ca2+, Capacity, Cations, Chemical, Chemical Properties, Cl-, Complex, Concentration, Concentrations, Control, Environment, ETS-10, ETS-4, Formation, Freshwater, Heavy Metals, Heavy-Metals Uptake, Hg2+, Ions, Kinetics, Low, Materials, Media, Mercury, Mercury(II), Metals, Mg2+, Microporous, Microporous Materials, Model, Na+, Natural, Natural Waters, Physical, Pollution, Process, Properties, Pseudo Second Order, Pseudo Second-Order, Pseudo Second-Order Model, Pseudo-Second-Order, Purification, Remediation, Removal, Research, Second Order, Sorption, Sorption, Sorption Capacity, Source, Structure, Synthesis, Techniques, Titanosilicates, Toxic, Uptake, Waste-Water, Water, Waters, Zeolites

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Full Text: [2007\Mic Mes Mat105, 163.pdf](2007/Mic%20Mes%20Mat105,%20163.pdf)

Abstract: Sorption kinetics of argon, oxygen and nitrogen on beads of a representative sample of the oxygen PVSA sorbent Li,RE(rare earth)LSX zeolite was investigated by a frequency-response method. Characteristic time constants and their dependencies on temperature and sorption-phase concentration were determined, rate-determining mass-transfer steps were identified, and the results were compared for the three gases. (C) 2007 Elsevier Inc. All rights reserved.

Keywords: Atmospheric Gases, Li, RE-LSX Zeolite, Beads, Frequency-Response Method, Transport Mechanisms, Diffusion, Nitrogen, Mobility

? Stefanović, Š.C., Logar, N.Z., Margeta, K., Tušar, N.N., Arčon, I., Maver, K., Kovač, J. and Kaučič, V. (2007), Structural investigation of Zn2+ sorption on clinoptilolite tuff from the Vranjska Banja deposit in Serbia. *Microporous and Mesoporous Materials*, **105** (3), 251-259.

Full Text: [2007\Mic Mes Mat105, 251.pdf](2007/Mic%20Mes%20Mat105,%20251.pdf)

Abstract: Three Zn2+-modified clinoptilolite samples from the deposit of Vranjska Banja (Serbia) were structurally studied using X-ray powder diffraction (XRPD), scanning electron microscopy (SEM), energy dispersive X-ray analysis (EDXS) and X-ray photoelectron spectroscopy (XPS). Local environment of Zn ions was investigated by X-ray absorption spectroscopy (XAS). The pre-treatment of clinoptilolite tuff by using NaCl or CaCl2 solutions resulted in a higher zinc uptake comparing to the untreated zeolite sample, i.e. up to 4 wt.% of zinc in the clinoptilolite crystals in Na-pretreated form, and up to 1.5 or 0.6 wt.% of zinc in Ca-pretreated and in untreated zeolite form, respectively. The X-ray photoelectron spectroscopy depth profile analyses show that on all three samples the Zn concentrations decrease from the surfaces towards the subsurface region of crystallites suggesting that the Zn atoms are mainly located at surfaces of crystallites. EXAFS (extended X-ray absorption fine structure) analysis revealed that Zn2+ cations in untreated zeolite sample bond to four oxygens, two at 1.96 angstrom and two at 2.12 angstrom, indicating distorted tetrahedral coordination of zinc. On the other hand, EXAFS analysis of Na-pretreated sample showed that zinc atoms were coordinated to six oxygens, four at 2.01 angstrom and two at 2.15 angstrom indicating that Zn atoms in the sample were located at sites with distorted octahedral symmetry. Additionally, EXAFS fit for Ca-pretreated sample also revealed octahedral symmetry of zinc, i.e. six oxygen atoms bonded to zinc at a distance of 2.05 angstrom. Pre-treatment of zeolite tuff thus affects the sorption capacity and local structure of Zn2+. The majority of the loaded zinc could be desorbed from the sample after posttreatment with NaCl solution that indicates mostly reversible sorption of zinc in the zeolite via ion exchange mechanism. The results suggest that the studied zeolite tuff could successfully be used for the removal of zinc from wastewaters. (c) 2007 Elsevier Inc. All rights reserved.

Keywords: Clinoptilolite, Zeolite, Zinc-Loaded, Zn2+, XANES, EXAFS, XPS, Wastewater Treatment, Natural Zeolites, Heavy-Metals, Adsorption, Removal, Water, Zinc, Minerals, Ions, Lead

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Full Text: [2008\Mic Mes Mat108, 22.pdf](2008/Mic%20Mes%20Mat108,%2022.pdf)

Abstract: Quaternary ammonium functionalized mesoporous media were synthesized for the effective removal of perchlorate. As a support host, mesoporous molecular sieve, SBA-15, was mono- or bifunctionalized with quaternary ammonium ions, N-((trimethoxysilyl)propyl)-N,N,N-trimethylammonium chloride (TSPMC) and N-((trimethoxysilyl)propyl)-N,N,N-tributylammonium chloride (TSPBC), by an incipient wetness impregnation method. Pore structures of the media were characterized by using nitrogen adsorption-desorption isotherms and an X-ray diffraction (XRD) analysis. The perchlorate adsorption speeds and capacities for the mono- or bifunctionalized SBA-15 were also examined, and compared with a conventional anion exchange resin (IRA-900). All the functionalized SBA-15 showed fast adsorption equilibriums within 10 min, while IRA-900 had a quite slow removal speed and did not reach an equilibrium for 5 h, as shown in other studies on a perchlorate removal with organic polymer anion exchange resins. The ammonium bifunctionalized mesoporous medium, 2 mmol of TSPMC and 2 mmol of TSPBC grafted into I g of SBA-15 (designated as MB22), showed a 1.14-1.39 (or 1.31-1.88) times higher adsorption capacity (or distribution coefficient) than those of monofunctionalized SBA-15. Compared to IRA-900, MB22 had about a 1400 times faster initial sorption rate. By considering the molecular size-selectivity, biodegradability. and thermal/chemical stability, quaternary ammonium bifunctionalized mesoporous molecular sieves are thought to have lots of merits for a perchlorate-containing water treatment. (c) 2007 Published by Elsevier Inc.

Keywords: Bifunctionalization, Mesoporous, Perchlorate, SBA-15, Ammonium, Anion-Exchange Resins, Contaminated Groundwater, Ion-Exchange, Adsorption, Sorption, Silica, Arsenate, SBA-15, Organosilicas, Kinetics

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Full Text: [2008\Mic Mes Mat110, 560.pdf](2008/Mic%20Mes%20Mat110,%20560.pdf)

Abstract: SBA-15, mesoporous material, is a very excellent candidate for drug delivery system because its pore size is easy to control according to synthesis conditions and the presence of swelling agent. In this study, a known swelling agent, 1,3,5-trimethylbenzene (TMB), was used to increase the pore size with increased aging temperature and prolonged aging time. Furthermore, 3-aminopropyltriethoxysilane (APTES) was incorporated on SBA-15 surface via post synthesis method to separate protein effectively. The samples were characterized by X-ray diffraction (XRD), nitrogen adsorption and desorption analyses, scanning electron microscopy (SEM), transmission electron microscopy (TEM), and Fourier Transform Infrared (FT-IR). Adsorption capacity increased with temperature at the isoelectric point (pI) of bovine serum albumin (BSA) regardless of the pore size of SBA-15 samples. Release studies were carried out in the range of pH from neutral to basic solution on unmodified and amine-modified samples. In addition, the adsorption mechanism was investigated by employing the pseudo-first order, pseudo-second order, and intraparticle diffusion models. (C) 2007 Elsevier Inc. All rights reserved.

Keywords: Adsorption, Aging, Bovine Serum Albumin, BSA, Capacity, Copolymer, Desorption, Diffusion, Drug, Drug Delivery, Drug Delivery System, Drug-Delivery, Electron Microscopy, FT-IR, FTIR, Functionalized SBA-15, Immobilization, Lysozyme, MCM-41, Mechanism, Mesoporous, Mesoporous Material, Mesoporous Molecular-Sieves, Models, pH, Protein, Protein Adsorption, Pseudo-Second Order, Release, Rights, SBA-15, Scanning Electron Microscopy, SEM, Silica SBA-15, Size, Solution, Synthesis, TEM, Temperature, Triblock, X-Ray Diffraction, XRD

? Öztaş, N.A., Karabakan, A. and Topal, Ö. (2008), Removal of Fe(III) ion from aqueous solution by adsorption on raw and treated clinoptilolite samples. *Microporous and Mesoporous Materials*, **111** (1-3), 200-205.

Full Text: [2008\Mic Mes Mat111, 200.pdf](2008/Mic%20Mes%20Mat111,%20200.pdf)

Abstract: Iron(III) adsorption from aqueous solutions onto raw and pretreated clinoptilolite was investigated here. Various parameters for iron removal: initial solution pH, contact time and metal ion concentration were optimized. The equilibrium data were modeled by both the Langmuir and Freundlich adsorption isotherms at optimal conditions. Adsorption capacities of raw samples and those pretreated with Na2S2O8 at 20°C, 70°C and with HNO3 at 20°C were all similar but samples pretreated with HNO3 at 70°C were significantly different; iron(III) removal from samples pretreated with HNO3 decreased with increasing pretreatment temperature. Tests with Fe+3 solutions containing phenol, CsCl or KCl, indicated the continued presence of these ions in zeolite which either promoted or retarded the adsorption of iron. The Fe+3 adsorption capacity of clinoptilolite pretreated with HNO3 at 70°C was about two times greater with, than without, CsCl and KCl. The kinetics of iron adsorption from aqueous solution were also investigated using the first-order Lagergren equation and a pseudo-second-order model. (C) 2007 Published by Elsevier Inc.

Keywords: Acid Treatment, Adsorption, Adsorption Isotherms, Aqueous Solution, Aqueous Solutions, Capacity, Clinoptilolite, Cr3+, CsCl, Cu2+, Equilibrium, Fe(III), Fe(III) Ion, Fe3+, Freundlich, Iron, Iron(III), Iron Adsorption, Isotherms, KCl, Kinetics, Langmuir, Lead, Metal, Metals, Model, Natural Zeolite, pH, Phenol, Pretreatment, Pseudo-Second-Order Model, Removal, Solution, Temperature, Waters, Zeolite, Zinc

? Uğurlu, M., Gürses, A. and Açıkyıldız, M. (2008), Comparison of textile dyeing effluent adsorption on commercial activated carbon and activated carbon prepared from olive stone by ZnCl2 activation. *Microporous and Mesoporous Materials*, **111** (1-3), 228-235.

Full Text: [2008\Mic Mes Mat111, 228.pdf](2008/Mic%20Mes%20Mat111,%20228.pdf)

Abstract: Adsorption of Remazol Red B on activated carbon prepared from olive stone and commercial activated carbon from aqueous solutions was compared. Different activating agent (ZnCl2) amounts and adsorbent particle size were studied to optimize adsorbent surface area. The adsorptive property of commercial activated carbon and activated carbon prepared from olive stone were investigated in terms of adsorbent dose, temperature, equilibrium time and pH. Then the obtained results were compared for all parameters, According to the results, the equilibrium time, optimum pH, adsorbent dosage were found 60 min, pH < 3-4 and 1.0 g/50 ml respectively. Lower adsorption capacity for RRB on activated carbon prepared from olive stone was found. The kinetic data for both adsorbents supports pseudo-second order model (r2 > 0.99) and intra-particle model (r2 > 0.95) but the first order kinetic model did not adequately fit to the experimental values (r2 < 0.76). The equilibrium adsorption data were interpreted using Langmuir and Freundlich models. The adsorption of Remazol Red B was better represented by the Langmuir equation. In addition, the thermodynamic parameters, standard free energy (Delta G degrees), standard enthalpy (Delta H degrees), standard entropy (Delta S degrees) of the adsorption process were calculated for both adsorbents. To reveal the adsorptive characteristics of the produced active carbon, surface area measurements were carried out and structural analysis was performed using SEM-EDS. (C) 2007 Elsevier Inc. All rights reserved.

Keywords: Acid Dyes, Activated Carbon, Activation, Active Carbon, Adsorbent, Adsorbent Dose, Adsorbents, Adsorption, Analysis, Aqueous Solutions, Aqueous-Solutions, Bagasse, Cadmium, Capacity, Carbon, Chemical Activation, Congo Red, Decolorization, Entropy, Equilibrium, Experimental, First, Freundlich, Kinetic, Kinetic Equations, Kinetic Model, Langmuir, Langmuir Equation, Model, Models, Olive Stone, Particle Size, pH, Pseudo-Second Order, Removal, Residues, Rights, Sawdust, Size, Standard, Surface Area, Temperature, Textile Dyeing Effluent, Thermodynamic, Thermodynamic Parameters, Waste

? Fierro, V., Torné-Fernández, V., Montané, D. and Celzard, A. (2008), Adsorption of phenol onto activated carbons having different textural and surface properties. *Microporous and Mesoporous Materials*, **111** (1-3), 276-284.

Full Text: [2008\Mic Mes Mat111, 276.pdf](2008/Mic%20Mes%20Mat111,%20276.pdf)

Abstract: Adsorption of phenol in aqueous phase onto activated carbons (ACs) having different textural and surface properties has been considered. Six types of ACs were used: three were commercial, and three were obtained from Kraft lignin chemically activated with sodium hydroxide. potassium hydroxide or ortho-phosphoric acid. The apparent surface areas of the commercial ACs varied from 620 to 1320 m2/g, while ACs made from lignin presented surface areas as high as 1300 m2/g and 2900 m2/g when prepared with H3PO4 and alkaline hydroxides, respectively; moreover, the highest proportion of microporosity was found for ACs derived from lignin. A kinetic study was carried out, showing that the phenol adsorption data may be correctly adjusted, for all the ACs tested, by an equation corresponding to a pseudo second-order chemical reaction. Freundlich, Langmuir and Tempkin equations were tested for modelling the adsorption isotherms at equilibrium, and it was concluded that Langmuir model fitted adequately the experimental data. However, Tempkin model fitted even better the adsorption data obtained with ACs derived from lignin activated with alkaline hydroxides, which are characterized by the highest number of surface groups. Remarkably high phenol adsorption capacities were found for the ACs prepared by activation of Kraft lignin with NaOH and KOH: 238 and 213 mg/g of AC, respectively. Finally, the adsorption of phenol was found to depend not only on the micropore volume, but also on the total amount of carbonyl and basic groups and on the ratio of acid to basic groups. (C) 2007 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Activated Carbons, Activation, Adsorption, Adsorption Isotherms, Aqueous Phase, Basic Dye, Chemical Activation, Equilibrium, Experimental, FIR Wood, Freundlich, Isotherms, Kinetic, Kinetic Study, Kinetics, KOH, Kraft Lignin, Langmuir, Langmuir Model, Mechanism, Microporosity, Microporous Carbons, Model, Modelling, Phenol, Pseudo Second-Order, Removal, Rights, Surface Areas, Water

? Zhao, M.F. and Liu, P. (2008), Adsorption behavior of Methylene blue on halloysite nanotubes. *Microporous and Mesoporous Materials*, **112** (1-3), 419-424.

Full Text: [2008\Mic Mes Mat112, 419.pdf](2008/Mic%20Mes%20Mat112,%20419.pdf)

Abstract: The halloysite nanotubes (HNTs) were used as nano-adsorbents for the removal of the cationic dye, methylene blue (MB), from aqueous solutions. The dye adsorption experiments were carried out by using bath procedure. Experimental results have shown that the basic pH, increasing initial dye concentration and lower temperature favored the adsorption. The dye adsorption equilibrium was rapidly attained after 30 min of contact time. The factors controlling the adsorption process were also calculated and discussed. and a maximum adsorption capacity of 84.32 mg/g of methylene blue was achieved. It was noted that the dye adsorbed halloysite nanotubes had poor stability in aqueous suspension and deposited completely within 30 min while the original aqueous suspension of halloysite nanotubes remained stable for months. (C) 2007 Elsevier Inc. All rights reserved.

Keywords: Adsorption, Removal, Methylene Blue, Halloysite Nanotubes, Nano-Adsorbent, Aqueous-Solutions, Mesoporous Silica, Carbon Nanotubes, Reactive Dyes, Waste-Water, Removal, Clay, Kinetics, Adsorbents, Surface

? Yu, M.J., Li, X. and Ahn, W.S. (2008), Adsorptive removal of arsenate and orthophosphate anions by mesoporous alumina. *Microporous and Mesoporous Materials*, **113** (1-3), 197-203.

Full Text: [2008\Mic Mes Mat113, 197.pdf](2008/Mic%20Mes%20Mat113,%20197.pdf)

Abstract: mesoporous alumina was synthesized using aluminum alkoxide in the presence of a cationic surfactant under hydrothermal conditions. The material contains a wormhole-like mesopore structure, and exhibits high surface area (483 m2/g) and pore volume (0.82 cm3/g). The adsorption capacities of the mesoporous alumina for arsenate (61.3 mg/g) and orthophosphate (37.4 mg/g) anions in an aqueous solution were 5.1 and 2.2 times higher, respectively, with initial adsorption rates being 3.8 (1.5 mg/g min) and 1.9 (1.3 mg/g min) times faster than those obtained with an activated alumina. The textural features of larger surface area and pore volume of the mesoporous alumina compared to the activated alumina are believed to be responsible for this enhancement in adsorption behavior. (C) 2007 Elsevier Inc. All rights reserved.

Keywords: Mesoporous Alumina, Adsorption, Arsenate, Orthophosphate, Mesostructured Forms, Phosphorus Removal, Activated Alumina, Ferric Hydroxide, Metal-Ions, Water, Equilibrium, Mechanism, Kinetics, Sorption

? Bulut, E., Özacar, M. and Şengil, İ.A. (2008), Adsorption of malachite green onto bentonite: Equilibrium and kinetic studies and process design. *Microporous and Mesoporous Materials*, **115** (3), 234-246.

Full Text: [2008\Mic Mes Mat115, 234.pdf](2008/Mic%20Mes%20Mat115,%20234.pdf)

Abstract: The adsorption of malachite green onto bentonite in a batch adsorber has been studied. The effects of contact time, initial pH and initial dye concentration on the malachite green adsorption by the bentonite have been studied. Malachite green removal was seen to increase with increasing contact time until equilibrium and initial dye concentration, and the adsorption capacity of bentonite was independent of initial pH in the range 3-11. Four kinetic models, the pseudo first- and second-order equations, the Elovich equation and the intraparticle diffusion equation, were selected to follow the adsorption process. Kinetic parameters; rate constants, equilibrium adsorption capacities and correlation coefficients, for each kinetic equation were calculated and discussed. It was shown that the adsorption of malachite green onto bentonite could be described by the pseudo second-order equation. The experimental isotherm data were analyzed using the Langmuir, Freundlich, Temkin and Dubinin-Radushkevich equations. Adsorption of malachite green onto bentonite followed the Langmuir isotherm. The thermodynamic parameters, such as ΔH°, ΔS° and ΔG°, were also determined and evaluated. A single stage batch adsorber was designed for different adsorbent mass/treated effluent volume ratios using the Langmuir isotherm. (c) 2008 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Adsorbent, Adsorption, Adsorption Capacity, Adsorption Kinetics and Isotherm, Adsorption Mechanism, Aqueous-Solutions, Basic-Dyes, Batch Adsorber Design, Batch Adsorber Design, Bentonite, Calcined Alunite, Column Operations, Component Systems, Disperse Dyes, Equilibrium, Isotherm, Low-Cost Adsorbents, Malachite Green, Process Design, Waste-Water

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Full Text: [2009\Mic Mes Mat117, 213.pdf](2009/Mic%20Mes%20Mat117,%20213.pdf)

Abstract: In this paper, we report the effects of morphology, wall composition of mesoporous materials and different buffer solutions on drug delivery profiles. Hollow spheres of periodic mesoporous organosilica (PMO) were prepared and used as drug carriers which exhibited higher loading capacity and slower release rate compared to the conventional periodic mesoporous silica (PMS) spheres and solid spheres of PMO. This hollow PMO showed promising properties as a reservoir to encapsulate and store larger quantities of guest molecules within its “empty” core. Moreover, its organic reactive sites allowed stronger interactions to the hydrophobic guest molecules, in contrast to inorganic wall possessed by PMS materials. Antibiotic tetracycline was used as a model drug to study the effect of framework difference between PMO and PMS materials on the loading and release processes. Two kinds of release medium, simulated body fluid (SBF) solution (pH 7.4) and phosphate buffer (PB) solution (pH 1.5) were used in this study, which revealed very different release profiles. A slower delivery rate was observed in SBF solution, attributed to the different ionic interactions between the guest molecule and the host material in the two different pH solutions. Overall, hollow PMO shows the lowest release rate and the highest loading amount compared to the other two materials studied herein. The kinetic study reveals that drug release from host material follows the second order kinetic model better than the first order mass transfer model. (C) 2008 Elsevier Inc. All rights reserved.

Keywords: Bioactive Glass, Core-Shell Structure, Delivery-System, Devices, Drug Release, Ibuprofen, Kinetic-Model, Kinetics, MCM-41, Mesoporous Silica Spheres, Organic Groups, PMO Hollow Spheres, Property, Spheres, Tetracycline

? Uğurlu, M. (2009), Adsorption of a textile dye onto activated sepiolite. *Microporous and Mesoporous Materials*, **119** (1-3), 276-283.

Full Text: [2009\Mic Mes Mat119, 276.pdf](2009/Mic%20Mes%20Mat119,%20276.pdf)

Abstract: Adsorption of Remazol red B (RRB) on thermal activated sepiolite (TAS) and acid activated sepiolite (AAS) from aqueous solutions was investigated at different parameters, such as, adsorbent type, temperature, contact time and solution pH. Then, the obtained results were compared for all the parameters. According to the results, the equilibrium time, optimum pH and adsorbent type were found to be 120 min., 2-3 approximate to pH and AAS, respectively, and it was found that the adsorption capacity of AAS samples was higher than that of TAS. The kinetic data for both sepiolite samples support the pseudo-second-order model (r2> 0.99), and intra-particle model (r2> 0.92) but the first order kinetic model did not adequately fit to experiment values (r2< 0.87). The equilibrium adsorption data were interpreted using Langmuir and Freundlich models. The adsorption of RRB was better represented by the Langmuir equation (r2> 0.99). in addition, the thermodynamic parameters, ΔH degrees, ΔS degrees, ΔG° and E-a were also calculated for RRB adsorption onto both TAS and AAS. In order to reveal the adsorptive characteristic of sepiolite samples, surface area, SEM, XRD and FT-IR spectra analyses were carried out. The results show that AAS samples can be an alternative low-cost adsorbent for removing dye from wastewater. Published by Elsevier Inc.

Keywords: AA, AAS, Acid Dyes, Adsorbent, Adsorption, Adsorption Capacity, Alternative, Analyses, Aqueous Solutions, Aqueous-Solutions, Capacity, Congo Red, Contact, Data, Dye, Equilibrium, Equilibrium Time, Experiment, First, First Order, Freundlich, FT-IR, FTIR, FTIR Spectra, Intraparticle, Isotherms, Kinetic, Kinetic Model, Kinetic Models, Kinetics, Langmuir, Langmuir Equation, Low Cost, Low Cost Adsorbent, Low-Cost Adsorbent, Mar, Methylene-Blue, Model, Models, Olive Stone, pH, Pseudo Second Order, Pseudo-Second-Order, Pseudo-Second-Order Model, Reactive Red Dye (RRB), Removal, Rice-Husk, SEM, Sepiolite, Solution, Solutions, Support, Surface, Surface Area, Temperature, Textile Dye, Thermodynamic, Thermodynamic Parameters, Values, Waste-Water, Wastewater, XRD, ZnCl2 Activation

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Full Text: [2009\Mic Mes Mat122, 283.pdf](2009/Mic%20Mes%20Mat122,%20283.pdf)

Abstract: Coral-like porous gold (PAu) as a sensing substrate for metal ion was prepared using a templating method with an aluminum precursor and stearic acid salts. After selective etching of the nanoporous alumina in bicontinuous phase, free-standing pure gold on the ITO substrate was obtained. The resulting materials showed submicron-sized pores in a pure gold network and high electro-conductivity as bulk gold. In a proof-of-concept test, we found that SH-modifed PAu/ITO electrode was good applicable sensing materials in low concentration of Hg(II). (C) 2009 Elsevier Inc. All rights reserved.

Keywords: Porous Gold, Template, Mercury Ion, Sensor, Metal Ion Detection, Pore-Size Distribution, Nanoporous Gold, Fabrication, Template, Alumina, Surface

? Park, K.H., Balathanigaimani, M.S., Shim, W.G., Lee, J.W. and Moon, H. (2010), Adsorption characteristics of phenol on novel corn grain-based activated carbons. *Microporous and Mesoporous Materials*, **127** (1-2), 1-8.

Full Text: [2010\Mic Mes Mat127, 1.pdf](2010/Mic%20Mes%20Mat127,%201.pdf)

Abstract: The adsorption of phenol on highly porous novel corn grain-based activated carbons (CG-ACs) (>2000 m2/g) were assessed in a batch mode. The optimum conditions for the adsorption of phenol on R-series (R-1/2, R-1/3, and R-1/4) CG-ACs were determined by analyzing the various adsorption conditions such as the adsorption temperature (293.15-313.15 K), initial solution concentrations (25-150 mg/L), and initial pH (3-12) of the solution. In addition, effects of CG-AC properties such as physical properties, energetic heterogeneity nature and surface chemistries on phenol adsorption were also investigated. In overall, it was found that the influences of physical properties and energetic heterogeneity nature of CG-ACs on phenol adsorption are considerably high compared to their surface chemistry. More specially, the increase in phenol adsorption capacity with increasing fraction of microporosity ranging from 3 to 11 angstrom, is likely due to the micropore filling, was noted. The Langmuir model well fitted with the experimental results compared to the Freundlich. Besides, the pseudo second-order equation was successfully used to represent the results of kinetic studies. (C) 2009 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Activated Carbons, Adsorption, Adsorption Capacity, Agricultural Waste, Aqueous-Solutions, Batch, Batch Mode, Capacity, Characteristics, Chemistry, Corn, Corn Grain, Experimental, Freundlich, Heterogeneity, Kinetic, Kinetic Studies, Langmuir, Langmuir Model, Liquid-Phase Adsorption, Microporosity, Mode, Model, Oxygen, pH, Phenol, Physical, Pseudo Second Order, Pseudo Second-Order, Pseudo Second-Order Equation, Pseudo-Second-Order, Removal, Rights, Second Order, Second-Order, Second-Order Equation, Seed Coat, Solution, Surface, Surface Chemistry, Surface Heterogeneity, Temperature, Waste-Water

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Full Text: [2010\Mic Mes Mat127, 50.pdf](2010/Mic%20Mes%20Mat127,%2050.pdf)

Abstract: Montmorillonite KSF and K10 were used as precursor materials for synthesis of aluminum pillared K10 and KSF (Al-K10 and Al-KSF) which characterized by TGA, XRD, SEM and FT-IR spectroscopic analysis. The sorption of trimethoprim (TMP) which is commonly employed as an antibiotic onto Al-K10 and AlKSF was also investigated as a function of adsorbent dosage, solution pH, contact time and temperature. The adsorption kinetics was interpreted using pseudo-first-order, pseudo-second-order kinetic models and intraparticle diffusion model. The pseudo-second-order model provided the best correlation. Adsorption isotherm parameters were obtained from Freundlich, Langmuir and Dubinin-Radushkevich (DR) isotherm models. Adsorption of TMP onto Al-K10 and Al-KSF was physical in nature and ionexchange mechanism for DR equation, respectively. Al-K10 exhibits higher removal capacity at lower adsorbent dosages in comparison with Al-KSF. The removal capacity was increased by increasing pH. ΔH-0, ΔS-0 and ΔG(0) showed that adsorption of trimethoprim was endothermic, increasing randomness and not spontaneous in nature. (C) 2009 Elsevier Inc. All rights reserved.

Keywords: Adsorbent, Adsorbent Dosage, Adsorption, Adsorption Isotherm, Adsorption Kinetics, Aluminum, Aluminum Pillared Clay, Analysis, Antibiotics, Antimicrobials, Aqueous-Solutions, Capacity, Characterization, Comparison, Contact Time, Correlation, Diffusion, Diffusion Model, Dr Equation, Endothermic, Equilibrium, Freundlich, FT-IR, FTIR, Function, Intraparticle Diffusion, Intraparticle Diffusion Model, Ionexchange, Isotherm, Isotherm Models, Isotherm Parameters, Kinetic, Kinetic Models, Kinetics, Langmuir, Mass-Spectrometry, Mechanism, Model, Models, Modified Montmorillonite, Montmorillonite, Montmorillonite K10, Montmorillonite KSF, Personal Care Products, pH, Pharmaceuticals, Physical, Pseudo First Order, Pseudo Second Order, Pseudo-First-Order, Pseudo-Second-Order, Pseudo-Second-Order Model, Randomness, Removal, Rights, Sem, Solid-Phase Extraction, Solution, Sorption, Spontaneous, Synthesis, Temperature, TGA, Trimethoprim, Waste-Water, XRD

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Full Text: [2010\Mic Mes Mat127, 152.pdf](2010/Mic%20Mes%20Mat127,%20152.pdf)

Abstract: Two different kinds of mesoporous alumina samples were prepared using aluminum tri-sec-butoxide in the presence of either cetyltrimethylammonium bromide (MA-1) or stearic acid (MA-2) as a structure-directing agent, and tested for adsorptive removal of fluoride in water. Both materials contain a wormhole-like mesopore structure, but exhibited different textural properties: surface area (421 or 650 m2/g) and pore volume (0.96 or 0.59 cm3/g). These mesoporous aluminas demonstrated significantly improved adsorption capacity and faster kinetics to those of the commercial activated aluminas in fluoride removal by adsorption process. MA-2 prepared using stearic acid, in particular, demonstrated an adsorption capacity (14.26 mg/g) and initial adsorption rate (14.6 mg/g min) that were respectively 2.2 and 45 times higher than those of a commercial gamma alumina. The textural features of larger surface area and relatively smaller pore size in MA-2 compared to the activated aluminas are believed to be responsible for this enhancement in adsorption process. (C) 2009 Elsevier Inc. All rights reserved.

Keywords: Activated Alumina, Adsorption, Adsorption Capacity, Adsorptive Removal, Alumina, Aluminum, Aluminum Tri-Sec-Butoxide, Aqueous-Solution, Arsenate, Bromide, Capacity, Catalysis, Cetyltrimethylammonium Bromide, Donnan Dialysis, Drinking-Water, Equilibrium, Fluoride, Fluoride Adsorption, Fluoride Removal, Fly-Ash, Gamma, Gamma-Alumina, Kinetics, Mesopore, Mesoporous, Mesoporous Alumina, Metal-Ions, Pore Volume, Removal, Rights, Selective Removal, Size, Stearic Acid, Structure, Surface, Surface Area, Volume, Water

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Full Text: [2010\Mic Mes Mat129, 54.pdf](2010/Mic%20Mes%20Mat129,%2054.pdf)

Abstract: In the present study mesoporous alumina was modified by coating copper oxide to enhance the defluoridation of water. The copper oxide coated alumina (COCA) was synthesised by impregnating alumina with copper sulphate solution followed by calcination at 450ºC in presence of air. The COCA was thoroughly characterised using powder XRD, SEM and BET surface area analysis. It was observed that coating of copper oxide improves the adsorption capacity of unmodified alumina from 2.232 to 7.770 mg g-1. Various adsorption isotherm and kinetic parameters were computed using batch adsorption studies to determine the adsorption capacity and to understand the mechanism of adsorption. The results revealed that the adsorption follows Langmuir isotherm and pseudo-second-order kinetic models. The adsorption capacity obtained from Langmuir isotherm plots were 3.155 mg g-1. Assessment of the water quality before and after treatment with COCA also confirmed that the there is no leaching of copper and other parameters were also within permissible limits of Indian drinking water standard indicating that the COCA can be used for treatment of fluoride contaminated drinking water. (C) 2009 Elsevier Inc. All rights reserved.

Keywords: Activated Alumina, Adsorbent, Adsorption, Adsorption Capacity, Adsorption Isotherm, Air, Alumina, Analysis, Aqueous-Solutions, Batch, Batch Adsorption, Bet, Bet Surface Area, Calcination, Capacity, Coated, Coating, Copper, Copper Oxide, Defluoridation, Drinking Water, Fluoride, Fluoride Removal, Fluoride Removal, Isotherm, Kinetic, Kinetic Models, Kinetic Parameters, Langmuir, Langmuir Isotherm, Leaching, Mechanism, Mechanism Of Adsorption, Mesoporous, Mesoporous Alumina, Models, Modified, Modified Chitosan, Oxide, Pseudo Second Order, Pseudo-Second-Order, Quality, Rights, SEM, Solution, Sorption, Standard, Surface, Surface Area, Treatment, Water, Water Quality, Water-Quality, XRD

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Full Text: [2010\Mic Mes Mat130, 83.pdf](2010/Mic%20Mes%20Mat130,%2083.pdf)

Abstract: Adsorption of Cr(VI) on Pohang zeolite (PZ) and Haruna zeolite (HZ) modified with surfactant hexadecylpyridinium bromide (HDPB) was investigated by batch studies, X-ray diffraction (XRD), FT-IR spectroscopy and scanning electron microscopy (SEM) analyses. The results show that Cr(VI) adsorption on HDPB-zeolites have quick initial speed and adsorption kinetics follow pseudo-second order kinetic model within the initial adsorption stage. HDPB-zeolites have higher affinities toward chromate than that to natural zeolites, and particularly, HDPB-HZ exhibits the highest adsorption capacity in the all samples studied. Additionally, the adsorption of Cr(VI) on HDPB-PZ is almost constant in a wide pH range 3.0-11.0 of solution. In contrast, the Cr(VI)-uptake for HDPB-HZ strongly depends on the solution pH. The highest Cr(VI) adsorption on HDPB-HZ occurs in acidic solutions (pH 3.0-5.0) and the amount of sorbed Cr(VI) decreases rapidly with increasing pH. High solution ionic strength has a significant effect on chromate adsorption. The chromate adsorptions by HDPB-zeolites are not affected by coexisting chloride, nitrate, sulfate, and calcium as well as magnesium ions but are reduced drastically in the presence of bicarbonate and phosphate ions. Moreover, HDPB-zeolites can achieve high regeneration efficiency after using sodium carbonate extraction and hydrochloric acid. The analyses of XRD, FTIR and SEM reveal that HDPB cations are incorporated into the zeolite’s structure via ion-exchange and Van der Waals forces. It also suggests that anion exchange and electrostatic interaction are probably the main mechanisms that govern the Cr(VI) adsorption. (C) 2009 Elsevier Inc. All rights reserved.

Keywords: Adsorption, Adsorption Capacity, Adsorption Kinetics, Affinity, Analyses, Aqueous-Solution, Batch, Batch Studies, Bromide, Calcium, Capacity, Carbonate, Cations, Chloride, Chromate, Chromate, Complexes, Cr(VI), Cr(VI) Adsorption, Efficiency, Electron Microscopy, Extraction, FT-IR, FTIR, FTIR Spectroscopy, Heavy-Metal, Hexadecylpyridinium Bromide, Interaction, Ion Exchange, Ion-Exchange, Ionexchange, Ionic Strength, Ions, Kinetic, Kinetic Model, Kinetics, Magnesium, Mechanisms, Model, Modified, Natural, Natural Zeolites, Nitrate, pH, Phosphate, Pseudo Second Order, Pseudo-Second Order, Pseudo-Second-Order, Range, Regeneration, Removal, Rights, Scanning Electron Microscopy, SEM, Sodium, Solution, Solutions, Sorption, Spectroscopy, Strength, Structure, Sulfate, Surfactant, Surfactant-Modified Clinoptilolite, Surfactant-Modified Zeolite, Waste-Water, X-Ray, X-Ray Diffraction, XRD, Zeolite, Zeolites

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Full Text: [2010\Mic Mes Mat131, 177.pdf](2010/Mic%20Mes%20Mat131,%20177.pdf)

Abstract: Humic acid is generally considered as one of ubiquitous pollutants in surface and ground water. In this study, aminopropyl functionalized SBA-15 adsorbents with varied aminopropyl contents were prepared via the co-condensation method and characterized by elemental analysis, X-ray diffraction, N-2 adsorption, IR spectroscopy and zeta-potential measurements. The adsorption behaviors of the adsorbents for humic acid were investigated using batch experiments and adsorption kinetic tests. SBA-15 exhibited low humic acid adsorption amount. In contrast, substantially enhanced humic acid adsorption was observed over aminopropyl functionalized SBA-15 adsorbents. Humic acid adsorption over the adsorbents could be well described using Langmuir adsorption model and the maximum humic acid adsorption capacities were found to be 8.5, 72.5 and 117.6 mg g-1 for SBA-15, APTS-SBA-15-5% and APTS-SBA-15-10%, respectively. In addition, increasing solution pH led to monotonically decreased humic acid adsorption over aminopropyl functionalized SBA-15. Humic acid adsorption process over functionalized SBA-15 could be well described using pseudo-second-order kinetic model and HA adsorption was controlled by both external and intraparticle diffusion based on the fitting results using Weber-Morris model. (C) 2009 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon Adsorption, Adsorbents, Adsorption, Adsorption Capacities, Adsorption Kinetic, Adsorption Kinetics, Adsorption Of Humic Acid, Aminopropyl Functionalized SBA-15, Analysis, Aqueous-Solutions, Batch, Batch Experiments, Diffusion, Disinfection By-Products, Experiments, Functionalized Sba-15, Ground Water, Humic Acid, Intraparticle Diffusion, IR, Kinetic, Kinetic Model, Langmuir, Mesoporous Silica, Model, Molecular-Sieves, N-2, N2, N2 Adsorption, pH, Pollutants, Pseudo Second Order, Pseudo-Second-Order, Pseudo-Second-Order Kinetic Model, Removal, Rights, SBA-15, Selective Adsorption, Solution, Spectroscopy, Substances, Surface, Surface And Ground Water, Unique Adsorption, Water, X-Ray, X-Ray Diffraction, Zeta Potential

? Chen, R.Z., Zhang, Z.Y., Feng, C.P., Hu, K., Li, M., Li, Y., Shimizu, K., Chen, N. and Sugiura, N. (2010), Application of simplex-centroid mixture design in developing and optimizing ceramic adsorbent for As(V) removal from water solution. *Microporous and Mesoporous Materials*, **131** (1-3), 115-121.

Full Text: 2010\Mic Mes Mat131, 115.pdf

Abstract: A novel ceramic adsorbent, developed with a mixture of akadama mud, wheat starch, and Fe2O3, has been used for arsenic(V) removal from the water solution. The simplex-centroid mixture design (SCMD) method was used to determine the optimum mixture proportion for both arsenic adsorption efficiency and ceramic mechanical strength. The analysis of variance (ANOVA) results and the predicted values were in good agreement with the experiment data, indicating that the SCMD is a reliable method for determining the optimum mixture proportion of ceramic. A batch adsorption experiment using the developed ceramic indicated high efficiency for removing As(V) at neutral pH (6.9) and room temperature (25°C). Langmuir and Freundlich adsorption isotherms were measured for a range of As(V) initial concentrations of 5-100 mg/L under the same conditions. The equilibrium data fitted very well to both isotherms, indicating that As(V) adsorption by the ceramic was complex multilayer adsorption. The developed ceramic is a cost-effective adsorbent for As(V) removal from water solution, especially from low-level phosphate and fluoride solution, and no secondary pollution caused by the adsorbent was observed after adsorption. (C) 2009 Elsevier Inc. All rights reserved.

Keywords: Adsorption, Adsorption Isotherms, Alumina, Aqueous-Solution, Arsenic(V) Adsorption, Arsenic Adsorption, Batch, Ceramic Adsorbent, Equilibrium, Fluoride, Freundlich, Groundwater, Iron, Isotherms, Kinetics, Langmuir, Optimization, Removal, Simplex-Centroid Mixture Design, Sorption Kinetics, Synthetic Zeolites, Water

? Yazdankhah, A., Moradi, S.E., Amirmahmoodi, S., Abbasian, M. and Shoja, S.E. (2010), Enhanced sorption of cadmium ion on highly ordered nanoporous carbon by using different surfactant modification. *Microporous and Mesoporous Materials*, **133** (1-3), 45-53.

Full Text: [2010\Mic Mes Mat133, 45.pdf](2010/Mic%20Mes%20Mat133,%2045.pdf)

Abstract: This paper reported, the effect of different type of surfactants on the adsorption of Cd(II) on ordered mesoporous carbon was investigated using cationic, anionic and non-ionic surfactant. The structural order and textural properties of the mesoporous adsorbents was studied by XRD and nitrogen adsorption. Adsorption experiments were conducted in batch mode with the variables such as amount of agitation speed, contact time, temperature, initial solution concentration and solution pH. The Cd(II) removal for cationic surfactant cetylpyridinium chloride (CPC), non-ionic surfactant Triton X-100 (TX), anionic surfactant sodium dodecyl sulfate (SDS) modified mesoporous carbon and unmodified mesoporous carbons were found to be 94.5%, 88.4%, 84% and 68%, respectively. The sorption data were correlated better with the Langmuir adsorption isotherm than Freundlich isotherm. (C) 2010 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Adsorbents, Adsorption, Adsorption, Adsorption Isotherm, Agitation, Aromatic-Hydrocarbons, Batch, Batch Mode, Biosorbent, Cadmium, Cadmium Ion, Carbon, Cationic Surfactant, Cd(II), Cd(II) Removal, Cetylpyridinium Chloride, Chloride, Chromium(VI), Concentration, Data, Experiments, Freundlich, Freundlich Isotherm, Highly Ordered Nanoporous Carbon, Isotherm, Kinetics, Langmuir, Langmuir Adsorption Isotherm, Langmuir Isotherm, Mesoporous, Mesoporous Carbon, Metal-Ions, Mode, Modification, Modified, Nanoporous Carbon, Nitrogen, Nonionic Surfactant, Ordered Mesoporous Carbon, pH, Removal, Rights, SDS, Sodium, Sodium Dodecyl Sulfate, Solution, Sorption, Sulfate, Surfactant, Surfactants, Temperature, Ultrafiltration, XRD

? Kim, Y.H., Lee, B., Choo, K.H. and Choi, S.J. (2011), Selective adsorption of bisphenol A by organic-inorganic hybrid mesoporous silicas. *Microporous and Mesoporous Materials*, **138** (1-3), 184-190.

Full Text: [2011\Mic Mes Mat138, 184.pdf](2011/Mic%20Mes%20Mat138,%20184.pdf)

Abstract: Organic-inorganic hybrid mesoporous material (Ph-MS) was synthesized by co-condensation of phenyltriethoxysilane and tetraethoxysilane. Ph-MS, which had pore size of 0.96 nm and surface area of 750 m(2)/g, exhibited mesoscopic orderness and suitable textural properties to act as a potential adsorbent for bisphenol A (BPA), which is one of the endocrine disrupting chemicals. Ph-MS adsorbed most amount of BPA faster than powder activated carbon (PAC), and the kinetic adsorption data for Ph-MS was fitted well with the pseudo-second-order kinetic model. Maximum adsorption capacities of adsorbents were estimated from isotherm data using Langmuir model. Ph-MS exhibited high adsorption affinity to BPA showing large adsorption capacity of 351 mg/g, while showing little adsorption affinity to phenol (40 mg/g). PAC, which is one of the general adsorbents for organic compounds, showed large adsorption capacity for both BPA (337 mg/g) and phenol (253 mg/g). Adsorption selectivity of Ph-MS, defined as a relative equilibrium distribution coefficient, K-RD, for BPA against phenol, was at least 5 times larger than that of PAC, showing high adsorption selectivity for BPA. The selective adsorption behavior of Ph-MS was discussed using the results of material characterizations including X-ray diffraction, N-2 adsorption/desorption measurements, and Fourier transform infrared spectroscopy, and the results of adsorption experiments. (C) 2010 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Adsorbent, Adsorbents, Adsorption, Adsorption Behavior, Adsorption Capacities, Adsorption Capacity, Adsorption, Desorption, Aqueous-Solution, Aromatic-Acids, Behavior, Bisphenol A, Capacity, Carbon, Characterizations, Chemicals, Data, Distribution, Distribution Coefficient, Equilibrium, Experiments, General, Hybrid, Hydrogen-Bonding, Infrared Spectroscopy, Isotherm, Kinetic, Kinetic Adsorption, Kinetic Model, Kinetic-Models, Langmuir, Langmuir Model, Mesoporous, Mesoporous Material, Mesoporous Silica, Model, N-2, N2, Organic, Organic Compounds, Pac, Phenol, Phenols, Pi-Pi Interaction, Pollutant Removal, Potential, Pseudo Second Order, Pseudo-Second-Order, Pseudo-Second-Order Kinetic Model, Rights, River, Selective Adsorption, Selectivity, Silicas, Size, Sorption, Spectroscopy, Surface, Surface Area, Surface-Water, Tetraethoxysilane, X-Ray, X-Ray Diffraction, Xenoestrogens

? Li, B.Y., Su, F.B., Luo, H.K., Liang, L.Y. and Tan, B.E. (2011), Hypercrosslinked microporous polymer networks for effective removal of toxic metal ions from water. *Microporous and Mesoporous Materials*, **138** (1-3), 207-214.

Full Text: [2011\Mic Mes Mat138, 207.pdf](2011/Mic%20Mes%20Mat138,%20207.pdf)

Abstract: Sulfonic acid-modified microporous hypercrosslinked polymers (SAM-HCPs) synthesized by sulfonation of microporous hypercrosslinked polymers (HCPs, also known as “Davankov Resins”) have been investigated as a high-capacity adsorbent for toxic metal ions. The materials were characterized using proton magnetic resonance (H-1 NMR), Fourier transform infrared spectroscopy (FTIR), elemental analysis (EA), thermogravimetric analysis (TGA), transmission electron microscope (TEM), X-ray photoelectron spectroscopy (XPS) and nitrogen adsorption method. The results show that the modified resins retained their original microporous structure and spherical morphology, and possess sulfonic acid groups as hydrophilic groups and active sites. Sulfonic acids-modified hypercrosslinked “Davankov Resins” (SAM-HCP-DR) have been found to attain very good adsorption capacity for metal ions (e.g., Cu2+ 51.45 mg g(-1) at 303 K, 54.82 mg g(-1) at 313 K, and 57.68 mg g(-1) at 323 K), which is due to the synergic effect of microporous structure and active sites. The kinetic data obtained from adsorption experiments supports a pseudo-second order model and adsorption isotherms obtained at different temperatures (303 K, 313 K and 323 K) are all fitted with the Langmuir isotherms. In addition, the thermodynamic parameters, i.e., Gibbs free energy change (ΔG(0)), enthalpy change (ΔH-0), entropy change (ΔS-0) of the adsorption process were calculated, and the results confirmed the adsorption to be spontaneous and endothermic. Moreover, these modified resins can be recycled several times with minimal loss of adsorption capacity and thus may have potential industrial applications. (C) 2010 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Adsorbent, Adsorption, Adsorption, Adsorption Capacity, Adsorption Isotherms, Analysis, Aqueous-Solutions, Capacity, Cu2+, Data, Endothermic, Energy, Enthalpy, Entropy, Exchange Character, Experiments, Extractions, FTIR, Gibbs Free Energy, H-1-Nmr, Heavy-Metals, Hypercrosslink, Infrared Spectroscopy, Ions, Isotherms, Kinetic, Langmuir, Langmuir Isotherms, Magnetic, Magnetic Resonance, Metal, Metal Ions, Microporous Polymer, Microspheres, Model, Modified, Monodisperse, Morphology, Networks, Nitrogen, NMR, Polymer, Polymers, Potential, Pseudo Second Order, Pseudo-Second Order, Pseudo-Second Order Model, Pseudo-Second-Order, Removal, Resins, Rights, Samples, Spectroscopy, Structure, Sulfonation, Surface-Area, TEM, TGA, Thermodynamic, Thermodynamic Parameters, Toxic, Transmission, Water, X-Ray, X-Ray Photoelectron Spectroscopy, XPS

? Baeza-Alvarado, M.D. and Olguín, M.T. (2011), Surfactant-modified clinoptilolite-rich tuff to remove barium (Ba2+) and fulvic acid from mono- and bi-component aqueous media. *Microporous and Mesoporous Materials*, **139** (1-3), 81-86.

Full Text: [2011\Mic Mes Mat139, 81.pdf](2011/Mic%20Mes%20Mat139,%2081.pdf)

Abstract: The kinetics of the removal of Ba2+ and fulvic acid by a surfactant-modified Mexican clinoptilolite-rich tuff was investigated. The effect of fulvic acid in a bi-component aqueous medium (Ba2+-fulvic acid) on the sorption of Ba2+ was also considered, and an unmodified zeolitic material was included for comparison. The Ba2+, fulvic acid and fulvic acid-Ba2+ solutions were placed in contact with a Mexican clinoptilolite-rich tuff in a batch system. Atomic absorption and UV-Vis spectroscopy were used to measure the remaining aqueous barium and fulvic acid, respectively. The Ba2+ and fulvic acid sorption kinetic experimental data were best fitted by a pseudo-second-order model. The amount of surfactant covering the surface of the zeolitic material and the fulvic acid influenced the sorption kinetics of Ba2+ from aqueous media by sodium and surfactant-modified Mexican clinoptilolite-rich tuffs. The presence of Ba2+ in the aqueous medium increased the sorption of fulvic acid by the sodium-modified zeolite from Oaxaca (NaZO), but the time to reach equilibrium was greater. The Ba2+ was removed from aqueous media by ion exchange or complexation with fulvic acid, and fulvic acid was adsorbed by the surfactant-modified zeolites through a partitioning mechanism. (c) 2010 Elsevier Inc. All rights reserved.

Keywords: Barium, Chromate, Cu(II), Fulvic Acid, Humic Substances, Ions, Kinetics, Modified Zeolite, Natural Zeolite, pH, Sorption, Sorption, Surfactant-Modified Zeolites, Water

? Uğurlu, M. and Karaoğlu, M.H. (2011), Adsorption of ammonium from an aqueous solution by fly ash and sepiolite: Isotherm, kinetic and thermodynamic analysis. *Microporous and Mesoporous Materials*, **139** (1-3), 173-178.

Full Text: [2011\Mic Mes Mat139, 173.pdf](2011/Mic%20Mes%20Mat139,%20173.pdf)

Abstract: This study aimed to remove ammonium from paper mill industry (4500 m(3) h(-1)) wastewater, which is discharged to sea from a plant located in the western Turkey. As adsorbent, fly ash, raw sepiolite and thermal activated sepiolite (TAS) were used. The effect of factors such as; particle size, temperature and pH on adsorption process was investigated. From kinetic studies, equilibrium time was found as 1 h for both adsorbents. From experiments carried out at different pHs, it was observed that pH plays an important role in the ammonium adsorption process, both ionizating the compounds and modifying sorbent surfaces. It was also observed that fly ash is more effective than raw sepiolite and TAS to remove ammonium and in addition, adsorption increases with decreasing particle size. The kinetic data support pseudo-second-order model (r(2) >= 0.99) but show very poor fit for pseudo-first order model (r(2) < 0.90). Intra-particle model also shows that there are two separate stages in sorption process, namely, external diffusion and the diffusion of inter-particle. Adsorption isotherms for fly ash and TAS were fitted to Freundlich models more effectively than Langmuire models (r(2) >= 0.999). Thermodynamics parameters such as; free energy (ΔG(0)), enthalpy (ΔH-0) and entropy (ΔS-0) were also calculated. Based on the results, it can be concluded that the sepiolite and fly ash have potential of being used as a sorbent for removal of ammonium in wastewater treatments from Bleached Kraft Mills Effluent (BKME). (c) 2010 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Adsorption, Adsorption Isotherms, Ammonium, Bleached Kraft Mills Effluent, Clinoptilolite, Fly Ash, Freundlich, Ion, Isotherm, Lignin, Paper-Mill Effluents, pH, Pulp, Removal, Sepiolite, Sorption, Thermodynamics, Waste-Water, Zeolite

? Huang, C.H., Chang, K.P., Ou, H.D., Chiang, Y.C. and Wang, C.F. (2011), Adsorption of cationic dyes onto mesoporous silica. *Microporous and Mesoporous Materials*, **141** (1-3), 102-109.

Full Text: [2011\Mic Mes Mat141, 102.pdf](2011/Mic%20Mes%20Mat141,%20102.pdf)

Abstract: Highly-ordered mesoporous SBA-15 molecular sieves were successfully synthesized through direct-synthesis using non-ionic surfactants as structure directing agent under strong acidic conditions. The textual and structural properties of the prepared materials were characterized by powder X-ray diffraction patterns (XRD), nitrogen physisorption isotherms, scanning electron microscopy (SEM), and transmission electron microscopy (TEM). In terms of adsorption properties, the performance was examined by adsorption of dyes on prepared materials. It was observed that SBA-15 exhibited an excellent adsorptive capability of catiorfic molecules but almost no adsorption to anionic and neutral molecules. The isotherm models, kinetic models, and thermodynamic properties were analyzed to describe the adsorption behavior of prepared materials. Langmuir model, Freundlich model, and pseudo-second-order kinetics were well-fitted in the simulation of the adsorption behavior of dyes on prepared materials. The synthesized mesoporous SBA-15 materials were found to be effective adsorbents for MB and JGB from aqueous solutions. (C) 2010 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Adsorption, Aqueous-Solution, Azo-Dye, Decolorization, Dye, Dyes, Effluents, Electron Microscopy, Equilibrium, Fixed-Bed, Freundlich, Isotherm, Isotherms, Kinetic, Kinetics, Langmuir, Mesoporous, Removal, SBA-15, Thermodynamic, Waste-Water, Zeolite

? Kurniawan, A., Sutiono, H., Ju, Y.H., Soetaredjo, F.E., Ayucitra, A., Yudha, A. and Ismadji, S. (2011), Utilization of rarasaponin natural surfactant for organo-bentonite preparation: Application for Methylene blue removal from aqueous effluent. *Microporous and Mesoporous Materials*, **142** (1), 184-193.

Full Text: [2011\Mic Mes Mat142, 184.pdf](2011/Mic%20Mes%20Mat142,%20184.pdf)

Abstract: Rarasaponin that belongs to the natural surfactant was used as modifying agent for preparation of organo-bentonite. This surfactant was extracted from wild plant Sapindus rarak DC. The modifying process was conducted by microwave thermal irradiation. The characterization of bentonite and its modified form was carried out using FTIR, nitrogen sorption and XRD analysis. In order to test the adsorption capability of organo-bentonite, batch adsorption experiments of methylene blue from aqueous solution using this adsorbent were conducted under several operating conditions. The highest adsorption capacity (q(m)) of organo-bentonite obtained in this study was 256 mg/g while for raw bentonite was 194 mg/g at 60ºC. The adsorption isotherm and kinetic data were modeled using several well known models. Freundlich isotherm model represented the adsorption equilibrium data better than the Langmuir isotherm model. For the kinetic model, the pseudo-second order gave reasonable parameters and could correlate the kinetic data well. New mechanisms of organo-bentonite formation as well as adsorption of methylene blue on the surface of organo-bentonite were also proposed in this paper. (C) 2010 Elsevier Inc. All rights reserved.

Keywords: Adsorption, Adsorption, Adsorption Isotherm, Aqueous Solution, Characterization, Clay, Dye Removal, Equilibrium, Freundlich, Freundlich Isotherm, FTIR, Heavy-Metals, Isotherm, Kinetic, Kinetic Model, Kinetics, Langmuir, Langmuir Isotherm, Low-Cost Adsorbents, Methylene Blue, Montmorillonite, Organo-Bentonite, Rarasaponin, Smectites, Sorption, Waste-Water

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Full Text: [2011\Mic Mes Mat142, 454.pdf](2011/Mic%20Mes%20Mat142,%20454.pdf)

Abstract: In the present research study, mesoporous alumina (MA450) with improved properties has been synthesized using biopolymer chitosan as a template and used for defluoridation of water. The adsorbent has been characterized with XRD, SEM, FUR and EDAX studies. It was observed that MA450 works effectively over wide range of pH and showed a maximum adsorption capacity 8.264 mg g-1 at initial fluoride concentration of 5 mg l-1 which is much better than the conventional alumina. The experimental data fitted well in Langmuir isotherm and follows Pseudo-second order kinetics. Batch adsorption studies were performed to study the effect of pH, adsorbent dose, initial fluoride concentration and co-existing anions. Thermodynamic study reveals that fluoride adsorption on MA450 is spontaneous and exothermic process. MA450 showed significantly high fluoride removal in field water. The performance of MA450 was compared with many other reported adsorbent for fluoride removal and it was observed that the present adsorbent is effective in terms of fluoride removal performance and also appears to be cost effective. From the experimental data, it may be inferred that MA450 is a potential and indigenous adsorbent for defluoridation. (C) 2010 Elsevier Inc. All rights reserved.

Keywords: Activated Alumina, Adsorbent, Adsorption, Adsorption Isotherm, Aqueous-Solution, Batch, Batch Adsorption, Defluoridation, Fluoride Removal, Fluoride Removal, Isotherm, Kinetics, Langmuir, Langmuir Isotherm, Mechanisms, Mesoporous Alumina, pH, Thermodynamic

? Xu, R., Jia, M., Zhang, Y.L. and Li, F.T. (2012), Sorption of malachite green on vinyl-modified mesoporous poly(acrylic acid)/SiO2 composite nanofiber membranes. *Microporous and Mesoporous Materials*, **149** (1), 111-118.

Full Text: [2011\Mic Mes Mat149, 111.pdf](2011/Mic%20Mes%20Mat149,%20111.pdf)

Abstract: Vinyl-modified mesoporous poly(acrylic acid)/SiO2 (PAA/SiO2) composite nanofiber membranes were prepared through a sol-gel electrospinning process. The sorption behavior of malachite green on the membranes was studied. Fourier transform infrared (FTIR) results demonstrated that vinyl groups were grafted onto the silica skeleton. Transmission electron microscopy (TEM) images confirmed the formation of mesopores on the electrospun nanofibers and the pore size was 3.8 nm based on the Barrett-Joyner-Halenda (BJH) model. According to Brunauer-Emmett-Teller (BET) method, the specific surface area of the membranes was 523.84 m2/g. Three widely used isotherms. the Freundlich, Langmuir, and Redlich-Peterson isotherms, were used to model the experimental data of malachite green adsorption on PAA/SiO2 nanofiber membranes. The best fit was found to be Redlich-Peterson isotherm and the equilibrium adsorption capacity was 220.49 mg/g. The adsorption kinetics followed a pseudo-second-order model. The removal of malachite green from the aqueous phase reached 98.8% in 240 min. The membranes can be regenerated by treated with alcohol solution and reused for multiple cycles, which is beneficial for practical application. (C) 2011 Elsevier Inc. All rights reserved.

Keywords: Activated Carbon, Adsorbent, Adsorption, Aqueous-Solution, BET, Dye, Equilibrium, FTIR, Isotherm, Kinetics, Langmuir, Malachite Green, Mesoporous Material, Nanofiber, Poly(Acrylic Acid), Removal, Silicon Dioxide, Sorption, Water

# Title: Microvascular Research

Full Journal Title: [Microvascular Research](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=6956&_auth=y&_acct=C000047720&_version=1&_urlVersion=0&_userid=2007471&md5=98b9c7d830ad69fb5421a6778905a239)

ISO Abbreviated Title:

JCR Abbreviated Title:

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Language:

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Publisher Address:

Subject Categories:

: Impact Factor

Hutchins, P.M., Goldstone, J. and Wells, R. (1973), Effects of hemorrhagic shock on the microvasculature of skeletal muscle. *Microvascular Research*, **5** (2), 131-140.

Full Text: [M\Mic Res5, 131.pdf](M/Mic%20Res5,%20131.pdf)

Abstract: The relationship between arteriolar and venular dimensions and the progressive failure of the homeostatic mechanisms leading to irreversibility in hemorrhagic shock was evaluated in mammalian skeletal muscle (rat cremaster). The small distribution arterioles (diameter = 17 μm) were observed to lose their tone and vasomotion at irreversibility although at 15 min after hemorrhage they exhibited enhanced vascular activity. Slowing of flow was seen to occur in the large venules (100 μm) and late in shock in smaller venules (25 μm). Venular dilatation was adjudged to be the vascular defect associated with the onset of irreversibility. Muscle surface pH and *P*O2 followed a course similar to that seen in unanesthetized subjects. The red cell aggregation seen in the venules during the low flow state was generally reversed after reinfusion of the shed blood and restoration of arterial pressure.

# Title: Midwifery

Full Journal Title: Midwifery

ISO Abbreviated Title: Midwifery

JCR Abbreviated Title: Midwifery

ISSN:

Issues/Year:

Journal Country/Territory:

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Publisher Address:

Subject Categories:

: Impact Factor

? Mander, R. and Smith, G.D. (2010), A systematic review of medical diagnosis of Ogilvie’s syndrome in childbearing. *Midwifery*, **26** (6), 573-578.

Abstract: Objective: to review all published papers examining medical diagnosis of Ogilvie’s syndrome and pregnancy with a view to assessing the implications of the diagnosis and the condition itself for childbearing women, midwives and medical practitioners. Design: systematic review. Search strategy: MEDLINE, CINAHL, EMBASE, Web of Science and Cochrane databases were searched from 1950 to 2006 inclusive. Papers were read by two independent researchers and selected if they informed the link between Ogilvie’s syndrome and childbearing or were concerned with other aspects of maternal mortality. Findings: 23 papers fulfilled the selection criteria and were of a suitable standard. Inconsistencies in relation to the diagnosis of Ogilvie’s syndrome were noted, and an increase in maternal deaths from this condition was reported up to 2002. Key conclusions: this paper highlights the strengths and weaknesses of medical diagnosis, as exemplified by Ogilvie’s syndrome. The scientific basis of diagnoses such as Ogilvie’s syndrome may deserve attention. This diagnosis has been shown to be unstable, both in temporal and aetiological terms. The midwifery and nursing reaction to the abrupt appearance of this condition is, at best, unfortunate. The attribution of blame to midwifery practices is deserving of a more robust response. Implications for practice: there may be clinical implications of the diagnosis of Ogilvie’s syndrome for other aspects of maternity (including any nursing) care. A particularly significant area is the widely recognised increase in the caesarean rate with which Ogilvie’s syndrome has been closely linked. (C) 2008 Elsevier Ltd. All rights reserved.

Keywords: Acute Colonic Pseudo-Obstruction, Acute Colonic Pseudoobstruction, Attention, Bowel Disorders, Childbearing, Cochrane, Databases, Diagnosis, Embase, Management, Maternal Death, Maternal Mortality, Medical, Medical Diagnosis, Medline, Midwifery, Mortality, Neostigmine, Nursing, Ogilvie’s Syndrome, Papers, Practice, Pregnancy, Researchers, Review, Science, Search Strategy, Strategy, Systematic, Systematic Review, Web of Science, Women

# Title: Migration and Fate of Pollutants in Soil and Subsoils

NATO Advanced Study Institute Series G32, Springer-Verlag, Berlin, Barcelona and Budapest

Helfferich, F.G. (1993), Multicomponent wave propagation: The coherence principle. An introduction. in *Migration and Fate of Pollutants in Soil and Subsoils*. (Edited by Petruzzelli, D and Helfferich, F.G.), NATO Advanced Study Institute Series G32, Springer-Verlag, Berlin, Barcelona and Budapest, 247-273.

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# Title: Mikrobiologiya

Full Journal Title: Mikrobiologiya

ISO Abbreviated Title: Mikrobiologiya

JCR Abbreviated Title: Mikrobiologiya

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# Title: Mikrobiyoloji Bulteni

Full Journal Title: Mikrobiyoloji Bulteni

ISO Abbreviated Title:

JCR Abbreviated Title:

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Publisher Address:

Subject Categories:

: Impact Factor

? Tasbakan, M.S., Pullukcu, H., Sipahi, O.R., Tasbakan, M.I., Calik, S.O. and Yamazhan, T. (2010), Evaluation of 694 tuberculous lymphadenitis cases reported from Turkey between 1997-2009 period by pooled analysis method. *Mikrobiyoloji Bulteni*, **44** (3), 385-393.

Abstract: Tuberculosis which mainly involves the lungs, can also cause infection in almost all other organs and tissues in the body. One of the most common forms of extrapulmonary tuberculosis is tuberculous lymphadenitis. In this study, tuberculous lymphadenitis cases reported from Turkey in national and international journals in the last 12 years, were reviewed systematically with pooled-analysis method. Related articles were retrieved by search of three national (Ulakbim Turkish Medical literature databases, http://www.turkishmedline.com, http://medline.pleksus.com.tr) and two international databases [Pub-Med and Science Citation Index (SCI)]. Between the years 1997-2009, tuberculous lymphadenitis cases have been published in a total of 44 articles (13 international, 31 national data base). These articles included a total of 694 tuberculous lymphadenitis cases (62.4% women, 37.6% men; mean age 37.5 years). The distribution of the lymph nodes involved was determined in 528 cases and the most commonly involved areas were cervical (61.4%), mediastinal (20.5%) and axillary (6.4%) areas. The most common complaints of patients were fever (15.8%), weight loss (14.5%), malaise-fatigue (13.1%) and sweating (12.4%). Tuberculous lymphadenitis was identified in 10.6% (51/479) of the cases by direct microscopical examination, in 15.9% (65/408) by culture and in 648 cases from whom biopsies were taken, by histopathological examination. Tuberculin skin test positivity was detected in 78.9% (377/478) cases. History of contact with active tuberculosis patients was determined in 24.2% (88/364) of the patients. Coexisting lung tuberculosis was detected in 7.8% (54/694) of the cases. The total number of cases that had died was four; two cases due to malignancy, one due to sepsis and one due to central nervous system tuberculosis that have developed four years following the diagnosis of tuberculous lymphadenitis. Since microbiological diagnosis is difficult in tuberculous lymphadenitis and not available in all centers, evaluation of the patients’ history and clinical findings are of great importance. This pooled analysis which enabled the evaluation of a large number of tuberculous lymphadenitis cases, indicated that in countries where tuberculosis is widespread, careful evaluation of clinical findings and a good microbiological and histopathological investigation will provide valuable support for diagnosis and treatment of tuberculous lymphadenitis.

Keywords: Adults, Citation, Diagnosis, Extra Pulmonary Tuberculosis, Extrapulmonary Tuberculosis, Journals, Lymphadenopathy, Mycobacterium Tuberculosis, Science Citation Index, Tuberculous Lymphadenitis, Turkey

# Title: Militargeschichtliche Mitteilungen

Full Journal Title: Militargeschichtliche Mitteilungen

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Pove, R. (1992), Securing power from within and without - the functionality and extent of attempts for authoritarian order in the castle of gottingen. *Militargeschichtliche Mitteilungen*, **51** (2), 297-315.

Full Text: 1992\Mil Mit51, 297.pdf

# Title: Military Medicine

Full Journal Title: Military Medicine

ISO Abbreviated Title: Milit. Med.

JCR Abbreviated Title: Mil Med

ISSN: 0026-4075

Issues/Year: 12

Journal Country/Territory: United States

Language: English

Publisher: Assn Military Surg US

Publisher Address: 9320 Old Georgetown Rd, Bethesda, MD 20814

Subject Categories:

Medicine, General & Internal: Impact Factor

? Holck, A.R., Estep, J.E. and Childress, T.A. (1993), Fish and other aquatic animal kills: Causes and relevance to public-health for military health-care professionals. *Military Medicine*, **158** (9), 587-590.

Abstract: Environmental contamination is a public health issue. Fish or other aquatic animal kills can be a sign that contamination of the aquatic environment has occurred. They are highly visible to the public. When such kills occur in water bodies on military installations, medical personnel are often involved in the investigation to assess the public health implications of the kill or its causes. This article discusses the causes of aquatic animal kills, describes a proper response to a kill, and gives several case studies.

? Koop, C.E. (1995), Health-care reform: Who is responsible. *Military Medicine*, **160** (4), 147-150.

? Pierce, J.T. (1996), The usefulness of computer-controlled potentiometric stripping analysis for environmental water analysis in a combat-zone hospital. *Military Medicine*, **161** (10), 599-600.

Abstract: Chemical water-quality determination is an essential element of deployed public health programs. Our experience in the former Republic of Yugoslavia included the use of a rather unique piece of equipment known as Tracelab (Radiometer Corporation, Copenhagen, Denmark). During the 6-month deployment, we were able to analyze on-site piped and bottled drinking water available in the host country, particularly focusing on its lead (Pb) content. Bottled water averaged 7 parts per billion Pb, whereas camp supply water was about 35 parts per billion Pb. Although no particular health-related problems occurred, we were able to provide important reassurances through on-site testing.

# Title: Milli Folklor

Full Journal Title: Milli Folklor

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Yalçin, H. (2010), Bibliometric profile of *Journal of National Folklore* (2007-2009). *Milli Folklor*, **85**, 205-211.

Full Text: [2010\Mil Fol85, 205.pdf](2010/Mil%20Fol85,%20205.pdf)

Abstract: The Journal of National Folklore (JNF) has been indexed by the Art& Humanities Citation Index since 2007. This study examines the Journal of National Folklore and bibliometric features of its articles. The research carried out covers 174 articles between the years 2007-2009. The following research questions have been addressed: 1) Is multiple authorship a prevalent feature of the articles?) 2) What are the institutional affiliations of the authors of the articles? 3) Which types of sources (journal articles, monographs, etc.) get cited most often in the articles? 4) What are the most frequently cited journals in the JNF 5) What is the rate of literature obsolescence in folklore?6) How is the status of JNF between the 18 journals indexed by A&HCI? The publications of JNF have also been indexed in Scopus, CSA Cambridge Scientific Abstracts, EBSCO Publishing, Genamics JournalSeek, IBSS International Bibliography of the Social Science, MLA Modern Language Association of America, TA Turkologischer Anzeiger. JNF is published in four issues (Spring, summer, autumn and winter)) per year. The journal was first published in 1989. The present research covers a total of 174 articles published between the years 2007-2009. To examine publications of the JNF, an online search in the A&HCI database has been performed on January 23, 2010, using the “publication name” field that is available. A total of 206 publications have been identified. Each record provided information about the author names, author addresses, publication titles, publication years, languages, document types, number of references included in the publication, and citations that the publication received as of January 23,2010. In addition, reference lists of publications have been used to identify the cited sources. Editorials (n = 15), Bibliographca litems (n=10) and book reviews (n=7) have been excluded in this study. An average article was 8 pages long (SD=3, min.=1, maks.=24). Except for three articles, all of the articles published in the MF were in Turkish. The total number of individual authors contributing to the 174 articles was 169. Nebi Ozdemir is the most prolific author with five articles. M. Ocal Oguz, R. Ashhan Aksoy Sheridan ve Gokhan Tung were conduced with four articles. The total number of references included in the 174 articles was 2744 In this study, 174 citations that had no publication year information were left out of evaluation. After this elemination the total number of references dropped to 2570. Of all the citations in the 70.5% (n = 1814) were from books. Hence, the study has shown that books are very important sources for scholarly communication in folklore. The authors of JNF made a citation to journal 535 times. The most frequently cited journal was Journal of National Folklore with 81citations. The JNF has been publihed in four issues in a year. Foreign researchers have not been interested in publishing articles in the JNF. Except of the three articles, all of the articles in that appeared in the JNF were in Turkish.

Keywords: Articles, Authorship, Bibliometric, Bibliometrics, Books, Citation, Citation Analysis, Citations, Database, Evaluation, International, Journal, Journal of National Folklore, Journals, Literature, Literature Obsolescence, Obsolescence, Profile, Publication, Publications, Publishing, Research, Researchers, Scholarly Communication, Scholarship, Science, Scopus

# Title: Mind Culture and Activity

Full Journal Title: Mind Culture and Activity

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0026-4598

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Roth, W.M. and Cole, M. (2010), The referencing practices of mind, culture, and activity: On citing (sighting?) and being cited (sighted?). *Mind Culture and Activity*, **17** (2), 93-101.

Full Text: [2010\Min Cul Act17, 93.pdf](2010/Min%20Cul%20Act17,%2093.pdf)

# Title: Mineralium Deposita

Full Journal Title: Mineralium Deposita

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0026-4598

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Colell, C. (1996), Ion exchange equilibria in zeolite minerals. *Mineralium Deposita*, **31** (6), 554-562.

Abstract: Cation exchange equilibria of the most common sedimentary zeolites are reviewed. Selected exchange isotherms and thermodynamic equilibrium constants are reported and interpreted in terms of selectivity of one cation over another. Selectivity sequences of various zeolites are compared with each other in the light of Eisenman’s theory and utilized to predict or explain specific practical performances.

Keywords: Natural Clinoptilolite, Ammonium Equilibria, Sodium, Mordenite, Ferrierite, Removal

# Title: Mineralia Slovaca

Full Journal Title: Mineralia Slovaca

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0369-2086

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Groudeva, V.I., Groudev, S.N. and Perkova, S. (1996), Biological treatment of acid drainage waters from a copper mine. *Mineralia Slovaca*, **28**, 318-320.

# Title: Minerals Engineering

Full Journal Title: [Minerals Engineering](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5989&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=991fc5bdb438d3641b9859e3aa536e88)

ISO Abbreviated Title: Miner. Eng.

JCR Abbreviated Title: Miner Eng

ISSN: 0892-6875

Issues/Year: 12

Journal Country/Territory: England

Language: English

Publisher: Pergamon-Elsevier Science Ltd

Publisher Address: The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, England

Subject Categories:

Engineering, Chemical: Impact Factor 0.500, 55/110

Mineralogy Mining & Mineral Processing: Impact Factor

? Yehia, A., Miller, J.D. and Ateya, B.G. (1993), Analysis of the adsorption behavior of Oleate on some synthetic Apatites. *Minerals Engineering*, **6** (1), 79-86.

Full Text: [1993\Min Eng6, 79.pdf](1993/Min%20Eng6,%2079.pdf)

Abstract: The adsorption behaviour of oleate on some synthetic apatite minerals were analyzed according to the Langmuir, Flory-Huggins, Frumkin and the modified Frumkin isotherms. The minerals used in this study include fluoro, carbonate, hydroxy, and chlorapatite.

The Langmuir and Flory-Huggins isotherms give rise to free energy change DELTAG(theta)degrees values independent of coverage, whereas the Frumkin isotherms give rise to DELTAG(theta)degrees values dependent on coverage due to lateral interaction effects. The results of flotation recovery and contact angle were discussed in view of this analysis. It was shown that the lower the value of DELTAG(theta)degrees, the larger is the value of adsorption density, the larger is the contact angle and the greater is the flotation recovery.

Keywords: Adsorption Isotherm, Synthetic Apatites, Flotation, Lateral Interaction, Free Energy and Contact Angle

Reuter, M.A. and Bernhard, D. (1994), The simulation and identification of metallurgical kinetic processes using a generalised kinetic rate equation and trained neural nets. *Minerals Engineering*, **7** (1), 1-19.

Full Text: [M\Min Eng7, 1.pdf](M/Min%20Eng7,%201.pdf)

Abstract: Its this paper the application of a generalized neural net kinetic rate equation is discussed, which permits the identification and simulation of metallurgical kinetic processes e.g. leaching of sulphides or adsorption of gold on activated carbon as well as flotation and other kinetic processes in mineral processing. The proposed approach is essentially useful to simulate and identify ill-defined kinetic processes where existing phenomenological and (semi-)empirical approaches fail due to their lack of generality or their complexity. The proposed approach is process independent. The basis of the proposed equation is a ‘quasi’ first order kinetic rate equation and two trained neural nets viz. state and adjustment neural nets that respectively relate the state variable k(C, t) to C and t (derived from the pivot kinetic data) and the adjustment factors alpha and beta of the rate equation to the process conditions (in order to define deviations relative to the pivot kinetic data). The curse of dimensionality, that pure neural net approaches have to cope with, is circumvented with this integrated approach. The successful application of the proposed methodology to simulate and identify theoretical and practical kinetic processes for flotation, reduction, adsorption and leaching, illustrates its practical significance.

Keywords: Neural Nets, Generalized Kinetic Model, Reduction, Adsorption, Leaching, Networks, Model

de Kock, F.P. and Vandeventer, J.S.J. (1995), The modeling of competitive sorption equilibria using statistical thermodynamics. *Minerals Engineering*, **8** (4-5), 473-493.

Full Text: [M\Min Eng8, 473.pdf](M/Min%20Eng8,%20473.pdf)

Abstract: In most cases adsorption onto activated carbon is modelled with no consideration of competing or contaminant species. A recent awareness about this problem of fouling of adsorbents has led to new modelling efforts, such as the formulation of empirical expressions for multi-component isotherms. All these so-called empirical models suffer from the disadvantage that their parameters cannot be used to extrapolate beyond the range of measured data. A brief review of existing methods is provided, so as to indicate the enormous lack of knowledge in this field.

The principles of statistical thermodynamics are used to simulate adsorption onto heterogeneous surfaces in terms of a distribution of energies for the active sites, interactions between adsorbed species, the size of adsorbates, the reversibility of adsorption and the selectivity of adsorption. Any adsorption process at equilibrium is described mathematically in terms of the probabilities of collision of a species with the surface, the availability of a site, and the exchange of an adsorbed species with an adsorbing species. In this way the energy distribution and the interaction between species can be determined. These parameters bear a fundamental relevance, and can then be used to predict competitive adsorption for complex systems where available data are inadequate. The competitive adsorption of metal cyanides onto activated carbon is considered as a case study.

It is shown that these calculations are complex in view of the numerous statistical calculations involved. However response surface modelling techniques such as neural networks can be used to approximate the surface predicted by the rigorous calculations, which can then be incorporated in the dynamic model simulators. These very powerful theoretical techniques are relatively new in processn engineering, but hold much promise for the complex systems encountered in minerals processing.

Keywords: Statistical Thermodynamics, Adsorption, Gold Cyanide, Activated Carbon, Vacancy Solution Theory, Activated Carbon, Adsorption Equilibria, Multicomponent Adsorption, Gas-Mixtures, Simulation, Isotherm, Binary, Gold, Cyanides

da Costa, A.C.A., de Mesquita, L.M.S. and Tornovsky, J. (1996), Batch and continuous heavy metals biosorption by a brown seaweed from a zinc-producing plant. *Minerals Engineering*, **9** (8), 811-824.

Full Text: [M\Min Eng9, 811.pdf](M/Min%20Eng9,%20811.pdf)

Abstract: The removal of heavy metals by a dry biomass of a brown seaweed was evaluated. A continuous system was used, with an effluent from a Brazilian zinc producing industry, containing zinc (88.0 mg/L), cadmium (1.4 mg/L), and manganese (11. 7 mg/L), as well as high levels of calcium (444 mg/L), magnesium (100 mg/L) and sodium (37.0 mg/L). Preliminary results, in batch conditions, indicated fast uptake kinetics for the heavy metals, whose equilibria were reached in a maximum of 30 minutes. The continuous run was conducted in a laboratory acrylic column, lm high, containing several samplers, filled with the dry biomass. The system operated in upflow condition, at a flow rate of 25 mL/min, f or approximately 70 hours, with high operational stability. The results showed high efficiency in the biosorption of heavy metals. Sodium, calcium and magnesium were not incorporated by the biomass, probably as they are present in the structural polysaccharides of the biomass, thus preventing the establishment of an effective ion-exchange process. Analysis of the obtained results did not indicate selective uptake of the metals, probably due to their marked concentration differences in solution. The continuous laboratory system initially showed an efficiency close to 100% in the biosorption of all heavy metals, followed by a gradual decrease, as a function of the saturation of binding sites in the biomass. A mathematical adjustment of the curves obtained for the uptake of the different metals was used for estimating the amount of biosorbed metals, through mathematical computer integration.

Keywords: Ion Exchange, Biotechnology, Environmental, Pollution, Waste Processing

Bogusz, E., Brienne, S.R., Butler, I., Rao, S.R. and Finch, J.A. (1997), Metal ions and dextrin adsorption on pyrite. *Minerals Engineering*, **10** (4), 441-445.

Full Text: [M\Min Eng10, 441.pdf](M/Min%20Eng10,%20441.pdf)

Abstract: For dextrin to interact with pyrite, metal oxidation species are required on the surface. A surface cleaned of such species did not adsorb dextrin while after oxidation or doping with metal ions, dextrin did appear on the surface. The type of metal ion may not be important, however; doping with both Fe and Pb ions promoted adsorption. This may have implications for selective depression using dextrin, as mineral surfaces in practice are often contaminated with a similar variety of metal ions derived from the other minerals. (C) 1997 Published by Elsevier Science Ltd.

Keywords: Flotation Reagents, Flotation Depressants, Flotation

Rubio, J. and Tessele, F. (1997), Removal of heavy metal ions by adsorptive particulate flotation. *Minerals Engineering*, **10** (7), 671-679.

Full Text: [M\Min Eng10, 671.pdf](M/Min%20Eng10,%20671.pdf)

Abstract: The removal of Zn, Cu and Ni ions, from diluted solutions, by the adsorptive particulate flotation (APF) process, was studied at laboratory scale. Zeolite (Chabazite) fines, in small concentrations were used as the particulate sorbing for the metal ions and dissolved air flotation was employed for the solid/liquid separation of the loaded ‘carrier’. Results showed almost complete removal (>98 %) of the heavy metal ions using Fe(OH)3 precipitates to ‘aggregate’ the carrier (coprecipitation). The process efficiency depended on solution and interfacial chemistry and aggregation effectiveness. The potential of APF in the field of effluent treatment is discussed. (C) 1997 Published by Elsevier Science Ltd.

Keywords: Environmental, Froth Flotation, Flocculation, Dissolved-Air Flotation, Zeolites

Matheickal, J.T. and Yu, Q. (1997), Biosorption of lead(II) from aqueous solutions by Phellinus badius. *Minerals Engineering*, **10** (9), 947-957.

Full Text: [M\Min Eng10, 947.pdf](M/Min%20Eng10,%20947.pdf)

Abstract: Biosorption of heavy metal ions by fungi is an emerging technology with a potential for treating mineral processing waste water. This paper studies the possibility of using a macro-fungus, Phellinus badius, as an inexpensive adsorbent for the removal of lead from aqueous solutions. P. badius was found to have adsorption capacity for lead. At a solution pH of 5.0. lead uptake capacity of P. badius of 0.82 mmol/gram of sorbent (170 mg/g), which is much higher than those of a powdered activated carbon, a natural zeolite and other biomass types tested. The equilibrium isotherm could be described well by the Langmuir equation. Contribution of H+ ion exchange to the total lead uptake was to the extent of 10%. The presence of light metal ions did not affect lead adsorption significantly. The metal binding was found to be rapid with 90% of the total adsorption occurring in 15 minutes. The feasibility of removing lead using the biomass in a fixed bed system was also examined. (C) 1997 Elsevier Science Ltd.

Keywords: Heavy-Metals, *Rhizopus-arrhizus*, Biomass, Accumulation, Removal, Fungi, Biosorbents, Copper(II), Uranium, Biotechnology, Ion Exchange, Pollution, Waste Processing, Environmental

Dimitrijević, M., Antonijević, M.M. and Dimitrijević, V. (1999), Investigation of the kinetics of pyrite oxidation by hydrogen peroxide in hydrochloric acid solutions. *Minerals Engineering*, **12** (2), 165-174.

Full Text: [M\Min Eng12, 165.pdf](M/Min%20Eng12,%20165.pdf)

Abstract: The kinetics of pyrite oxidation by hydrogen peroxide in hydrochloric acid solutions were investigated. The effects of stirring, temperature, particle size as well as hydrogen peroxide and hydrochloric acid concentrations were studied. The effects of H+ and Cl- additions were also examined. The oxidation kinetics were found to follow a shrinking core model, with the surface chemical reaction as the rate-controlling step. This is in accord with an activation energy of 65 kJ/mol and a linear relationship between the rate constant and the reciprocal of the particle radius. The reaction order with respect to hydrogen peroxide concentration was found to be 1.32. The rate of pyrite oxidation was found to decrease as the hydrochloric acid concentration increases, most likely owing to the adsorption of chloride ions onto the surface of the pyrite particles. Hf. ions had no effect on the rate, whereas Cl- ions had an effect similar to that of the hydrochloric acid. (C) 1999 Published by Elsevier Science Ltd. All rights reserved.

Keywords: Sulphide Ores, Hydrometallurgy, Oxidation, Reaction Kinetics, Sulfuric-Acid

? Schneider, I.A.H., Smith, R.W. and Rubio, J. (1999), Effect of mining chemicals on biosorption of Cu(II) by the non-living biomass of the macrophyte Potamogeton lucens. *Minerals Engineering*, **12** (3), 255-260.

Full Text: [1999\Min Eng12, 255.pdf](1999/Min%20Eng12,%20255.pdf)

Abstract: The present work investigates the effect of some compounds commonly discharged from mineral processing plants on biosorption of heavy metals by the non-living biomass of the freshwater macrophyte Potamogeton lucens. Studies of sorption of Cu(II) in the presence of metal ions, surfactants, EDTA and cyanide were carried out at laboratory scale. The results show that copper adsorption by ion exchange on the biomass is not affected by equimolar concentrations of copper/sodium, copper/calcium or copper/iron. Non ionic surfactants (e.g. pine oil) do not modify biosorption, but the negative groups of anionic surfactants (e.g. sodium oleate) compete with the surface groups of the biomass for the free copper ions in solution. EDTA and cyanide react with copper ions producing soluble complexes that do not adsorb onto the biomass. The biosorption process is suitable for wastewater treatment when the heavy metal species are free in solution. Effluents containing metal sequestering compounds that produce soluble or precipitated species are not able to be treated by carboxyl groups based biosorbents. (C) 1999 Published by Elsevier Science Ltd. All rights reserved.

Keywords: Adsorption, Biomass, Biosorption, Copper, Environmental, Heavy Metal, Heavy Metals, Metals, Non-Living Biomass, Pollution

Nakbanpote, W., Thiravetyan, P. and Kalambaheti, C. (2000), Preconcentration of gold by rice husk ash. *Minerals Engineering*, **13** (4), 391-400.

Full Text: [M\Min Eng13, 391.pdf](M/Min%20Eng13,%20391.pdf)

Abstract: The goal of this research was to develop a new, efficient adsorbent of gold-thiourea complex, [Au(CS(NH2)2)+ In this experiment, rice husk was heated at three different temperature. 300°C, 400°C and 500°C. Rice husk ash heated at 300°C adsorbed gold thiourea complex, whereas rice husk ash heated at 400°C and 500°C did not. The structure of rice husk ash heated at 300°C had specific silanol groups and oxygen functional groups of carbon, while rice husk ash heated at 400°C and 500°C contained siloxane groups. Maximum gold adsorption of rice husk ash heated at 300°C and activated carbon, was 21.12 and 33.27 mg Au/g adsorbent respectively. However, rice husk ash absorbed 0.072 mg thiourea/g adsorbent which was less than activated carbon adsorbed (0.377 mg thiourea/g adsorbent). In addition, the adsorbed gold could be eluted from this rice husk ash by sodiumthiosulfate more easily than from activated carbon. The results revealed that rice husk ash heated at 300°C can be used as a new adsorbent for gold thiourea complex. (C) 2000 Elsevier Science Ltd An rights reserved.

Keywords: Activated Carbon, Hydrometallurgy, Ion Exchange, Biotechnology, Mineral Processing, Hull Ash, Soy Oil, Adsorption, Thiourea, Silica, Lutein

Aldrich, C. and Feng, D. (2000), Removal of heavy metals from wastewater effluents by biosorptive flotation. *Minerals Engineering*, **13** (10-11), 1129-1138.

Full Text: [M\Min Eng13, 1129.pdf](M/Min%20Eng13,%201129.pdf)

Abstract: The search for new technologies to remove hazardous metals from wastewaters has focused attention on the metal binding abilities of different biological materials. Various biomaterials have shown promise as sorbents to remove heavy metals from water. Several advantages of peat moss for such applications include its abundance, low, cost, and high metal capacity. Consequently, the adsorption of heavy metals from aqueous solution was studied using a sphagnum peat moss. The adsorption process was found to be pH dependent, and the adsorption capacity increased with initial pH of the solution. The sorption equilibria could be expressed as Freundlich isotherms. The selectivity of the sphagnum pent moss for various heavy metal cations was Pb > Ni > Cu > Cd. The sorption behaviour of cations on the sphagnum peat moss was similar to that of cations on a gel type strong acid resin.

Flotation was subsequently shown to be an effective solid-liquid separation process, avoiding the problem for the separation of fine sponge-like moss flocs from the effluent by conventional filtration. A dispersed air flotation column was applied for the generation of fine bubbles to realise the solid-liquid separation. Biosorptive flotation may have practical applications for the removal of hazardous metals from contaminated water supplies. (C) 2000 Published by Elsevier Science Ltd. All rights reserved.

Keywords: Froth Flotation, Biotechnology, Environmental, Ion-Exchange, Accumulation Lead, Algal Biomass, Peat Moss, Recovery, Sphagnaceae, Cadmium

Rees, K.L. and van Deventer, J.S.J. (2001), Gold process modelling. I. Batch modelling of the processes of leaching, preg-robbing and adsorption onto activated carbon. *Minerals Engineering*, **14** (7), 753-773.

Full Text: [M\Min Eng14, 753.pdf](M/Min%20Eng14,%20753.pdf)

Abstract: In this paper an overall batch model is developed to describe the simultaneous processes of leaching, preg-robbing and adsorption onto activated carbon. These processes were quantified for an oxide ore and three sulphide ores, which consisted of a potation feed, a pyrite concentrate and a copper concentrate. The effect of the kinetics of preg-robbing on gold extraction with or without activated carbon was also closely examined for these ores.

A variable order empirical Mintek-type model described the leaching, while the film diffusion equation with a Freundlich isotherm was used to describe both the preg-robbing at the ore surface and adsorption of aurocyanide onto activated carbon. The model developed fitted the observed experimental data well, and was used to decouple preg-robbing from leaching for the refractory ores and simulate the simultaneous leaching, adsorption and preg-robbing processes. Overall the most important factor governing the extraction of gold was found to be the relative rates of leaching, adsorption and preg-robbing.

The Telfer oxide ore model parameters were calibrated from leaching and simultaneous leaching and adsorption data, as this ore was not preg-robbing. For the weakly preg-robbing flotation feed it was necessary to decouple the preg-robbing from the leaching data and use the updated parameters to calibrate the adsorption parameters when simultaneous leaching, adsorption and preg-robbing experiments were performed The same technique was used for the pyrite concentrate, and it was shown that the enhanced extraction of gold in the presence of activated carbon was nor solely due to overcoming preg-robbing for this ore. Preg-robbing could not be decoupled from leaching far the copper concentrate as this ore was very strongly preg-robbing, with preg-robbing occurring at a faster rate than the adsorption of gold onto activated carbon. (C) 2001 Elsevier Science Ltd. All rights reserved.

Keywords: Leaching, Modeling, Kinetic-Model, Rate-Equation, Base Metals, Cyanide, Elution, Ores

? Lacher, C. and Smith, R.W. (2002), Sorption of Hg(II) by *Potamogeton natans* dead biomass. *Minerals Engineering*, **15** (3), 187-191.

Full Text: [M\Min Eng15, 187.pdf](M/Min%20Eng15,%20187.pdf)

Abstract: The sorption of Hg(II) from aqueous solution onto the dead biomass of the aquaphyte *Potamogeton natans* was studied. The uptake was studied by placing the Hg(II) solutions into beakers containing various concentrations of biomass. Factors influencing the sorption process such as reaction time, initial pH value of the treated solution, and initial concentration of metal ions were examined. Chemical and instrumental analyses including atomic absorption, electron microscopy and X-ray energy dispersion analyses were used to elucidate sorption mechanisms. It was found that, although sorption of Hg(II) took place over the entire biomass surface, there were spots on the surface where apparent multilayer sorption of Hg(II) occurred. The maximum uptake of Hg(II) by *P. natans* biomass is about 180 mg/g biomass. The minimum concentration of Hg(II) in solution that can be achieved appears to be limited to about 4–5 mg/l.

Keywords: Environmental, Pollution, Ion exchange

Nakbanpote, W., Thiravetyan, P. and Kalambaheti, C. (2002), Comparison of gold adsorption by *Chlorella vulgaris*, rice husk and activated carbon. *Minerals Engineering*, **15** (7), 549-552.

Full Text: [M\Min Eng15, 549.pdf](M/Min%20Eng15,%20549.pdf)

Abstract: Chlorella vulgaris and rice husk were selected from microorganisms and agricultural waste, respectively, to create new gold-eluteable adsorbents for adsorption of gold-thiourea complex, and compared with activated carbon. The maximum gold adsorption of heated-immobilised C vulgaris, heated rice husk, and activated carbon was 10.34, 28.22 and 35.88 mg Au/g adsorbent, respectively. FTIR spectrum, thermodynamic study and elution tests indicated that heated-immobilised C vulgaris and heated rice husk adsorbed gold by chemical adsorption: co-ordinate covalent bond. The active functional groups of heated-immobilised C vulgaris were ketone, carboxylate and ester, while the groups of heated rice husk were ketone, carboxylate and siloxane. Activated carbon mainly adsorbed gold by physical adsorption. Gold adsorbed onto heated-immobilised C vulgaris, heated rice husk, and activated carbon was able to be eluted by 0.5 M Na2S2O3 to 100, 87 and 41%, respectively. Although heated-immobilised C vulgaris had the highest eluteability, it adsorbed less gold. Therefore, heated rice husk could be used as an alternative adsorbent for gold-thiourea pre-concentration. (C) 2002 Elsevier Science Ltd. All rights reserved.

Keywords: Biotechnology, Mineral Processing, Recycling, Environmental Algal Biomass, Ions

Syna, N. and Valix, M. (2003), Modelling of gold(I) cyanide adsorption based on the properties of activated bagasse. *Minerals Engineering*, **16** (5), 421-427.

Full Text: [M\Min Eng14, 421.pdf](M/Min%20Eng14,%20421.pdf)

Abstract: Bagasse, the fibrous residue from sugar cane milling operation, was subjected to physical activation using CO2 to establish its suitability as a precursor for gold adsorption, specifically for the recovery of gold from cyanide medium. Mathematical modelling, which correlates the effects of carbon properties on the adsorption behaviour, was conducted to formulate a basis for tailor making the adsorbent for this particular application. The developed model suggests carbon properties of alkali pH, high total surface area and small pore diameters are required for optimum adsorption capacity. The optimum adsorption capacity attained by the developed carbon in this study was 227% that of the test commercial activated carbon, which exhibited an adsorption of 101mg Au/g carbon. Hence this demonstrates bagasse as a promising precursor for the manufacture of activated carbon for gold cyanide adsorption.

Keywords: Activated Carbon, Extractive Metallurgy, Gold Ores, Modelling

? Molina, A. and Poole, C. (2004), A comparative study using two methods to produce zeolites from fly ash. *Minerals Engineering*, **17** (2), 167-173.

Full Text: [2004\Min Eng17, 167.pdf](2004/Min%20Eng17,%20167.pdf)

Abstract: Two methods have been evaluated for the synthesis of zeolites using a UK fly ash as raw material. One method consists of a conventional hydrothermal technique in which fly ash is mixed with NaOH solution and the other comprises a combination of alkaline fusion of fly ash with NaOH prior to a hydrothermal treatment, where the fusion product is mixed with water. Both processes have been evaluated at different conditions of temperature, time and proportion of NaOH:PFA:H2O in order to optimise the synthesis. Products have been characterised in terms of mineralogical composition and cation exchange capacity.

Experimental results have demonstrated that parameters such as the NaOH/PFA ratio, time and temperature have a significant effect on the type and degree of zeolitisation achieved, with types X being dominant under optimised conditions. In both cases, the synthetic zeolite products display significantly increased adsorption capacities compared to the raw material. However the fusion method yield better results in terms of shorter times necessary to obtain a product with high crystallinity and excellent performance as cation exchanger.

Keywords: Coal, Flue Dusts, Mineral Processing, Recycling, Waste Processing

Iqbal, M. and Edyvean, R.G.J. (2004), Biosorption of lead, copper and zinc ions on loofa sponge immobilized biomass of *Phanerochaete chrysosporium*. *Minerals Engineering*, **17** (2), 217-223.

Full Text: [M\Min Eng17, 217.pdf](M/Min%20Eng17,%20217.pdf)

Abstract: The performance of fungal biomass immobilized within a loofa sponge (FBILS) to remove heavy metal ions such as Pb(II), Cu(II) and Zn(II) from aqueous solution was tested as a new biosorbent system. FBILS was found to remove heavy metal ions efficiently from aqueous solution with selectivity in the order of Pb(II) > Cu(II) > Zn(II). The biosorption of metal ions by FBILS increased as the initial concentration of metal ions increased in the medium. Biosorption equilibrium was established by 60 min. The maximum heavy metal ions adsorbed was found to be 135.3, 102.8, 50.9 mg/g FBILS for Pb(II), Cu(II) and Zn(II), respectively. The maximum uptake of metal ions was obtained at pH 6.0. Temperature over the range 10–50 °C had no effect on the biosorption capacity of FBILS. The adsorption of all three metal ions followed the Langmuir isotherm. Competitive adsorption of Pb(II), Cu(II) and Zn(II) ions was also studied. FBILS was regenerated by washing with a 50 mM solution of HCl. The desorption efficiency was as high as 98%. The regenerated FBILS was found to be suitable for repeated use for five adsorption–desorption cycles without significant loss in adsorption capacity. The results suggest that FBILS can be used as a biosorbent for an efficient removal of heavy metal ions from aqueous solution.

Keywords: Author Keywords, Biotechnology, Hydrometallurgy, Waste-Processing, Pollution

Lee, H.S., Suh, J.H., Kim, I.B. and Yoon, T. (2004), Effect of aluminum in two-metal biosorption by an algal biosorbent. *Minerals Engineering*, **17** (4), 487-493.

Full Text: [M\Min Eng17, 487.pdf](M/Min%20Eng17,%20487.pdf)

Abstract: Heavy metal and A1 sorption capacities of Ca-loaded Laminaria japonica biomass were studied using equilibrium methodology. An evaluation of sorption performance and modeling in a two-metal system was carried out using a modified multi-component Langmuir isotherm. The maximum uptakes of Cr, Pb, Cu, Cd, Zn and Al calculated from the Langmuir isotherm were 1.81, 1.68, 1.59, 1.21, 0.87, and 2.79 mmoUg at pH 4.5, respectively. The interference of Al in heavy metal biosorptive uptakes was assessed by ‘cutting’ the three-dimensional uptake isotherm surfaces at constant second-metal final concentrations. The reduction of Pb, Cu, Cd, Zn and Cr uptakes at its final equilibrium concentrations of 1 mM at pH 4.5 was 77.7%, 80.4%, 86.0%, 89.1% and 50.1% on the presence of Al ion of I mM, respectively. The presence of Al ion greatly affected the uptake of all heavy metals tested except for Cr. (C) 2004 Elsevier Ltd. All rights reserved.

Keywords: Industrial Minerals, Biotechnology, Modeling, pH Control, Environmental, Metal Biosorption, Heavy-Metals, Marine-Algae, Biomass, Cd, Cu, Zn

Zhang, W., Singh, P., Paling, E. and Delides, S. (2004), Arsenic removal from contaminated water by natural iron ores. *Minerals Engineering*, **17** (4), 517-524.

Full Text: [M\Min Eng17, 517.pdf](M/Min%20Eng17,%20517.pdf)

Abstract: Natural iron ores were tested as adsorbents for the removal of arsenic from contaminated water. Investigated parameters included pH, adsorbent dose, contact time, arsenic concentration and presence of interfering species. Iron ore containing mostly hematite was found to be very effective for arsenic adsorption. As(V) was lowered from 1 mg/L to below 0.01 mg/L (US standard limit for drinking water) in the optimum pH range 4.5-6.5 by using a 5 g/L adsorbent dose. The experimental data fitted the first-order rate expression and Langmuir isotherm model. The adsorption capacity was estimated to be 0.4 mg As(V)/g adsorbent. The presence of silicate and phosphate had significant negative effects on arsenic adsorption, while sulphate and chloride slightly enhanced. The negative effect of silicate could be minimised by operating at a pH around 5. The interference of phosphate would necessitate the use of a relatively high dose of the adsorbent to achieve arsenic levels conforming to drinking water standards. The mechanisms of interference of silicate and phosphate on As(V) adsorption are also discussed. (C) 2004 Elsevier Ltd. All rights reserved.

Keywords: Iron Ores, Waste Processing, Environmental, Metal Adsorption, Ferric-Chloride, Silicic-Acid, Goethite, Oxide, Ferrihydrite, Phosphate, Coagulation, Hydroxide, Molybdate

Selatnia, A., Madani, A., Bakhti, M.Z., Kertous, L., Mansouri, Y. and Yous, R. (2004), Biosorption of Ni2+ from aqueous solution by a NaOH-treated bacterial dead *Streptomyces rimosus* biomass. *Minerals Engineering*, **17** (7-8), 903-911.

Full Text: [M\Min Eng17, 903.pdf](M/Min%20Eng17,%20903.pdf)

Abstract: The nickel biosorption capacity of a Streptomyces rimosus biomass treated with NaOH (0.1 M) was studied in the batch mode. After pre-treatment of biomass at the ambient temperature, optimum conditions of biosorption were found to be: a biomass particle size between 50 and 160 pm, an average saturation contact time of 2 h, a biomass concentration of 3 g L-1 and a stirring speed of 250 rpm. The external mass transfer was found to be the controlling step in the overall sorption process. The equilibrium data could be fitted by Langmuir isotherm equation. Under these optimal conditions a biosorption capacity of 32.6 mg Ni2+ /g biomass was obtained. (C) 2004 Elsevier Ltd. All rights reserved.

Keywords: Bacteria, Environmental, Ion Exchange, Waste Processing, Agitation, Heavy-Metal Biosorption, Nickel Biosorption, Competitive Adsorption, Chlorrela-Vulgaris, Aspergillus-Niger, Zoogloea-Ramigera, Activated Carbon, Cadmium Removal, Mucor-Miehei, Marine-Algae

Erdem, M., Altundoğan, H.S. and Tümen, F. (2004), Removal of hexavalent chromium by using heat-activated bauxite. *Minerals Engineering*, **17** (9-10), 1045-1052.

Full Text: [M\Min Eng17, 1045.pdf](M/Min%20Eng17,%201045.pdf)

Abstract: In this study, to increase the Cr(VI) adsorption capacity of bauxite, heat treatment method was tested and the effects of pH, adsorbent dosage, contact time, initial Cr(VI) concentration and temperature on the adsorption of Cr(VI) were investigated. Although heating provides an enhanced adsorption, the heat-activated bauxite was found to be a weak adsorbent for Cr(VI). The maximum adsorption yield (64.9%) was obtained at the conditions of pH 2, activated bauxite dosage of 20 g l−1, contact time of 180 min, for the initial Cr(VI) concentration of 10 mg l−1 and temperature of 20 °C by using the bauxite sample heated at 600 °C. The adsorption data fit a first-order rate expression and Langmuir isotherm. Enthalpy, free energy and entropy changes were calculated from the isotherm data. The adsorption of Cr(VI) onto heat-activated bauxite was found to be exothermic.

Keywords: Environmental, Pollution, Oxide Ores, Ion Exchange

? Vijayaraghavan, K., Jegan, J., Palanivelu, K. and Velan, M. (2005), Removal and recovery of copper from aqueous solution by eggshell in a packed column. *Minerals Engineering*, **18** (5), 545-547.

Full Text: [2005\Min Eng18, 545.pdf](2005/Min%20Eng18,%20545.pdf)

Abstract: Gallus domesticus eggshell was investigated for its ability to remove copper from aqueous solution in an up-flow packed column. The sorption performance of eggshell in the column was examined by varying the bed height (15-25cm) and flow rate (5-20ml/min). The column was regenerated using 0.01 M EDTA solution and sorption-desorption studies were carried out for five cycles. (c) 2004 Elsevier Ltd. All rights reserved.

Keywords: Biotechnology, Environmental, Hydrometallurgy, Pollution, Waste Processing

? Tunali, S., Kiran, I. and Akar, T. (2005), Chromium(VI) biosorption characteristics of Neurospora crassa fungal biomass. *Minerals Engineering*, **18** (7), 681-689.

Full Text: [2005\Min Eng18, 681.pdf](2005/Min%20Eng18,%20681.pdf)

Abstract: The removal of Cr(VI) from aqueous solutions by live and pretreated Neurospora crassa fungal biomass was investigated in the batch mode. The influence of solution pH, contact time and initial metal ion concentration as well as pretreatment of biomass on the biosorption efficiency were studied. All pretreatment methods were found to increase the biosorption capacity of biomass in comparison with the live biomass and biosorption capacity of acetic acid pretreated biomass was found to be 15.85±0.94 mg/g biomass under optimum conditions. The adsorption constants were found from the Freundlich isotherm model at 25°C. The biosorbent was regenerated using 10 mM NaOH solution with up to 95% recovery and reused five times in biosorption-desorption cycles successivelly. The biosorption mechanism of biosorbent was also evaluated by chemical and instrumental analysis including infrared spectroscopy, scanning electron microscopy and X-ray energy dispersion analysis. (c) 2005 Elsevier Ltd. All rights reserved.

Keywords: Adsorption, Aqueous-Solutions, Aspergillus-Niger, Biotechnology, Desorption, Environment, Heavy-Metals, Ions, Pollution, Pretreatment, Removal, Toxic Metals

? Alimohamadi, M., Abolhamd, G. and Keshtkar, A. (2005), Pb(II) and Cu(II) biosorption on Rhizopus arrhizus modeling mono- and multi-component systems. *Minerals Engineering*, **18** (13-14), 1325-1330.

Full Text: [2005\Min Eng18, 1325.pdf](2005/Min%20Eng18,%201325.pdf)

Abstract: The biosorption of Pb(II) and Cu(II) ions, both individually and in mixtures, by Rhizopus arrhizus was investigated in a batch system as a function of single- and dual-metal ion concentrations. The studied initial pH value for single Pb(II) and Cu(II) biosorptions was 5. It was observed that the co-ion effect on the equilibrium uptake became more noticeable as the co-ion concentration in solution increased. Adsorption isotherms were developed for both the single- and dual-metal ion systems at this pH value and expressed by the mono- and multi-component Langmuir and Freundlich adsorption models. Model parameters were estimated by non-linear regression using MAT-LAB and EXCEL softwares. It was observed that the mono-component adsorption equilibrium data fitted adequately to both the monocomponent adsorption models, for both the components and the pH value studied, while the multi-component Freundlich adsorption model predicted the multi-component adsorption equilibrium data for the ranges of initial mixture concentrations studied, and for the pH value used. (c) 2005 Elsevier Ltd. All rights reserved.

Keywords: Modeling, Pb(II), Cu(II), Waterwaste, Activated-Sludge, Fungal Biomass, Removal, Metals, Adsorption, Chromium(VI)

? Pino, G.H., Souza de Mesquita, L.M., Torem, M.L. and Pinto, G.A.S. (2006), Biosorption of cadmium by green coconut shell powder. *Minerals Engineering*, **19** (5), 380-387.

Full Text: [2006\Min Eng19, 380.pdf](2006/Min%20Eng19,%20380.pdf)

Abstract: The effective removal of heavy metals from aqueous wastes is among the most important issues for many industrialized countries. The traditional treatment methods used to remove heavy metals from wastewaters have certain disadvantages such as incomplete metal removal, high reagent and energy requirements, generation of toxic sludge or other waste products that require disposal. The search for alternative and innovate treatment techniques has focused attention on the use of biological materials for metal removal and recovery technologies. Biosorption has gained important credibility during recent years because of its good performance and low cost.

In the present study, the biosorption capacity of powder from coconut shell was studied for cadmium. The adsorption capacity of biomass was investigated by batch experiments. The influence of metal ion concentration and pH were evaluated and the results were fitted using adsorption isotherm models. The kinetic of cadmium biosorption was also investigated. (C) 2005 Elsevier Ltd. All rights reserved.

Keywords: Biotechnology, Biosorption, Heavy Metals, Cocos Nucifera, Adsorption Isotherms, Aqueous-Solutions, Metals, Biomass, Vulgaris, Sorption, Copper, Decontamination, Effluents, Removal, Ions

? Potgieter, J.H., Potgieter-Vermaak, S.S. and Kalibantonga, P.D. (2006), Heavy metals removal from solution by palygorskite clay. *Minerals Engineering*, **19** (5), 463-470.

Full Text: [2006\Min Eng19, 463.pdf](2006/Min%20Eng19,%20463.pdf)

Abstract: The possible use of palygorskite clay, mined in the Dwaalboom area of the Northern Province of South Africa, as an adsorbent for the removal of metal ions such as lead, nickel, chromium and copper from aqueous solution, was investigated. In this work, adsorption of these metals onto palygorskite has been studied by using a batch method at room temperature. The results of adsorption were fitted to both the Langmuir and Freundlich models. Satisfactory agreement between experimental data and the model-predicted values was expressed by the correlation coefficient (R2). The Langmuir model represented the sorption process better than the Freundlich one, with correlation coefficient (R2) values ranging from 0.953 to 0.994. The adsorption capacity (Q(0)) calculated from the Langmuir isotherm was 62.1 mg Pb(II) g-1, 33.4 mg Ni(II) g-1, 58.5 mg Cr(VI) g-1 and 30.7 mg Cu(II) g-1 at a pH of 7.0 at 25±1°C for a clay particle size of 125 mu m. Kinetic investigations were performed to investigate the rate of adsorption of metal ions. The Lagergren’s first-order rate constants were calculated for different initial concentrations of metal ions. In batch mode adsorption studies, removal increased with an increase of contact time, adsorbent amount and solution pH. Adsorption of metals from the single-metal solutions was in the order: Pb>Cr>Ni>Cu. Data from this study proved that metal cations from aqueous Solution can be adsorbed successfully in significant amounts by palygorskite. This opens up new possibilities and potential commercial uses in the palygorskite market. (C) 2005 Elsevier Ltd. All rights reserved.

Keywords: Industrial Minerals, Ion-Exchange, Reaction Kinetics, Environmental, Pollution, Aqueous-Solution, Activated Carbon, Adsorption, Nickel(II), Adsorbent, Chromium, Water, Ions

? Englert, A.H., dos Santos, C.C., Gobbi, S.A. and Rubio, J. (2006), Adsorbing flocs in expanded/fluidised bed reactors: A new basis for pollutants removal. *Minerals Engineering*, **19** (9), 918-924.

Full Text: [2006\Min Eng19, 918.pdf](2006/Min%20Eng19,%20918.pdf)

Abstract: The present work describes studies concerning a new adsorption technique based on the use of adsorbent floes in an expanded/ fluidised bed reactor for the removal of pollutants from aqueous solutions. The technique, based on flocculation of aqueous suspensions of powdered adsorbent materials, when conducted in an expanded/fluidised bed reactor takes advantage of conducting adsorption and solid-liquid separation in one single stage. Studies were performed using flocculated powdered activated carbon and natural zeolites, alone and in mixtures, for phenol and ammonia adsorption. A reactor with cylindrical-conical geometry was used for the pollutants adsorption in floes beds (pure and mixed), as well as the regeneration/recycle of the exhausted adsorbents. Results proved the high adsorption efficiency of powdered natural zeolites and activated carbon floes for the uptake of ammonia (11 mg NH3-N g-1) and phenol (132 mg g-1), at 38 and 19 m h-1 loading rates, respectively. Regeneration/recycle of the pollutant-saturated beds was possible for the ammonia/natural zeolites adsorption case, using sodium sulphate as regenerator. Use of mixed floes beds was efficient, showing advantages such as multiple-pollutants adsorption in one single stage, higher loading rates when using light materials (activated carbon) combined with heavier ones (natural zeolites) and use of small adsorbent concentrations (not possible otherwise). Economical and environmental issues regarding the technique are also discussed in the paper. The new technique shows great potential as an alternative physicochemical adsorption process for pollutant removal from aqueous solutions using low-cost and highly-available powdered adsorbent materials. (C) 2005 Elsevier Ltd. All rights reserved.

Keywords: Industrial Minerals, Activated Carbon, Flocculation, Environmental, Wasteprocessing, Activated Carbon, Adsorption, Kinetics, Zeolite, Phenol

? Wang, X.J., Chen, L., Xia, S.Q., Zhao, J.F., Chovelon, J.M. and Renault, N.J. (2006), Biosorption of Cu(II) and Pb(II) from aqueous solutions by dried activated sludge. *Minerals Engineering*, **19** (9), 968-971.

Full Text: [2006\Min Eng19, 968.pdf](2006/Min%20Eng19,%20968.pdf)

Abstract: The biosorption of Cu(II) and Pb(II) ions from aqueous solutions by dried activated sludge was investigated as a function of initial pH, initial metal ion concentration and temperature. The results showed that both the heavy metals uptake processes followed the pseudo-second-order equation. The equilibrium data fitted very well to both Langmuir and Freundlich adsorption models. The main mechanism of Cu(II) and Pb(II) biosorption on dried activated sludge was their binding with amide I group.

Keywords: Biosorption, Adsorption isotherm, Heavy metal, Activated sludge

? Vasquez, T.G.P., Botero, A.E.C., De Mesquita, L.M.S. and Torem, M.L. (2007), Biosorptive removal of Cd and Zn from liquid streams with a Rhodococcus opacus strain. *Minerals Engineering*, **20** (9), 939-944.

Full Text: [2007\Min Eng20, 939.pdf](2007/Min%20Eng20,%20939.pdf)

Abstract: The biosorption abilities of Rhodococcus opacus were studied for cadmium and zinc removal for liquid aqueous streams. The influence of pH, initial metal concentration and time removal were evaluated on the biosorption studies, in a batch scale basis. The Cd2+ and Zn2+ species uptake capacity by R. opacus has been also compared using Langmuir and Freundlich models. At pH 7.0 and 26°C C, Cd2+ removal achieved a value around 60% from an initial concentration of 15 ppm. On the other hand, Zn removal achieved a value around 88% from an initial concentration of 5 ppm. Kinetics studies revealed that the biosorption process followed a pseudo-second order model for the two metal species (Cd2+ and Zn2+) and the kinetic constants were 3.90 and 3.37 g mg-1 min-1, for an initial concentration of 15 and 5 ppm for cadmium and zinc, respectively. The results showed that the R. opacus is a potential engineering biosorbent for environmental and extractive metallurgy sustainable applications. (c) 2007 Elsevier Ltd. All rights reserved.

Keywords: Adsorption, Adsorption, Applications, Aqueous-Solution, Batch, Biosorbent, Biosorption, Cadmium, Cadmium and Zinc Removal, Cadmium Ions, Capacity, Cd, Cd2+, Concentration, Constants, Engineering, Environmental, Equilibrium, Flotation, Freundlich, Hand, Heavy-Metals, Kinetic, Kinetic Constants, Langmuir, Metal, Model, Models, Order, Parameters, pH, Potential, Process, Pseudo Second Order, Pseudo-Second Order, Pseudo-Second Order Model, Pseudo-Second-Order, Removal, Rhodococcus Opacus, Scale, Species, Sphaerotilus-Natans, Streams, Streptomyces-Rimosus Biomass, Sustainable, Time, Uptake, Value, Zinc, Zinc Removal, Zn, Zn2+

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Full Text: [2008\Min Eng21, 31.pdf](2008/Min%20Eng21,%2031.pdf)

Abstract: Biosorption has many advantages over conventional metal recovery processes such as chemical precipitation and electrowinning. One of these is the rapid rate at which the reaction occurs, resulting in the need for only short contact times for batch processing of aqueous metal-containing wastes. Factors such as metal concentration in Solution, Solution temperature and sorbent concentration all affect the rate at which the sorption reaction takes place. The mechanism of the sorption also influences the kinetics, with the first-order physical sorption mechanisms allowing rapid establishment of equilibrium conditions, while the second-order chemical mechanisms result ill slow kinetics with equilibrium establishment taking as long as 24-48 h to occur. The sorption of platinum by immobilized Saccharomyces cerevisiae biomass was observed to be a chemical sorption mechanism, with rapid initial sorption resulting in removal of approximately 70% of the metal from a 50 mg/l platinum solution in 5 min. The reaction was either endothermic or exothermic, depending on the temperature, and the rate was increased by an increase ill solution temperature up to 37°C. Calculated activation energies were in the region recognized as indicating a chemical sorption mechanism. The results obtained thus indicate that sorption of platinum from aqueous waste solutions is a rapid, and thus cost effective, method for the recovery of platinum from waste streams. (c) 2007 Elsevier Ltd. All rights reserved.

Keywords: Activation, Adsorption, Aqueous Solution, Biomass, Biosorption, Biotechnology, Copper, Equilibrium, Immobilized, Kinetic, Kinetics, Mechanism, Metal, Methylene-Blue, Reaction Kinetics, Reclamation, Recycling, Removal, Solution, Sorption, Temperature, Waste Processing

? Calfa, B.A. and Torem, M.L. (2008), On the fundamentals of Cr(III) removal from liquid streams by a bacterial strain. *Minerals Engineering*, **21** (1), 48-54.

Full Text: [2008\Min Eng21, 48.pdf](2008/Min%20Eng21,%2048.pdf)

Abstract: This paper deals with the removal of Cr(III) species from liquid streams by a hydrophobic bacteria strain, Rhodococcus opacus. Zeta potential measurements, sorption and microflotation studies were carried out in order to evaluate the industrial potential application of such strain. It was observed that R. opacus exhibited an isoelectric point around pH 3.2 and the zeta potential profiles suffered a slight deviation after the contact with the sorbate. From the sorption studies, it was concluded that the highest metal removal took place at pH around 5.0 and the isotherm that best suited the sorption phenomenon was related to the Freundlich model with constants K-F = 1.71 mg(0.14) dm(2.58) g-1 and 1/n = 0.86. Furthermore, the kinetics data indicated that biosorption is relatively slow providing 49.10% of metal removal after 200 min; moreover, the pseudo-second order model fitted best the experimental data. Lastly, three different concentrations of R. opacus were tested in a bioflotation system. With only one cycle of operation, the highest biomass concentration, 1.50 g dm-3, achieved 96.30% of metal removal after 20 min of flotation. (c) 2007 Elsevier Ltd. All rights reserved.

Keywords: Adsorption, Aqueous-Solution, Bacteria, Bioflotation, Biohydrometallurgy, Biomass, Biosorption, Cadmium(II) Biosorption, Caulerpa-Lentillifera, Chromium, Equilibrium, Fungal Biomass, Green Macroalga, Hexavalent Chromium, Ions, Isotherm, Kinetics, Liquid Effluent, Metal, pH, Pseudo-Second Order, Removal, Sorption

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Full Text: [2008\Min Eng21, 65.pdf](2008/Min%20Eng21,%2065.pdf)

Abstract: Micro-organisms and microbial products can be highly efficient to uptake soluble and particulate forms of metals, particularly from dilute solutions. The aim of this work was to evaluate the fundamental aspects of the biosorption of Pb(II), Cr(III) and Cu(II) metal species using Rhodococcus opacus strain. Zeta potential studies and adsorption experiments were carried out in order to evaluate the sorption metals uptake and the possible interaction mechanisms between the metal species and the surface cell wall. The electrophoretic studies showed that the presence of the metal species affected the zeta potential profiles. Moreover, the equilibrium biomass - metals systems followed the Langmuir isotherm model and the pseudo-second order kinetic model. The influence of Cr(III) and Cu(II) oil Pb(II) biosorption capacity in binary and ternary systems was evaluated and biosorption capacity of the Pb(II) ions wits found to be reduced by the presence of the other competing metal ions. The nature of possible cell-metal ions interactions was also evaluated by FT-IR and SEM/EDS analysis. These examinations indicated the involvement of -COOH, -OH and -NH groups in the biosorption process. (c) 2007 Elsevier Ltd. All rights reserved.

Keywords: Activated-Sludge, Adsorption, Analysis, Aqueous-Solutions, Aspergillus-Niger, Bacteria, Biomass, Biosorption, Biotechnology, Cadmium, Chromium(III), Copper(II), Cu(II), Environmental, Equilibrium, Extractive Metallurgy, FT-IR, FTIR, Heavy-Metals, Interaction, Isotherm, Kinetic, Langmuir, Langmuir Isotherm, Lead(II), Metal, Metal Ions, Metals, Pb(II), Pollution, Pseudo-Second Order, Removal, Sorption, Ternary Biosorption, Zinc Ions

? Taffarel, S.R. and Rubio, J. (2009), On the removal of Mn2+ ions by adsorption onto natural and activated Chilean zeolites. *Minerals Engineering*, **22** (4), 336-343.

Full Text: [2009\Min Eng22, 336.pdf](2009/Min%20Eng22,%20336.pdf)

Abstract: This paper describes studies of preparation, activation and physical characterization of a Chilean zeolite (Ch-zeolite) employed as adsorbent for manganese ions from aqueous solutions. The zeolite sample, composed mainly of clinoptilolite and mordenite, had a specific surface area of 118 m2 g-1 (N-2 adsorption), the particles were negatively charged in a wide pH range and presented a cation-exchange capacity of 1.09 meq NH4+ g-1. The medium pH influenced significantly the Mn2+ ions adsorption capacity and best results were obtained at pH 6-6.8. The adsorption onto the activated zeolite followed the pseudo-second-order kinetic model and activation of the Ch-zeolite with NaOH resulted in the highest reaction rate. The equilibrium data showed excellent correlation with the Langmuir isotherm model. Ch-zeolite modification by treating it with NaCl (0.77 meq Mn2+ g-1), NaCH (0.76 meq Mn2+ g-1), Na2CO3 (0.72 meq Mn2+ g-1) and NH4Cl (0.67 meq Mn2+ g-1) increased its uptake ability when compared with the natural Ch-zeolite (0.26 meq Mn2+ g-1). These data contribute to the understanding of mechanisms involved in zeolite activation and provide some practical clues to improve the adsorption efficiency (uptake capacity and kinetics) of manganese ions. (C) 2008 Elsevier Ltd. All rights reserved.

Keywords: Ammonium Removal, Aqueous-Solution, Clinoptilolite, Drinking-Water, Exchange Capacity, Heavy-Metal Ions, Ion-Exchange, Kinetics, Langmuir Isotherms, Metal Ions, Packed-Bed, Pollutants, Waste-Water, Water Treatment, Zeolite

? Cayllahua, J.E.B., de Carvalho, R.J. and Torem, M.L. (2009), Evaluation of equilibrium, kinetic and thermodynamic parameters for biosorption of nickel(II) ions onto bacteria strain, *Rhodococcus opacus*. *Minerals Engineering*, **22** (15), 1318-1325.

Full Text: [2009\Min Eng22, 1318.pdf](2009/Min%20Eng22,%201318.pdf)

Abstract: The present study explores the ability of *Rhodococcus opacus* bacteria strain for the removal of nickel(II) under different experimental conditions. The effects of relevant parameters such as solution pH, biomass loading, ionic strength, and temperature on nickel(II) biosorption capacity were evaluated. Although the tests were carried out using synthetic solutions, the results are representative of typical waste effluents from chemical, dyestuffs, battery manufacture, porcelain enameling, metallurgical industries and electroplating circuits. The sorption data followed the Langmuir, Freundlich, Temkin, Dubinin-Radushkevich, and Sips isotherms. The maximum sorption capacity was found to be 7.63 mg g-1 at pH 5. Thermodynamic parameters have also been evaluated and the results show that the sorption process was spontaneous and endothermic in nature. The dynamics of the sorption process were studied and the values of rate constants for different kinetic models were calculated. The activation energy of biosorption (E-a) was determined as 12.56 kJ mol-1 using the Arrhenius equation. (C) 2009 Elsevier Ltd. All rights reserved.

Keywords: Activation, Activation Energy, Adsorption, Aqueous-Solution, Bacteria, Bacteria (*Rhodococcus opacus*), Biomass, Biosorption, Biotechnology, Capacity, Chemical, Copper(II), Cr(VI), Data, Dynamics, Effluents, Endothermic, Energy, Environmental, Equilibrium, Experimental, Freundlich, Ionic Strength, Ions, Isotherms, Kinetic, Kinetic Models, Langmuir, Liquid Streams, Loading, Metal-Ions, Models, Nickel(II), pH, Rate Constants, Removal, Rights, Solution, Solutions, Sorption, Sorption Capacity, Sorption Process, Spontaneous, Strength, Temperature, Thermodynamic, Thermodynamic Parameters, Waste

? Ngwenya, N. and Chirwa, E.M.N. (2010), Single and binary component sorption of the fission products Sr2+, Cs+ and Co2+ from aqueous solutions onto sulphate reducing bacteria. *Minerals Engineering*, **23** (6), 463-470.

Full Text: [2010\Min Eng23, 463.pdf](2010/Min%20Eng23,%20463.pdf)

Abstract: This study investigates the removal of the fission products Sr2+, Cs+ and Co2+ in single and binary metal solutions by a sulphate reducing bacteria (SRB) biomass. The effect of initial concentration and pH on the sorption kinetics of each metal was evaluated in single metal solutions. Binary component equilibrium sorption studies were performed to investigate the competitive binding behaviour of each metal in the presence of a secondary metal ion. Results obtained from single metal equilibrium sorption studies indicated that SRB have a higher binding capacity for Sr2+ (*q*max =416.7 mg g-1), followed by Cs+ (*q*max = 238.1 mg g-1), and lastly Co2+ (*q*max = 204.1 mg g-1). Among the binary systems investigated, Co2+ uptake was the most sensitive, resulting in a 76% reduction of the sorption capacity (*q*max) in the presence of Cs+. These findings are significant for future development of effective biological processes for radioactive waste management under realistic conditions. (C) 2009 Elsevier Ltd. All rights reserved.

Keywords: Adsorption, Aqueous Solutions, Bacteria, Behaviour, Binding, Biological, Biomass, Biosorption, Capacity, Cesium, Co2+, Competitive, Concentration, Development, Equilibrium, Fission Products, Heavy-Metals, Ions, Kinetics, Management, Metal, Metal Ion, Nuclear Waste Processing, pH, Phosphate, Radioactive-Waste, Reduction, Removal, Rights, Si, Solutions, Sorption, Sorption Capacity, Sorption Kinetics, Sorption Studies, Spent Fuel Reprocessing, Srb, Strontium, Sulphate Reducing Bacteria, Systems, Uptake, Waste, Waste Management

? Taffarel, S.R. and Rubio, J. (2010), Adsorption of sodium dodecyl benzene sulfonate from aqueous solution using a modified natural zeolite with CTAB. *Minerals Engineering*, **23** (10), 771-779.

Full Text: [2010\Min Eng23, 771.pdf](2010/Min%20Eng23,%20771.pdf)

Abstract: This paper describes studies of surface modification of a natural Chilean zeolite with cetyl trimethylammonium bromide (CTAB), to investigate the adsorption efficiency for the removal from aqueous solution of an anionic surfactant, sodium dodecyl benzene sulfonate (SDBS), at bench scale. Modification of the zeolite with CTAB (named ZMS) was based on the external cation exchange capacity (ECEC) of 0.11 meq g-1. The medium pH influences the SDBS ions adsorption rate onto ZMS and the adsorption followed the pseudo-second-order kinetic model. Equilibrium data showed excellent correlation with the Langmuir isotherm model. The adsorption capacities depended on maximum uptakes followed the CTAB concentration or coverage ranging from 40% to 660% of the ECEC. The maximum adsorption capacity of 30.7 mg SDBS g-1 was obtained at 660% of ECEC value. These data contribute for the understanding of mechanisms involved in zeolite modification and provide same practical clues to improve the adsorption efficiency (uptake capacity) of anionic surfactants. Results were discussed in terms of interfacial and solution chemistry phenomena. (C) 2010 Elsevier Ltd. All rights reserved.

Keywords: Activated Carbon, Adsorption, Adsorption Capacities, Adsorption Capacity, Adsorption Rate, Alkylbenzene Sulfonate, Anionic Surfactant, Aqueous Solution, Benzene, Bromide, Capacity, Cation, Cation Exchange, Cationic Surfactant, Chemistry, Concentration, Correlation, Coverage, CTAB, Data, Efficiency, Equilibrium, Ions, Isotherm, Isotherm Model, Kinetic, Kinetic Model, Langmuir, Langmuir Isotherm, Langmuir Isotherm Model, Low-Cost Adsorbent, Mechanisms, Model, Modification, Modified, Natural, Natural Zeolite, Nonionic Surfactant, Organic-Matter, pH, Pseudo Second Order, Pseudo-Second-Order, Pseudo-Second-Order Kinetic Model, Removal, Rights, Scale, Sodium, Sodium Dodecyl Benzene Sulfonate, Solution, Solution Chemistry, Sorption, Surface, Surface Modification, Surfactant, Surfactant-Modified Zeolite, Surfactants, Understanding, Uptake, Value, Waste-Water, Water Treatment, Zeolite, Zeolite Modification

? Taffarel, S.R. and Rubio, J. (2010), Removal of Mn2+ from aqueous solution by manganese oxide coated zeolite. *Minerals Engineering*, **23** (14), 1131-1138.

Full Text: [2010\Min Eng23, 1131.pdf](2010/Min%20Eng23,%201131.pdf)

Abstract: The preparation, characterization, and adsorption properties of Mn2+ by manganese oxide coated zeolite (MOCZ) and its ability in removing Mn2+ by adsorption were investigated. Characterization analyses were used to monitor the surface properties (and their changes) of the coated layer and metal adsorption sites on the surface of MOCZ. The adsorption experiments were carried out as a function of solution pH, adsorbent concentration and contact time. Binding of Mn2+ ions onto MOCZ was highly pH dependent with an increase in the extent of adsorption with the pH of the media investigated. After the Mn2+ adsorption by MOCZ, the medium pH decreased and enhanced with increasing adsorbent concentration. The pseudo-second-order model fitted better among all the kinetic models suggesting that the adsorption mechanism might be a chemisorption process. The equilibrium data showed excellent correlation for both Langmuir and Freundlich isotherm model and this implies both monolayer adsorption and a heterogeneous surface existence in MOCZ. At pH = 6, the Mn2+ uptake by MOCZ attained as high as 1.1 meq Mn2+ g(-1) at equilibrium. The results suggested that MOCZ presents a fairly good potential as an adsorbent for an efficient removal of Mn2+ ions from aqueous solution. (C) 2010 Elsevier Ltd. All rights reserved.

Keywords: Adsorbent, Adsorption, Adsorption, Adsorption Mechanism, Characterization, Chemisorption, Clinoptilolite, Contact Time, Copper, Cu2+, Data, Drinking-Water, Equilibrium, Exchange, Freundlich, Freundlich Isotherm, Heterogeneous Surface, Ions, Isotherm, Kinetic, Kinetic Models, Langmuir, Langmuir and Freundlich Isotherm, Lead(II), Manganese Oxide, Mechanism, Metal Adsorption, Metal Ions, Mn2+, Model, Models, Oxide, Pb(II), Pb2+, pH, Preparation, Process, Properties, Pseudo Second Order, Pseudo-Second-Order, Removal, Uptake, Water Treatment, Zeolite

? Yeddou, A.R., Chergui, S., Chergui, A., Halet, F., Hamza, A., Nadjemi, B., Ould-Dris, A. and Belkouch, J. (2011), Removal of cyanide in aqueous solution by oxidation with hydrogen peroxide in presence of copper-impregnated activated carbon. *Minerals Engineering*, **24** (8), 788-793.

Full Text: [2011\Min Eng24, 788.pdf](2011/Min%20Eng24,%20788.pdf)

Abstract: This work is devoted to the removal of free cyanide from aqueous solution by oxidation with hydrogen peroxide H2O2 catalyzed by copper-impregnated activated carbon. Effects of initial molar ratio [H2O2]0/[CN(-)]0, copper-impregnated activated carbon amount, pH and the temperature on cyanide removal have been investigated. The presence of copper-impregnated activated carbon has increased the reaction rate showing thus a catalytic activity. The rate of cyanides removal increases with the raise of the initial molar ratio [H2O2]0/[CN(-)]0 and decreases with the increase in the pH from 8 to 12. The increase in the copper-impregnated activated carbon amount from 1.5 to 10 g/L in reaction solution has a beneficial effect. Beyond this value, the impact of activated carbon amount is not anymore significant. The temperature does not have a significant effect between 20 and 35ºC. The four successive times re-use of catalyst shows a good stability. The kinetics of cyanide removal has been found to be of pseudo-second-order with respect to cyanide and the rate constants have been determined. This process seems very interesting because the rate of cyanides removal is very fast, the reaction does not use soluble metal catalyst and it consumes only hydrogen peroxide as chemical product. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords: Activated Carbon, Adsorption, Catalysis, Catalyst, Column, Copper-Impreganted Activated Carbon, Cyanide Removal, Degradation, Destruction, Effluents, Equilibrium, Gold, Impact, Kinetics, Oxidation, pH, Pseudo-Second-Order, Reuse, Transport, Waste-Water

? Papandreou, A.D., Stournaras, C.J., Panias, D. and Paspaliaris, I. (2011), Adsorption of Pb(II), Zn(II) and Cr(III) on coal fly ash porous pellets. *Minerals Engineering*, **24** (13), 1495-1501.

Full Text: [2011\Min Eng24, 1495.pdf](2011/Min%20Eng24,%201495.pdf)

Abstract: In the present work the application of fly ash porous pellets as adsorbent of lead(II), zinc(II) and chromium(III) ions from aqueous solution was studied. Experiments were carried out using porous pellets developed from fly ash derived from Megalopolis, Greece coal-burning power plant. The material was shaped into spherical agglomerates, after wetting and tumbling in a laboratory scale granulator. The adsorption of heavy metals on fly ash pellets was studied as a function of the initial metal concentration, solution pH and temperature. Kinetic studies indicated that sorption follows a pseudo-second-order model. Adsorption isotherms of lead, zinc and chromium were determined for agglomerated material using the Langmuir equation. The adsorption capacity of fly ash pellets reached at 0.22 mmol Pb/g pellet, 0.27 mmol Zn/g pellet and 0.44 mmol Cr/g pellet. Furthermore adsorption from bimetallic solutions (Cr-Zn. Cr-Pb and Pb-Zn) took place in order to study presumable antagonistic effects on adsorption of heavy metals. Finally, the stabilization of metal saturated pellets was studied. The stabilization procedure took place in structures made of concrete, where 75% of cement was replaced by raw fly ash. The evaluation of the procedure through leaching tests showed excellent heavy metals stabilization in concrete blocks. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords: Adsorption, Adsorption Isotherms, Aqueous-Solutions, Bagasse, Cadmium(II), Chromium, Desorption, Fly Ash, Heavy Metals Removal, Heavy-Metals, Kinetic, Langmuir, Leaching, Lead, pH, Removal, Sugar-Industry Waste, Water, Zinc(II)

? Bueno, B.Y.M., Torem, M.L., de Carvalho, R.J., Pino, G.A.H. and de Mesquita, L.M.S. (2011), Fundamental aspects of biosorption of lead(II) ions onto a *Rhodococcus opacus* strain for environmental applications. *Minerals Engineering*, **24** (14), 1619-1624.

Full Text: [2011\Min Eng24, 1619.pdf](2011/Min%20Eng24,%201619.pdf)

Abstract: Lead is present in different types of industrial effluents, being responsible for environmental pollution. Biosorption of heavy metal ions by biological material is a promising technology with a potential for treating mineral processing wastewater. In this fundamental work, the biosorption of Pb(II) ions from aqueous solutions using the bacteria Rhodococcus opacus was investigated as a function of contact time, initial metal ion concentration and temperature. The equilibrium studies showed that the biosorption is well described through the Langmuir isotherm model in comparison to the Freundlich model in the concentration range studied (20-200 mg/L). The biosorption capacity obtained from Langmuir equation increased from 86.2 to 95.2 mg/g as the temperature was increased from 15 to 35 degrees C. Experimental data were also tested in terms of biosorption kinetics using pseudo-first order and pseudo-second-order kinetic models. The result showed that the biosorption processes of lead ions followed well pseudo-second-order kinetics and the adsorption rate constant increased with increasing temperature. The activation energy of biosorption (E(a)) was determined (30.4 kilmol) using the pseudo-second-order rate constants. The positive values of both H Delta(0) and ΔS(0) obtained suggest that the biosorption of lead (II) ion on the R. opacus was spontaneous and endothermic in nature. (C) 2011 Elsevier Ltd. All rights reserved.

Keywords: Activation, Adsorption, Aqueous-Solution, Bacteria, Biomass, Biosorption, Biotechnology, Copper, Cu(II), Environmental, Equilibrium, Extractive Metallurgy, Freundlich, Isotherm, Kinetics, Langmuir, Lead, Pb(II), Removal, Sorption, Thermodynamic Parameters, Zinc Ions

# Title: Minerals and Metallurgical Processing

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Subject Categories:

Metallurgy & Metallurgical Engineering Mining & Mineral Processing: Impact Factor

? Modak, J.M., Natarajan, K.A. and Saha, B. (1996), Biosorption of copper and zinc using waste *Aspergillus niger* biomass. *Minerals and Metallurgical Processing*, **13** (2), 52-57.

Abstract: Nonliving waste biomass consisting of *Aspergillus niger* attached to wheat bran was used as a biosorbent for the removal of copper and zinc from aqueous solutions. Copper and zinc uptake by the biomass obeyed Langmuir isotherms. The binding capacity of the biomass for copper was found to be higher than that for zinc. The metal uptake, expressed in milligrams per gram of biomass, was found to be a function of: the initial metal concentration (with the uptake decreasing with increasing initial concentration), the biomass loading (with the uptake decreasing with increasing biomass loading) and pH (with the uptake increasing with increasing pH in the range of 1.5 and 6.0).

The metal uptake was significantly affected in the presence of a co-ion. The uptake of copper by the biomass decreased in the presence of zinc and vice versa. The decrease in metal uptake was dependent on the concentrations of metals in the two-component aqueous solutions. The effect of copper on zinc uptake was more pronounced than the effect of zinc on copper uptake.

Keywords: Metal-Ions, *Rhizopus-arrhizus*, Cells, Adsorption, Uranium

? Wang, G.X., Fuerstenau, M.C. and Smith, R.W. (1999), Removal of metal ions by nonliving water hyacinth roots. *Minerals & Metallurgical Processing*, **16** (1), 41-47.

Abstract: Nonliving dried water hyacinth (Eichhornia crassipes (Mart.) Solms) roots were investigated for the biosorption of cadmium lead and other heavy metal ions from aqueous solutions. Dried water hyacinth roots, when suspended in solution, strongly and rapidly sorb several different metal ions. Factors such as reaction time, pH, the initial concentration of metal ions, the presence of other metal ions and biomass concentration were investigated. The adsorption was shown to follow the generalized Langmuir adsorption equation. The relative affinity of the roots for lend is greater than that for cadmium. The batch sorption kinetics of the uptake of cadmium and lead can be described by an apparent first-order reversible reaction model. The roots could be regenerated after the metal ions were stripped. Successful desorption of Cd and Pb from the biomass by acidic CaCl2 solutions revealed that the metal uptake phenomenon is reversible, implying physical sorption of Cd and Pb.

Keywords: Eichhornia-Crassipes, Cadmium Uptake, Heavy-Metals, Cd, Biosorbent, Biotechnology, Pollution Control, Wastewater Treatment, Heavy Metals

# Title: Minerva

Full Journal Title: Minerva

ISO Abbreviated Title: Minerva

JCR Abbreviated Title: Minerva

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Hessels, L.K. and van Lente, H. (2011), Practical applications as a source of credibility: A comparison of three fields of Dutch academic chemistry. *Minerva*, **49** (2), 215-240.

Full Text: [2011\Minerva49, 215.pdf](2011/Minerva49,%20215.pdf)

Abstract: In many Western science systems, funding structures increasingly stimulate academic research to contribute to practical applications, but at the same time the rise of bibliometric performance assessments have strengthened the pressure on academics to conduct excellent basic research that can be published in scholarly literature. We analyze the interplay between these two developments in a set of three case studies of fields of chemistry in the Netherlands. First, we describe how the conditions under which academic chemists work have changed since 1975. Second, we investigate whether practical applications have become a source of credibility for individual researchers. Indeed, this turns out to be the case in catalysis, where connecting with industrial applications helps in many steps of the credibility cycle. Practical applications yield much less credibility in environmental chemistry, where application-oriented research agendas help to acquire funding, but not to publish prestigious papers or to earn peer recognition. In biochemistry practical applications hardly help in gaining credibility, as this field is still strongly oriented at fundamental questions. The differences between the fields can be explained by the presence or absence of powerful upstream end-users, who can afford to invest in academic research with promising long term benefits.

Keywords: Academics, Bibliometric, Case Studies, Chemistry, Credibility Cycle, Environmental, Evaluations, Funding, Impact, Knowledge Production, Literature, Mode 2 Knowledge Production, Netherlands, Papers, Policy, Pressure, Regimes, Relevance, Research, Researchers, Science, Science System, Society, Universities

? Heidler, R. (2011), Cognitive and social structure of the elite collaboration network of astrophysics: A case study on shifting network structures. *Minerva*, **49** (4), 461-488.

Full Text: [2011\Minerva49, 461.pdf](2011/Minerva49,%20461.pdf)

Abstract: Scientific collaboration can only be understood along the epistemic and cognitive grounding of scientific disciplines. New scientific discoveries in astrophysics led to a major restructuring of the elite network of astrophysics. To study the interplay of the epistemic grounding and the social network structure of a discipline, a mixed-methods approach is necessary. It combines scientometrics, quantitative network analysis and visualization tools with a qualitative network analysis approach. The centre of the international collaboration network of astrophysics is demarcated by identifying the 225 most productive astrophysicists. For the years 1998-1999 and 2001-2006 four co-authorship networks are constructed comprehending each a two year period. A visualization of the longitudinal network data gives first hints on the structural development of the network. The network of 2005-2006 is analyzed in depth. Based on cohesion analysis tools for network analysis, two main cores and three smaller ones are identified. Scientists in each core and additionally in structurally interesting positions are identified and 17 qualitative expert interviews are conducted with them. The visualization of the network of 2005-2006 is used in the interviews as a stimulus for the interviewees. An analysis of the three most often used keywords of the 225 astrophysicists is included and combined with the other data. The triangulation of these approaches shows that major epistemic changes in astrophysics, e.g. the discovery of the accelerating expansion of the universe, together with technical and organizational innovations, leads to a restructuring of the network of the discipline. The importance of a combination of qualitative and quantitative network analysis tools for the understanding of the interplay of cognitive and social structure in the sociology of science is substantiated.

Keywords: Analysis, Astronomy, Astrophysics, Co-Authorship, Co-Authorship Network, Co-Authorship Networks, Coauthorship, Cognitive Structure, Collaboration, Dark Energy, Depth, Development, Elite Network, Energy, Epistemic Culture, International Collaboration, Mixed Methods, Network, Network Analysis, Patterns, Physics, Qualitative, Quantitative, Science, Scientific Collaboration, Scientific Collaboration, Scientific Disciplines, Scientific Networks, Scientists, Scientometrics, Social, Social Network, Social Network Analysis, Sociology, Sociology of Science, Specialties, Structure, Supernovae, Visualization

# Title: MIS Quarterly

Full Journal Title: MIS Quarterly

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Publisher Address:

Subject Categories:

: Impact Factor

? Dean, D.L., Lowry, P.B. and Humpherys, S. (2011), Profiling the research productivity of tenured information systems faculty at US institutions. *MIS Quarterly*, **35** (1), 1-15.

Full Text: [2011\MIS Qua35, 1.pdf](2011/MIS%20Qua35,%201.pdf)

Abstract: How many articles in highly rated journals do Information Systems research faculty publish to earn tenure? Which journals are highly rated outlets? Tenure candidates, promotion and tenure committees, and those who are asked to write external letters are frequently called upon to answer such questions. When Dennis et al. (2006) examined all IS Ph.D. graduates entering academic careers, few faculty had published enough articles in 20 “elite” journals in six years to meet tenure research expectations at research-intensive schools. Our study builds on the dialog started by Dennis et al. In our study, we counted the number of journal articles at the point of tenure for faculty who earned tenure within five to seven years after their Ph.D. graduation date. We also examined the effect of acknowledging different sets of journals as highly rated on the publication rates of faculty who earned tenure. Specifically, we examined the effects of expanding on Dennis et al. by including MIS Quarterly, Information Systems Research, Journal of Management Information Systems, Journal of the AIS, Information Systems Journal, European Journal of Information Systems, Journal of Information Technology, and Journal of Strategic Information Systems in the journal basket. We also looked at the effect of acknowledging highly rated non-IS business journals and highly rated computer science and engineering journals. Finally, we present journal publication benchmarks based on these findings for different types of research institutions.

Keywords: Business, Careers, Carnegie Classification, Engineering, Faculty, Faculty Productivity, Forums, Institutions, IS, Journal, Journal Articles, Journals, Management, Mar, MIS, Productivity, Promotion, Promotion and Tenure, Publication, Publication Benchmarks, Publication Standards, Rates, Research, Scholars, Science, Scientometrics, Tenure, Tenure Standards

# Title: MMWR Morb Mortal Wkly Rep

(MMWR Morb. Mortal. Wkly. Rep.)

? (1994), Continued use of drinking water wells contaminated with hazardous chemical substances--Virgin Islands and Minnesota (1981), -1993. *MMWR Morb Mortal Wkly Rep*, **43** (5), 89-91.

Abstract: Improperly disposed hazardous chemical substances are a common source for contamination of drinking water wells. The Agency for Toxic Substances and Disease Registry (ATSDR) and other environmental and public health agencies have recommended that exposure-reduction procedures (i.e., provision of alternative water supplies and construction of new water supplies) be implemented when drinking water wells are contaminated with hazardous substances in concentrations that approach or exceed levels potentially associated with adverse health outcomes in humans. Once these procedures are implemented, the original wells should not be used as sources for drinking water. This report summarizes two cases in which contaminated drinking water wells were being used even though health advisories had been issued to discontinue use of the wells.

? (1994), Assessment of inadequately filtered public drinking water--Washington, D.C., December 1993. *MMWR Morb Mortal Wkly Rep*, **43** (36), 661-669.

Abstract: The risk for waterborne infectious diseases increases when filtration and other standard water-treatment measures fail. On December 6, 1993, water-treatment plant operators in the District of Columbia (DC) began to have difficulty maintaining optimal filter effectiveness. On December 7, filter performance worsened, and levels of turbidity (i.e., small suspended particles) exceeded those permitted by U.S. Environmental Protection Agency (EPA) standards. On December 8, DC residents were advised to boil water intended for drinking because of high municipal water turbidity that may have included microbial contaminants. Although adequate chlorination of the DC municipal water was maintained throughout the period of increased turbidity, the parasite *Cryptosporidium parvum* is highly resistant to chlorination. Because of the increased risk for infection with this organism and other enteric pathogens, the DC Commission of Public Health and CDC conducted four investigations to determine whether excess cases of diarrheal illness occurred because residents drank inadequately filtered water. This report describes the results of these investigations.

? (1995), Assessing the public health threat associated with waterborne cryptosporidiosis: Report of a workshop. *MMWR Morb Mortal Wkly Rep*, **44** (RR-6), 1-19.

Abstract: In September 1994, CDC convened a meeting to address the public health threat associated with waterborne cryptosporidiosis. Representatives from 40 states and from regulatory and public health agencies, water utility companies, and advocacy groups discussed approaches to avoiding unnecessary boil-water advisories (i.e., statements to the public advising persons to boil water before drinking it) and preventing and controlling waterborne cryptosporidiosis. Work groups at the meeting addressed four issues: 1) surveillance systems and epidemiologic study designs; 2) public health responses when oocysts are detected in drinking water; 3) cryptosporidiosis in immunocompromised persons; and 4) water sampling methods and interpretation of results. The work groups defined the problems associated with these issues and developed strategies that could be used initially to manage these problems. The work group discussions were summarized, and the conclusions were provided as either a) summaries of current knowledge concerning that issue or b) suggested ways to obtain the information needed to develop useful recommendations. The work group conclusions are for consideration by persons and organizations who must assist with these issues and by those who seek to advance understanding of waterborne cryptosporidiosis.

# Title: Modern Information

Full Journal Title: [Modern Information](http://e29.cnki.net/KNS50/Navi/item.aspx?NaviID=1&BaseID=XDQB&NaviLink=%e7%8e%b0%e4%bb%a3%e6%83%85%e6%8a%a5)

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Subject Categories:

: Impact Factor

? 王云娣(2005), 我国OPAC文献的计量分析研究. *Modern Information*, **5** (5), 8-11.

Full Text: [2005\Mod Inf5, 8.pdf](2005/Mod%20Inf5,%208.pdf)

Abstract: This paper is quantitatively analyzed in the growth condition, the periodicals, the subjects and the authors distribution condition of the OPAC literature in our country by using bibliometric analysis. The study explores the characteristics of the OPAC literature in our country. According to the problems existing, puts forward some suggestions.

Keywords: Online Public Access Catalog, OPAC, WebPAC, Bibliometric

? 王素琴(2006), 近十年来我国图书馆、情报学综述论文研究的计量分析. *Modern Information*, **11** (5), 25-27.

Full Text: [2006\Mod Inf5, 25.pdf](2006/Mod%20Inf5,%2025.pdf)

Abstract: Based on the statistics of the surveys on library and information science collected in CNKI Database of Chinese Journals from 1996-2005, applying bibliometric statistical methods, this paper makes a comparative and comprehensive analysis on the distribution of time, journals, and the characteristics of thesis, which provides a reliable and valuable reference for the researchers on library and information science.

Keywords: Library, Information Science, Survey, Quantitative Analysis

# Title: Modern Language Review

Full Journal Title: Modern Language Review

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Subject Categories:

: Impact Factor

? Siefken, H. (1995), Self-citation in Mann, Thomas - Investigation of the relationship between fiction and autobiography in his works - German - Bruhn, G. *Modern Language Review*, **90**, 528-529.

Full Text: [1995\Mod Lan Rev90, 528.pdf](1995/Mod%20Lan%20Rev90,%20528.pdf)

? Lorch, J. (2008), Authorial echoes: Textuality and self-plagiarism in the narrative of Luigi Pirandello. *Modern Language Review*, **103**, 1140-1141.

Full Text: [2008\Mod Lan Rev103, 1140.pdf](2008/Mod%20Lan%20Rev103,%201140.pdf)

? Ritter, R.M. (2010), Documentation: A history and critique of attribution, commentary, glosses, marginalia, notes, bibliographies, works-cited lists, and citation indexing and analysis. *Modern Language Review*, **105**, 1133-1135.

Full Text: [2010\Mod Lan Rev105, 1133.pdf](2010/Mod%20Lan%20Rev105,%201133.pdf)

Keywords: Attribution, Bibliographies, Citation, History

# Title: Modern Pathology

Full Journal Title: Modern Pathology

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Issues/Year:

Journal Country/Territory:

Language:

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Publisher Address:

Subject Categories:

: Impact Factor

? Borkowski, A., Berman, J.J. and Moore, G.W. (1992), Research by pathologists not funded by external grant agencies - A success story. *Modern Pathology*, **5** (5), 577-579.

Full Text: 1992\Mod Pat5, 577.pdf

Abstract: The paradigm of pathology research as an endeavor among grant-funded principal investigators resulting in first-author publications is unsupported by quantitative examination of author profiles extracted from the scientific literature. Publications in six pathology journals (Modern Pathology, American Journal of Surgical Pathology, Human Pathology, Acta Cytologica, Archives of Pathology and Laboratory Medicine, and American Journal of Clinical Pathology) and three general science journals (Science, New England Journal of Medicine, and Proceedings of the U. S. National Academy of Sciences) were reviewed. Twenty articles per journal from each of three years (1987, 1989, and 1991) were examined (a total of 520 articles). Of these, 295 articles were first-authored by a member of a department of pathology. Of the 295 articles first-authored by a member of a pathology department, 47 (16%) articles listed competitive grant support. Of the grant-supported articles, 20 articles listed NIH support, but only four had an NIH-supported principle investigator as the first author of the article. Unfunded research represented the vast majority (84%) of work produced by pathologists. A review of the ISI Citation Index showed that those articles written by funded pathologists averaged 8.7 (S.D. 7.8) citations per article, compared to 10.4 (S.D. 12.1) citations per article for unfunded pathologists. Results suggest that unfunded research accounts for the majority of pathology research activity as well as their resulting literature citations.

Keywords: Funding, Grant, Citation, Pathology

? Flotte, T.J. (1993), Research by pathologists in the United-States: Analysis of publications. *Modern Pathology*, **6** (4), 484-486.

Abstract: Academic pathology is a unique profession in which the ability to pursue almost any type of academic or scholarly endeavor can be supported. Although it is difficult to define methods of comparing individual achievements in medicine, for investigative activity, common measures of academic productivity are numbers of peer-reviewed publications and National Institute of Health support. Articles from pathology departments were randomly selected from MEDLINE. One hundred and five articles were examined for the following features: financial support, human subjects, the presence of a photomicrograph, molecular biology techniques, and the number of times each article was cited as determined using the Science Citation Index. The articles were assigned to one of the following categories: anatomical pathology, clinical pathology, or research. The following percentages of articles were federally funded: total, 43.8; anatomical pathology, 33.3; clinical pathology, 9.5 and research, 74.4. The citations per article for federally funded and not federally funded articles, respectively, for each as these categories was as follows: total, 18.7 and 5.3; anatomical pathology, 15.7 and 5.5; clinical pathology, 2.0 and 4.9; and research, 21.4 and 5.7. It can be concluded from the data presented that federally funded articles from departments of pathology are cited more often than articles that are not federally funded. The most impressive finding in reviewing the articles is the wide diversity of research conducted in pathology departments. The use of federal funding or citation analysis to evaluate the performance of an individual pathologist would be a mistake.

Keywords: Citation, Research Support, Pathology

# Title: Mokuzai Gakkaishi

Full Journal Title: [Mokuzai Gakkaishi](http://www.jwrs.org/editor/mkz_toc/mkz_main-e.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0893-3952

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Arai, K. and Yata, S. (1999), Ribbon-like variegation of Pinus radiata using the adsorption of basic dyes in the capillary penetration process. *Mokuzai Gakkaishi*, **45** (3), 215-221.

Full Text: Mok Gak45, 215

Abstract: Adsorption of basic dye in wood is so much stronger than acid dye and direct dye that basic dye is unsuitable for even the staining of wood tissue. However, it is possible to dye with different colors along the flow direction in wood when a mixture of various basic dyes is allowed to penetrate into the wood, using the difference in adsorptive characteristics of each basic dye. So, levels of adsorption by the capillary penetration process into Pinus radiata, which is the most penetrable wood, were examined for 18 kinds of basic dye solutions. Results obtained were as follows; 1) All dye water solutions penetrated well with 2.5 similar to 4.0 g, cm2 for five minutes. However, in the investigation of the separation of the water and dye, the dyeing solutions could be classified in two types, a separation-less type (Triallyl methane series, Azine series, Xanthene series, Oxazine series) and a separation type (Azo series, Methine series, Thiazine series). 2) The level of the adsorption power can be estimated by comparing penetration quantity with the dyeing volume. Results showed that the adsorption powers of the Thiazine series, the Azo series and the Methine series were high and that the powers of the Xanthene series, the Azine series and the Triallyl methane series were small. 3) The possibility of dyeing in two colors along the liquid flow direction was confirmed using a combination of two basic dyes with different adsorption powers and colors. 4) In a combination of two basic dyes and one pigment, the possibility of dyeing in three colors along the liquid flow direction was suggested. 5) The coloration width (range) of each dye could be controled by adjustment of the concentration ratios.

Keywords: Acid, Adsorption, Basic Dye, Combination, Dye, Dyes, Pinus Radiata, Ribbon-Like Variegation, The Liquid Flow Direction, Wood

? Mori, M., Saito, Y., Shida, S. and Arima, T. (2000), Adsorption properties of charcoals from wood-based materials. *Mokuzai Gakkaishi*, **46** (4), 355-362.

Full Text: Mok Gak46, 355

Abstract: Wood-based materials (PB and LVL) and raw wood materials (sugi and bamboo), precarbonized at a lower temperature, were further carbonized at 500-1000°C. The inner surface structure and adsorption properties of the carbonized materials were investigated when exposed to water and formaldehyde vapors. All of the carbonized materials were adsorptive to water and formaldehyde, although carbonized PB and LVL, whose inner surface area was small, were less adsorptive than carbonized sugi and bamboo. Higher carbonization temperatures generally gave larger surface area and higher adsorption, regardless of the origin of the charcoals. However the charcoal carbonized at 600°C had the lowest adsorption. In the presence of both formaldehyde and water vapors, charcoals carbonized at the lower temperatures of 500-700°C adsorbed formaldehyde more than water with polylayer adsorption, whereas those carbonized at the higher temperatures of 800-1000°C adsorbed water more because of their fine micropore structure. These results indicate that the adsorption properties of charcoal from wood waste could be adjusted by controlling the carbonizing temperature.

Keywords: Adsorption, Adsorption Properties, Bamboo, Carbonizing Temperature, Charcoal, Formaldehyde, Formaldehyde Adsorption, Moisture Adsorption, Pore Structure

? Saito, Y., Mori, M., Shida, S. and Arima, T. (2000), Formaldehyde adsorption and desorption properties of wood-based charcoal. *Mokuzai Gakkaishi*, **46** (6), 596-601.

Full Text: Mok Gak46, 596

Abstract: Adsorption and desorption properties of wood based charcoal carbonized at 500 to 1000 degreesC were investigated in formaldehyde atmospheres, aiming for its use for formaldehyde removal in housing. In formaldehyde atmospheres of low concentration, both bamboo charcoal carbonized at 1000 degreesC and particleboard charcoal carbonized at 600 degreesC diminished formaldehyde (HCHO) concentration in air from 0.4 ppm to less than 0.08 ppm. The amount of HCHO adsorbed was only 10 % lower at 30 degreesC than at 20 degreesC, which means that removal of HCHO by charcoal is effective even in summer. The amount of HCHO desorbed from charcoal carbonized at high temperature was relatively smaller than from charcoal carbonized at low temperature. DSC measurement revealed that charcoal carbonized at higher temperature also had desorption peak at higher temperature. The charcoals carbonized at 600 degreesC had the lowest desorption peak temperatures, based on DSC measurements, of charcoals carbonized at 500 to 1000 degreesC. Nevertheless, el en the charcoal carbonized at 600 degreesC could be adjusted for use in summer in Japan because the rising point of the desorption peak is around 50 degreesC.

Keywords: Adsorption, Bamboo, Bamboo Charcoal, Charcoal, Desorption, Formaldehyde, Wood-Based Charcoal

? Arai, K. and Yata, S. (2003), Ribbon-like variegation of Pinus radiata using the adsorption of basic dyes in the capillary penetration process II. Adsorption and coloring patterns of various combinations of basic dyes. *Mokuzai Gakkaishi*, **49** (1), 7-14.

Full Text: Mok Gak49, 7

Abstract: Basic dyes which are adsorbed strongly into the wood cell wall are unsuitable for even penetration of color into the interior of the wood. This study attempted to enhance the decorative value of wood by taking advantage of differences in selective adsorption to create a ribbon-like variegation along the liquid flow direction. Therefore, the relationship between dyes and coloring patterns resulting from the capillary penetration process into Pinus radiata, which is the most penetrable wood, were examined for 55 solutions made by combining 15 kinds of obtainable basic dyes and one pigment. Results obtained were as follows: 1) The adsorptivity of basic dyes was divided broadly into five categories on the basis of coloring conditions. 2) In a combination of two basic dyes with different adsorptivity and colors, the coloring volume of each dye along the liquid flow direction was expanded by mixing colors. Particularly the use of two basic dyes with greatly differing adsorption power resulted in wood with two distinctly separated colors. 3) The coloring volume was expanded by increased speed of liquid flow in the wood. 4) A distinct separation into two or three colors is certainly beautiful; however, the mixing and gradated blending of colors was also found to be capable of creating pleasant results.

Keywords: Adsorption, Adsorptivity, Basic Dye, Coloring Volume, Combination, Dyes, Ribbon-Like Variegation, Wood

? Fujiwara, S., Shima, K. and Chiba, K. (2003), Fundamental characteristics and humidity control capacity of bamboo charcoal. *Mokuzai Gakkaishi*, **49** (5), 333-341.

Full Text: Mok Gak49, 333

Abstract: The regenerative capacity of bamboo is very high and bamboo has been receiving attention from the viewpoint of effective utilization of resources. Recently, bamboo, charcoal has been produced everywhere in Japan, in what has become a bamboo charcoal boom., In this study, the fundamental properties of bamboo charcoal, including humidity control capacity after different carbonizing conditions, were compared with those of wood charcoal. The obtained results are as follows; 1) Ash content is about 4 times greater in bamboo charcoal than in wood charcoal. 2) There is a good correlation, regardless of the wood species, between carbonization temperature and electrical resistance, and it is possible to estimate the carbonization temperature in a traditional charcoal kiln. 3) The pH of wood, charcoal changes from acid to alkaline with rising carbonization temperature, but the pH of bamboo charcoal maintained its alkalinity regardless of the carbonization temperature. The quantity of ash and potassium content in bamboo charcoal seems to be related to the pH. 4) The humidity control capacity in the high humidity region of bamboo charcoal is better than that of wood charcoal.

Keywords: Adsorption Isotherms, Bamboo Charcoal, Bamboo Resource, Carbonizing Condition, Humidity Control Capacity

# Title: Molecular Biology of the Cell

Full Journal Title: Molecular Biology of the Cell

ISO Abbreviated Title: Mol. Biol. Cell

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ISSN: 1059-1524

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Journal Country/Territory: United States

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Publisher: Amer Soc Cell Biology

Publisher Address: Publ Office, 9650 Rockville Pike, Bethesda, MD 20814

Subject Categories:

Biochemistry & Molecular Biology

Cell Biology: Impact Factor 8.482, 21/310 (2000)

? Kulp, K.S., Berardi, C.J. and Vulliet, P.R. (1992), Iron and iron chelators modulate the activity of P34CDC2/P58cyclin-A proline-directed protein-kinase in MDA-MB-453 breast-cancer cells. *Molecular Biology of the Cell*, **3** (SS), A 33.

Kulp, K.S., Green, S.L. and Vulliet, P.R. (1996), Iron deprivation inhibits cyclin-dependent kinase activity and decreases cyclin D/CDK4 protein levels in asynchronous MDA-MB-453 human breast cancer cells. *Molecular Biology of the Cell*, **7** (SS), 2135.

# Title: Molecular Biology Reports

Full Journal Title: Molecular Biology Reports

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Zhan, P., Wang, J., Wei, S.Z., Qian, Q.A., Qiu, L.X., Yu, L.K. and Song, Y. (2011), TNF-308 gene polymorphism is associated with COPD risk among Asians: Meta-analysis of data for 6,118 subjects. *Molecular Biology Reports*, **38** (1), 219-227.

Full Text: [2011\Mol Bio Rep38, 219.pdf](2011/Mol%20Bio%20Rep38,%20219.pdf)

Abstract: Chronic obstructive pulmonary disease (COPD) is a complex polygenic disease in which gene-environment interactions play a critical role in disease onset and progression. The gene encoding tumor necrosis factor (TNF) is one of several candidate loci for the pathogenesis of COPD and is highly polymorphic. A number of studies have investigated the association between the TNF-308 polymorphisms and COPD risk in different populations, and resulted in inconsistent results. A systematic review and meta-analysis of the published studies were performed to gain a clearer understanding of this association. The PUBMED, EMBASE, Web of Science, and CNKI databases were searched for case-control studies published from 1966 to April 2009. Data were extracted and pooled odds ratios (OR) with 95% confidence intervals (CI) were calculated. Twenty-four eligible studies, comprising 2,380 COPD cases and 3,738 controls, were included in the meta-analysis. The pooled result showed that the TNF-308 polymorphisms were significantly associated with an increased risk of COPD (OR = 1.335, 95% CI: 1.172-1.522, for allele A carriers versus G/G; OR = 1.330, 95% CI = 1.174-1.505, for allele A versus allele G). Subgroup analysis supported the results in the Asian populations, but not in the Caucasian populations. When the analysis was limited to only those studies in which the COPD cases and controls were smokers/ex-smokers, the pooled results supported the conclusion. This meta-analysis suggested that the TNF-308 A allele is a more significant risk factor for developing COPD among Asian populations, but not among Caucasians.

Keywords: Analysis, Case-Control, Case-Control Studies, Confidence Intervals, COPD, Databases, Disease, Gene Polymorphism, Meta-Analysis, Necrosis-Factor-Alpha, Obstructive Pulmonary-Disease, Pathogenesis, Polymorphism, Polymorphisms, Promoter Polymorphism, Pubmed, Region, Review, Risk, Risk Factor, Science, Systematic, Systematic Review, TNF, TNF-Alpha, Web of Science

? Chen, M.B., Li, C., Shen, W.X., Guo, Y.J., Shen, W. and Lu, P.H. (2011), Association of a LSP1 gene rs3817198T > C polymorphism with breast cancer risk: Evidence from 33,920 cases and 35,671 controls. *Molecular Biology Reports*, **38** (7), 4687-4695.

Full Text: [2011\Mol Bio Rep38, 4687.pdf](2011/Mol%20Bio%20Rep38,%204687.pdf)

Abstract: Published data on the association between lymphocyte-specific protein 1 (LSP1) rs3817198T > C polymorphism and breast cancer risk are inconclusive. Hence, we conducted a meta-analysis of the LSP1 gene and risk of breast cancer to obtain the most reliable estimate of the association. PubMed, Embase and Web of Science databases were searched. Crude odds ratios (ORs) with 95% confidence intervals (CIs) were extracted and pooled to assess the strength of the association between the LSP1 rs3817198T > C polymorphism and risk of breast cancer. A total of seven eligible studies including 33,920 cases and 35,671 controls based on the search criteria were involved in this meta-analysis. The distributions of genotypes in the controls were all in agreement with Hardy-Weinberg equilibrium. We observed that the LSP1 rs3817198T > C polymorphism was significantly correlated with breast cancer risk when all studies were pooled into the meta-analysis (the allele contrast model: OR = 1.06, 95% CI = 1.04-1.08; the homozygote codominant: OR = 1.14, 95% CI = 1.01-1.28). In the stratified analysis by ethnicity, significant association was observed in Caucasians for CC versus TT homozygote codominant model (OR = 1.25; 95% CI = 1.03-1.52) and for the recessive model (OR = 1.22; 95% CI = 1.02-1.47). There was significant association observed in Africans for CC versus TT homozygote codominant model (OR = 0.45; 95% CI = 0.22-0.92) and for the recessive model (OR = 0.43; 95% CI=0.22-0.88). Also, significant association was observed in mixed ethnicities for CC versus TT homozygote codominant model (OR = 1.12; 95% CI = 1.05-1.19). When stratified by study design, statistically significantly elevated risk was found in nested case-control studies (CC vs. TT: OR = 1.12, 95% CI = 1.05-1.19). But no significant association was observed for all comparison models between LSP1 rs3817198T > C polymorphism and breast cancer risk in hospital-based and people-based studies. When stratified by BRCA1 mutation carriers status, statistically significantly elevated risk was found in this meta-analysis (the allele contrast model: OR = 1.07, 95% CI = 1.01-1.14; the dominant model: OR = 1.09, 95% CI = 1.00-1.18). And significant association was found in the BRCA2 mutation carriers in the allele contrast (OR = 1.11, 95% CI = 1.03-1.20), the homozygote codominant (OR = 1.23, 95% CI = 1.04-1.47), the heterozygote codominant (OR = 1.12, 95% CI = 1.00-1.25) and the dominant models (OR = 1.14, 95% CI = 1.03-1.27). There was significant association between LSP1 rs3817198T > C polymorphism and breast cancer risk in BRCA1 and BRCA2 positive cohort in all comparison models (the allele contrast model: OR = 1.08, 95% CI = 1.03-1.13; CC vs. TT: OR = 1.16, 95% CI = 1.05-1.29; TC vs. TT: OR = 1.09, 95% CI = 1.01-1.16; the dominant model: OR = 1.10, 95% CI = 1.03-1.17; the recessive model: OR = 1.12, 95% CI = 1.01-1.23). In conclusion, this meta-analysis suggests that the LSP1 rs3817198T > C polymorphism is a low-penetrant risk factor for developing breast cancer but may not be in Africans.

Keywords: Alleles, Analysis, Brca1, Breast Cancer, Cancer, Case-Control, Case-Control Studies, Confidence Intervals, Databases, Design, Equilibrium, Ethnicity, FGFR2, Genetic Polymorphisms, Genome-Wide Association, Lymphocyte-Specific Protein 1 (LSP1), Meta Analysis, Meta-Analysis, Model, Mutation, Nested Case-Control, Polymorphism, Pubmed, Risk, Risk Factor, Science, Strength, Susceptibility Loci, Web of Science, Women

? Ji, Y.N., Zhan, P., Wang, J., Qiu, L.X. and Yu, L.K. (2011), APE1 Asp148Glu gene polymorphism and lung cancer risk: A meta-analysis. *Molecular Biology Reports*, **38** (7), 4537-4543.

Full Text: [2011\Mol Bio Rep38, 4537.pdf](2011/Mol%20Bio%20Rep38,%204537.pdf)

Abstract: Many studies have examined the association between the APE1 T1349G (Asp148Glu) gene polymorphisms and lung cancer risk in various populations, but their results have been inconsistent. To assess this relationship more precisely, a meta-analysis was performed. The PubMed, Embase, Web of Science, and CNKI database was searched for case-control studies published up to June 2010. Data were extracted and pooled odds ratios (OR) with 95% confidence intervals (CI) were calculated. Ultimately, ten studies, comprising 2,696 lung cancer cases and 3,948 controls were included. Overall, for the G allele carriers (TG + GG) versus homozygote TT, the pooled OR was 1.037 (95% CI = 0.928-1.159 P = 0.001 for heterogeneity), for GG versus TT the pooled OR was 0.997 (95% CI = 0.861-1.154 P = 0.005 for heterogeneity). In the stratified analysis by ethnicity, significantly risks were not found among Asians or Caucasians. However, in the subgroup analyses by smoking status, significantly risks were found among smokers not in non-smokers. This meta-analysis suggested that the APE1 T1349G (Asp148Glu) polymorphism was not associated with lung cancer risk among Asians or Caucasians. But, the APE1 G allele was an increased risk factor for developing lung cancer among smokers.

Keywords: Acid Substitution Variants, Analysis, Ape1, Base-Excision-Repair, Cancer, Case-Control, Case-Control Studies, Confidence Intervals, Disease, DNA-Repair Genes, Ethnicity, Gene Polymorphism, Human-Population, Lung Cancer, Meta Analysis, Meta-Analysis, Polymorphism, Polymorphisms, Pubmed, Risk, Risk Factor, Science, Smokers, Smoking, Susceptibility, Web of Science, XPD, XRCC1

# Title: Molecular Biology and Evolution

Full Journal Title: [Molecular Biology and Evolution](http://mbe.oxfordjournals.org/archive/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Gascuel, O. and Steel, M. (2006), Neighbor-joining revealed. *Molecular Biology and Evolution*, **23** (11), 1997-2000.

Full Text: [2006\Mol Bio Evo23, 1997.pdf](2006/Mol%20Bio%20Evo23,%201997.pdf)

Abstract: It is nearly 20 years since the landmark paper (Saitou and Nei 1987) in Molecular Biology and Evolution introducing Neighbor-Joining (NJ). The method has become the most widely used method for building phylogenetic trees from distances, and the original paper has been cited about 13,000 times (Science Citation Index). Yet the question “what does the NJ method seek to do?” has until recently proved somewhat elusive, leading to some imprecise claims and misunderstanding. However, a rigorous answer to this question has recently been provided by further mathematical investigation, and the purpose of this note is to highlight these results and their significance for interpreting NJ. The origins of this story lie in a paper by Pauplin (2000) though its continuation has unfolded in more mathematically inclined literature. Our aim here is to make these findings more widely accessible.

Keywords: Algorithm, Algorithms, Citation, Consistency, Construction, Criterion, Distance Method, Evolution, Interpreting, Landmark, Literature, Minimum Evolution, Minimum-Evolution Method, Neighbor-Joining, Optimization Principle, Phylogenetic Criterion, Phylogenetic Inference, Reconstruction, Saitou, Science, Science Citation Index, Theoretical Foundation, Trees

# Title: Molecular and Cellular Endocrinology

Full Journal Title: [Molecular and Cellular Endocrinology](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=4946&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=56aa0f9e49ba85f475e8e2b63c964439)

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Language: English

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Subject Categories:

Cell Biology Endocrinology & Metabolism: Impact Factor

Nelson, A.E., Namkung, H.J., Patava, J., Wilkinson, M.R., Chang, A.C.M., Reddel, R.R., Robinson, B.G. and Mason, R.S. (1996), Characteristics of tumor-cell bioactivity in oncogenic osteomalacia. *Molecular and Cellular Endocrinology*, **124** (1-2), 17-23.

Full Text: [M\Mol Cel End124, 17.pdf](M/Mol%20Cel%20End124,%2017.pdf)

Abstract: Oncogenic osteomalacia is a condition where renal phosphate wasting occurs causing defective mineralisation, in the presence of a tumor. Cultures of cells were established from a hemangiopericytoma resected from a patient with oncogenic osteomalacia. Conditioned media from the cells inhibited phosphate uptake in opossum kidney cells and stimulated production of cAMP in rat osteosarcoma cells, a standard parathyroid hormone (PTH)-like assay. This cAMP stimulation was suppressed by the PTH analogue, 3-34 bPTH and also by heat and trypsin treatment of the media. Tests of conditioned media for PTH and parathyroid hormone related protein (PTHrP) immunoreactivity were negative, however, and no hybridisation to probes for PTH, PTHrP or human stanniocalcin was detected in tumor cell RNA on Northern blot. These data support the hypothesis that tumors responsible for oncogenic osteomalacia produce a humoral substance that reduces renal phosphate reabsorption and provide evidence that the factor may act via PTH/PTHrP receptors. Copyright (C) 1996 Elsevier Science Ireland Ltd.

Keywords: Hypophosphatemia, Oncogenic Osteomalacia, Parathyroid Hormone-Like, Sodium-Dependent Phosphate Uptake, Hormone-Related Protein, Parathyroid-Hormone, OK Cells, Hypophosphatemic Rickets, Humoral Hypercalcemia, Phosphate-Transport, Breast-Cancer, Kidney, Stanniocalcin, Inhibition

? Gong, M., Long, J.A., Liu, Q. and Deng, H.C. (2010), Association of the ADIPOQ rs17360539 and rs266729 polymorphisms with type 2 diabetes: A meta-analysis. *Molecular and Cellular Endocrinology*, **325** (1-2), 78-83.

Full Text: Mol Cel End325, 78.pdf

Abstract: Published data on the association between ADIPOQ polymorphisms and type 2 diabetes are inconsistent. The present meta-analysis was performed to clarify the role of polymorphisms in proximal promoter region of ADIPOQ (rs17360539 and rs266729) in type 2 diabetes. The MEDLINE, EMBASE and Science Citation Index Expanded database were searched for eligible studies. Odd ratios (ORs) with 95% confidence intervals (CIs) were used to assess the strength of association. The pooled ORs were performed for per-allele model (A/a) and others genetic models. A total of 10267 T2DM patients and 12837 controls was included in the meta-analysis. Overall the -11377G allele had an 8% elevated risk of T2DM compared to -11377C allele in all subjects (P = 0.034, OR = 1.08, 95% CI -1.01-1.15). The -11391A allele showed no significant effect on T2DM risk in all subjects (P = 0.240, OR = 1.10, 95% CI 0.94-1.29) compared to -11391G allele. In the subgroup analyses by ethnicity, -11391A allele increased T2DM risk in European population (P = 0.046, OR = 1.09, 95% CI 1.00-1.09). In conclusion, the accumulated evidence suggested that the ADIPOQ -11377G allele is a low-penetrant risk factor for developing type 2 diabetes, but -11391A is a risk factor only in European Caucasians. (C) 2010 Elsevier Ireland Ltd. All rights reserved.

Keywords: Acdc Gene, Adiponectin Apm1 Gene, Adipoq Polymorphism, Citation, Common Variants, French Caucasians, Meta-Analysis, Metabolic Syndrome, Obesity, Proximal Promoter, Risk, Science, Science Citation Index, Single Nucleotide Polymorphisms, Susceptibility Locus, Type 2 Diabetes

# Title: Molecular Endocrinology

Full Journal Title: Molecular Endocrinology

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Journal Country/Territory: United States

Language: English

Publisher: Endocrine Soc

Publisher Address: 4350 East West Highway Suite 500, Bethesda, MD 20814-4110

Subject Categories:

Endocrinology & Metabolism: Impact Factor

? Fan, W.M., Ma, J.X., Cheng, L.R. and Norris, J.S. (1997), Molecular-cloning of Ta16, a transcriptional repressor that may mediate glucocorticoid-induced growth arrest of leiomyosarcoma cells. *Molecular Endocrinology*, **11** (9), 1342-1352.

Abstract: The DDT, MF2 smooth muscle tumor cell line was derived from an estrogen/androgen-induced leiomyosarcoma that arose in the ductus deferens of a Syrian hamster, The growth of this cell line is arrested at the G0/G1 phase of the cell cycle after treatment with glucocorticoids, To identify the putative gene (s) that are potentially involved in this hormone-induced cell growth arrest, we have used a differential screening technique to clone those genes whose expression is induced or up-regulated by glucocorticoids, A number of glucocorticoid response genes were thereby isolated from the leiomyosarcoma cells, One of these clones, termed TA16, was found to be markedly up-regulated by glucocorticoids in DDT, MF2 cells, but only marginally changed in GR1 cells, a glucocorticoid-resistant variant that was selected from the wild type DDT, MF2 cell, Isolation and sequencing of its intact cDNA indicated that the TA16 encodes a protein 485 amino acids long, and its sequence is closely homologous to a novel transcriptional repressor that presumably represses the transcription activity of some zinc finger transcriptional factors through a direct interaction, Transfection assays demonstrated that introduction of an antisense TA16 cDNA expression vector, controlled by an MMTV promoter, into the DDT, MF2 cell significantly relieved the glucocorticoid-induced cell growth arrest, This finding suggests that TA16 might participate in the mediation of glucocorticoid-induced cell cycle arrest in leiomyosarcoma cells.

Keywords: Polymerase Chain-Reaction, Human-Breast-Cancer, Androgen Receptor, Factor-α, Gene, Line, Rat, Sequence, EGR-1, Proliferation

# Title: Molecular Oncology

Full Journal Title: [Molecular Oncology](http://www.sciencedirect.com/science/journal/15747891)

ISO Abbreviated Title:

JCR Abbreviated Title:

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Journal Country/Territory:

Language:

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Publisher Address:

Subject Categories:

: Impact Factor

? Sullivan, R. (2009), Has the US Cancer Centre model been ‘successful’? Lessons for the European cancer community. *Molecular Oncology*, **3** (3), 192-203.

Full Text: [2009\Mol Onc3, 192.pdf](2009/Mol%20Onc3,%20192.pdf)

Abstract: The US model of Cancer Centres created by the National Cancer Act in 1971 has been one of the most tried and tested models of organised disease-specific scientific endeavors in the world. With many countries, particularly those in Europe now looking to develop the research arms of their National Cancer Control Programmes through the development of similar Cancer Centres the time is correct to consider the success and limitations of the US effort to date. Here we described the salient features of both US Cancer Centres and Networks, including their funding and evaluation with socio-political analysis on the learning points for Europe. In particular we highlight issues around sustainable funding, training and network development. New data highlighting deficiencies in the US model around prevention, health promotion, health inequalities in cancer outcomes, and clinical research provide key learning points and opportunities for the European model developed. (C) 2009 Federation of European Biochemical Societies. Published by Elsevier B.V. All rights reserved.

Keywords: Bibliometrics, Cancer, Evaluation, Evidence, Funding, Geography, Health Promotion, Institutes, NCI, Organization, Outcomes, Policy, Research, US

? van Harten, W.H., van Bokhorst, L. and van Luenen, H.G.A.M. (2010), Benchmarking biology research organizations using a new, dedicated tool. *Molecular Oncology*, **4** (1), 12-18.

Full Text: [2010\Mol Onc4, 12.pdf](2010/Mol%20Onc4,%2012.pdf)

Abstract: International competition forces fundamental research organizations to assess their relative performance. We present a benchmark tool for scientific research organizations where, contrary to existing models, the group leader is placed in a central position within the organization. We used it in a pilot benchmark study involving six research institutions. Our study shows that data collection and data comparison based on this new tool can be achieved. It proved possible to compare relative performance and organizational characteristics and to generate suggestions for improvement for most participants. However, strict definitions of the parameters used for the benchmark and a thorough insight into the organization of each of the benchmark partners is required to produce comparable data and draw firm conclusions.

Keywords: Organization, Research, Benchmarking, Evaluation

# Title: Molecular Physics

Full Journal Title: Molecular Physics

ISO Abbreviated Title: Mol. Phys.

JCR Abbreviated Title: Mol Phys

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Morriss, G. and Smith, E.R. (1978), Monolayer adsorption of hard-sphere fluids monolayer profile and adsorption-isotherm. *Molecular Physics*, **36** (6), 1825-833.

# Title: Molecular Psychiatry

Full Journal Title: [Molecular Psychiatry](http://www.nature.com/mp/archive/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

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Subject Categories:

: Impact Factor

? Ebstein, R.P. (2006), The molecular genetic architecture of human personality: Beyond self-report questionnaires. *Molecular Psychiatry*, **11** (5), 427-445.

Full Text: [2006\Mol Psy11, 427.pdf](2006/Mol%20Psy11,%20427.pdf)

Abstract: Molecular genetic studies of personality began with two high impact papers in 1996 that showed provisional associations between the dopamine DRD4 exon III repeat region and Novelty Seeking/Extraversion. These first two reports were shortly followed by an investigation linking Neuroticism/Harm Avoidance with the serotonin transporter (SLC6A4) promoter region polymorphism (5-HTTLPR). In the ensuing decade, thousands of subjects have been studied for association between these genes and personality, assessed by using self-report questionnaires, with erratic success in replication of the first findings for Novelty Seeking (DRD4) and Harm Avoidance (5-HTTLPR). Small effect sizes characteristic of non-Mendelian traits, polygenic patterns of inheritance and true heterogeneity between studies confound attempts to reach a consensus regarding the role of common polymorphisms in contributing to personality domains. Nevertheless, the current state of personality genetics is far from being bleak. Several new paradigms especially functional neuroimaging or ‘imaging genomics’ have strengthened the connection between 5-HTTLPR and anxiety-related personality traits. The demonstrations that early environmental information can considerably strengthen and even uncover associations between genes and behavior (Caspi’s seminal studies and more recently the demonstration that early environment impacts on DRD4 and Novelty Seeking) are notable and herald a new era of personality genetics. Finally, consideration of the broader phenotypic expression of common polymorphisms (e.g. the ‘social brain’, altruism, etc.) and the use of new experimental paradigms including neurophysiological, neuropsychological and computer games that go beyond the narrow self-report questionnaire design will enable a deeper understanding of how common genetic polymorphisms modulate human behavior. Human personality, defined by Webster as the quality or state of being a person or the complex of characteristics that distinguishes an individual, surely requires a more encompassing view towards understanding its complex molecular genetic architecture.

Keywords: C, T Promoter Polymorphisms, Deficit Hyperactivity Disorder, Dopamine D4 Receptor (DRD4), Dopamine-D4 Receptor Gene, DRD4 Gene, EXON-III Polymorphism, Genetics, Human, Molecular Genetics, Novelty Seeking Personality, O-Methyltransferase Comt, Personality, Quantitative-Trait Loci, Review, Serotonin Transporter (SLC6A4), Serotonin Transporter Gene, Tandem Duplication Polymorphism, Temperament

# Title: Molecular Sieves: from Basic Research to Industrial Applications, Pts A and B Studies in Surface Science and Catalysis

Full Journal Title: Molecular Sieves: from Basic Research to Industrial Applications, Pts A and B Studies in Surface Science and Catalysis

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0167-2991

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Wang, S.B., Boyjoo, Y. and Choueib, A. (2005), Zeolitisation of fly ash for sorption of dyes in aqueous solutions. *Molecular Sieves: from Basic Research to Industrial Applications, Pts A and B Studies in Surface Science and Catalysis*, **158**, 161-168.

Abstract: Fly ash was converted to zeolite by a hydrothermal method using NaOH and KOH Solutions under various conditions. The fly ash and derived zeolites were tested for removal of dyes from wastewater. It is found that basic dyes can be effectively adsorbed on fly ash and the modified forms. Modification of fly ash with basic solutions call significantly enhance the adsorption capacity depending oil the treatment temperature and base concentration, not the type of bases. The adsorption capacity increases with the increasing adsorption temperature and pH Of the Solution. The sorption capacities of FA-NaOH can reach 2×10-5 and 3×10-5 mol/g for crystal violet and Methylene blue, respectively. The adsorption isotherm call be described by a two-site Langmuir isotherm equation.

Keywords: Adsorption, Adsorption Capacity, Adsorption Isotherm, Ash, Base, Basic Dyes, Capacity, Concentration, Crystal Violet, Dyes, Fly Ash, Isotherm, Langmuir, Langmuir Isotherm, Methylene Blue, Modified, Oil, pH, Removal, Sorption, Temperature, Treatment, Waste-Water, Wastewater, Zeolite, Zeolites

# Title: Molecular Simulation

Full Journal Title: Molecular Simulation

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Simon, J.M., Inzoli, I., Bedeaux, D. and Kjelstrup, S. (2007), Numerical evidence for a thermal driving force during adsorption of butane in silicalite. *Molecular Simulation*, **33** (9-10), 839-841.

Full Text: [2007\Mol Sim33, 839.pdf](2007/Mol%20Sim33,%20839.pdf)

Abstract: The transport properties of nano-porous materials determine their applicability, e. g. as separators or catalysts (J. Karger, D. Ruthven. Diffusion in zeolites, Wiley, New York (1991); L. V. C. Rees, D. Shen. Adsorption of gases in zeolite molecular sieves. In Introduction to Zeolite Science and Practice, Studies in surface science and catalysis, H. V. C. van Bekkum, E. M. Flanigen, P. A. Jacobs, J. C. Jansen (Eds.), vol. 137, pp. 579 - 631, Elsevier, Amsterdam (2001)). Adsorption in zeolites is explained as a two-step process; adsorption to the external crystal surface and subsequent intra-crystalline diffusion (R. M. Barrer. Porous crystal membranes. J. Chem. Soc. Faraday Trans., 86, 1123 (1990)). Both steps have been considered to be isothermal (P. Kortunov, S. Vasenkov, C. Chmelik, J. Karger, D. Ruthven, J. Wloch. Influence of defects on the external crystal surface on molecular uptake into MFI- type zeolites. Chem. Mater., 16, 3552 (2004); J. Karger. Measurements of diffusion in zeolites - a never ending challenge? Adsorption, 9, 29 (2003)). Here we show, using non-equilibrium molecular dynamics simulations of n- butane in silicalite (J. M. Simon, A. Decrette, J. P. Bellat, J. M. Salazar. Kinetics of adsorption of n- butane on an aggregate of silicalite by transient non-equilibrium molecular dynamics. Mol. Simul.,30, 621 (2004)) that a significant temperature change accompanies adsorption and intra-crystalline transport, and leads to a significant varying thermal driving force across the crystal surface, in agreement with the proposition of Ruthven et al. (D. M. Ruthven, L. K. Lee. Kinetics of nonisothermal sorption: systems with bed diffusion control. AICHE J., 27, 654 (1981)). The butane flux into the crystal is caused in the first stage by a chemical potential difference. In the second stage the temperature of the zeolite decreases due to a thermal force across the surface. This slow reduction in the zeolite temperature induces a small butane uptake, that may help explain why equilibrium techniques give larger diffusion coefficients than non-equilibrium techniques (J. Karger. Measurements of diffusion in zeolites - a never ending challenge? Adsorption, 9, 29 (2003)). Descriptions of transport in nano-porous materials (J. Karger, D. Ruthven. Diffusion in zeolites, Wiley, New York (1991); R. Krishna, J. A. Wesselingh. The Maxwell-Stefan approach to mass transfer. Chem. Eng. Sci., 52, 861 (1997)) need to include a thermal driving force.

Keywords: Zeolite, Non-Equilibrium Molecular Dynamics, Kinetics of Adsorption, Isothermal Adsorption, Surface Resistances, Diffusion, Zeolites, Membranes, Mixtures, Dynamics, Kinetics

# Title: Molecular Systems Biology

Full Journal Title: [Molecular Systems Biology](http://www.nature.com/msb/archive/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Bork, P. (2005), Is there biological research beyond Systems Biology? A comparative analysis of terms. *Molecular Systems Biology*, **1**, Art. No. 2005.0012.

Full Text: [2005\Mol Sys Bio1, 2005.0012.pdf](2005/Mol%20Sys%20Bio1,%202005.0012.pdf)

Keywords: Analysis, Biological, Research

# Title: Molecular Vision

Full Journal Title: Molecular Vision

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Tong, Y., Liao, J., Zhang, Y.A., Zhou, J., Zhang, H.Y. and Mao, M. (2010), LOC387715/HTRA1 gene polymorphisms and susceptibility to age-related macular degeneration: A HuGE review and meta-analysis. *Molecular Vision*, **16** (213), 1958-1981.

Abstract: Purpose: To examine the association of age-related macular degeneration (AMD) with HtrA serine peptidase 1 (HTRA1) gene rs11200638 G -> A polymorphism and LOC387715/ARMS2 gene rs10490924 G -> T polymorphisms, and to evaluate the magnitude of the gene effect and the possible genetic mode of action. Methods: We searched the US National Library of Medicine’s PUBMED, EMBASE, OMIM, ISI Web of Science, and CNKI databases in a systematic manner to retrieve all genetic association studies on the HTRA1 (rs11200638) and LOC387715/ARMS2 (rs10490924) gene polymorphisms and AMD. We performed a meta-analysis conducted with Stata software, version 9.0. Results: Individuals who carried the AA and AG genotypes of HTRA1 gene rs11200638 G -> A polymorphism had 2.243 and 8.669 times the risk of developing AMD, respectively, when compared with those who carry the GG genotype. Individuals carrying the TT and TG genotypes of LOC387715/ARMS2 gene rs10490924 G -> T polymorphism had 7.512 and 2.353 times the risk of developing AMD, respectively, compared with those who carry GG genotype. These results suggested a “moderate” codominant, multiplicative genetic mode; that is, both HTRA1 rs11200638 G -> A polymorphism and LOC387715/ARMS2 rs10490924 G -> T polymorphism play important roles in the pathogenesis of AMD. We found no evidence of publication bias. Between-study heterogeneity was found in both allele-based analysis and genotype-based analysis. Conclusions: HTRA1 rs11200638 G -> A polymorphism and LOC387715/ARMS2 rs10490924 G -> T polymorphism play important roles in AMD. Gene-gene and gene-environmental interactions, as well as precise mechanisms underlying common variants in the HTRA1 gene and LOC387715/ARMS2 gene, potentially increase the risk of AMD and need further exploration.

Keywords: Analysis, Apolipoprotein-E Polymorphisms, Beaver Dam Eye, Bias, Body-Mass Index, Complement Factor-H, Databases, Genetic, Hardy-Weinberg Equilibrium, Htra1 Promoter Polymorphism, ISI, Japanese Population, Meta-Analysis, Methods, Pathogenesis, Polymorphism, Polymorphisms, Public-Health Impact, Publication, Publication Bias, Pubmed, Review, Risk, Risk-Factors, Science, Software, Stargardt-Disease, Susceptibility, Systematic, US, Web of Science

# Title: Molecules

Full Journal Title: Molecules

ISO Abbreviated Title: Molecules

JCR Abbreviated Title: Molecules

ISSN:

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Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Yang, Y.T., Wei, X.Z., Sun, P. and Wan, J.M. (2010), Preparation, characterization and adsorption performance of a novel anionic starch microsphere. *Molecules*, **15** (4), 2872-2885.

Full Text: [2010\Molecules15, 2872.pdf](2010/Molecules15,%202872.pdf)

Abstract: Neutral starch microspheres (NSMs) were synthesized by an inverse microemulsion technology with epichlorohydrin as a crosslinker and soluble starch as starting material. Anionic starch microspheres (ASMs) were prepared from NSMs by the secondary polymerization with chloroacetic acid as the anionic etherifying agent. Fourier transform infrared spectroscopy (FT-IR), scanning electron microscopy (SEM) and laser diffraction particle size analyzer were used to characterize the anionic starch microspheres. The results showed that structure of the microspheres was compact and the hardness of microspheres was great, and the average diameter of the product was about 75 mu m. The anionic starch microspheres (ASMs) were used to adsorb methylene blue (MB) from aqueous solution. Effects of adsorption time, initial concentration of MB, and temperature on the adsorption of MB onto ASMs were studied, and the equilibrium and kinetics of the adsorption process were further investigated. It shows that ASMs can effectively remove MB from the solution. The adsorption equilibrium data correlates well with the Langmuir isotherm model compared with Frendlich isotherem model. The pseudo-first-order and pseudo-second-order kinetic models were applied to test the experimental data. The pseudo-second-order kinetic model provided a better correlation of the experimental data in comparison with the pseudo-first-order model. Temperature variations did not significantly affect the adsorption of MB onto ASMs.

Keywords: Adsorption, Adsorption Equilibrium, Agricultural Waste, Anionic Starch Microspheres, Aqueous Solution, Aqueous-Solution, Basic-Dyes, Characterization, Comparison, Concentration, Correlates, Correlation, Data, Electron Microscopy, Equilibrium, Experimental, Fly-Ash, FT IR, FT-IR, FTIR, Hardness, Infrared Spectroscopy, Inverse Emulsion, Isotherm, Isotherm Model, Kinetic, Kinetic Model, Kinetic Models, Kinetics, Langmuir, Langmuir Isotherm, Langmuir Isotherm Model, Laser, MB, Methylene Blue, Methylene-Blue, Microemulsion, Microspheres, Model, Models, Particle Size, Polymerization, Potato Starch, Pseudo First Order, Pseudo Second Order, Pseudo-First-Order, Pseudo-Second-Order, Pseudo-Second-Order Kinetic Model, Reactive Dyes, Scanning Electron Microscopy, SEM, Size, Solution, Spectroscopy, Starch, Structure, Tableted Microspheres, Technology, Temperature, Time, Waste-Water

? Zhang, M., Yang, H.H., Zhang, H.Y., Wang, Y.R. and Hu, P. (2011), Development of a process for separation of mogroside V from *Siraitia grosvenorii* by macroporous resins. *Molecules*, **16** (9), 7288-7301.

Full Text: [2011\Molecules16, 7288.pdf](2011/Molecules16,%207288.pdf)

Abstract: A separation method was developed for the preparative separation and enrichment of the non-caloric sweetener mogroside V from Siraitia grosvenorii. The adsorption properties of six macroporous resins were evaluated. Results showed that HZ 806 resin offered the best adsorption and desorption capacities. Based on the adsorption experiments on HZ 806, the adsorption data were found to fit the Freundlich model well. The pseudo-second-order kinetic model showed the highest correlation with the experimental results. Separation was performed with deionized water and 40% aqueous ethanol solution as mobile phases. In a typical run, 100 g of herb was processed and 3.38 g of mogroside V with a purity of 10.7% was harvested. This separation method provided a 15.1-fold increase in the purification factor from 0.5% to 10.7%. The present study showed that HZ 806 resins were effective for the separation and enrichment of mogroside V from S. grosvenorii.

Keywords: Adsorption, Desorption, Enrichment, Freundlich, Kinetic, Kinetic Model, Macroporous Resins, Mogrosides V, Pseudo Second Order, Resin, Resins, Separation, Siraitia Grosvenorii, Water

? Souto, A.L., Tavares, J.F., da Silva, M.S., Diniz, M.D.F.M., de Athayde, P.F. and Barbosa, J.M. (2011), Anti-inflammatory activity of alkaloids: An update from 2000 to 2010. *Molecules*, **16** (10), 8515-8534.

Full Text: [2011\Molecules16, 8515.pdf](2011/Molecules16,%208515.pdf)

Abstract: Many natural substances with proven anti-inflammatory activity have been isolated throughout the years. The aim of this review is to review naturally sourced alkaloids with anti-inflammatory effects reported from 2000 to 2010. The assays were conducted mostly in vivo, and carrageenan-induced pedal edema was the most used experimental model. Of the 49 alkaloids evaluated, 40 demonstrated anti-inflammatory activity. Of these the most studied type were the isoquinolines. This review was based on NAPRALERT data bank, Web of Science and Chemical Abstracts. In this review, 95 references are cited.

Keywords: Alkaloids, Anti-Inflammatory Activity, Antiulcer Activity, C-13-Nmr Spectral Data, Chemical Abstracts, Drug Discovery, Experimental, Experimental Models, In Vivo, Inflammation, Inflammatory Diseases, Medicinal-Plants, Mice, Model, Natural, Natural-Products, Rats, Review, Riparin I, Science, TNF-Alpha, Web of Science

? Al Othman, Z.A., Hashem, A. and Habila, M.A. (2011), Kinetic, equilibrium and thermodynamic studies of cadmium(II) adsorption by modified agricultural wastes. *Molecules*, **16** (12), 10443-10456.

Full Text: [2011\Molecules16, 10443.pdf](2011/Molecules16,%2010443.pdf)

Abstract: Agricultural wastes have great potential for the removal of heavy metal ions from aqueous solution. The contamination of water by toxic heavy metals is a worldwide environmental problem. Unlike organic pollutants, the majority of which are susceptible to biological degradation, heavy metals do not degrade into harmless end products. Discharges containing cadmium, in particular, are strictly controlled because of the highly toxic nature of this element and its tendency to accumulate in the tissues of living organisms. This work aims to develop inexpensive, highly available, effective metal ion adsorbents from natural wastes as alternatives to existing commercial adsorbents. In particular, Tamrix articulata wastes were modified chemically by esterification with maleic acid to yield a carboxyl-rich adsorbent. The adsorption behavior of treated Tamrix articulata wastes toward cadmium ions in aqueous solutions in a batch system has been studied as a function of equilibration time, adsorbent dose, temperature and pH. Results showed that the maximum adsorption capacity was 195.5 mg/g in a pH 4 solution at 30ºC with a contact time of 120 min, an initial concentration of 400 mg/L and an adsorbent dose of 0.3 g/L. The kinetic data were analyzed using pseudo-first-order and pseudo-second-order kinetic models. It was shown that the adsorption of cadmium could be described by a pseudo-second-order equation. The experimental data were also analyzed using the Langmuir and Freundlich models of adsorption. Thermodynamic parameters such as Δ*G*º, Δ*H*º and Δ*S*º have been evaluated and it has been found that the sorption process was spontaneous and exothermic in nature. From all of our data, we conclude that the treated Tamrix articulata wastes investigated in this study showed good potential for cadmium removal from aqueous solutions.

Keywords: Adsorbent, Adsorbents, Adsorption, Aqueous-Solution, Biomass, Biosorption, Cadmium, Cadmium Removal, Cd(II), Citric-Acid, Concentration, Equilibrium, Freundlich, Heavy Metal, Heavy Metals, Heavy-Metals, Ions, Kinetic, Kinetic and Thermodynamic Study, Kinetic Models, Langmuir, Metal Ion, Metal Ions, Metals, pH, Removal, Sorption, Tamrix Articulata Wastes, Temperature, Thermodynamic, Thermodynamic Parameters, Wastes, Wheat Bran

# Title: Monatshefte für Chemie

Full Journal Title: Monatshefte fürChemie

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Publisher Address: Sachsenplatz 4-6, PO Box 89, A-1201 Vienna, Austria

Subject Categories:

Chemistry: Impact Factor 0.678, 58/121

Notes: Iisotherm

Hüttig, G.F. (1948), Zur auswertung der adsorptions-isothermen. *Monatshefte für Chemie*, **78** (3-4), 177-184.

Full Text: [M\Mon Che78, 177.pdf](M/Mon%20Che78,%20177.pdf)

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Marczewski, A.W. and Jaroniec, M. (1983), A new isotherm equation for single-solute adsorption from dilute solutions on energetically heterogeneous solids. *Monatshefte für Chemie*, **114**, 711-715.

Jaroniec, M., Marczewski, A.W., Einicke, W.D., Herden, H. and Schöllner, R. (1983), Adsorption of 1-tetradecene/dodecane mixtures on different types of zeolites. *Monatshefte für Chemie*, **114**, 857-873.

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? Jaroniec, M. and Marczewski, A.W. (1984), Physical adsorption of gases on energetically heterogeneous solids. 2. Theoretical extension of a generalized Langmuir equation and its application for analyzing adsorption data. *Monatshefte für Chemie*, **115** (8-9), 1013-1038.

Full Text: 1984\Mon Che115, 1013.pdf

? Mohamed, S.F., Agili, F., Asker, M.M. and El Shebawy, K. (2011), Characterization of the biosorption of lead with calcium alginate xerogels and immobilized *Turbinaria decurrens*. *Monatshefte für Chemie*, **142** (3), 225-232.

Full Text: [2011\Mon Che142, 225.pdf](2011/Mon%20Che142,%20225.pdf)

Abstract: Turbinaria decurrens immobilized in sodium alginate showed increasing intraparticular diffusion of lead, stability of the metal binding, and affinity for lead. Equilibrium lead concentrations were attained after 9 h. The maximum lead uptakes were 1.14, 1.35, and 1.79 mmol g(-1), respectively, for alginate xerogels, free alga, and immobilized alga. The order of maximum lead uptake for different biosorbents was immobilized alga > free alga > alginate xerogels. Scanning electron microscopy (SEM) and energy dispersive X-ray microanalysis showed a uniform distribution of lead on the alginate surface. Fourier transform infrared spectroscopy (FTIR) showed that the main bands modified after lead uptake were those corresponding to hydroxyl and carboxyl stretching. The immobilized beads could be repeatedly used with high efficiency. T. decurrens immobilized in alginate xerogels constitutes an excellent biosorbent for lead, sometimes surpassing the biosorption performance of alginate alone and even the free alga.

Keywords: Adsorption, Alginate, Alginate Xerogels, Biomass, Biosorbent, Biosorption, Cadmium, Calcium, Characterization, Diffusion, Energy, Equilibrium, FTIR, Heavy-Metals, Immobilization, Intraparticular Diffusion, Ions, Lead, Metal, Microscopy, Modified, Removal, Sargassum, SEM, Simulation, Uptake, Waste-Water

# Title: Monatsschrift Kinderheilkunde

Full Journal Title: Monatsschrift Kinderheilkunde

ISO Abbreviated Title:

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ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

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Subject Categories:

: Impact Factor

? Wilken, B., Kirschstein, M. and Gortner, L. (1994), Submersion injuries in childhood. *Monatsschrift Kinderheilkunde*, **142** (9), 692-698.

Abstract: Introduction: Drowning is the fourth leading cause of injury death in children and the third leading cause for children aged up to 4 years in the USA. The annual incidence in England and Wales was 1.5/100 000 and the mortality 0.7/100 000 submersion injuries. In Germany 14% of all deaths caused by injuries in childhood results from drowning. Most of children were unsupervised at the time of accident. It is very difficult to correlate outcome predictors with the prognosis at admission.

Methods: Selected data from patients with the diagnosis submersion injury (n=46) admitted between 5/79 and 12/92 were analysed. In 28 boys and 18 girls cardiopulmonary resuscitation was necessary. Patients were subdivided into 3 groups related to outcome and predictors of outcome were analysed.

Results: A mean of 3.7 infants with submersion injuries were admitted to our pediatric intensive care unit (PI-CU) every year. Mean age of the victims was 3.9 years. Eleven children (23.9%) died, 27 children (58.7%) survived intact, 8 patients (17.4%) survived with severe neurological impairment. Four infants (8.7%) were victims of salt water submersion, (91.3%) of fresh water. Predictors of outcome like submersion time, temperature and pH at admission showed no correlation with mortality and neurological morbidity. Victims who returned to spontaneous circulation and breathing following field resuscitation showed intact survival.

Discussion: Aggressive emergency PICU treatment did not result an improved outcome after submersion injury. Since individual conditions following injury varied so widely it remains difficult to establish predictors of outcome. Neurophysiological methods e.g. somato-sensible evoked potentials and brainstem auditory evoked potentials are necessary for neuromonitoring but eventually only help to correctly predict for poor prognosis. Generally, the outcome was determined by the result of field resucitation. Drowning and near-drowning is a general problem necessiting better security fencing arround garden ponds and increased supervision for toddlers in order to reduce the number of submersion injuries.

Keywords: Submersion Injury, Drowning, Predictors of Outcome

# Title: Morbidity and Mortality Weekly Report

(Mor. Mortal. Wkly. Rep. CDC Surveill. Summ.; MMWR Surveillance Summaries)

Full Journal Title: [Morbidity and Mortality Weekly Report](http://www.cdc.gov/mmwr/mmwr_wk/wk_cvol.html)

ISO Abbreviated Title:

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Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Kramer, M.H., Herwaldt, B.L., Craun, G.F., Calderon, R.L. and Juranek, D.D. (1996), Surveillance for waterborne-disease outbreaks: United States, 1993-1994. *Morbidity and Mortality Weekly Report*, **45** (1), 1-33.

Full Text: [1996\Mor Mor Wkl Rep45, 1.pdf](1996/Mor%20Mor%20Wkl%20Rep45,%201.pdf)

Abstract: PROBLEM/CONDITION: Since 1971, CDC and the U.S. Environmental Protection Agency have maintained a collaborative surveillance system for collecting and periodically reporting data that relate to occurrences and causes of waterborne-disease outbreaks (WBDOs).

REPORTING PERIOD COVERED: This summary includes data for January 1993 through December 1994 and for previously unreported outbreaks in 1992. DESCRIPTION OF THE SYSTEM: The surveillance system includes data about outbreaks associated with water intended for drinking (i.e., drinking water) and those associated with recreational water. State, territorial, and local public health departments are primarily responsible for detecting and investigating WBDOs and voluntarily reporting them to CDC on a standard form.

RESULTS: For the 2-year period 1993-1994, 17 states and one territory reported a total of 30 outbreaks associated with drinking water. These outbreaks caused an estimated 405, 366 persons to become ill, including 403,000 from an outbreak of cryptosporidiosis in Milwaukee, the largest WBDO ever documented in the United States, and 2, 366 from the other 29 outbreaks. No etiologic agent was identified for five (16.7%) of the 30 outbreaks. The protozoan parasites *Giardia lamblia* and *Cryptosporidium parvum* caused 10 (40.0%) of the 25 outbreaks for which the etiologic agent was identified. Two outbreaks of cryptosporidiosis occurred in large metropolitan areas (i.e., Milwaukee and Las Vegas/Clark County) and were associated with deaths among immunocompromised persons. The waterborne nature of these two outbreaks was not recognized until at least 2 weeks after the onset of the Milwaukee outbreak and until after the end of the Las Vegas outbreak. *Campylobacter* jejuni was implicated for three outbreaks and the following pathogens for one outbreak each: Shigella sonnei, Shigella flexneri, non-O1 *Vibrio cholerae* (in a U.S. territory; the vehicle was commercially bottled water), and Salmonella serotype Typhimurium (the outbreak was associated with seven deaths). Eight outbreaks of chemical poisoning were reported: three were caused by lead (one case each), two by fluoride, two by nitrate and one by copper. Twenty (66.7%) of the 30 outbreaks were associated with a well-water source. Fourteen states reported a total of 26 outbreaks associated with recreational water, in which an estimated 1, 714 persons became ill. Fourteen (53.8%) of these 26 were outbreaks of gastroenteritis. The etiologic agent in each of these 14 outbreaks was identified; 10 (71.4%) were caused by G. lamblia or *C. parvum*. Six of these 10 were associated with chlorinated, filtered pool water, and three with lake water. One of the latter was the first reported outbreak of cryptosporidiosis associated with the recreational use of lake water. Four outbreaks of lake water-associated bacterial gastroenteritis were reported, two caused by S. sonnei, one by S. flexneri, and one by *Escherichia coli* O157: H7. Nine outbreaks of hot tub-whirlpool-, or swimming pool-associated *Pseudomonas* dermatitis were reported. Two outbreaks of swimming pool-associated dermatitis had a suspected chemical etiology. The child who had the one reported case of primary amebic meningoencephalitis, caused by infection with Naegleria fowleri, died.

INTERPRETATION: The number of WBDOs reported annually has been similar for each year during 1987-1994, except for an increase in 1992. Protozoan parasites, especially *C. parvum* and G. lamblia, remain important etiologic agents of WBDOs. The outbreaks of cryptosporidiosis in Milwaukee and Las Vegas demonstrate that WBDOs can occur in large metropolitan areas. Surveillance methods are needed that expedite the detection of WBDOs and the institution of preventive measures (e.g., boil-water advisories).

ACTIONS TAKEN: Surveillance data that identify the types of water systems, their deficiencies, and the etiologic agents associated with outbreaks are used to evaluate the adequacy of current technologies for prov

? Barwick, R.S., Levy, D.A., Craun, G.F., Beach, M.J. and Calderon, R.L. (2000), Surveillance for waterborne-disease outbreaks--United States, 1997-1998. *Morbidity and Mortality Weekly Report*, **49** (4), 1-21.

Full Text: [2000\Mor Mor Wkl Rep49, 1.pdf](2000/Mor%20Mor%20Wkl%20Rep49,%201.pdf)

Abstract: PROBLEM/CONDITION: Since 1971, CDC and the U.S. Environmental Protection Agency (EPA) have maintained a collaborative surveillance system for collecting and periodically reporting data relating to occurrences and causes of waterborne-disease outbreaks (WBDOs). REPORTING PERIOD COVERED: This summary includes data from January 1997 through December 1998 and a previously unreported outbreak in 1996.

DESCRIPTION OF THE SYSTEM: The surveillance system includes data regarding outbreaks associated with drinking water and recreational water. State, territorial, and local public health departments are primarily responsible for detecting and investigating WBDOs and voluntarily reporting them to CDC on a standard form.

RESULTS: During 1997-1998, a total of 13 states reported 17 outbreaks associated with drinking water. These outbreaks caused an estimated 2, 038 persons to become ill. No deaths were reported. The microbe or chemical that caused the outbreak was identified for 12 (70.6%) of the 17 outbreaks; 15 (88.2%) were linked to groundwater sources. Thirty-two outbreaks from 18 states were attributed to recreational water exposure and affected an estimated 2, 128 persons. Eighteen (56.3%) of the 32 were outbreaks of gastroenteritis, and 4 (12.5%) were single cases of primary amebic meningoencephalitis caused by Naegleria fowleri, all of which were fatal. The etiologic agent was identified for 29 (90.6%) of the 32 outbreaks, with one death associated with an *Escherichia coli* O157: H7 outbreak. Ten (55.6%) of the 18 gastroenteritis outbreaks were associated with treated pools or ornamental fountains. of the eight outbreaks of dermatitis, seven (87.5%) were associated with hot tubs, pools, or springs.

INTERPRETATION: Drinking water outbreaks associated with surface water decreased from 31.8% during 1995-1996 to 11.8% during 1997-1998. This reduction could be caused by efforts by the drinking water industry (e.g., Partnership for Safe Water), efforts by public health officials to improve drinking water quality, and improved water treatment after the implementation of EPA’s Surface Water Treatment Rule. In contrast, the proportion of outbreaks associated with systems supplied by a groundwater source increased from 59.1% (i.e., 13) during 1995-1996 to 88.2% (i.e., 15) during 1997-1998. Outbreaks caused by parasites increased for both drinking and recreational water. All outbreaks of gastroenteritis attributed to parasites in recreational water were caused by *Cryptosporidium*, 90% occurred in treated water venues (e.g., swimming pools and decorative fountains), and fecal accidents were usually suspected. The data in this surveillance summary probably underestimate the true incidence of WBDOs because not all WBDOs are recognized, investigated, and reported to CDC or EPA.

ACTIONS TAKEN: To estimate the national prevalence of waterborne disease associated with drinking water, CDC and EPA are conducting a series of epidemiologic studies to better quantify the level of waterborne disease associated with drinking water in nonoutbreak conditions. The Information Collection Rule implemented by EPA in collaboration with the drinking water industry helped quantifythe level of pathogens in surface water. Efforts by CDC to address recreational water outbreaks have included meetings with the recreational water industry, focus groups to educate parents on prevention of waterborne disease transmission in recreational water settings, and publications with guidelines for parents and pool operators.

# Title: Mountain Research and Development

Full Journal Title: Mountain Research and Development

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Hernandez, S.S.S., Vital, T.M., Gobbi, S., Costa, J.L.R. and Stella, F. (2011), Physical activity and neuropsychiatric symptoms in elderly with Alzheimer’s dementia. *Motriz-Revista de Educacao Fisica*, **17** (3), 533-543.

Full Text: [2011\Mot-Rev Edu Fis17, 533.pdf](2011/Mot-Rev%20Edu%20Fis17,%20533.pdf)

Abstract: Is common the presence of neuropsychiatric symptoms in Alzheimer’s disease (AD), this is resulted of anatomical and biochemical changes in the brain. The objective of present study was to look for papers relating physical activity and neuropsychiatric symptoms through a systematic review. The following data bases was accessed: Academic Search Premier, Biological Abstracts, Medline, PsycINFO, Pubmed, Scielo, Science direct on line, Sport Discus and Web of Science, using the following key-words: (Neuropsychiatric disturbances OR Neuropsychiatric symptoms OR Neuropsychological disturbances OR Aberrant behavior OR Aberrant behaviour OR Behavior disturbances OR Behaviour disturbances OR Behavior management OR Behaviour management OR Disruptive behavior OR Disruptive behaviour) AND (Alzheimer) AND (Exercise OR Motor intervention OR training OR Physical activity OR fitness), besides crossing the references in the selected articles. Eight studies had filled the inclusion criteria. It was possible to conclude there are evidences of positive results for agitation and sleep disturbances in patients with AD. However, there’s no consensus of what kind of activity is better for these patients.

Keywords: Aged, Alzheimer, Alzheimer Disease, Alzheimer’s Disease, Behavior, Behavioral Symptoms, Behaviors, Behaviour, Brain, Caregivers, Cognitive Performance, Controlled-Trial, Dementia, Depression, Disease, Disturbances, Elderly, Exercise, Exercise, Impairment, Intervention, Management, Medline, Papers, Patients, Physical Activity, Review, Scale, Science, Sleep Disturbance, Symptoms, Systematic, Systematic Review, Training, Web of Science

# Title: Mountain Research and Development

Full Journal Title: Mountain Research and Development

ISO Abbreviated Title:

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ISSN:

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Journal Country/Territory:

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Publisher:

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: Impact Factor

? Sarmiento, F.O. and Butler, D.R. (2011), Where do mountain geographers publish? Disciplinary trends and career development choices. *Mountain Research and Development*, **31** (1), 61-67.

Full Text: [2011\Mou Res Dev31, 61.pdf](2011/Mou%20Res%20Dev31,%2061.pdf)

Abstract: Geographers face choices in publishing research in outlets that affiliate them with a discipline that gauges the overall development of their academic standing by the approval of the peer-review process. It is not only actual publication that counts but also when and where an article is published. Well-published geographers often find themselves at the fuzzy boundaries of traditional disciplinary work, because often the nature of the profession tends to develop holistically, which favors new hybrid approaches, fusing techniques, sharing methodologies, and above all, creating new coupled constructions for the appropriation of concepts associated with place and space. We argue that nowhere is this more important than in mountain geography, where different sciences not only converge to analyze mountain ecosystems but also apply the subspecialties of human and physical geography for better understanding of mountain landscapes. By separating physical geography journals from human geography outlets, geographers pigeonhole professional development and favor reductionistic views of mountain functions, forms, and changes. We also argue that the multiplicity of choices for publication of research on mountain themes has diluted the required concentration of disciplinary trends and has hindered the establishment of mountain science (ie montology) as a discipline. We use a bibliometric critique based on impact factors to determine the likelihood that junior mountain geographers will continue the trend of targeting either process-driven (traditional disciplinary), or region-driven (traditional spatial) journals, in lieu of promoting self-identification of montology through contemporary journals (postmodern, transdisciplinary) that catalyze research productivity and construct their professional self-identity as montologists, as senior mountain geographers often do.

Keywords: Bibliometric, Boundaries, Changes, Concentration, Development, Ecosystems, Forms, Functions, Geography, Human, Hybrid, Impact, Impact Factor, Impact Factors, Journals, Landscapes, Methodologies, Montology, Mountain Geography, Mountain Journals, Peer Review, Peer-Review, Physical, Productivity, Profession, Publication, Publishing, Publishing and Academic Careers, Research, Research Productivity, Science, Sciences, Targeting, Techniques, Trend, Trends, Understanding, Work, World

# Title: On the Move to Meaningful Internet Systems 2005: Coopis, Doa, and Odbase, Pt 2, Proceedings

Full Journal Title: On the Move to Meaningful Internet Systems 2005: Coopis, Doa, and Odbase, Pt 2, Proceedings

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Gekas, J. and Fasli, M. (2005), Automatic Web service composition based on graph network analysis metrics. *On the Move to Meaningful Internet Systems 2005: Coopis, Doa, and Odbase, Pt 2, Proceedings*, **3761**, 1571-1587.

Abstract: The web services paradigm has enabled an increasing number of providers to deploy and host autonomic and remotely accessible services. However, the true potential of such a distributed infrastructure can only be reached when such autonomic services can be combined together as parts of a workflow, in order to collectively achieve combined functionality. In this paper we present our work in the area of automatic workflow composition among web services with semantically described functionality capabilities, For that purpose, we are using a set of heuristics derived from the connectivity structure of the service repository in order to effectively guide the composition process. The methodologies described in this paper have been inspired by research in areas such as citation analysis and bibliometrics. In addition, we present comparative experimentation results in order to evaluate the presented techniques.

Keywords: Bibliometrics, Citation Analysis, Research

# Title: Movement Disorders

Full Journal Title: Movement Disorders

ISO Abbreviated Title:

JCR Abbreviated Title:

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Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Post, B., Merkus, M.P., De Haan, R.J. and Speelman, J.D. (2007), Prognostic factors for the progression of Parkinson’s disease: A systematic review. *Movement Disorders*, **22** (13), 1839-1851.

Full Text: 2007\Mov Dis22, 1839.pdf

Abstract: The purpose of this systematic review is to summarize studies that describe the course of Parkinson’s disease (PD) and to identify factors that predict change in motor impairment, disability, and quality of life. A literature search was conducted in MEDLINE, EMBASE, CINAHL, and Web of Science limited to the English, French, German, Spanish, and Dutch language. Reports were selected if the study involved subjects with PD, the outcome measures described impairment, disability, or quality of life and follow-up was at least 6 months. All included studies were scored for methodological quality. Data were extracted and summarized in a best evidence synthesis. We screened 1,535 titles and abstracts, of which 27 fulfilled our inclusion criteria. A meta-analysis to quantitatively aggregate progression scores of motor impairment and disability was not possible because of the wide variety of outcome measures used and the heterogeneous study populations. Limited evidence is found for lower UPDRS-ME at baseline, dementia and SE < 70% as prognostic factors for future motor impairment. There is strong evidence for higher age at onset and higher PIGD-score; and limited evidence for higher bradykinesia-score, non-tremor dominant subtype, symmetrical disease at baseline, and depression as prognostic factors for progression of disability. Prognostic factors were identified for impairment and disability. The literature on prognosis in PD is not fulfilling the high methodological standards applied nowadays. There is a need for prospective cohorts of PD patients assembled at a common early point in the disease with long time follow-up. (C) 2007 Movement Disorder Society.

Keywords: Age, Clinical Characteristics, Cognitive Decline, Dementia, Depression, Diagnosis, Disability, Disease, Embase, Epidemiology, Follow-Up, Literature, Long-Term, Medline, Meta-Analysis, Mortality, Motor Impairment, Movement, Onset, Outcome, Parkinson’s Disease, Prognosis, Quality of Life, Quality of Life, Quality-of-Life, Review, Science, Standards, Systematic, Systematic Review, Web of Science

? Elahi, B., Elahi, B. and Chen, R. (2009), Effect of transcranial magnetic stimulation on Parkinson motor function-systematic review of controlled clinical trials. *Movement Disorders*, **24** (3), 357-363.

Full Text: 2009\Mov Dis24, 357.pdf

Abstract: The objective of this study was to evaluate the effects of repetitive Transcranial Magnetic Stimulation (rTMS) oil motor signs in Parkinson’s disease (PD). MEDLINE, EMBASE, CINAHL, Web of Science, Scopus bibliographic, and Google Scholar databases were searched. Relevant controlled clinical trials published between January 1985 and October 2007 were extracted, reviewed, and validated according to the study protocol. The outcome of interest wits the motor section of the Unified Parkinson’s Disease Rating Scale (UPDRS). We calculated the effect size for the included Studies. Sensitivity analysis was per-formed to further assess factors that may change the results. Ten randomized, controlled clinical trials were included in the meta-analysis. Pooling of the results from these trials yielded an effect size of -0.58 in UPDRS for high-frequency rTMS studies and no significant effects for low-frequency rTMS studies. The benefit of high-frequency rTMS on motor signs in PD was confirmed by the meta-analysis. Lower frequency rTMS had little effect on motor signs in PD. (C) 2008 Movement Disorder Society.

Keywords: Analysis, Area, Bibliographic, Clinical Trials, Controlled Clinical Trials, Cortex, Databases, Depression, Disease, Excitability, Fluoxetine, Frequency, Google Scholar, Improvement, Induced Dyskinesias, Interest, Meta-Analysis, Metaanalysis, Motor Function, Movement, Outcome, Parkinson’s Disease, Protocol, Review, Rtms, Scale, Science, Scopus, Tremor, Web of Science

? Ponce, F.A. and Lozano, A.M. (2011), The most cited works in Parkinson’s disease. *Movement Disorders*, **26** (3), 380-390.

Full Text: [2011\Mov Dis26, 380.pdf](2011/Mov%20Dis26,%20380.pdf)

Abstract: The number of citations a work has received is a measure of its impact. We identified the top cited works in Parkinson’s disease. A Web of Science search was performed for articles including the keyword “Parkinson\*’’ in the title (the asterisk was included in the search string as a wild card character). Articles with more than 400 citations, the threshold to be considered a “citation classic,’’ were identified and analyzed. The 107 articles identified appeared in 33 different journals, with clinical articles primarily appearing in the New England Journal of Medicine and Lancet, and scientific articles primarily in Nature, Science, and the Proceedings of the National Academy of Sciences. There were 52 laboratory studies, 38 clinical studies, 12 review articles, and 5 classifications of disease. The clinical studies included evaluation of medical and surgical therapies, and the laboratory studies included gene discovery, molecular biology, and cellular biology, as well as animal models and neuropathological stud-ies. High impact topics included deep brain stimulation, levodopa therapy and related adverse effects, MPTP-based animal studies, discovery and evaluation of genetic mutations, and pathogenesis related to oxidative degeneration. More than half of the articles identified in this study have been published in the past 20 years. Prior to 1990, highly cited articles in Parkinson’s disease tended to be those that evaluated medical therapies and defined the clinical and neuropathological characteristics of the disease. Since 1990, a high proportion of the citation classics address the genetic characterization of and surgical treatments for the disease suggesting that these are the most significant recent developments and main drivers of impact in this field. (C) 2010 Movement Disorder Society.

Keywords: Adverse Effects, Alpha-Synuclein, Animal Studies, Articles, Bibliometrics, Biology, Brain, Characteristics, Characterization, Citation, Citation Classics, Citations, Classics, Clinical, Clinical Studies, Discovery, Disease, Effects, England, Evaluation, Field, Gene, Genetic, Impact, Journal, Journals, Measure, Medical, Medicine, Models, Molecular Biology, Mutation, Nucleus, Parkinson’s Disease, Pathogenesis, Recent, Review, Science, Stimulation, Therapy, Threshold, Web of Science, Work

# Title: Multiple Sclerosis

Full Journal Title: Multiple Sclerosis

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Inusah, S., Sormani, M.P., Cofield, S.S., Aban, I.B., Musani, S.K., Srinivasasainagendra, V. and Cutter, G.R. (2010), Assessing changes in relapse rates in multiple sclerosis. *Multiple Sclerosis*, **16** (12), 1414-1421.

Abstract: Multiple Sclerosis (MS) annualized relapse rates (ARRs) in trials may be declining due to changes in diagnostic criteria, MS etiology, study criteria, and selection biases. This review examines if there is a trend in the ARR for relapsing-remitting MS patients (RRMS) over time and if so, why. A comprehensive literature search was performed using PUBMED, Web of Science (R), and the Cochrane Library using electronic searches, screen scraping for abstracts, and hand searching of references for randomized trials conducted between 1960 and 2008. Out of 72 randomized trials, 56 (77.8%) defined relapse. This study uses 32 placebo relapsing-remitting studies out of the 37 (66.1%) with RRMS. The mean ARR for the treatment arms was 0.68 and the one for the placebo groups was 1.002. The year of publication was negatively associated with the ARR (p = 0.0001). The annual reduction amounts to 0.36 relapses over a 10-year period. Age and duration of symptoms were negatively associated with the ARR. Year of publication was significantly negatively associated with ARR after controlling for covariates. ARRs have fallen with relapse definition, entrance criteria remain important, but time exceeds all these variables and reflects two likely sources, selection of patients for trials by clinicians and rescue of patients truncating the number of multiple relapses. The impact of truncating the number of relapses on the falling rates is important, not only on the ARRs, but also on the impact of informative censoring in drop-outs.

Keywords: Age, Annualized Relapse Rate, Cochrane, Double-Blind, Etiology, Exacerbation, Expanded Disability Status Scale, Glatiramer Acetate, Hand, Impact, Interferon Beta-1A, Literature, Monitored Disease-Activity, Monthly Intravenous Immunoglobulin, MRI, Multicenter, Multiple Sclerosis, Placebo-Controlled Trial, Publication, Pubmed, Relapsing-Remitting, Remitting Ms, Review, Science, Symptoms, Symptoms Duration, Therapy, Treatment, Trend, Web of Science

# Title: Muscle & Nerve

Full Journal Title: Muscle & Nerve

ISO Abbreviated Title:

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ISSN:

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Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? England, J.D., Gronseth, G.S., Franklin, G., Carter, G.T., Kinsella, L.J., Cohen, J.A., Asbury, A.K., Szigeti, K., Lupski, J.R., Latov, N., Lewis, R.A., Low, P.A., Fisher, M.A., Herrmann, D., Howard, J.F., Lauria, G., Miller, R.G., Polydefkis, M. and Sumner, A.J. (2009), Evaluation of distal symmetric polyneuropathy: The role of autonomic testing, nerve biopsy, and skin biopsy (an evidence-based review). *Muscle & Nerve*, **39** (1), 106-115.

Abstract: Distal symmetric polyneuropathy (DSP) is the most common variety of neuropathy. Since the evaluation of this disorder is not standardized, the available literature was reviewed to provide evidence-based guidelines regarding the role of autonomic testing, nerve biopsy, and skin biopsy for the assessment of polyneuropathy. A literature review using MEDLINE, EMBASE, Science Citation Index, and Current Contents was performed to identify the best evidence regarding the evaluation of polyneuropathy published between 1980 and March 2007. Articles were classified according to a four-tiered level of evidence scheme and recommendations were based on the level of evidence. (1) Autonomic testing may be considered in the evaluation of patients with polyneuropathy to document autonomic nervous system dysfunction (Level B). Such testing should be considered especially for the evaluation of suspected autonomic neuropathy (Level B) and distal small fiber sensory polyneuropathy (SFSN) (Level C). A battery of validated tests is recommended to achieve the highest diagnostic accuracy (Level B). (2) Nerve biopsy is generally accepted as useful in the evaluation of certain neuropathies as in patients with suspected amyloid neuropathy, mononeuropathy multiplex due to vasculitis, or with atypical forms of chronic inflammatory demyelinating polyneuropathy (CIDP). However, the literature is insufficient to provide a recommendation regarding when a nerve biopsy may be useful in the evaluation of DSP (Level U). (3) Skin biopsy is a validated technique for determining intraepidermal nerve fiber (IENF) density and may be considered for the diagnosis of DSP, particularly SFSN (Level C). There is a need for additional prospective studies to define more exact guidelines for the evaluation of polyneuropathy.

Keywords: Assessment, Axonal Swellings, Citation, Density, Diabetic-Neuropathy, Diagnostic-Value, Distal Symmetric Polyneuropathy, Evaluation, Fabry-Disease, Inflammatory Demyelinating Polyneuropathy, Medline, Peripheral Neuropathy, Prospective Studies, Review, Science, Science Citation Index, Sensory Neuropathy, Small-Fiber Neuropathy, Valsalva Maneuver

? England, J.D., Gronseth, G.S., Franklin, G., Carter, G.T., Kinsella, L.J., Cohen, J.A., Asbury, A.K., Szigeti, K., Lupski, J.R., Latov, N., Lewis, R.A., Low, P.A., Fisher, M.A., Herrmann, D., Howard, J.F., Lauria, G., Miller, R.G., Polydefkis, M. and Sumner, A.J. (2009), Evaluation of distal symmetric polyneuropathy: The role of laboratory and genetic testing (an evidence-based review). *Muscle & Nerve*, **39** (1), 116-125.

Abstract: Distal symmetric polyneuropathy (DSP) is the most common variety of neuropathy. Since the evaluation of this disorder is not standardized, the available literature was reviewed to provide evidence-based guidelines regarding the role of laboratory and genetic tests for the assessment of DSP. A literature review using MEDLINE, EMBASE, Science Citation Index, and Current Contents was performed to identify the best evidence regarding the evaluation of polyneuropathy published between 1980 and March 2007. Articles were classified according to a four-tiered level of evidence scheme and recommendations were based on the level of evidence. (1) Screening laboratory tests may be considered for all patients with polyneuropathy (Level C). Those tests that provide the highest yield of abnormality are blood glucose, serum B-12 with metabolites (methylmalonic acid with or without homocysteine), and serum protein immunofixation electrophoresis (Level C). If there is no definite evidence of diabetes mellitus by routine testing of blood glucose, testing for impaired glucose tolerance may be considered in distal symmetric sensory polyneuropathy (Level C). (2) Genetic testing is established as useful for the accurate diagnosis and classification of hereditary neuropathies (Level A). Genetic testing may be considered in patients with cryptogenic polyneuropathy who exhibit a hereditary neuropathy phenotype (Level C). Initial genetic testing should be guided by the clinical phenotype, inheritance pattern, and electrodiagnostic (EDX) features and should focus on the most common abnormalities, which are CMT1A duplication/HNPP deletion, Cx32 (GJB1), and MFN2 mutation screening. There is insufficient evidence to determine the usefulness of routine genetic testing in patients with cryptogenic polyneuropathy who do not exhibit a hereditary neuropathy phenotype (Level U).

Keywords: Assessment, Citation, Cobalamin-Deficiency, Distal Symmetric Polyneuropathy, Evaluation, Hereditary Neuropathy, Idiopathic Axonal Polyneuropathy, Impaired Glucose-Tolerance, Marie-Tooth-Disease, Medline, Methylmalonic Acid, Mutation Distribution, Peripheral Neuropathy, Pressure Palsies, Prospective Studies, Review, Science, Science Citation Index, Sensory Neuropathy

# Title: Museum News

Full Journal Title: Museum News

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Schwarzer, M. (2002), Turnover at the top: Are directors burning out? (Reply to comments on my article by Bryant F. Tolles, Amanda Ohlke and Brian Hogarth). *Museum News*, **81** (5), 66.

# Title: Music Perception

Full Journal Title: Music Perception

ISO Abbreviated Title:

JCR Abbreviated Title:

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Journal Country/Territory:

Language:

Publisher:

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Subject Categories:

: Impact Factor

? Tirovolas, A.K. and Levitin, D.J. (2011), Music perception and cognition research from 1983 to 2010: A categorical and bibliometric analysis of empirical articles in music perception. *Music Perception*, **29** (1), 23-36.

Full Text: [2011\Mus Per29, 23.pdf](2011/Mus%20Per29,%2023.pdf)

Abstract: In this review we sought to document the longitudinal course of empirical studies in the journal music perception, from the journal’s first issue in 1983 to 2010. The aim was to systematically characterize the nature of empirical research in one of the principal peer-reviewed outlets for work in our field, and to consider these data as a sample representing the overall course of research across the last three decades. Specific domains examined within each article were: Topics, participants, stimuli, materials, and outcome measures. In total, 384 empirical articles in the journal were examined. In addition, relevant details were extracted from the full set of 578 articles regarding geographic and disciplinary (Departmental) Distribution of the authors. Together, the data we report allow an examination of 26-year trends in music research. These are made available in a database that is fully searchable or sortable by interested researchers.

Keywords: Articles, Authors, Bibliometric, Children, Cognition, Historical Analysis, Journal, Meta-Analysis, Music, Music Cognition, Music Perception, Outcome, Perception, Psychology, Research, Researchers, Review, Trend Analysis, Trends

# Title: Muskeg and the Northern Environment in Canada

University of Toronto Press, Toronto and Buffalo

Stanek, W. (1977), Classification of muskeg. in *Muskeg and the Northern Environment in Canada*. (Edited by Radforth, N.W. and Brawner, C.O.), University of Toronto Press, Toronto and Buffalo, 31-62.

Walmsley, M.E. (1977), Physical and chemical properties of peat. in *Muskeg and the Northern Environment in Canada*. (Edited by Radforth, N.W. and Brawner, C.O.), University of Toronto Press, Toronto and Buffalo, 82-129.

Stewart, J.M. (1977), Canadian muskegs and their agricultural utilization. in *Muskeg and the Northern Environment in Canada*. (Edited by Radforth, N.W. and Brawner, C.O.), University of Toronto Press, Toronto and Buffalo, 208-220.

Ruel, M., Chornet, S., Coupal, B., Aitcin, P. and Cossette, M. (1977), Industrial utilization of peat moss. in *Muskeg and the Northern Environment in Canada*. (Edited by Radforth, N.W. and Brawner, C.O.), University of Toronto Press, Toronto and Buffalo, 221-246.

Radforth, J.R. and Burwash, A.L. (1977), Transportation. in *Muskeg and the Northern Environment in Canada*. (Edited by Radforth, N.W. and Brawner, C.O.), University of Toronto Press, Toronto and Buffalo, 249-263.

Goode, D.A., Marsan, A.A. and Michaud, J.R. (1977), Water resources. in *Muskeg and the Northern Environment in Canada*. (Edited by Radforth, N.W. and Brawner, C.O.), University of Toronto Press, Toronto and Buffalo, 299-331.

Fee, A.E., Lawrence, N.A. and Moffatt, A.C. (1977), Waste disposal. in *Muskeg and the Northern Environment in Canada*. (Edited by Radforth, N.W. and Brawner, C.O.), University of Toronto Press, Toronto and Buffalo, 332-351.

Muir, R.D. (1977), Wildlife, conservation, and recreation. in *Muskeg and the Northern Environment in Canada*. (Edited by Radforth, N.W. and Brawner, C.O.), University of Toronto Press, Toronto and Buffalo, 352-366.

# Title: Mutagenesis

Full Journal Title: Mutagenesis

ISO Abbreviated Title: Mutagenesis

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ISSN: 0267-8357

Issues/Year: 6

Journal Country/Territory: England

Language: English

Publisher: Oxford Univ Press

Publisher Address: Great Clarendon St, Oxford OX2 6DP, England

Subject Categories:

Genetics & Heredity: Impact Factor

? Hyttinen, J.M., Niittykoski, M. and Jansson, K. (1995), Lack of uniformity in the mutational spectra of chlorohydroxyfuranones in Salmonella typhimurium strain TA100. *Mutagenesis*, **10** (4), 321-323.

Abstract: The mutational specificity of three chlorohydroxyfuranones found in chlorinated drinking water, 3-chloro-4-(dichloromethyl)-5-hydroxy-2 (5H)-furanone (MX), 3-chloro-4 (chloromethyl)-5-hydroxy-2 (5H)-furanone (CMCF) and 3, 4-dichloro-5-hydroxy-2 (5H)-furanone (mucochloric acid, MCA), was examined in Salmonella typhimurium strain TA100. DNA colony-hybridization of TA100 revertants showed that MX and CMCF both induced predominantly G: C-->T: A transversions (87 and 75% of total, respectively) with a 3 (1) preference for the second position of the his G46 (CCC) target codon. By contrast, MCA produced primarily G: C-->A: T transitions (66% of the total) with a 4 (1) preference for the second position of the CCC codon. The mutational specificity of MCA is consistent with the idea that chloroacetaldehyde, a degradation product of MCA, is responsible for the observed mutations. The chemical mechanism by which either MX or CMCF induces G: C-->T: A transversions remains unknown.

# Title: Mutation Research

[Mutation Research-Reviews in Genetic Toxicology](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=11495&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=f17477b92ae8b702413856f475f24973)

[Mutation Research-Genetic Toxicology](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=11494&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=50b50a8b2b30f7d7bc0a47965a68be83)

[Mutation Research Letters](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=11544&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=d52cf6373216f3e92a0f3e7adbf32b3f)

[Mutation Research-Reviews in Mutation Research](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=4918&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=98b0a5513319166623519879d6bc9a60)

[Mutation Research-Environmental Mutagenesis and Related Subjects](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=11545&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=dc3f9f401aff0824ae02e08f79076b22)

[Mutation Research-Fundamental and Molecular Mechanisms of Mutagenesis](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=4915&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=4643443000085f9b82e74b349bba421e)

[Mutation Research-Genetic Toxicology and Environmental Mutagenesis](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=4916&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=4c596b2fdb11c95809817cc0debb5ce8)

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Issues/Year: 52

Journal Country/Territory: Netherlands

Language: English

Publisher: Elsevier Science BV

Publisher Address: PO Box 211, 1000 AE Amsterdam, Netherlands

Subject Categories:

Genetics & Heredity Toxicology: Impact Factor

? Luca, D., Luca, V., Cotor, F. and Raileanu, L. (1987), In vivo and in vitro cytogenetic damage induced by sodium nitrite. *Mutation Research*, **189** (3), 333-339.

Abstract: The mutagenicity of sodium nitrite was assayed by in vivo and in vitro experiments. The in vivo experiments were carried out in male rats and mice intragastrically treated twice, with an interval of 24 h, with nitrite in doses of 1.72, 5.18, 15.55 and 46.66 mg/kg body weight and in male rabbits treated with the same doses of nitrite administered daily in drinking water for 3 months. Chromosomal aberration analysis was conducted in all 3 species of animals and micronucleus induction was only evaluated in mice. Nitrite induced increases in aberrant metaphases in all 3 species of animals. Likewise, in mice it induced increases of the numbers of micronucleated polychromatic erythrocytes and a light bone marrow depression. Neither in the increases of the numbers of chromosomal aberrations nor in that of micronuclei, were dose-related responses observed. The in vitro experiments were carried out on BSC-1 and HeLa cells grown in cultures with nitrite in doses of 0.265 and 0.530 mg/ml for 24 h. Both doses produced significant increases of the percentage of chromosomal aberrations but also without demonstration of positive dose-effect relationships.

# Title: Mutation Research-Environmental Mutagenesis and Related Subjects

Full Journal Title: [Mutation Research-Environmental Mutagenesis and Related Subjects](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=11545&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=dc3f9f401aff0824ae02e08f79076b22)

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Ma, T.H., Xu, C., Liao, S., McConnell, H., Jeong, B.S. and Won, C.D. (1996), In situ monitoring with the Tradescantia bioassays on the genotoxicity of gaseous emissions from a closed landfill site and an incinerator. *Mutation Research-Environmental Mutagenesis and Related Subjects*, **359** (1), 39-52.

Full Text: [M\Mut Res-Env Mut Rel Sub359, 39.pdf](M/Mut%20Res-Env%20Mut%20Rel%20Sub359,%2039.pdf)

Abstract: A dual monitoring system composed of the Tradescantia-Micronucleus (Trad-MCN) and Tradescantia-Sramen-Hair-Mutation (Trad-SHM) bioassays was utilized to monitor directly the genotoxicity of the gaseous emission at a closed landfill site and around an incinerator. Four of the commonly emitted gaseous agents from the landfill flare pipes, i.e. toluene ethylbenzene, trichloroethylene and ethyltoluene were also evaluated for their genotoxicity in the laboratory. The in situ monitoring trips (360 km one way) were carried out by transporting the plant cuttings in a clean air box or in an air-tight plastic bag to the sire and exposing these test cuttings for 5-7 h. The exposed plant samples were examined for micronuclei frequencies or the pink mutation rate after the appropriate recovery periods (24 h for MCN, 7-11 days for SHM). A total of 20 monitoring trips were made to the landfill, and 8 to the nearby surroundings (100-500 m from the chimney) of the incinerator site in a two year period. The major findings of the Trad-MCN test on the clastogenicity of the gaseous emission from the flare pipe of the landfill site showed positive responses or toxic effects in 6 out of 20 trips, and that from the incinerator showed positive responses in 5 out of the 8 trips. These positive responses were closely associated with the weather, i.e. low wind velocity, high temperature and relative humidity; and especially the distance from the chimney of the incinerator. The MCN frequencies and mutation rates of the Elementary School site (E. Sch) which is about 200 m from the fence of the landfill site were mostly negative, except the test results of three trips. Trad-SHM tests on the mutagenicity of gaseous emissions from the flare pipe of the landfill showed 12 positive responses out of 20 trials and 2 positives out of 4 trials from the incinerator gaseous emissions. The average mutation rate from 20 Trad-SHM monitoring trips is positive when the ANOVA and Dunnett’s t-statistic were applied to the consolidated data. There is a significant (0.01) difference between the lab control and the gas exposed groups, and between the field control and gas exposed groups. Results of the Trad-SHM test at the E. Sch. site were mostly negative except for one trip. In general, micronuclei frequencies and mutation rates of the field control groups were relatively higher than those of the lab controls. The Trad-MCN test on pure gases showed positive responses in all 3 repeated tests on toluene (50-892 ppm), The test results of ethylbenzene yielded positive responses at 172 ppm/min and 1549 ppm/min dosages and exhibited toxicity at higher concentrations. Trad-MCN tests on trichloroethylene and ethyltoluene yielded positive responses at around 100-200 ppm/min level. Three repeated Trad-SHM tests on toluene yielded no positive response at low concentrations (4.3-12.9 ppm).

Keywords: Landfill, Incinerator, in Situ Monitoring, Tradescantia, Bioassay, Mutagens

# Title: Mutation Research-Fundamental and Molecular Mechanisms of Mutagenesis

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Genetics & Heredity: Impact Factor

Toxicology: Impact Factor

DeMarini, D.M., Shelton, M.L. and Bell, D.A. (1996), Mutation spectra of chemical fractions of a complex mixture: Role of nitroarenes in the mutagenic specificity of municipal waste incinerator emissions. *Mutation Research-Fundamental and Molecular Mechanisms of Mutagenesis*, **349** (1), 1-20.

Full Text: [M\Mut Res-Fun Mol Mec Mut349, 1.pdf](M/Mut%20Res-Fun%20Mol%20Mec%20Mut349,%201.pdf)

Abstract: Using an ion-exchange procedure coupled to a microsuspension Salmonella assay, we fractionated the dichloromethane-extractable particulate organics emitted by a municipal waste incinerator. Most (80-95%) of the mutagenic activity resided in the neutral/base fraction; however, the polar neutral fraction accounted for 12% of the direct-acting mutagenic activity. The mutagenic potencies of the whole extract and the various fractions were 4-15 times greater in the absence than in the presence of S9. Results with strains deficient in classical nitroreductase (TA98NR) and transacetylase (TA98/1, 8-DNP6) indicated that a majority of the direct-acting mutagenicity was due to nitroarenes. This was confirmed by bioassay-directed subfractionation of the neutral/base faction by a cyanopropyl/HPLC method. The mutations in - 3,000 revertants (similar to 400 each induced in TA98 by the whole extract, the neutral/base and polar neutral fractions from the ion-exchange column and 3 of the neutral/base subfractions from the HPLC column; along with 200 revertants each induced by the model nitroarene 1-nitropyrene (1NP) in strains TA98, TA1538 and TA100) were analyzed by probe hybridization and PCR/DNA sequence analysis. The results indicated that nitroarenes such as 1NP that eluted in the neutral/base fraction accounted for at least 50% of the direct-acting mutagenicity and induced only a hotspot 2-base deletion in the sequence (CG)(4) in TA98. In contrast, most of the complex frameshifts (a frameshift with a flanking base substitution) induced by the whole extract were induced by nitroarenes other than 1NP that were activated by transacetylation and that eluted in the polar neutral fraction. This study (1) identifies nitroarenes as an important contributor to the mutagenic activity of the emissions from municipal waste incinerators; (2) confirms our previous conclusion that the mutation spectrum of a complex mixture reflects the dominance of particular classes of chemical mutagens within the mixture; and (3) demonstrates the possibility of isolating certain chemical fractions of a complex mixture that induce certain classes of mutations produced by the whole, unfractionated mixture.

Keywords: Salmonella, Mutation Spectra, Municipal Waste Incineration, Bioassay-Directed Fractionation, DNA-Sequence Analysis, Refuse Incinerators, Organic Emissions, Salmonella, Extracts, Ashes, Combustion, Replication, Revertants

Brennan, R.J. and Schiestl, R.H. (1998), Chloroform and carbon tetrachloride induce intrachromosomal recombination and oxidative free radicals in *Saccharomyces cerevisiae*. *Mutation Research-Fundamental and Molecular Mechanisms of Mutagenesis*, **397** (2), 271-278.

Full Text: [M\Mut Res Fun Mol Mec Mut397, 271.pdf](M/Mut%20Res%20Fun%20Mol%20Mec%20Mut397,%20271.pdf)

Abstract: Chlorination of drinking water results in the generation of low levels of numerous chlorinated hydrocarbons due to the reaction of chlorine with naturally occurring organic compounds in the water. Concern has been raised about the safety of these chlorinated contaminants as several of them, most notably chloroform (trichloromethane), have been shown to be carcinogenic in long-term rodent bioassays and weak correlations between trihalomethane levels in drinking water and an increased risk of bladder and colorectal cancer in humans have been found. Chloroform and carbon tetrachloride induce liver cancer in rats and mice only at doses where significant hepatotoxicity is observed and have been classed as non-genotoxic carcinogens. We have investigated the ability of chloroform, carbon tetrachloride and 1,1,1-trichloroethane to induce deletions via intrachromosomal recombination in the yeast Saccharomyces cerevisiae. Chloroform and carbon tetrachloride induced this genotoxic recombination event at similar doses, 1,1,1-Trichloroethane gave only a weak response in the DEL recombination assay and only at the highest dose. We further show that chloroform and carbon tetrachloride, but not trichloroethane, induced oxidative free radical species in our yeast strain. The free radical scavenger N-acetylcysteine reduced chloroform-induced toxicity and recombination, and both chloroform and carbon tetrachloride were able to oxidize the free radical-sensitive reporter compound dichlorofluorescein diacetate in vivo. The implications of these findings to the carcinogenic activities of the three compounds are discussed.

Yu, M.C., Skipper, P.L., Tannenbaum, S.R., Chan, K.K. and Ross, R.K. (2002), Arylamine exposures and bladder cancer risk. *Mutation Research-Fundamental and Molecular Mechanisms of Mutagenesis*, **506-507**, 21-28.

Full Text: [M\Mut Res-Fun Mol Mec Mut506, 21.pdf](M/Mut%20Res-Fun%20Mol%20Mec%20Mut506,%2021.pdf)

Abstract: Occupational exposure to arylamines in industrial settings was the first known cause of bladder cancer in humans. In the United States and many developed countries, these industrial dyes have been under strict government control for decades and are believed to contribute minimally to today’s population burden of bladder cancer in the West. The two other recognized, and potentially substantial sources of human exposure to arylamines are cigarette smoking and use of hair dyes. This paper reviews the latest epidemiologic findings on the relationships between smoking, hair dye use and bladder cancer risk. Results support the notion that arylamines contained in cigarette smoke and permanent hair dyes are human carcinogens. Furthermore, women may experience higher bladder cancer risk than men from comparable arylamine exposure, possibly due in part to women’s higher propensity for arylamine activation relative to men. (C) 2002 Elsevier Science B.V. All rights reserved.

Keywords: Arylamines, Bladder Cancer, Cigarette Smoking, Hair Dyes, Hemoglobin Adduct Levels, Permanent Hair-Dyes, Acetylation, White, Black

# Title: Mutation Research-Genetic Toxicology

Full Journal Title: [Mutation Research-Genetic Toxicology](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=11494&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=50b50a8b2b30f7d7bc0a47965a68be83)

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Publisher Address:

Subject Categories:

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? Kamiya, A., Ose, Y. and Sato, T. (1989), Detection of 1,6-dinitropyrene in municipal incinerator emissions. *Mutation Research-Genetic Toxicology*, **216** (6), 365.

Brunborg, G., Holme, J.A., Søderlund, E.J., Hongslo, J.K., Vartiainen, T., Lötjönen, S. and Becher, G. (1991), Genotoxic effects of the drinking water mutagen 3-chloro-4-(dichloromethyl)-5-hydroxy-2[5*H*]-furanone (MX) in mammalian cells in vitro and in rats in vivo. *Mutation Research-Genetic Toxicology*, **260** (1), 55-64.

Full Text: [M\Mut Res Gen Tox260, 55.pdf](M/Mut%20Res%20Gen%20Tox260,%2055.pdf)

Abstract: The potent bacterial mutagen 3-chloro-4-(dichloromethyl)-5-hydroxy-2[5H]-furanone) (MX), which is formed during chlorination of drinking water and accounts for about one third of the Ames mutagenicity of tap water, has been studied with respect to its genotoxicity in vitro and in vivo. Treatment with 30-300 microM MX (1 h) induced DNA damage in a concentration-dependent manner in suspensions of rat hepatocytes, as measured by an automated alkaline elution system. The effect was similar in hepatocytes from PCB-induced and uninduced rats. DNA damage was induced in V79 Chinese hamster cells and in isolated rat testicular cells, at the same concentration level as in hepatocytes. Pretreating testicular cells with diethylmaleate, which depletes 85% of cellular glutathione, had no significant effect on the DNA damage induced by MX. The treatment conditions used in the alkaline elution experiments were not cytotoxic to any of the cell types used, as determined by trypan blue exclusion. V79 cells exposed to 2-5 microM MX (2 h) showed an increased frequency of sister-chromatid exchanges (SCE) whereas no significant effect on HGPRT mutation induction was observed. Higher concentrations (greater than 10 microM, 2 h) apparently blocked cell division. The data indicate that MX can react directly with DNA or that MX is metabolized to an ultimate mutagen via some enzyme which is common in mammalian cells. The in vivo experiments showed no evidence of genotoxicity after intraperitoneal (18 mg/kg, 1 h) or oral (18, 63 or 125 mg/kg, 1 h) administration of MX, as measured by alkaline elution, in any of the following organs: the pyloric part of the stomach, the duodenum, colon ascendens, liver, kidney, lung, bone marrow, urinary bladder and the testes. In conclusion, MX is a direct-acting genotoxicant in vitro but no in vivo genotoxicity was detected.

Chung, K.T. and Cerniglia, C.E. (1992), Mutagenicity of azo dyes: Structure-activity relationships. *Mutation Research-Reviews in Genetic Toxicology*, **277** (3), 201-220.

Full Text: [M\Mut Res Rev Gen Tox277, 201.pdf](M/Mut%20Res%20Rev%20Gen%20Tox277,%20201.pdf)

Abstract: Azo dyes are extensively used in textile, printing, leather, paper making, drug and food industries. Following oral exposure, azo dyes are metabolized to aromatic amines by intestinal microflora or liver azoreductases. Aromatic amines are further metabolized to genotoxic compounds by mammalian microsomal enzymes. Many of these aromatic amines are mutagenic in the Ames Salmonella/microsomal assay system. The chemical structure of many mutagenic azo dyes was reviewed, and we found that the biologically active dyes are mainly limited to those compounds containing p-phenylenediamine and benzidine moieties. It was found that for the phenylenediamine moiety, methylation or substitution of a nitro group for an amino group does not decrease mutagenicity. However, sulfonation, carboxylation, deamination, or substitution of an ethyl alcohol or an acetyl group for the hydrogen in the amino groups leads to a decrease in the mutagenic activity. For the benzidine moiety, methylation, methoxylation, halogenation or substitution of an acetyl group for hydrogen in the amino group does not affect mutagenicity, but complexation with copper ions diminishes mutagenicity. The mutagenicity of benzidine or its derivatives is also decreased when in the form of a hydrochloride salt with only one exception. Mutagenicity of azo dyes can, therefore, be predicted by these structure-activity relationships.

Keywords: Azo Dyes, Mutagenicity, Structure Activity Relationships, Azo Reduction, Azoreductases, Para-Phenylenediamine, Benzidine Moieties, Salmonella Microsome Assay, Direct Black 38, Reduction Products, 4-Dimethylaminoazobenzene Dab, Intestinal Anaerobes, Test System, Typhimurium, Food, Activation, Carcinogens

? Yoshino, H., Urano, K. and Awaji, N. (1993), Extraction method for the ames mutagenicity test of municipal incinerator ash. *Mutation Research-Genetic Toxicology*, **292** (3), 303-304.

Jansson, K., Mäki Paakkanen, J., Vaittinen, S.L., Vartiainen, T., Komulainen, H. and Tuomisto, J. (1993), Cytogenetic effects of 3-chloro-4-(dichloromethyl)-5-hydroxy-2(50*H*)-furanone (MX) in rat peripheral lymphocytes in vitro and in vivo. *Mutation Research-Genetic Toxicology*, **299** (1), 25-28.

Full Text: [M\Mut Res Gen Tox299, 25.pdf](M/Mut%20Res%20Gen%20Tox299,%2025.pdf)

Abstract: 3-Chloro-4-(dichloromethyl)-5-hydroxy-2 (5H)-furanone (MX) is a potent direct-acting Salmonella mutagen found in wood pulp chlorination effluents and chlorinated drinking water. In cultured rat peripheral lymphocytes, MX induced significant dose-related increases in sister-chromatid exchanges (SCEs) and chromosome aberrations at doses of 20-60 micrograms/ml and of 60-80 micrograms/ml, respectively. MX produced primarily chromatid-type as opposed to chromosome-type aberrations. The peripheral lymphocytes of male and female rats exposed to MX by gavage 5 days a week for 14-18 weeks showed significant dose-related increases in SCEs at both levels of exposure (30 and 45-75 mg/kg) in both sexes. The present results demonstrate for the first time that MX is genotoxic in vivo.

Jansson, K. and Hyttinen, J.M. (1994), Induction of gene mutation in mammalian cells by 3-chloro-4-(dichloromethyl)-5-hydroxy-2(5*H*)-furanone (MX), a chlorine disinfection by-product in drinking water. *Mutation Research-Genetic Toxicology*, **322** (2), 129-132.

Full Text: [M\Mut Res Gen Tox322, 129.pdf](M/Mut%20Res%20Gen%20Tox322,%20129.pdf)

Abstract: 3-Chloro-4-(dichloromethyl)-5-hydroxy-2 (5H)-furanone (MX), a potent direct-acting Salmonella mutagen found in chlorinated drinking water, was tested in Chinese hamster ovary (CHO) cells for the induction of mutation at the hypoxanthine phosphoribosyl transferase locus to 6-thioguanine resistance (TGr). MX treatment of CHO cells for 3 h at 37°C resulted in significant dose-related increases in mutant frequency. The lowest observed effective dose was 2.5 micrograms/ml, where the cloning efficiency estimated on the day after treatment was not affected. The relationship between the dose of MX and the frequency of TGr mutants was approximately linear over the range of 0-5 micrograms/ml with an estimated slope (±95% confidence limits) of 7.2±2.6 mutants per 10 (6) clonable cells per microgram/ml.

Mäki-Paakkanen, J. and Jansson, K. (1995), Cytogenic effects in the peripheral lymphocytes and kidney cells of rats exposed to 3-chloro-4-(dichloromethyl)-5-hydroxy-2-(5*H*)-furanone (MX) orally on three consecutive days. *Mutation Research-Genetic Toxicology*, **343** (2-3), 151-156.

Full Text: [M\Mut Res Gen Tox343, 151.pdf](M/Mut%20Res%20Gen%20Tox343,%20151.pdf)

Abstract: We reported previously that 3-chloro-4-(dichloromethyl)-5-hydroxy-2 (5H)-furanone (MX), a chlorine disinfection by-product in drinking water, induces sister-chromatid exchanges (SCEs) in the peripheral lymphocytes of male and female rats after subchronic exposure. In the present study, we found that the peripheral lymphocytes of male rats exposed to MX (25-150 mg/kg) by gavage on three consecutive days showed a significant dose-related increase in chromosomal damage measured as micronuclei, in addition to SCEs. Moreover, MX produced a significant dose-related increase in SCEs in the kidney cells of the exposed rats. The magnitude of the genotoxic responses observed was relatively weak. The finding is, however, consistent with the known pharmacokinetic distribution of MX in the rat after oral dosing.

Chen, C.C. and Lee, H. (1996), Genotoxicity and DNA adduct formation of incense smoke condensates: Comparison with environmental tobacco smoke condensates. *Mutation Research-Genetic Toxicology*, **367**, 105-114.

Full Text: [M\Mut Res-Gen Tox367, 105.pdf](M/Mut%20Res-Gen%20Tox367,%20105.pdf)

Abstract: Indoor air pollution has now been recognized as a potentially important problem for public health, since people spend most of their day in closed environments. Incense burning is possibly associated with elevated risks of leukemia and brain tumor in children from the epidemiological studies. Thus, evaluation of the genotoxicity of smoke condensates from incense burning is needed. We examined the genotoxicity of incense smoke condensates (ISC) using the Ames test in S. typhimurium strains with different mutagenic specificity and level of metabolic enzyme, the SOS chromotest in E. coli PQ37 and sister chromatid exchange assay in Chinese hamster ovary cells (SCE/CHO). The genotoxicity of environmental tobacco smoke condensates (TSC) was also evaluated by the three assays to compare with the genotoxicity of ISC. ISC showed a positive response in TA98, but not in TA100. It suggested that ISC only contained frame shift mutagens. The mutagenicity of ISC in bath strains of TA98NR with deficient nitroreductase and TA98/1, 8-DNP6 with deficient O-acetyltransferase was markedly decreased compared to that in TA98 strain. However, the mutagenicity was enhanced in YG1024 with overexpression of O-acetyltransferase activity. Thus, nitroarenes seemed to be responsible in part for the mutagenicity of ISC. Interestingly, all of the four ISC and two TSC samples showed a dose-dependent genotoxic response in the SOS chromotest with E. coli PQ37 but a low SCE induction of those samples were observed in CHO cells. When the genotoxicity was analyzed based on the condensates per one gram of original samples, the genotoxicity of two TSC condensates in prokaryotic cells was higher than that of four ISC samples except for the genotoxicity of TSC-2 in TA98 strain. However, the genotoxicity of certain ISC in eukaryotic cells based on the SCE/CHO assay was higher than that of TSC. To compare the covalent binding of DNA reactive intermediates of ISC and TSC to S. typhimurium TA98, the DNA adducts were evaluated by the P-32-postlabeling method with butanol extraction version. Similar diagonal radioactive zone (DRZ) was observed between ISC and CSC. However, DNA adduct levels induced by TSC were much greater than that of ISC.

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Toxicology: Impact Factor 1.506, 27/77 (2000)

? Chaudhuri, K., Selvaraj, S. and Pal, A.K. (1999), Studies on the genotoxicity of endosulfan in bacterial systems. *Mutation Research-Genetic Toxicology and Environmental Mutagenesis*, **439** (1), 63-67.

Full Text: [1999\Mut Res Gen Tox Env Mut439, 63.pdf](1999/Mut%20Res%20Gen%20Tox%20Env%20Mut439,%2063.pdf)

Abstract: Endosulfan, an organochlorine pesticide, was subjected to the differential sensitivity assay in repair-deficient and repair-proficient strains of Escherichia coli K12, prophage lambda induction assay in WP2s (lambda) and mutation induction in E. coli K12. The induction of umu gene expression with endosulfan was studied also in Salmonella typhimurium TA1535/pSK1002 cells. The differential sensitivity assay revealed that the recA 13 strain was the most sensitive. Endosulfan induced prophage lambda in E. coli and umu gene expression in S. typhimurium cells; however, the extent of the effects were low. Endosulfan also induced a dose-dependent increase in forward mutations in E. coli K12 cells from ampicillin sensitivity to ampicillin resistance. Our studies indicate the genotoxic potential of endosulfan and the role of the recA gene in the repair of endosulfan-induced DNA damage. (C) 1999 Elsevier Science B.V. All rights reserved.

Keywords: Pesticide, Endosulfan, Genotoxicity, Carcinogens, Induction, Prophage, Lambda

Holme, J.A., Haddeland, U., Haug, K. and Brunborg, G. (1999), DNA damage induced by the drinking water mutagen 3-chloro-4-(dichloromethyl)-5-hydroxy-2[5*H*]-furanone (MX) in mammalian cells in vitro and in mice. *Mutation Research-Genetic Toxicology and Environmental Mutagenesis*, **441** (1), 145-153.

Full Text: [M\Mut Res Gen Tox Env Mut441, 145.pdf](M/Mut%20Res%20Gen%20Tox%20Env%20Mut441,%20145.pdf)

Abstract: 3-chloro-4-(dichloromethyl)-5-hydroxy-2[5H]-furanone (MX) formed during chlorination of water containing natural organic substances, is a very potent bacterial mutagen. Recently, tumours at multiple sites were reported in rats given MX-containing drinking water. We have investigated the genotoxicity of MX in mammalian cells exposed in vitro and in vivo using alkaline filter elution to detect DNA single-strand breaks and/or alkali-labile sites (SSBs). Concentrations as high as 100 and 300 microM MX were required to induce detectable levels of SSBs in the HL-60 cells. If MX treatment was carried out in the presence of DNA repair inhibitors (AraC plus hydroxyurea), the sensitivity of the assay to detect MX-induced SSBs was increased by a factor of 100. The presence of serum proteins during exposure resulted in a minor reduction of the MX-induced DNA damage in HL-60 cells at the lowest MX concentrations. In primary cultures of testicular cells as well as in resting human peripheral blood mononuclear cells (PBMC), a slightly increased level of SSBs was observed at MX-concentrations above 30 microM, this effect was not further increased by repair inhibitors. In LLC-PK1 renal proximal tubular epithelial cells and in growth stimulated human peripheral PBMC, increased SSBs were detected at MX concentrations as low as low as 3-10 microM and higher using repair inhibitors, and at 10 times higher concentrations without repair inhibitors. No dose dependent DNA damage was detected in the liver, kidney, spleen and colon of male B6C3F1 mice administrated high doses of MX (40 and 80 mg kg-1). Moderately increased and dose dependent SSBs were detected in the liver and kidney in the presence of DNA repair inhibitors during MX treatment, but no such increase was observed in the spleen and colon. Copyright 1999 Elsevier Science B.V.

Park, J.H., Lee, B.J., Lee, S.K., Kim, K., Lee, K.H., Che, J.H., Kang, K.S. and Lee, Y.S. (2000), Genotoxicity of drinking water from three Korean cities. *Mutation Research-Genetic Toxicology and Environmental Mutagenesis*, **466** (2), 173-178.

Full Text: [M\Mut Res-Gen Tox Env Mut466, 173.pdf](M/Mut%20Res-Gen%20Tox%20Env%20Mut466,%20173.pdf)

Abstract: Organic content of drinking tap water from Seoul, Taejon, and Suwon was extracted with an XAD-2 resin column and organic solvents. Four doses of the extract equivalent to 4, 2, 1, and 0.5 1 water were tested for mutagenicity in Salmonella typhimurium strains TA98 and TA100 in the presence and absence of S9 mix. The organic extracts of the water from all three cities were mutagenic in TA 98 without S9 mix and in TA 100 with and without S9 mix. The highest number of revertants per plate was found in the absence of S9 mix. Three doses of the extract (equivalent to 22, 11, and 3.7 1 water) were also tested in the bone marrow micronucleus test using BDF1 mice. At the highest dose, a significant increase of the micronucleus frequency was observed. The time required to be on the effect, however, varied with the source of the water. Our results indicate that the drinking tap waters from the three cities were genotoxic clearly in the bacterial test and also in the in vivo assay with mice. As we found no genotoxicity of the source water as seen in a previous study, it is likely that the chlorination process leads to the genotoxicity of the tap water. (C) 2000 Published by Elsevier Science B.V. All rights reserved.

Keywords: Micronucleus Test, Mutagenicity Test, Chlorination, Model, Drinking Water, Mutagenicity, Genotoxicity, Micronuclei, The Ames Test

? Wise, J.P., Wise, S.S. and Little, J.E. (2002), The cytotoxicity and genotoxicity of particulate and soluble hexavalent chromium in human lung cells. *Mutation Research-Genetic Toxicology and Environmental Mutagenesis*, **517** (1-2), 221-229.

Full Text: [2002\Mut Res-Gen Tox Env Mut517, 221.pdf](2002/Mut%20Res-Gen%20Tox%20Env%20Mut517,%20221.pdf)

Abstract: Hexavalent chromium (Cr(VI)) is a human lung carcinogen. Cr(VI) is a particularly important and dangerous carcinogen, because there is widespread exposure to it both occupationally and to the general public. However, despite the potential for widespread exposure and the fact that the lung is its target organ, there are few reports of the genotoxicity of Cr(VI) in human lung cells. Clearly, in order to better understand this carcinogen, its effects in its target cells need to be evaluated, Accordingly, we determined the cytotoxicity and clastogenicity of both particulate (water-insoluble) and soluble Cr(VI) in primary human bronchial fibroblasts (PHBFs). We used lead chromate (PbCrO4) and sodium chromate (Na2CrO4) as prototypical particulate and soluble Cr(VI) salts, respectively. Both compounds induced concentration-dependent cytotoxicity after a 24 h exposure in PHBFs. The relative survival was 87, 46, 26 and 2% after exposure to 0.1, 0.5, 1 and 5 mug/cm2 PbCrO4, respectively, and 74, 57, 13 and 0% after exposure to 1, 2.5, 5 and 10 muM Na2CrO4. respectively. Similarly, the amount of chromosome damage increased with concentration after 24 h exposure to both compounds. Specifically, 0.1. 0.5 and 1 μg/cm2 PbCrO4 damaged 15, 34 and 42% of metaphase cells with the total amount of damage reaching 18, 40 and 66 aberrations per 100 metaphases, respectively. PbCrO4 (5 μg/cm2) induced such profound cell cycle delay that no metaphases were found. Na2CrO4 (1 and 2.5 μM) damaged 18 and 33% of metaphase cells with the total amount of damage reaching 19 and 43 aberrations per 100 metaphases, respectively. Na2CrO4 (5 and 10 μM) induced such profound cell cycle delay that no metaphases were found. Overall the data clearly indicate that Cr(VI) compounds are cytotoxic and genotoxic to human lung cells. (C) 2002 Elsevier Science B.V All rights reserved.

Keywords: Chromium, Chromate, Lead Chromate, Sodium Chromate, Chromosome Aberrations, Cell Culture, Bronchial, Cytotoxicity, Lead Chromate Particles, Bronchial Epithelial-Cells, Anchorage Independence, Fibroblasts, Induction, Microenvironment, Translocation, Clastogenesis, Dissolution, Apoptosis

? Xie, H., Wise, S.S., Holmes, A.L., Xu, B., Wakeman, T.P., Pelsue, S.C., Singh, N.P. and Wise, J.P. (2005), Carcinogenic lead chromate induces DNA double-strand breaks in human lung cells. *Mutation Research-Genetic Toxicology and Environmental Mutagenesis*, **586** (2), 160-172.

Full Text: [2005\Mut Res-Gen Tox Env Mut586, 160.pdf](2005/Mut%20Res-Gen%20Tox%20Env%20Mut586,%20160.pdf)

Abstract: Hexavalent chromium (Cr(VI)) is a widespread environmental contaminant and a known human carcinogen, generally causing bronchial cancer. Recent studies have shown that the particulate forms of Cr(VI) are the potent carcinogens. Particulate Cr(VI) is known to induce a spectrum of DNA damage such as DNA single strand breaks, Cr-DNA adducts, DNA-protein crosslinks and chromosomal aberrations. However, particulate Cr(VI)-induced DNA double strand breaks (DSBs) have not been reported. Thus, the aim of this study was to determine if particulate Cr(VI)-induces DSBs in human bronchial cells. Using the single cell gel electrophoresis assay (comet assay), showed that lead chromate-induced concentration dependent increases in DSBs with 0.1, 0.5, 1 and 5 mu g/cm2 lead chromate inducing a 20, 50, 67 and 109% relative increase in the tail integrated intensity ratio, respectively. Sodium chromate at concentrations of 1, 2.5 and 5 mu M induced 38, 78 and 107% relative increase in the tail integrated intensity ratio, respectively. We also show that genotoxic concentrations of lead chromate activate the ataxia telangiectasia mutated (ATM) protein, which is thought to play a central role in the early stages of DSB detection and controls cellular responses to this damage. The H2A.X protein becomes rapidly phosphorylated on residue serine 139 in cells when DSBs are introduced into the DNA by ionizing radiation. By using immunofluorescence, we found that lead chromate-induced concentration-dependent increases in phosphorylated H2A.X (r-H2A.X) foci formation with 0.1, 0.5, 1, 5 and 10 μg/cm2 lead chromate inducing a relative increase in the number of cells with r-H2A.X foci formation of 43, 51, 115 and 129%, respectively. (c) 2005 Elsevier B.V. All rights reserved.

Keywords: Hexavalent Chromium, Dna Double Strand Breaks, ATM, SMC1, Lead Chromate, Human Bronchial Cells, Induced Cytotoxicity, Hexavalent Chromium, Comet Assay, Workers, Damage, Dissolution, Internalization, Clastogenesis, Mutagenicity

? Ugolini, D., Neri, M., Casilli, C. and Bonassi, S. (2010), Development of search filters for retrieval of literature on the molecular epidemiology of cancer. *Mutation Research-Genetic Toxicology and Environmental Mutagenesis*, **701** (2), 107-110.

Full Text: [2010\Mut Res Gen Tox Env Mut701, 107.pdf](2010/Mut%20Res%20Gen%20Tox%20Env%20Mut701,%20107.pdf)

Abstract: Objective: The available tools for searching literature in the area of molecular epidemiology of cancer, a relatively novel discipline, are largely unsatisfactory. The aim of this project was to develop two search filters in MEDLINE that would facilitate the retrieval of studies on cancer molecular epidemiology and to compare their performance. Methods: Citations of all articles published in 2007 in three top journals in this area were hand-screened to establish a gold standard reference set of relevant papers. Two filters were created with this set: the first was based on the frequency of descriptors listed in the National Library of Medicine (NLM) Medical Subject Headings Thesaurus (MeSH terms) only, the second was based on the frequency of words in titles and abstracts (text-words), besides MeSH terms. The sensitivity, specificity, precision and accuracy rates of the two filters were calculated as performance measures. Results: Out of all 1602 published articles, 344 were found to be pertinent to cancer molecular epidemiology; these formed the gold standard set. The first filter was the most specific (99%) and showed a good precision (93.2%), the second showed a higher sensitivity (78.2%) and accuracy (91.6%). Conclusion: The two filters proposed here represent a balance between sensitivity and specificity. Redefinition and elaboration of more appropriate NLM MeSH terms could greatly facilitate the retrieval of studies on the molecular epidemiology of cancer. Authors themselves could facilitate this by inserting adequate words in title or abstract of their articles. (C) 2010 Elsevier B.V. All rights reserved.

Keywords: Cancer, Care, Citations, Information Storage and Retrieval, Journals, Medicine, Medline, Mesh Terms, Molecular Epidemiology, Randomized-Trials, Sensitivity and Specificity, Strategy

# Title: Mutation Research Letters

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Impact Factor

Niittykoski, M., Hyttinen, J.M. and Jansson, K. (1995), Salmonella and mammalian-cell mutagenicity of 3-chloro-4-(chloromethyl)-5-hydroxy-2(5*H*)-furanone. *Mutation Research Letters*, **348** (1), 51-55.

Full Text: [M\Mut Res Let348, 51.pdf](M/Mut%20Res%20Let348,%2051.pdf)

Abstract: 3-Chloro-4-(chloromethyl)-5-hydroxy-2 (5H)-furanone (CMCF), a chlorine disinfection by-product in drinking water, was mutagenic in the Salmonella/his (Ames) assay for both base-pair substitution strains (TA1535, TA100, TA102) and frameshift strains (TA97, TA98) with the highest mutagenic response observed in strain TA100 (1292 revertants/microgram). The presence in TA100 of pKM101 plasmid, which enhances error-phone DNA repair, greatly increased susceptibility to CMCF mutagenicity relative to the isogenic strain TA1535 lacking pKM101. In the Chinese hamster ovary (CHO) cell hprt (6-thioguanine resistance) locus assay, the mutagenicity of CMCF (1.04 mutants/10 (6) clonable cells per microgram/ml) was barely detectable because of the low mutagenicity/cytotoxicity ratio. From the present experiments it appears that CMCF acts in a manner similar to that of another drinking water mutagen, 3-chloro-4-(dichloromethyl)-5-hydroxy-2 (5H)-furanone (MX). However, CMFC appears to be a less potent mutagen in vitro than MX.

Hyttinen, J.M. and Jansson, K. (1995), PM2 DNA damage induced by 3-chloro-4-(dichloromethyl)-5-hydroxy-2(5*H*)-furanone (MX). *Mutation Research Letters*, **348** (4), 183-186.

Full Text: [M\Mut Res Let348, 183.pdf](M/Mut%20Res%20Let348,%20183.pdf)

Abstract: 3-Chloro-4-(dichloromethyl)-5-hydroxy-2 (5H)-furanone (MX) is a potent direct-acting mutagen found in chlorinated drinking water. In the present study, the induction of DNA strand breaks and apurinic/apyrimidinic (AP) sites by MX in supercoiled PM2 DNA was examined using exonuclease III, which specifically cleaves the DNA at AP sites. The results showed that MX induced AP sites in great excess of direct strand breaks. In view of the known mutagenicity of AP sites, these results provide insight into the mechanism of MX-induced mutagenesis.

# Title: Mutation Research-Reviews in Mutation Research

Full Journal Title: [Mutation Research-Reviews in Mutation Research](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=4918&_auth=y&_acct=C000011279&_version=1&_urlVersion=0&_userid=1134284&md5=98b0a5513319166623519879d6bc9a60)

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Biggs, M.L., Kalman, D.A., Moore, L.E., Hopenhayn-Rich, C., Smith, M.T. and Smith, A.H. (1997), Relationship of urinary arsenic to intake estimates and a biomarker of effect, bladder cell micronuclei. *Mutation Research-Reviews in Mutation Research*, **386** (3), 185-195.

Full Text: [M\Mut Res Rev Mut Res386, 185.pdf](M/Mut%20Res%20Rev%20Mut%20Res386,%20185.pdf)

Abstract: The purpose of this study was to investigate methods for ascertaining arsenic exposure for use in biomarker studies. Urinary arsenic concentration is considered a good measure of recent arsenic exposure and is commonly used to monitor exposure in environmental and occupational settings. However, measurements reflect exposure only in the last few days. To cover longer time periods exposure can be estimated using arsenic intake data, calculated by combining measures of environmental arsenic and inhalation/ingestion rates. We compared these different exposure assessment approaches in a population chronically exposed to arsenic in drinking water in northern Chile. The study group consisted of 232 people, some drinking water low in arsenic (15 micrograms/l) and others drinking water with high arsenic concentrations (up to 670 micrograms/l). First morning urine samples and questionnaire data, including fluid intake information, were collected from all participants. Exfoliated bladder cells were collected from male participants for the bladder cell micronuclei assay. Eight different indices of exposure were generated, six based on urinary arsenic (microgram As/l urine; microgram As/g creatinine; microgram InAs/l urine; microgram MMA/l urine; microgram DMA/l urine; microgram As/h, excreted), and two on fluid intake data (microgram As/day, ingested; microgram As/l fluid ingested-day). The relationship between the different exposure indices was explored using correlation analysis. In men, exposure indices were also related to a biomarker of effect, bladder cell micronuclei. While creatinine-adjusted urinary arsenic concentrations had the strongest correlations with the two intake estimates (r = 0.76, r = 0.81), unadjusted urinary arsenic showed the strongest relationship with bladder cell micronuclei. These data suggest that, in the case of the bladder, unadjusted urinary arsenic concentrations better reflect the effective target organ dose compared to other exposure measures for biomarker studies.

Chiou, H.Y., Hsueh, Y.M., Hsieh, L.L., Hsu, L.I., Hsu, Y.H., Hsieh, F.I., Wei, M.L., Chen, H.C., Yang, H.T., Leu, L.C., Chu, T.H., Chen Wu, C., Yang, M.H. and Chen, C.J. (1997), Arsenic methylation capacity, body retention, and null genotypes of glutathione S-transferase M1 and T1 among current arsenic-exposed residents in Taiwan. *Mutation Research-Reviews in Mutation Research*, **386** (3), 197-207.

Full Text: [M\Mut Res-Rev Mut Res386, 197.pdf](M/Mut%20Res-Rev%20Mut%20Res386,%20197.pdf)

Abstract: In order to elucidate the relationships among arsenic methylation capacity, body retention, and genetic polymorphisms of glutathione S-transferase (GST) MI and T1, a total of 115 study subjects were recruited from Lanyang Basin located on the northeast coast of Taiwan. Specimens of drinking water, blood, urine, hair and toenail were collected from each study subject. Urinary inorganic and methylated arsenic were speciated by high performance liquid chromatography combined with hydride-generation atomic absorption spectrometry. Arsenic concentration in hair and toenail were quantitated by atomic absorption spectrophotometry. The polymerase chain reaction was used to determine genetic polymorphisms of GST M1 and T1, Arsenic concentrations in urine, hair, and toenail of study subjects were positively correlated with arsenic levels in their drinking water, Percentages of various arsenic species in urine (mean±standard error (SE)) were 11.8±1.0, 26.9±1.2 and 61.3±1.4, respectively, for inorganic arsenic, monomethylarsonic acid (MMA) and dimethylarsinic acid (DMA). Men and women had similar arsenic methylation capability. No associations were observed between arsenic methylation capability and arsenic content in either drinking water or urine. Ratios of arsenic contents in hair and toenail to urinary arsenic content (mean±standard error) were 6.2±0.7 and 16.5±1.7, respectively. Genetic polymorphisms of GST M1 and T1 were significantly associated with arsenic methylation. Subjects having the nun genotype of GST M1 had an increased percentage of inorganic arsenic in urine, while those with null genotype of GST T1 had an elevated percentage of DMA in urine, Arsenic contents in hair and toenail were significantly correlated with the increase in arsenic concentrations of drinking water and urine, while no significant associations were observed between arsenic contents in hair and toenail and polymorphisms of GST M1 and T1. The relationship between arsenic methylation capability and body retention was modified by genetic polymorphisms of GST M1 and T1. Arsenic contents in hair and toenail were negatively associated with MMA percentage and positively associated with DMA percentage among subjects having null genotypes of GST M1 and T1, but not among those with non-null genotypes.

Keywords: Arsenic, Methylation, Body Retention, Glutathione S-Transferase, Disease Endemic Area, Artesian Well Water, Malignant Neoplasms, Blackfoot Disease, Urinary Concentrations, Cancer Susceptibility, Genetic-Polymorphism, Drinking-Water, Bladder-Cancer, Colon-Cancer

Hsu, Y.H., Li, S.Y., Chiou, H.Y., Yeh, P.M., Liou, J.C., Hsueh, Y.M., Chang, S.H. and Chen, C.J. (1997), Spontaneous and induced sister chromatid exchanges and delayed cell proliferation in peripheral lymphocytes of Bowen’s disease patients and matched controls of arseniasis-hyperendemic villages in Taiwan. *Mutation Research-Reviews in Mutation Research*, **386** (3), 241-251.

Full Text: [M\Mut Res-Rev Mut Res386, 241.pdf](M/Mut%20Res-Rev%20Mut%20Res386,%20241.pdf)

Abstract: A total of 15 newly-developed Bowen’s disease patients and 34 age-sex-residence-matched controls were recruited from three arseniasis-hyperendemic villages in Taiwan to compare spontaneous and arsenic-induced sister chromatid exchanges (SCEs), proportion of cells with high frequencies of SCEs (HFCs), and replication index (RI) in their peripheral lymphocytes. Arsenic-induced Bowen’s disease patients were found to have significantly higher spontaneous SCEs and HFCs and a lower spontaneous RI than in matched controls without or with adjustment for age, gender, cigarette smoking, alcohol drinking, tea drinking, status of major diseases, HBsAg carrier status and arsenic exposure indices through multivariate analysis. Sodium arsenite was found to increase SCEs and HFCs and to decrease RI in a dose-response pattern for both cases and controls. The arsenic-induced decrease in RI was significantly greater in arsenic-induced Bowen’s disease patients than in matched controls. The arsenic-induced increases in SCEs and HFCs were also consistently, but not statistically significantly, higher in arsenic-induced Bowen’s disease patients than in matched controls at all arsenite treatment levels of 0.5, 1.0 and 2.0 µM. The arsenic-induced increase in cytogenetic damages and decrease in cell proliferation among arsenic-induced Bowen’s disease patients compared with matched controls may result from their long-term exposure to inorganic arsenic through consumption of high-arsenic artesian well water, elevated individual genetic and acquired susceptibility to arsenic-induced damage, or both.

Keywords: Arsenic, Skin Cancer, Sister Chromatid Exchange, Replication Index, Susceptibility, Mitogen-Induced Blastogenesis, Drinking-Water, Sodium Arsenite, Chromosome-Aberrations, Malignant Neoplasms, Blackfoot Disease, Control Individuals, Cyto-Toxicity, Endemic Area, Skin-Cancer

Johnson, F.M. (1998), The genetic effects of environmental lead. *Mutation Research-Reviews in Mutation Research*, **410** (2), 123-140.

Full Text: [M\Mut Res-Rev Mut Res386, 123.pdf](M/Mut%20Res-Rev%20Mut%20Res386,%20123.pdf)

Abstract: This article reviews the effects of lead on genetic systems in the context of lead’s various other toxic effects and its abundance and distribution in the environment. Lead is perhaps the longest used and best recognized toxic environmental chemical, yet it continued be used recklessly until only very recently. Lead is thus a lesson in the limitations and strengths of science, human conscience and common sense. Lead has been tested and found to be capable of eliciting a positive response in an extraordinarily wide range of biological and biochemical tests; among them tests for enzyme inhibition, fidelity of DNA synthesis, mutation, chromosome aberrations, cancer and birth defects. It reacts or complexes with many biomolecules and adversely affects the reproductive, nervous, gastrointestinal, immune, renal, cardiovascular, skeletal, muscular and hematopoietic systems as well as developmental processes. It is Likely that lead is a selective agent that continues to act on and influence the genetic structure and future evolution of exposed plant and animal populations. (C) 1998 Elsevier Science B.V.

Keywords: Lead, Heavy Metal, Mutation, Selection, Genetics, Adaptation, Evolution, Carcinogenesis, Toxicity, Mechanism, Delta-Aminolevulinic-Acid, Metallothionein-Like Protein, Sister-Chromatid Exchange, Metal-Binding Peptides, Low Dietary Calcium, Heavy-Metals, Porphobilinogen Synthase, Dehydratase Polymorphism, Salmonella-Typhimurium, Aquatic Organisms

# Title: Mycologia

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Journal Country/Territory: United States

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Publisher: New York Botanical Garden

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Subject Categories:

Mycology: Impact Factor

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? McDougall, D.N. and Blanchette, R.A. (1996), Metal ion adsorption by pseudosclerotial plates of Phellinus weirii. *Mycologia*, **88** (1), 98-103.

Abstract: Melanized pseudosclerotial plates, commonly referred to as zonelines, form at colony boundaries of Phellinus weirii and other white-rot fungi in response to various stimuli. Pseudosclerotial plates of weirii produced in the laboratory can sequester metal ions from contact with soil in concentrations up to fifteen times greater than found in the soil. Phellinus weirii accumulated greater ion concentrations for 11 of 13 elements assayed than did Fomitopsis pinicola, a brown rot fungus that produces thick mycelial mats but does not produce melanized pseudosclerotial plates. Ion concentrations for 10 of 13 elements were significantly greater in soil-treated pseudosclerotial plates ofweirii than in controls. Aluminum and iron concentrations for soil-treated pseudosclerotial plates ofweirii were 152 and 117 times greater, respectively, than that of controls. Ion concentration for untreated mats ofweirii and F. pinicola were not significantly different in 12 of 13 elements assayed. The metal ion-rich outer layer of the pseudosclerotial plates of weirii may help in protecting the fungus from combative antagonistic organisms and enhance long-term saprophytic survival of this fungus.

Keywords: Adsorption, Aluminum, Armillaria-Mellea, Biosorption, Biosorption, Calcium, Iron, Lead Melanin, Melanin, Metal, Metal Ions, Phellinus Weirii, Pseudosclerotial Plates, Rhizomorphs, Soil, Survival, White Rot Fungi, White-Rot Fungi, Wood, Zinc, Zone Lines

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Journal Country/Territory:

Language:

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Publisher Address:

Subject Categories:

Impact Factor

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Abstract: Fusarium oxysporum was grown in a continuous culture system, taking stringent precautions to exclude organic compounds. Growth medium was supplied as ammonium or ammonium plus additional mineral nutrients with sulphur as sulphate or thiosulphate. Over 12 d, up to 13% of supplied thiosulphate was oxidized to sulphate, potentially sufficient to provide energy for 25% of observed growth. No oxidation of ammonium to nitrate was observed. Organic C concentrations relevant to oligotrophic growth are discussed.

Keywords: Sulfur Oxidation, Inorganic Medium, Forest Soil, Fungi, Bacteria, Stimulation, Thiosulfate

? Morley, G.F. and Gadd, G.M. (1995), Sorption of toxic metals by fungi and clay minerals. *Mycological Research*, **99**, 1429-1438.

Abstract: Removal of divalent metal ions from pH buffered solutions by the soil fungi *Rhizopus arrhizus* and Trichoderma viride has been examined at Cu2+, Cd2+ and Zn2+ concentrations ranging from 0 to 1000 µM, in the presence and absence of the clay minerals montmorillonite and kaolinite. Uptake of the metals was followed, at three different pH values, by analysis of the reaction filtrates using atomic absorption spectrophotometry (AAS) and ion specific electrodes (ISE). The clays showed a more rapid uptake of the metal ions with equilibrium being reached in < 2 min compared to 3-6 h taken by the fungal biomass. Results were plotted and characterized using Langmuir, Freundlich and Brunauer-Emmett-Teller (BET) adsorption isotherm models. Isotherms for the clay minerals conformed to Langmuir and/or Freundlich type models, corresponding to monolayer binding of metal ions on a homogeneous adsorbent surface. Isotherms for the fungi were non-Langmuir types, better fits being obtained using the BET model for multi-layer adsorption onto non-homogeneous surfaces. On a dry weight basis the clay minerals took up greater amounts of metal (up to 435 µmol g-1) than the fungi (up to 78 µmol g-1). However, when the data were expressed in terms of metal bound per unit surface area, the fungi showed much greater sorption capacities (up to 36.6 µmol m-2) than the clays (up to 3.1 µmol m-2). Mixtures of montmorillonite and fungal biomass showed reduced uptake of metals, depressed below calculated values by up to 37% at pH 4, possibly because of masking of exchange sites. Spherical aggregates were visible in the kaolinite and fungal mixtures, but there was no reduction in metal uptake capacity from the predicted uptake values. There was good correlation between values obtained for the sorption of the metal ions onto the sorbent surfaces and the Irving-Williams series for the order of stability of metal-ligand complexes (Cu2+ much greater than Zn2+ > Cd2+). Accumulation of the metals by all of the sorbents was dependent on the external pH and decreased with lower pH: maximum uptakes were achieved at pH 6.5 for Cd2+ and Zn2+ and at pH 5 for Cu2+.

Keywords: Heavy-Metals, *Saccharomyces-Cerevisiae*, *Aureobasidium-Pullulans*, *Rhizopus-arrhizus*, Cell-Walls, Copper, Adsorption, Cadmium, Zinc, Soil

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Publisher:

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Subject Categories:

Impact Factor

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# Title: Mycotaxon

Full Journal Title: Mycotaxon

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

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Subject Categories:

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Abstract: Carrismyces proliferatus anam. gen. & sp. nov., a new genus of hyphomycetes collected on the rotten stem of a tree fern (Cyathea sp.) in a Mexican cloud forest, is described and illustrated. The genus is characterized by monotretic, percurrent conidiogenous cells and obconical, subglobose, broadly pyriform to turbinate, muriform, dark brown or black conidia often with short, colourless, conical appendages. Notes on closely related genera are given.

Keywords: Carrismyces, Hyphomycetes, Mexico, Systematics, Tropical Fungi

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Keywords: Scientometrics

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# Title: Nachrichten von der Koniglichen Gesellschaft der Wissenschaften zu Gottingen, Mathematisch-Physikalische Klasse

Full Journal Title: Nachrichten von der Koniglichen Gesellschaft der Wissenschaften zu Gottingen, Mathematisch-Physikalische Klasse

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Subject Categories:

: Impact Factor

? Riecke, E. (1903), Mass of ions in air and their adsorption on the earth’s surface. *Nachrichten von der Koniglichen Gesellschaft der Wissenschaften zu Gottingen, Mathematisch-Physikalische Klasse*, **2**, 39.

Abstract: In the first of these memoirs (which form a continuation of those before abstracted) [see Abstract No. 1903A01218] the author obtains expressions for the diffusion coefficient and mobility of the ions. A uniform field of force F in electrostatic measure is assumed, epsiv is the charge on a positive ion, then he finds for the velocity acquired under the action of the field g/sup +/ = U/sup +/ epsiv F. Also if mu/sub /b p// denote the mass of the positive ion, u/sub /b p//, its molecular velocity, l/sub /b p// its mean free path, U/sup +/ = 2/3l/sub /b p///mu/sub /b p//u/sub /b p//, and again, writing u/sub p//sup 2/ = 3R/sub /b p// T, where R/sub /b p// is the gas-constant for positive ions- U/sup +/ = 2l/sub /b p//u/sub /b p///9mu/sub /b p//R/sub /b p//T He obtains for the coefficient of diffusion k/sup +/ = 2/9/b l//sub /b p//u/sub /b p//. The mean free path is calculated from Maxwell’s formulaae. The results are then applied to air, for which he says for positive ions k/sup +/ = 0.0274, for negative ions k/sup -/ = 0.0420, and are given in a table and shown graphically. Owing then to the mass of the ions, the results present some difficulty. As a reasonably probable conclusion, he says the mass of a positive ion is greater than that of a molecule of air, and that holds also for a negative ion. To find definite values it is necessary to resort to the equations obtained in the before abstracted papers, and an extension of them. Results are given as probable for the masses, and also for the dimensions of positive and negative ions. In the second part of the earth is assumed to have a permanent negative charge, and this is assumed to arise from negative ions being absorbed or /b adsorbed/ by it with greater facility than positive. By /b adsorption/ appears to be meant either that the ion with its negative charge on reaching the earth adheres to it, or gives up its charge to the earth. Let E be the electrostatic force towards the earth, U the absolute mobility of a positive ion, V that of a negative ion. Also let /b xu/sub p// denote the number of positive ions which strike the earth, per unit area per second, /b yu/sub n// the same for negative ions. Let /b c/ denote the velocity of light. Then taking into account the electric force due to the earth’s negative charge, the obtains the equation, /b c/(Un/sup +/ + Vn/sup -/) E = yu/sub n/n/sup -/-xu/sub /b p//n/sup +/. From which, by application of the method developed in the preceding papers, he calculates the absorption, but the results cannot, he says, be tested at present.

Keywords: Absorption, Adsorption, Diffusion, Mobility

? Biltz, W. (1904), Proposed explanation of the agglutination processes. *Nachrichten von der Koniglichen Gesellschaft der Wissenschaften zu Gottingen, Mathematisch-Physikalische Klasse*, **2**, 157-165.

Abstract: The author here compares the behaviour of agglutinin towards bacteria with the action of two dissolved colloids on each other [/b cf./ Arrhenius, Abstract No. 1904A00948]. The phenomenon of agglutination comprises two processes, viz., the absorption of serum by the bacteria and the sedimentation of the complex formed. It can be shown now that the phenomenon of sedimentation of a body formed from two dissolved substances can frequently be observed when the two components are in a colloidal state, and that it is unnecessary, or not permissible, to assume a chemical affinity as the cause of sedimentation. As in the case of sera and bacteria, so also in the case of ordinary colloids, one meets with specific actions, some colloids being precipitate by certain other, but not by all other colloids. The author now compares the equilibria curves for the adsorption of hydrochloric acid by the gel of stannic acid;the adsorption of benzopurpurin by aluminium hydroxide;the adsorption of Mo/sub 3/O/sub 8/ by silk and the distribution of agglutinin between bacteria and solution. All these curves are of the same form, viz., concave to the abscissae (concentration of the non-absorbed portion in the solution). They can accordingly all be represented more or less closely by the formula C/sub 1//sup /b n///C/sub 2/ = K, in which /b n/ > 1, and C/sub 1/ represents the concentration of the adsorbed, C/sub 2/ that of non-adsorbed portion. If the distribution of the dissolved substances is regarded as being conditioned by the adsorbing power, of the adsorbing substance, one can apply the results observed for ordinary adsorption by colloids to the case of the agglutinins. The adsorptive power of the agglutinable substance (bacteria) is considerable and diminishes with adsorption of agglutinin in such a way that the relative amount of agglutinin adsorbed at higher concentrations decreases, without, however, approaching to a saturation value. It is therefore not necessary to follow Arrhenius in ascribing to the agglutinin a different molecular size in solution and in the bacteria. The value of /b n/ will therefore vary with the substances employed. In case of weakened sera it has been found by Eisenberg and Volk that with increasing concentration of the agglutinin solution, the sedimentation of the agglutininable substance, present in constant amount, did not increase to a maximum, but that even with considerable increase of concentration no sedimentation at all took place, so that for these substances there is an optimum point for sedimentation. A similar phenomenon has been observed by the author in the case of inorganic colloids - a fact which speaks very strongly for the relationship of the two classes of phenomena. Further the author points out that since specific colloids (agglutinins) are able to cause the sedimentation of specific bacteria, so for the removal of undesirable colloids definite bacteria must be employed, and this is applied to the purification of water. The author believes that inorganic colloids will be found having a specific action on bacteria and constituting therefore inorganic antitoxins.

Keywords: Absorption, Adsorption, Aluminium, Bacteria, Purification, Removal, Size, Solution, Water

? Gerdien, H. (1903), Measurements of the electric conductivity of the air from balloons. *Nachrichten von der Koniglichen Gesellschaft der Wissenschaften zu Gottingen, Mathematisch-Physikalische Klasse*, **6**, 383-399.

Abstract: Together with H. Elias, F. Linke, and E. Wiechert, the author has made four balloon ascents from Gottingen and Berlin in summer and autumn, reaching once an altitude of 7,100 m., in order to determine the ionisation and ionic velocity with an H. Ebert aspiration apparatus, improved by him self;it resembles the tubular condenser used by J. J. Thomson for the investigation of Rontgenised air. In order to prevent static charges on the balloons, Linke has applied water squirts, and as the fine ballast sand was frequently carried into the balloon, producing adsorption of the ions, liquid ballast is to be tried. Two simultaneous observations seem to be necessary, the one in a weak, the other in a strong condenser field. The ionisation amounts to about 1 electrostatic unit per cub. cm., as found by Ebert and by Ludeling, at all altitudes. There is, however, a vertical current of about 10/sup -16/amp./cm./sup 2/, and the specific ionic velocity, varying between 1 and 3 cm./sec, in a field of 1 volt/cm., seems to increase with the altitude.

Keywords: Adsorption, Sand, Water

# Title: Nano Letters

Full Journal Title: [Nano Letters](http://pubs.acs.org/journals/nalefd/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

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Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Notes: highly cited

? Li, Y.S., Shi, J.L., Hua, Z.L., Chen, H.R., Ruan, M.L. and Yan, D.S. (2003), Hollow spheres of mesoporous aluminosilicate with a three-dimensional pore network and extraordinarily high hydrothermal stability. *Nano Letters*, **3** (5), 609-612.

Full Text: [2003\Nan Let3, 609.pdf](2003/Nan%20Let3,%20609.pdf)

Abstract: A hollow-structured and highly ordered mesoporous aluminosilicate with a 3D pore network and significantly improved hydrothermal stability has been successfully prepared by a simple method. To elucidate its novel structure and improved hydrothermal stability, a model for the formation of such a hollow spherical material has been proposed.

Keywords: Hierarchical Order, Molecular-Sieves, MCM-41, Shell, Identification, Microspheres, Adsorption, Emulsion, Zeolite

? Olek, M., Ostrander, J., Jurga, S., Mohwald, H., Kotov, N., Kempa, K. and Giersig, M. (2004), Layer-by-layer assembled composites from multiwall carbon nanotubes with different morphologies. *Nano Letters*, **4** (10), 1889-1895.

Full Text: [2004\Nan Let4, 1889.pdf](2004/Nan%20Let4,%201889.pdf)

Abstract: We report formation of polyelectrolyte/multiwall carbon nanotube (MWNT) multilayers; by the layer-by-layer assembly technique. Both ‘hollow’ and ‘bamboo’ type MWNTs were employed. Scanning electron and atomic force microscopy indicate high structural homogeneity of the prepared composites. Ellipsometry and the absorbance spectroscopy confirm sequential adsorption of oppositely charged nanotubes and the polyelectrolyte resulting in uniform growth of the polyelectrolyte/MWNT films. Measurements of the mechanical properties show that these are strong composite hybrid films with mechanical properties exceeding many carbon nanotube composites made by mixing, or in-situ polymerization. Bamboo-type carbon nanotube composites display ultimate tensile strength of 150 ± 35 MPa and Young modulus of 4.5 ± -0.8 GPa as compared to 110 ± 25 MPa and 2 ± 0.5 GPa in composites made from common hollow MWNTs. This indicates that the morphology of the fibers can substantially improve matrix connectivity on the material mitigating ‘telescopic effect’ in MWNTs. The films made from bamboo-type MWNTs approach in strength recently reported layer-by layer composite films from single wall carbon nanotubes, while being substantially less expensive. These results confirm the potential of the layering method for the manufacturing of composites with high load of strong filler and importance of uniform distribution and good interconnectivity between carbon nanotubes and the polymer matrix.

Keywords: Carbon Nanotubes, Dispersion, Elastic-Modulus, Fibers, Functionalization, Mechanical-Properties, Nanotube, Poly(Methyl Methacrylate) Composites, Polyelectrolyte Films, Polymer Composites, Polystyrene, Strength

? Holt, J.K., Noy, A., Huser, T., Eaglesham, D. and Bakajin, O. (2004), Fabrication of a carbon nanotube-embedded silicon nitride membrane for studies of nanometer-scale mass transport. *Nano Letters*, **4** (11), 2245-2250.

Full Text: [2004\Nan Let4, 2245.pdf](2004/Nan%20Let4,%202245.pdf)

Abstract: Membranes consisting of multiwall carbon nanotubes embedded in a silicon nitride matrix were fabricated for fluid mechanics studies on the nanometer scale. Characterization by tracer diffusion and scanning electron microscopy suggests that the membrane is free of large voids. An upper limit to the diffusive flux of D2O of 2.4×10-8 mol/m2 s was determined, indicating extremely slow transport through the membranes. By contrast, hydrodynamic calculations of water flow across a nanotube membrane of similar specifications predict a much higher molar flux of 1.91 mol/m2 S, suggesting that the nanotubes used in the membrane have a ‘bamboo’ morphology. The carbon nanotube membranes were then used to make nanoporous silicon nitride membranes, which were fabricated by sacrificial removal of the carbon. Nitrogen flow measurements on these structures give a membrane permeance of 4.7×10-4 mol/m2 S Pa at a pore density of 4×1010 cm-2. Using a Knudsen diffusion model, the average pore size of this membrane is estimated to be 66 nm, which agrees well with TEM observations of the multiwall carbon nanotube outer diameter. These membranes are a robust platform for the study of confined molecular transport, with applications in separations and chemical sensing.

# Title: Nano Research

Full Journal Title: Nano Research

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Journal Country/Territory:

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Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Sun, H.M., Cao, L.Y. and Lu, L.H. (2011), Magnetite/reduced graphene oxide nanocomposites: One step solvothermal synthesis and use as a novel platform for removal of dye pollutants. *Nano Research*, **4** (6), 550-562.

Full Text: [2011\Nan Res4, 550.pdf](2011/Nan%20Res4,%20550.pdf)

Abstract: A simple one step solvothermal strategy using non-toxic and cost-effective precursors has been developed to prepare magnetite/reduced graphene oxide (MRGO) nanocomposites for removal of dye pollutants. Taking advantage of the combined benefits of graphene and magnetic nanoparticles, these MRGO nanocomposites exhibit excellent removal efficiency (over 91% for rhodamine B and over 94% for malachite green) and rapid separation from aqueous solution by an external magnetic field. Interestingly, the performance of the MRGO composites is strongly dependent on both the loading of Fe3O4 and the pH value. In addition, the adsorption behavior of this new adsorbent fits well with the Freundlich isotherm and the pseudo-second-order kinetic model. In further applications, real samples-including industrial waste water and lake water-have been treated using the MRGO composites. All the results demonstrate that the MRGO composites are effective adsorbents for removal of dye pollutants and thus could provide a new platform for dye decontamination.

Keywords: Adsorption, Aqueous Solution, Aqueous-Solution, Composite, Dye, Dye Pollutants, Enhanced Raman-Spectroscopy, Freundlich, Freundlich Isotherm, Gold Nanoparticles, Graphene, Ionic Dyes, Isotherm, Kinetic, Kinetic Model, Magnetic Nanoparticles, Malachite Green, Methylene-Blue, Molecules, Nanocomposites, pH, Removal, Separation, Waste, Waste-Water

# Title: Nanoscale

Full Journal Title: Nanoscale

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JCR Abbreviated Title: Nanoscale

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Language:

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Subject Categories:

: Impact Factor

? Lim, Y.W.L., Tang, Y.X., Cheng, Y.H. and Chen, Z. (2010), Morphology, crystal structure and adsorption performance of hydrothermally synthesized titania and titanate nanostructures. *Nanoscale*, **2** (12), 2751-2757.

Full Text: [2010\Nanoscale2, 2751.pdf](2010/Nanoscale2,%202751.pdf)

Abstract: Titania (TiO2) and sodium titanate nanostructures with controllable phases and morphologies were synthesized by a hydrothermal method with titanium disulfide (TiS2) as the starting material. Sodium titanate nanobelts could be synthesized under a relatively low alkaline concentration (1 mol L-1 NaOH) and short duration (6 h). At 3 mol HCI, rutile TiO2 nanorods were synthesized. Anatase TiO2 nanoparticles were obtained at pH values ranging between 2 and 13. FTIR analysis confirmed the phase change as the pH of the reacting medium increased from highly acidic to highly alkaline. The adsorption of Methylene Blue (MB) on the as-synthesized sodium titanate nanobelts fitted well with the Langmuir monolayer model, with an adsorption capacity as high as 312.5 mg g-1. The kinetics of MB adsorption was found to be a pseudo-second-order kinetic model. In brief, this study demonstrates a simple method to control the phase and morphology of titanium-based oxides. Excellent performance has been shown in the MB adsorption test by the sodium titanate nanostructures.

Keywords: Adsorption, Dioxide, Dye, Kinetic Model, Kinetics, Langmuir, Layered Titanate, Methylene-Blue, Nanoparticles, Nanowires, Oxide Nanotubes, pH, Photocatalytic Activity, TiO2, Trititanate Nanotubes

# Title: Nanotechnology

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Subject Categories:

: Impact Factor

? Compano, R. and Hullmann, A. (2002), Forecasting the development of nanotechnology with the help of science and technology indicators. *Nanotechnology*, **13** (3), 243-247.

Abstract: Nanotechnology is supposed to become one of the key enabling technologies of the 21st century. Its economic potential is forecast to be a market of several hundred billion Euros in the next decade. Therefore, nanotechnology has attracted the interest of many industry sectors and many companies redirecting internal activities to prepare themselves for this new challenge. At the same time governmental R&D decision makers all over the world are setting up new nanotechnology-specific research programmes aiming at putting their respective countries in a favourable position for the future. The aim of this paper is to use scientific and technological indicators to make predictions on economic development and to compare the situation in different countries.

Notes: highly cited

? Morones, J.R., Elechiguerra, J.L., Camacho, A., Holt, K., Kouri, J.B., Ramirez, J.T. and Yacaman, M.J. (2005), The bactericidal effect of silver nanoparticles. *Nanotechnology*, **16** (10), 2346-2353.

Full Text: [2005\Nanotechnology16, 2346.pdf](2005/Nanotechnology16,%202346.pdf)

Abstract: Nanotechnology is expected to open new avenues to fight and prevent disease using atomic scale tailoring of materials. Among the most promising nanomaterials with antibacterial properties are metallic nanoparticles, which exhibit increased chemical activity due to their large surface to volume ratios and crystallographic surface structure. The study of bactericidal nanomaterials is particularly timely considering the recent increase of new resistant strains of bacteria to the most potent antibiotics. This has promoted research in the well known activity of silver ions and silver-based compounds, including silver nanoparticles. The present work studies the effect of silver nanoparticles in the range of 1-100 nm on Gram-negative bacteria using high angle annular dark field (HAADF) scanning transmission electron microscopy (STEM). Our results indicate that the bactericidal properties of the nanoparticles are size dependent, since the only nanoparticles that present a direct interaction with the bacteria preferentially have a diameter of similar to 1-10 nm.

Keywords: Gram-Negative Bacteria, Escherichia-Coli, Particles, Ions, Adsorption, Nitrate, Agents, Faces

? Song, Z., Chen, L.F., Hu, J.C. and Richards, R. (2009), NiO(111) nanosheets as efficient and recyclable adsorbents for dye pollutant removal from wastewater. *Nanotechnology*, **20** (27), 275707.

Abstract: Semiconductor single-crystalline polar NiO(111) nanosheets with well-defined hexagonal holes have been investigated for application in dye adsorption and combustion processes. With regard to adsorption technologies, high surface area metal oxides have an advantage over activated carbon in that the adsorbed species can be combusted and the adsorbent reused in the case of metal oxides while regeneration of activated carbon remains challenging and thus the adsorbent/adsorbate system must be disposed of. Here, three typical textile dyes, reactive brilliant red X-3B, congo red and fuchsin red, were studied for removal from wastewater with two NiO systems and activated carbon. These studies revealed that the NiO(111) nanosheets exhibited much more favorable adsorptive properties than conventionally prepared nickel oxide powder (CP-NiO) obtained from thermal decomposition of nickel nitrate. The maximum adsorption capabilities of the three dyes on NiO(111) nanosheets reached 30.4 mg g-1, 35.15 mg g-1 and 22 mg g-1 for reactive brilliant red X-3B, congo red and fuchsin acid, respectively, while the maximum adsorption capabilities of the three dyes on CP-NiO were only 8.4, 13.2 and 12 mg g-1 for reactive brilliant red X-3B, congo red and fuchsin acid. To simulate the adsorption isotherm, two commonly employed models, the Langmuir and the Freundlich isotherms, were selected to explicate the interaction of the dye and NiO(111). The isotherm evaluations revealed that the Langmuir model demonstrated better fit to experimental equilibrium data than the Freundlich model. The maximum predicted adsorption capacity was 36.1 mg g-1. In addition, adsorption kinetic data of NiO(111) followed a pseudo-second-order rate for congo red. These studies infer that NiO(111) nanosheets possess desirable properties for application in adsorption and combustion applications.

Keywords: Acid, Activated Carbon, Adsorbent, Adsorbents, Adsorption, Adsorption Capacity, Adsorption Isotherm, Adsorption Kinetic, Adsorptive Properties, Application, Aqueous-Solutions, Azo-Dye, Basic-Dyes, Capacity, Carbon, Catalytic Combustion, Combustion, Congo Red, Data, Decomposition, Dye, Dye Adsorption, Dyes, Equilibrium, Experimental, Freundlich, Freundlich Model, Interaction, Isotherm, Isotherms, Kinetic, Langmuir, Langmuir Model, Mesoporous Silica, Metal, Model, Models, Nanotubes, Nickel, Nickel-Oxide, Nitrate, Oxide, Oxides, Pollutant Removal, Pseudo Second Order, Pseudo-Second-Order, Pseudo-Second-Order Rate, Regeneration, Removal, Species, Surface, Surface Area, Systems, Technologies, Wastewater

# Title: Nanotechnology in Mesostructured Materials

Full Journal Title: Nanotechnology in Mesostructured Materials

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

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Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Yang, J., Daehler, A., Stevens, G.W. and O’Connor, A.J. (2003), Adsorption of lysozyme and trypsin onto mesoporous silica materials. *Nanotechnology in Mesostructured Materials*, **146**, 775-778.

Abstract: The adsorption of lysozyme and trypsin by the mesoporous materials MCM-41 and SBA-15 with different pore volumes has been studied as a model protein adsorption system. The amounts adsorbed depend on the pore volumes and surface chemistry of the mesoporous materials as well as the binding mechanisms of particular proteins. The adsorbed amounts of lysozyme on MCM-41 were 90-110 mg/g over a wide range of lysozyme solution concentrations, whereas the adsorption isotherm of trypsin on MCM-41 fitted the Langmuir model and adsorbed amounts of up to 200 mg/g were recorded.

Keywords: Adsorption, Enzyme Immobilization, Isotherm, Langmuir, MCM-41, Mesoporous, Molecular-Sieves, Nitrogen Adsorption, Pore, SBA-15, Silica, Stability, Structural-Properties, Surface

# Title: National Academy Science Letters-India

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ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Dikshit, V.P. (1989), Removal of chromium(VI) by adsorption using sawdust. *National Academy Science Letters-India*, **12** (12), 419-421.

? Kumari, P. and Srivastava, M.M. (2008), Characterization of protein content of shelled *Moringa oleifera* seeds used for decontamination of arsenic from water bodies. *National Academy Science Letters-India*, **31** (5-6), 191-195.

Abstract: Shelled Moringa oleifera seeds (SMOS) has been explored as biomaterial for the decontamination of arsenic from waste water. SMOS derived protein is proposed as bioactive principle. Derived protein has been characterized for its electrophoretic nature [79.3% cationic and 20.7% anionic polypeptide]. Cationic polypeptide of the molecular weight (6-16kDa) seems to be a major contributor.

Keywords: Biomaterial, Arsenic, Moringa Oleifera, Cationic Polypeptide, Gel Electrophoresis, Aqueous-Solution, Removal, Biosorption, Biomass, Chromium, Powder, System, Adsorbents, Adsorption

# Title: 12th National Conference of Yugoslav Astronomers and International Workshop on the Development of Astronomical Databases

Full Journal Title: 12th National Conference of Yugoslav Astronomers and International Workshop on the Development of Astronomical Databases

ISO Abbreviated Title:

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Subject Categories:

: Impact Factor

? Dimitrijevic, M.S. (1999), Serbian astronomers in Science Citation Index in 1946-1998 period. *12th National Conference of Yugoslav Astronomers and International Workshop on the Development of Astronomical Databases*, 161-164.

Abstract: The presence of Serbian astronomers in Science Citation Index within 1946-1998 period has been analyzed and the most cited astronomers and articles have been identified.

Keywords: Atom Lines, Citation, Experimental Stark Widths, Ions, Science Citation Index, Secular Resonances, Shifts, Spectral-Lines

# Title: National Medical Journal of India

Full Journal Title: National Medical Journal of India

ISO Abbreviated Title: Natl. Med. J. India

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Journal Country/Territory: India

Language: English

Publisher: All India Inst Medical Sciences

Publisher Address: Ansari Nagar, New Delhi 110 029, India

Subject Categories:

Medicine, General & Internal: Impact Factor

? Gopalakrishnan, P., Vasan, R.S., Sarma, P.S., Nair, K.S. and Thankappan, K.R. (1999), Prevalence of dental fluorosis and associated risk factors in Alappuzha district, Kerala. *National Medical Journal of India*, **12** (3), 99-103.

Abstract: BACKGROUND: Fluorosis is considered endemic in 15 states of India. Dental fluorosis is the most convenient biomarker of exposure to fluoride. In Kerala, although the condition is reported to be endemic in the districts of Alappuzha and Palakkad, there are no systematic epidemiological studies evaluating dental fluorosis. We studied the prevalence of dental fluorosis among school children in Ambalappuzha taluk, Alappuzha district, Kerala and evaluated the contribution of potential risk factors.

METHODS: We conducted a community-based, cross-sectional survey of 1142 school children (630 girls, 512 boys) in the age group of 10-17 years, using a multistage random cluster sampling technique. A pre-tested structured questionnaire was used to assess exposure to various sources of fluoride. A dental specialist examined all the children to determine the presence or absence of dental fluorosis and graded the degree of dental fluorosis using Dean’s Index. The water fluoride content in the study area was obtained from the district water authority department. Bivariate associations were examined using the Chi-square and Chi-square trend tests, while multiple logistic regression was used to evaluate the association of select risk factors with the presence or absence of dental fluorosis.

RESULTS: The overall prevalence of dental fluorosis in our study sample was 35.6% and the community fluorosis index was 0.69. The prevalence of dental fluorosis was higher in the urban compared to the rural areas (55.3% v. 16.8%; p < 0.001), and in girls compared to boys (39.2% v. 31.3%; p < 0.01). The prevalence of dental fluorosis was higher among children who consumed pipe water as compared to children who consumed well water (44.8% v. 12.7%; p < 0.001). We noted a step-wise increase in the prevalence of dental fluorosis with a corresponding increase in water fluoride content in different panchayats (p = 0.024). The principal factor associated with the presence of dental fluorosis was a high fluoride content of drinking water (OR 1.85, 95% Cl: 1.17-2.92). We did not observe any significant association between dental fluorosis and the intake of brick-tea, consumption of fish or the use of toothpaste.

CONCLUSION: Dental fluorosis is a public health problem in the Ambalappuzha taluk. Active steps must be taken to partially defluoridate the water before distribution to reduce the morbidity associated with dental fluorosis in this area. Similar surveys are required in other parts of India to identify areas with high water fluoride content and determine the extent and manner in which defluoridation can be carried out.

Keywords: Drinking

# Title: National Symposium on Mining, Hydrology, Sedimentology and Reclamation

? Girts, M.A. and Kleinmann, R.L.P. (1986), Constructed wetlands for treatment of acid mine drainage: A preliminary review. *National Symposium on Mining*, *Hydrology*, *Sedimentology and Reclamation (University of Kentucky*, *Lexington*, *Kentucky)*, 166-171.

# Title: Nat Toxins

? Tsuji, K., Setsuda, S., Watanuki, T., Kondo, F., Nakazawa, H., Suzuki, M. and Harada, K. (1996), Microcystin levels during 1992-95 for Lakes Sagami and Tsukui-Japan. *Nat Toxins*, **4** (4), 189-194.

Abstract: Toxic cyanobacterial blooms have been frequently observed in Lakes Sagami and Tsukui, Kanagawa Prefecture, Japan, which are used as drinking and recreational water sources. As the first step toward the control and removal of cyanobacterial toxins, the present study evaluated the microcystin level in these lakes. Our established method using HPLC and LC/MS to pursue trace amounts of microcystins was applied to the determination of microcystins within cyanobacteria cells and in water. We could determine precisely the intracellular and extracellular microcystin level in the water environment during 1992-95. Microcystins RR, LR, and YR were detected at 0.02-2.64 micrograms/L in cell-free water and at 0.02-378 micrograms/L in the cells. Although there were many cases in which microcystin concentrations in the cells exceeded the proposed guideline level (1 microgram/L), there was only one example of this happening in cell-free water samples. Because the present monitoring indicated that the amount of microcystins detected in water was much less than that estimated in cells, the release of microcystins from the cells and their stability in lake water were examined in the dark. The resulting toxins persisted at the same concentration level for 14 days and the microcystin concentrations steadily declined, showing that biodegradation using aquatic natural bacterial flora is an effective detoxification process under natural conditions.

# Title: Natural Hazards

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Subject Categories:

Geosciences, Interdisciplinary Meteorology & Atmospheric Sciences Water Resources: Impact Factor

Kayen, R.E. and Mitchell, J.K. (1997), Arias intensity assessment of liquefaction test sites on the east side of San Francisco Bay affected by the Loma Prieta, California, earthquake of 17 October 1989. *Natural Hazards*, **16** (2-3), 243-265.

Full Text: [N\Nat Haz16, 243.pdf](N/Nat%20Haz16,%20243.pdf)

Abstract: Uncompacted artificial-fill deposits on the east side of San Francisco Bay suffered severe levels of soil liquefaction during the Loma Prieta earthquake of 17 October 1989. Damaged areas included maritime-port facilities, office buildings, and shoreline transportation arteries, ranging from 65 to 85 km from the north end of the Loma Prieta rupture zone. Typical of all these sites, which represent occurrences of liquefaction-induced damage farthest from the rupture zone, are low cone penetration test and Standard Penetration Test resistances in zones of cohesionless silty and sandy hydraulic fill, and underlying soft cohesive Holocene and Pleistocene sediment that strongly amplified ground motions. Postearthquake investigations at five study sites using standard penetration tests and cone penetration tests provide a basis for evaluation of the Arias intensity-based methodology for assessment of liquefaction susceptibility.

Altinok, Y., Tinti, S., Alpar, B., Yalçiner, A.C., Ersoy, Ş., Bortolucci, E. and Armigliato, A. (2001), The tsunami of August 17, 1999 in Izmit Bay, Turkey. *Natural Hazards*, **24** (2), 133-146.

Full Text: [N\Nat Haz24, 133.pdf](N/Nat%20Haz24,%20133.pdf)

Abstract: The Kocaeli 1999 Earthquake with an Mw = 7.4 caused major hazards throughout the NW of Turkey from Tekirdag to Bolu. Historical data indicates that some of the earthquakes around Izmit Bay have caused tsunamis. In this study, tsunami research for the Kocaeli 1999 Earthquake has been made also taking into consideration historical data. In this research more than about 70 data at 35 localities have been used to determine the tsunami evidences in the bay. Coastal observations indicated runups which were ranging from 1 to 2.5 m along the shores. However, the wave runups are more complex along the south coast due to the presence of coastal landslides (Degirmendere, Halidere, Ulasli, Karamursel) and subsided areas (Kavakli to Yenikoy) along the shore. West of Yalova, evidence of tsunami rapidly diminished. In addition, possible tectonic mechanism has been determined by using 33 single-channel high-resolution digital seismic reflection profiles which were acquired following the Kocaeli 1999 Earthquake. As a result it has been determined that the Kocaeli Earthquake has created tsunami in Izmit Bay.

Keywords: Tsunami, Izmit Bay, Marmara Sea, Coastal Landslides, Slumps, Marmara, Sediments, Sea

Matsutomi, H., Shuto, N., Imamura, F. and Takahashi, T. (2001), Field survey of the 1996 Irian Jaya earthquake tsunami in Biak Island. *Natural Hazards*, **24** (3), 199-212.

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Abstract: Runup data in Biak Island and its nearby islets are described with discussions of tsunami magnitude and a few characteristics such as witnessed arrival times, wave periods and wave numbers. From an engineering viewpoint, a relation between inundation depth and current velocity on land is also described with relations between inundation depth and degree of damage to houses and between sand erosion depth and current velocity in backshore region, based on data collected from the present and past tsunamis.

Keywords: Runup Data, Inundation Depth, Current Velocity

De Lange, W.P. and Healy, T.R. (2001), Tsunami hazard for the Auckland region and Hauraki Gulf, New Zealand. *Natural Hazards*, **24** (3), 267-284.

Full Text: [N\Nat Haz24, 267.pdf](N/Nat%20Haz24,%20267.pdf)

Abstract: The Hauraki Gulf is a semi-enclosed sea next to the largest population centre in New Zealand, the Auckland metropolitan region. The potential tsunami hazard is of concern to regional and local planners around the Hauraki Gulf. The Hauraki Gulf has recorded 11 tsunamis and one meteorological tsunami (rissaga) since 1840.

The historical tsunami data are relatively sparse, particularly for the largest events in 1868 and 1883. Moreover, local sources may produce damaging tsunamis but none has occurred during recorded history. Therefore numerical modelling of potential tsunami events provides a powerful tool to obtain data for planning purposes. Three main scenarios have been identified for numerical modelling:

1. A teletsunami event from an earthquake off the West Coast of South America. Historically this region has produced the largest teletsunamis in the Hauraki Gulf.

2. A tsunami generated by a local earthquake along the Kerepehi Fault. This fault bisects the Gulf, has been active during the last century at the southern inland end, and is overlain by a considerable thickness of soft sediment that may amplify the seismic waves.

3. A tsunami generated by a volcanic eruption within the Auckland Volcanic Field. This field has involved a series of mainly monogenetic basaltic eruptions over the last 140,000 years. Many of these eruptions have involved phreatomagmatic eruptions around the coastal margins, or within the shallow waters close to Auckland.

Keywords: Auckland Region, Teletsunami, Kerepehi Fault, Tsunami Hazards and Impacts, Taupo Eruption, Deposition, Chronology, Australia, Wave

Prasetya, G.S., De Lange, W.P. and Healy, T.R. (2001), The Makassar Strait tsunamigenic region, Indonesia. *Natural Hazards*, **24** (3), 295-307.

Full Text: [N\Nat Haz24, 295.pdf](N/Nat%20Haz24,%20295.pdf)

Abstract: The Makassar Strait region has had the highest frequency of historical tsunami events for Indonesia. The strait has a seismic activity due to the convergence of four tectonic plates that produces a complex mixture of structures. The main tsunamigenic features in the Makassar Strait are the Palu-Koro and Pasternoster transform fault zones, which form the boundaries of the Makassar trough.

Analysis of the seismicity, tectonics and historic tsunami events indicates that the two fault zones have different tsunami generating characteristics. The Palu-Koro fault zone involves shallow thrust earthquakes that generate tsunami that have magnitudes that are consistent with the earthquake magnitudes. The Pasternoster fault zone involves shallower strike-slip earthquakes that produce tsunami magnitudes larger than would normally be expected for the earthquake magnitude. The most likely cause for the increased tsunami energy is considered to be submarine landslides associated with the earthquakes. Earthquakes from both fault zones appear to cause subsidence of the west coast of Sulawesi Island.

The available data were used to construct a tsunami hazard map which identifies the highest risk along the west coast of Sulawesi Island. The opposite side of the Makassar Strait has a lower risk because it is further from the historic tsunami source regions along the Sulawesi coast, and because the continental shelf dissipates tsunami wave energy. The greatest tsunami risk for the Makassar Strait is attributed to locally generated tsunami due to the very short travel times.

Keywords: Historical Tsunami, Hazard Mapping, Tectonics, Source Mechanisms, Mitigation, Sulawesi

# Title: Natural History

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? Anderson, R. (1947), SARS. *Natural History*, **112** (5), 70.

# Title: Natural Product Research

Full Journal Title: Natural Product Research

ISO Abbreviated Title:

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? Esmaeili, A., Ghasemi, S. and Sohrabipour, J. (2010), Biosorption of copper from wastewater by activated carbon preparation from alga *Sargassum* sp. *Natural Product Research*, **24** (4), 341-348.

Full Text: [2010\Nat Pro Res24, 341.pdf](2010/Nat%20Pro%20Res24,%20341.pdf)

Abstract: In this study, the batch removal of copper(II) ions from an aqueous solution and wastewater using marine brown alga *Sargassum* sp. was investigated. Activated carbon prepared from *Sargassum* sp. by acid decomposition was also used for the removal of copper from the aqueous solution and wastewater. Activated carbon-prepared marine algae were used as a low-cost sorbent. The effect of pH, biosorption time, adsorbent dose and metal ion concentration were considered. The most effective pH was found to be 4.0. The biosorption capacities were pH dependent on the solution and the maximum uptake for copper with initial concentrations of 70, 100 and 150 mg L-1 at pH 4.0 were obtained as 95.68, 95.09 and 94.83%, respectively. Total metal ion biosorption occurs within 2 h. The equilibrium adsorption data are fitted to Lomgmuir and Frendlich isotherm models. Both models represent the experimental data satisfactorily. The adsorption follows second-order kinetics. This study shows that the use of activated carbon is a valuable material for the removal of copper from aqueous solutions and wastewater, and a better substitute for use in activated marine brown algae.

Keywords: Activated Carbon, Adsorbent, Adsorbent Dose, Adsorption, Algae, Aqueous Solution, Aqueous Solutions, Aqueous-Solution, Batch, Biosorption, Brown Alga, Carbon, Concentration, Copper, Copper(II), Data, Decomposition, Equilibrium, Experimental, Ions, Isotherm, Isotherm Model, Kinetics, L1, Low Cost, Marine Algae, Metal, Metal Ion, Models, pH, pH-Dependent, Preparation, Removal, Sargassum, Second Order, Second Order Kinetics, Second-Order, Second-Order Kinetics, Solution, Solutions, Sorbent, Sorption, Time, ULVA-Lactuca, Uptake, Wastewater

# Title: Nature

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Subject Categories:

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It was suggested many years ago1 that both components of a binary liquid mixture of non-electrolytes are adsorbed by solids such as charcoal and silica gel, though, with notable exceptions2–4, this concept has not always been considered in recent work. What has usually been called the ‘adsorption isotherm’ is thus the resultant of the addition of two individual isotherms, which cannot be determined directly. Bartell and Sloan3 have investigated the possibility (originally suggested by Ostwald and de Izaguirre2) that the individual isotherms follow Freundlich equations. By a process of successive approximations they obtained the constants for two such equations, and showed that the ‘composite’ equation thus derivable for the conventional adsorption isotherm gave a close fit with the experimental curves for a number of systems, including benzene–ethyl alcohol–charcoal.

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Abstract: HEPATOCELLULAR carcinoma (HCC) is a prevalent cancer in sub-Saharan Africa and eastern Asia 1. Hepatitis B virus and aflatoxins are risk factors for HCC 2, but the molecular mechanism of human hepatocellular carcinogenesis is largely unknown 3. Abnormalities in the structure and expression of the tumour-suppressor gene p53 are frequent in HCC cell lines 4, and allelic losses from chromosome 17p have been found in HCCs from China 5 and Japan 6. Here we report on allelic deletions from chromosome 17p and mutations of the p53 gene found in 50% of primary HCCs from southern Africa. Four of five mutations detected were G --> T substitutions, with clustering at codon 249. This mutation specificity could reflect exposure to a specific carcinogen, one candidate being aflatoxin B1 (ref. 7), a food contaminant in Africa 8, which is both a mutagen that induces G to T substitution 9 and a liver-specific carcinogen 10.

Keywords: Hepatitis-B Virus, Cell-Line, Liver, Dna, Establishment

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Abstract: THE large-scale use of photovoltaic devices for electricity generation is prohibitively expensive at present: generation from existing commercial devices costs about ten times more than conventional methods 1. Here we describe a photovoltaic cell, created from low-to medium-purity materials through low-cost processes, which exhibits a commercially realistic energy-conversion efficiency. The device is based on a 10-mu-m-thick, optically transparent film of titanium dioxide particles a few nanometres in size, coated with a monolayer of a charge-transfer dye to sensitize the film for light harvesting. Because of the high surface area of the semiconductor film and the ideal spectral characteristics of the dye, the device harvests a high proportion of the incident solar energy flux (46%) and shows exceptionally high efficiencies for the conversion of incident photons to electrical current (more than 80%). The overall light-to-electric energy conversion yield is 7.1-7.9% in simulated solar light and 12% in diffuse daylight. The large current densities (greater than 12 mA cm-2) and exceptional stability (sustaining at least five million turnovers without decomposition), as well as the low cost, make practical applications feasible.

Keywords: Characteristics, Coated, Complexes, Conventional, Cost, Costs, Decomposition, Dye, Efficiency, Electricity, Electrochemistry, Electrodes, Energy, Generation, Harvesting, Light, Low Cost, Methods, Monolayer, Particles, Photochemistry, Photoelectrochemical Conversion, Photovoltaic, Semiconductor, Size, Stability, Surface, Surface Area, Titanium, Titanium Dioxide

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Abstract: THE synthesis of molecular carbon structures in the form of C60 and other fullerenes 1 has stimulated intense interest in the structures accessible to graphitic carbon sheets. Here I report the preparation of a new type of finite carbon structure consisting of needle-like tubes. Produced using an arc-discharge evaporation method similar to that used for fullerene synthesis, the needles grow at the negative end of the electrode used for the arc discharge. Electron microscopy reveals that each needle comprises coaxial tubes of graphitic sheets, ranging in number from 2 up to about 50. On each tube the carbon-atom hexagons are arranged in a helical fashion about the needle axis. The helical pitch varies from needle to needle and from tube to tube within a single needle. It appears that this helical structure may aid the growth process. The formation of these needles, ranging from a few to a few tens of nanometres in diameter, suggests that engineering of carbon structures should be possible on scales considerably greater than those relevant to the fullerenes.

Keywords: C-60, C60, Carbon, Discharge, Engineering, Fullerenes, Growth, Needles, Nov, Preparation, Scales, Structure, Synthesis

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Abstract: INTEREST in carbon fibres1,2 has been stimulated greatly by the recent discovery of hollow graphitic tubules of nanometre dimensions3. There has been much speculation about the properties and potential application of these nanotubes4-8. Theoretical studies predict that their electronic properties will depend on their diameter and degree of helicity4,5. Experimental tests of these ideas has been hampered, however, by the lack of macroscopic quantities of the material. Here we report the synthesis of graphitic nanotubes in gram quantities. We use a variant of the standard arc-discharge technique for fullerene synthesis under a helium atmosphere. Under certain conditions, a carbonaceous deposit forms on one of the graphite rods, consisting of a macroscopic (diameter of about 5 mm) cylinder in which the core comprises pure nanotubes and nanoscale particles in high yield. The purity and yield depend sensitively on the gas pressure in the reaction vessel. Preliminary measurements of the conductivity of the bulk nanotube material indicate a conductivity of about 100 S cm-1.

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Abstract: MICROPOROUS and mesoporous inorganic solids (with pore diameters of less-than-or-equal-to 20 angstrom and approximately 20-500 angstrom respectively)1 have found great utility as catalysts and sorption media because of their large internal surface area. Typical microporous materials are the crystalline framework solids, such as zeolites2, but the largest pore dimensions found so far are approximately 10-12 angstrom for some metallophosphates3-5 and approximately 14 angstrom for the mineral cacoxenite6. Examples of mesoporous solids include silicas7 and modified layered materials8-11, but these are invariably amorphous or paracrystalline, with pores that are irregularly spaced and broadly distributed in size8,12. Pore size can be controlled by intercalation of layered silicates with a surfactant species9,13, but the final product retains, in part, the layered nature of the precursor material. Here we report the synthesis of mesoporous solids from the calcination of aluminosilicate gels in the presence of surfactants. The material14,15 possesses regular arrays of uniform channels, the dimensions of which can be tailored (in the range 16 angstrom to 100 angstrom or more) through the choice of surfactant, auxiliary chemicals and reaction conditions. We propose that the formation of these materials takes place by means of a liquid-crystal ‘templating’ mechanism, in which the silicate material forms inorganic walls between ordered surfactant micelles.

Keywords: Aluminosilicate, Calcination, Chemicals, Choice, Distributed, Forms, Framework, Liquid Crystal, Mechanism, Media, Mesoporous, Micelles, Microporous Materials, Modified, Phosphate, Silicate, Size, Sorption, Surface, Surface Area, Surfactant, Surfactants, Synthesis, Templating, Utility

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Abstract: THE 1992 Nicaragua earthquake was a ‘tsunami earthquake’; that is, it generated tsunamis1 disproportionately large for its surface-wave magnitude, M(s). The moment magnitude, M(w), determined from long-period (approximately 250-s) surface waves2, was 7.6, significantly larger than the 20-s M(s) of 7; this M(s)-M(w) disparity is also characteristic of tsunami earthquakes3,4. The Nicaragua earthquake is the first tsunami earthquake to be captured by modern broadband seismic networks, allowing us to present here seismograms of sufficiently high quality to make inferences about the rupture mechanisms. We conclude that the Nicaragua earthquake was a slow thrust earthquake which occurred on the subduction interface between the Cocos and North American plates, and because of the absence of sediments on the trench floor offshore of Nicaragua, the slip propagated up-dip all the way to the ocean bottom, exciting large tsunamis. The occurrence of slip on a plate interface filled with soft subducted sediments caused the rupture process to be slower than in ordinary subduction-zone thrust earthquakes. Our results reinforce the idea that tsunami warning systems using long-period (greater-than-or-equal-to 100-s) waves5-7 are necessary to reduce the hazard from this type of earthquake.

Keywords: Source Mechanism, Trenches, Event

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Abstract: Atherosclerosis, the principal cause of heart attack, stroke and gangrene of the extremities, is responsible for 50% of all mortality in the USA, Europe and Japan. The lesions result from an excessive, inflammatory-fibroproliferative response to various forms of insult to the endothelium and smooth muscle of the artery wall. A large number of growth factors, cytokines and vasoregulatory molecules participate in this process. Our ability to control the expression of genes encoding these molecules and to target specific cell types provides opportunities to develop new diagnostic and therapeutic agents to induce the regression of the lesions and, possibly, to prevent their formation.

Keywords: Fat-Fed Rabbits, Fibroblast Growth-Factor, Heritable Hyperlipidemic Rabbit, Human Coronary-Arteries, Low-Density-Lipoprotein, Low-Level Hypercholesterolemia, Macrophage-Rich Areas, Monocyte Chemoattractant Protein-1, Smooth-Muscle Cells, Vascular Endothelial-Cells

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Abstract: THE major active ingredient of marijuana, DELTA9-tetrahydrocannabinol (DELTA9-THC), has been used as a psychoactive agent for thousands of years. Marijuana, and DELTA9-THC, also exert a wide range of other effects including analgesia, anti-inflammation, immunosuppression, anticonvulsion, alleviation of intraocular pressure in glaucoma, and attenuation of vomiting1. The clinical application of cannabinoids has, however, been limited by their psychoactive effects, and this has led to interest in the biochemical bases of their action. Progress stemmed initially from the synthesis of potent derivatives of DELTA9-THC4,5, and more recently from the cloning of a gene encoding a G-protein-coupled receptor for cannabinoids6. This receptor is expressed in the brain but not in the periphery, except for a low level in testes. It has been proposed that the non-psychoactive effects of cannabinoids are either mediated centrally or through direct interaction with other, non-receptor proteins1,7,8. Here we report the cloning of a receptor for cannabinoids that is not expressed in the brain but rather in macrophages in the marginal zone of spleen.

Keywords: Rat-Brain, Insitu Hybridization, Cloning, Invitro, Cdna

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Abstract: INORGANIC microporous framework solids such as zeolites are of considerable technological importance as shape-selective catalysts, ion-exchange materials and molecular sieves1. Most microporous materials known until recently were silicates, aluminosilicates1 or aluminophosphates2-4, all of which contain tetrahedrally coordinated metal atoms. In 1989, a family of microporous titanosilicates (generically denoted ETS) was discovered in which the metal atoms (Ti4+) are octahedrally coordinated5-8. A full understanding of the potential of any microporous solid to act as a molecular sieve and selective catalyst, and of the nature of the catalytic centres, requires that its structure be known. But that of the ETS materials has proved elusive because of the considerable degree of disorder that they contain. Using a combination of high-resolution electron microscopy, electron and powder X-ray diffraction, solid-state NMR, molecular modelling and chemical analysis, we have now been able to solve the structure of a prominent member of this family, ETS-10. This structure comprises corner-sharing SiO4 tetrahedra and TiO6 octahedra linked through bridging oxygen atoms. The pore system contains 12-membered rings and displays a considerable degree of disorder. Many ordered variants of ETS-10 exist, some of which are chiral.

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Abstract: The effectiveness of bioremediation for oil spills has been difficult to establish on dynamic, heterogeneous marine shorelines. A new interpretative technique used following the 1989 Exxon Valdez spill in Alaska shows that fertilizer applications significantly increased rates of oil biodegradation. Biodegradation rates depended mainly on the concentration of nitrogen within the shoreline, the oil loading, and the extent to which natural biodegradation had already taken place. The results suggest ways to improve the effectiveness of bioremediation measures in the future.

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Abstract: WHEN tsunamis hit a coastal area, they often cause substantial damage and loss of life at locations otherwise well protected from normal (even severe) wind-generated waves. An example of such a catastrophe took place on 12 December 1992, when an earthquake of magnitude M(s) = 7.5 occurred in the eastern region of Flores Island, Indonesia(1,2). One of the areas hardest hit by the resulting tsunamis was Babi, a small coastal island; two villages on the island were completely destroyed, even though both were located in sheltered areas where wave conditions air normally calm. Here we describe the results of numerical and laboratory experiments that show how, unlike wind-generated waves, tsunamis are capable of penetrating into sheltered coastal areas without significantly losing their energy. For the case of Babi Island, the original tsunami wave,vas split into two, with one wave propagating around each side of the island. The two waves met in the sheltered region, and the subsequent amplification of wave amplitude resulted in the destructive flow onto the beach.

Keywords: Island

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Abstract: The mechanisms that balance food intake and energy expenditure determine who will be obese and who will be lean. One of the molecules that regulates energy balance in the mouse is the obese (ob) gene. Mutation of ob results in profound obesity and type II diabetes as part of a syndrome that resembles morbid obesity in humans. The ob gene product may function as part of a signalling pathway from adipose tissue that acts to regulate the size of the body fat depot.

Keywords: Adipose Tissue, Artificial-Chromosome Libraries, Diabetes, Dna Fragments, Energy, Food, Function, Gene, Humans, Identification, Mechanisms, Messenger-RNA, Mice, Morbid Obesity, Mouse, OB Mutation, Obese, Obesity, Polymerase Chain-Reaction, Size, Syndrome, Yeast

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Keywords: Judgment, Plagiarism, University

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Abstract: THE unique role that gold plays in society is to a large extent related to the fact that it is the most noble of all metals: it is the least reactive metal towards atoms or molecules at the interface with a gas or a liquid. The inertness of gold does not reflect a general inability to form chemical bonds, however-gold forms very stable alloys with many other metals. To understand the nobleness of gold, we have studied a simple surface reaction, the dissociation of H-2 On the surface of gold and of three other metals (copper, nickel and platinum) that lie close to it in the periodic table. We present self-consistent density-functional calculations of the activation barriers and chemisorption energies which clearly illustrate that nobleness is related to two factors: the degree of filling of the antibonding states on adsorption, and the degree of orbital overlap with the adsorbate. These two factors, which determine both the strength of the adsorbate-metal interaction and the energy barrier for dissociation, operate together to the maximal detriment of adsorbate binding and subsequent reactivity on gold.

Keywords: Activated Adsorption, Surfaces, Dynamics, Cu(111), D(2), H-2, Chemisorption, D2

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Abstract: GEOLOGICAL evidence shows that great earthquakes have occurred in the recent prehistoric past in the Cascadia subduction zone, off the Pacific coast of North America. The most recent event (or series of events) is dated at about 300 years ago(1-4), but the precise date and magnitude have not been determined. Geological investigations have not been able to distinguish a single giant earthquake from a series of great earthquakes occurring over a timespan of a decade or two(4), although this information is important for the assessment of future hazard(5). We have found several tsunami records in japan from AD 1700 with no indication of a local cause. Historical earthquake records and palaeoseismic evidence indicate the absence of a large earthquake in 1700 in South America, Alaska or Kamchatka, leaving Cascadia as the most likely source of this tsunami. The estimated time of the earthquake is the evening (about 21:00 local time) of 26 January 1700. The magnitude is estimated as 9 from the tsunami heights, in which case the earthquake ruptured the entire length of the Cascadia subduction zone(2). These estimates are consistent with Native American legends that an earthquake occurred on a winter night(6).

Keywords: Coast, Subduction Zone, United-States, Washington

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Abstract: Pores of molecular dimensions can adsorb large quantities of gases owing to the enhanced density of the adsorbed material inside the pores(1), a consequence of the attractive potential of the pore walls, Pederson and Broughton have suggested(2) that carbon nanotubes, which have diameters of typically a few nanometres, should be able to draw up liquids by capillarity, and this effect has been seen for low-surface-tension liquids in large-diameter, multi-walled nanotubes(3). Here we show that a gas can condense to high density inside narrow, single-walled nanotubes (SWNTs), Temperature-programmed desorption spectrosocopy shows that hydrogen will condense inside SWNTs under conditions that do not induce adsorption within a standard mesoporous activated carbon, The very high hydrogen uptake in these materials suggests that they might be effective as a hydrogen-storage material for fuel-cell electric vehicles.

Keywords: Activated Carbon, Adsorption, Carbon, Carbon Nanotubes, Desorption, Fuel Cell, Gases, Hydrogen, Hydrogen Storage, Mesoporous, Nanotubes, Tubules, Uptake

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Abstract: Helicobacter pylori, strain 26695, has a circular genome of 1,667,867 base pairs and 1,590 predicted coding sequences, Sequence analysis indicates that H. pylori has well-developed systems for motility, for scavenging iron, and for DNA restriction and modification, Many putative adhesins, lipoproteins and other outer membrane proteins were identified, underscoring the potential complexity of host-pathogen interaction, Based on the large number of sequence-related genes encoding outer membrane proteins and the presence of homopolymeric tracts and dinucleotide repeats in coding sequences, H. pylori, like several other mucosal pathogens, probably uses recombination and slipped-strand mispairing within repeats as mechanisms for antigenic variation and adaptive evolution, Consistent with its restricted niche, H. pylori has a few regulatory networks, and a limited metabolic repertoire and biosynthetic capacity, Its survival in acid conditions depends, in part, on its ability to establish a positive inside-membrane potential in low pH.

Keywords: Capacity, Epithelium, Gene, Helicobacter Pylori, Identification, Infection, Interaction, Membrane, Mutation, Mycoplasma-Genitalium, Protein, Strain

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Abstract: Capsaicin, the main pungent ingredient in ‘hot’ chilli peppers, elicits a sensation of burning pain by selectively activating sensory neurons that convey information about noxious stimuli to the central nervous system. We have used an expression cloning strategy based on calcium influx to Isolate a functional cDNA encoding a capsaicin receptor from sensory neurons. This receptor is a non-selective cation channel that is structurally related to members of the TRP family of ion channels. The cloned capsaicin receptor Is also activated by increases in temperature In the noxious range, suggesting that it functions as a transducer of painful thermal stimuli in vivo.

Keywords: Acid, Calcium, Calcium-Entry, Cation Channel, Chemical-Structure, Drosophila TRP, Family, Functional, In Vivo, Information, Pain, Rat, Resiniferatoxin, Root Ganglion-Cells, Ruthenium Red, Sensory Neurons, Strategy, Temperature

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Abstract: Bacillus subtilis Is the best-characterized member of the Gram-positive bacteria. Its genome of 4,214,810 base pairs comprises 4,100 protein-coding genes. Of these protein-coding genes, 53% are represented once, while a quarter of the genome corresponds to several gene families that have been greatly expanded by gene duplication, the largest family containing 77 putative ATP-binding transport proteins. In addition, a large proportion of the genetic capacity is devoted to the utilization of a variety of carbon sources, including many plant-derived molecules. The identification of five signal peptidase genes, as well as several genes for components of the secretion apparatus, is important given the capacity of Bacillus strains to secrete large amounts of industrially important enzymes. Many of the genes are involved in the synthesis of secondary metabolites, Including antibiotics, that are more typically associated with Streptomyces species. The genome contains at least ten prophages or remnants of prophages, indicating that bacteriophage Infection has played an important evolutionary role in horizontal gene transfer, in particular In the propagation of bacterial pathogenesis.

Keywords: Acids, Antibiotics, Bacillus, Bacillus Subtilis, Bacteria, Base, Capacity, Carbon, Competence, DNA-Sequences, Enzymes, Families, Family, Gene Transfer, Genetic, Gram-Positive Bacteria, Identification, Metabolites, Project, Proteins, Region, Replication, Role, Sources, Species, Strands, Synthesis, Terminators, Transfer, Transport, Utilization, Yeast Artificial Chromosomes

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Abstract: Experimental introduction of RNA into cells can be used in certain biological systems to interfere with function of an endogenous gene(1,2). Such effects have been proposed io result from a simple antisense mechanism that depends on hybridization between the injected RNA and endogenous messenger RNA transcripts, RNA interference has been used in the nematode Caenorhabditis elegans to manipulate gene expression(3,4). Here we investigate the requirements for structure and delivery of the interfering RNA. To our surprise, we found that double-stranded RNA was substantially more effective at producing interference than was either strand individually. After injection into adult animals, purified single strands had at most a modest effect, whereas double-stranded mixtures caused potent and specific interference. The effects of this interference were evident in bath the injected animals and their progeny. Only a few molecules of injected double-stranded RNA were required per affected cell, arguing against stochiometric interference with endogenous mRNA and suggesting that there could be a catalytic or amplification component in the interference process.

Keywords: Adult, Animals, Biological, Delivery, Embryos, Expression, Function, Gene, Genetic, Heavy-Chain Gene, Hybridization, Inhibition, Kinase, Mechanism, Muscle, Myosin, Nematode, Protein, RNA, Sex-Determining Gene, Structure, Systems, Unc-22

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Abstract: The use of individual molecules as functional electronic devices was first proposed in the 1970s (ref. 1). Since then, molecular electronics(2,3) has attracted much interest, particularly because it could lead to conceptually new miniaturization strategies in the electronics and computer industry. The realization of single molecule devices has remained challenging, largely owing to difficulties in achieving electrical contact to individual molecules. Recent advances in nanotechnology, however, have resulted in electrical measurements on single molecules(4-7). Here we report the fabrication of a field-effect transistor-a three-terminal switching device-that consists of one semiconductings(8-10) single-wall carbon nanotube(11,12) connected to two metal electrodes. By applying a voltage to a gate electrode, the nanotube can be switched from a conducting to an insulating state. We have previously reported(5) similar behaviour for a metallic single-wall carbon nanotube operated at extremely low temperatures. The present device, in contrast, operates at room temperature, thereby meeting an important requirement for potential practical applications. Electrical measurements on the nanotube transistor indicate that its operation characteristics can be qualitatively described by the semiclassical band-bending models currently used for traditional semiconductor devices. The fabrication of the three-terminal switching device at the level of a single molecule represents an important step towards molecular electronics.

Keywords: Carbon, Growth, Lead, Metal, Nanotechnology, Tubules

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Abstract: Networks of coupled dynamical systems have been used to model biological oscillators(1-4), Josephson junction arrays(5,6), excitable media(7), neural networks(8-10), spatial games(11), genetic control networks(12) and many other self-organizing systems. Ordinarily, the connection topology is assumed to be either completely regular or completely random. But many biological, technological and social networks lie somewhere between these two extremes. Here we explore simple models of networks that can be tuned through this middle ground: regular networks ‘rewired’ to introduce increasing amounts of disorder. We find that these systems can be highly clustered, like regular lattices, yet have small characteristic path lengths, like random graphs. We call them ‘small-world’ networks, by analogy with the small-world phenomenon(13,14) (popularly known as six degrees of separation(15)). The neural network of the worm Caenorhabditis elegans, the power grid of the western United States, and the collaboration graph of film actors are shown to be small-world networks. Models of dynamical systems with small-world coupling display enhanced signal-propagation speed, computational power, and synchronizability. In particular, infectious diseases spread more easily in small-world networks than in regular lattices.

Keywords: Analogy, Biological, Chaos, Collaboration, Control, Disease, Diseases, Dynamics, Genetic, Infectious Diseases, Model, Models, Network, Networks, Neural Network, Power, Pulse-Coupled Oscillators, Small, Social, Social Networks, Spread, Synchronization, Systems, United States

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Keywords: Amino Acid, Antigen, Bacillus, Bacteria, Biology, Capacity, Cells, Chronic, Coding, Conception, Disease, DNA, Families, Genes, Interventions, Leprae, Pathogen, Prophylactic, Proteins, Repeat, Resistance, Search, Source, Structure, Survival, Therapeutic, Tuberculosis, Understanding

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Abstract: The recent completion of drilling at Vostok station in East Antarctica has allowed the extension of the ice record of atmospheric composition and climate to the past four glacial-interglacial cycles. The succession of changes through each climate cycle and termination was similar, and atmospheric;and climate properties oscillated between stable bounds. Interglacial periods differed in temporal evolution and duration. Atmospheric: concentrations of carbon dioxide and methane correlate well with Antarctic air-temperature throughout the record. Present-day atmospheric burdens of these two important greenhouse gases seem to have been unprecedented during the past 420,000 years.

Keywords: Age, CO2, Dust, East Antarctica, England, Future, Greenland Climate, History, Last Glacial Period, Multidisciplinary, North-Atlantic, Record, Sensitivity

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Abstract: The world’s largest earthquakes occur along the contact between subducting and overriding tectonic plates in subduction zones(1). Rock and sediment properties near this plate interface exert important controls on the frictional behaviour of faults and earthquake rupture dynamics(2). An important material property to define along the plate interface is the rigidity (the resistance to shear deformation). Rigidity affects; the degree of earthquake shaking generated by a given fault displacement through its influences on seismic wave speed and earthquake rupture velocity. Here we present an investigation of the relationship between the duration of earthquake rupture and source depth, which yields estimates of rigidity variation along plate interfaces in six subduction zones in the circum-Pacific region. If stress drop is assumed constant, rigidity appears to increase with depth in each seismogenic zone by a factor of similar to 5 between depths of 5 and 20 km. This result is consistent with the hypothesis that ‘tsunami’ earthquakes (characterized by large slip for a given seismic moment and slow rupture velocity) occur in regions of low rigidity at shallow depths(3-5). These rigidity trends should provide lan important constraint for future fault-zone and earthquake-modelling efforts.

Keywords: Arc, Convergent Margins, Crust, Erosion, Japan, Rupture Process, Sediment, Tsunami Earthquakes

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Keywords: Professors, Students

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Abstract: Small synthetic molecules called growth-hormone secretagogues (GHSs)(1-3) stimulate the release of growth hormone (GH) from the pituitary(4,5). They act through GHS-R, a G-protein-coupled receptor for which the ligand is unknown. Recent cloning of GHS-R-6,R-7 strongly suggests that an endogenous ligand for the receptor does exist and that there is a mechanism for regulating GH release that is distinct from its regulation by hypothalamic growth-hormone-releasing hormone (GHRH)(4,5). We now report the purification and identification in rat stomach of an endogenous ligand specific for GHS-R. The purified ligand is a peptide of 28 amino acids, in which the serine 3 residue is n-octanoylated. The acylated peptide specifically releases GH both in vivo and in vitro, and O-n-octanoylation at serine 3 is essential for the activity. We designate the GH-releasing peptide ‘ghrelin’ (ghre is the Proto-Indo-European root of the word ‘grow’). Human ghrelin is homologous to rat ghrelin apart from two amino acids. The occurrence of ghrelin in both rat and human indicates that GH release from the pituitary may be regulated not only by hypothalamic GHRH, but also by ghrelin.

Keywords: Amino Acids, Brain, Cloning, Growth, Growth Hormone, Human, Identification, Ligand, Mechanism, Natriuretic Peptide, Neuropeptides, Pituitary, Purification, Rat, Receptor, Regulation, Release, Secretagogue

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Abstract: It is generally agreed that the origin and initial diversification of Eucarya occurred in the late Archaean or Proterozoic Eons when atmospheric oxygen levels were low and the risk of DNA damage due to ultraviolet radiation was high. Because deep water provides refuge against ultraviolet radiation and early eukaryotes may have been aerotolerant anaerobes, deep-water dysoxic environments are likely settings for primeval eukaryotic diversification. Fossil evidence shows that deep-sea microbial mats, possibly of sulphur bacteria similar to Beggiatoa, existed during that time. Here we report on the eukaryotic community of a modern analogue, the Santa Barbara Basin (California, USA). The Beggiatoa mats of these severely dysoxic and sulphidic sediments support a surprisingly abundant protistan and metazoan meiofaunal community, most members of which harbour prokaryotic symbionts. Many of these taxa are new to science, and both microaerophilic and anaerobic taxa appear to be represented. Compared with nearby aerated sites, the Santa Barbara Basin is a ‘symbiosis oasis’ offering a new source of organisms for testing symbiosis hypotheses of eukaryogenesis.

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Abstract: Diffuse large B-cell lymphoma (DLBCL), the most common subtype of non-Hodgkin’s lymphoma, is clinically heterogeneous: 40% of patients respond well to current therapy and have prolonged survival, whereas the remainder succumb to the disease. We proposed that this variability in natural history reflects unrecognized molecular heterogeneity in the tumours, Using DNA microarrays, we have conducted a systematic characterization of gene expression in B-cell malignancies. Here we show that there is diversity in gene expression among the tumours of DLBCL patients, apparently reflecting the variation in tumour proliferation rate, host response and differentiation state of the tumour. We identified two molecularly distinct forms of DLBCL which had gene expression patterns indicative of different stages of B-cell differentiation. One type expressed genes characteristic of germinal centre B cells (‘germinal centre B-like DLBCL’); the second type expressed genes normally induced during in vitro activation of peripheral blood B cells (‘activated B-like DLBCL’), Patients with germinal centre B-like DLBCL had a significantly better overall survival than those with activated B-like DLBCL, The molecular classification of tumours on the basis of gene expression can thus identify previously undetected and clinically significant subtypes of cancer.

Keywords: Activation, Antigen, Bcl-6 Expression, Blood, Cancer, Characterization, Chromosomal Translocation, Classification, Disease, Diversity, Dna, Expression, Forms, Gene, Gene Expression, Gene Expression Profiling, Germinal-Center Formation, Heterogeneity, History, Host, Induced, Lymphoma, Molecular-Cloning, Natural, Non-Hodgkins-Lymphoma, Patients, Peripheral Blood, Profiling, Prognostic-Significance, Proliferation, Prolonged, Protein Expression, State, Survival, Therapy, Transcription, Variability

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Abstract: Consenrationists are far from able to assist all species under threat, if only for lack of funding. This places a premium on priorities: how can we support the most species at the least cost? One way is to identify ‘biodiversity hotspots’ where exceptional concentrations of endemic species are undergoing exceptional loss of habitat. As many as 44% of all species of vascular plants and 35% of all species in four vertebrate groups are confined to 25 hotspots comprising only 1.4% of the land surface of the Earth. This opens the way for a ‘silver bullet’ strategy on the part of conservation planners, focusing on these hotspots in proportion to their share of the world’s species at risk.

Keywords: Areas, Biodiversity, Birds, Conservation, Cost, Diversity, Extinction, Forest, Funding, Habitat, Plants, Richness, Risk, Silver, Species, Strategy, Support, Surface

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Abstract: The direct electrochemical oxidation of dry hydrocarbon fuels to generate electrical power has the potential to accelerate substantially the use of fuel cells in transportation and distributed-power applications(1). Most fuel-cell research has involved the use of hydrogen as the fuel, although the practical generation and storage of hydrogen remains an important technological hurdle(2). Methane has been successfully oxidized electrochemically(3-6), but the susceptibility to carbon formation from other hydrocarbons that may be present or poor power densities have prevented the application of this simple fuel in practical applications(1). Here we report the direct, electrochemical oxidation of various hydrocarbons (methane, ethane, 1-butene, n-butane and toluene) using a solid-oxide fuel cell at 973 and 1,073 K with a composite anode of copper and ceria (or samaria-doped ceria). We demonstrate that the final products of the oxidation are CO2 and water, and that reasonable power densities can be achieved. The observation that a solid-oxide fuel cell can be operated on dry hydrocarbons, including liquid fuels, without reforming suggests that this type of fuel cell could provide an alternative to hydrogen-based fuel-cell technologies.

Keywords: Methane, Ceria

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Abstract: Human breast tumours are diverse in their natural history and in their responsiveness to treatments(1). Variation in transcriptional programs accounts for much of the biological diversity of human cells and tumours. In each cell, signal transduction and regulatory systems transduce information from the cell’s identity to its environmental status, thereby controlling the level of expression of every gene in the genome. Here we have characterized variation in gene expression patterns in a set of 65 surgical specimens of human breast tumours from 42 different individuals, using complementary DNA microarrays representing 8,102 human genes. These patterns provided a distinctive molecular portrait of each tumour. Twenty of the tumours were sampled twice, before and after a 16-week course of doxorubicin chemotherapy, and two tumours were paired with a lymph node metastasis from the same patient. Gene expression patterns in two tumour samples from the same individual were almost always more similar to each other than either was to any other sample. Sets of co-expressed genes were identified for which variation in messenger RNA levels could be related to specific features of physiological variation. The tumours could be classified into subtypes distinguished by pervasive differences in their gene expression patterns.

Keywords: Amplification, Benign, Biological, Biological Diversity, Cancer, Carcinomas, Cdna Microarrays, Chemotherapy, Complementary, Course, Diversity, DNA, Environmental, Expression, Gene, Gene Expression, Gene-Expression, History, Human, Information, Malignant Breast, Mammary Epithelial-Cells, Metastasis, Natural, Patterns, Rna, Signal Transduction, Systems

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Abstract: Giant tsunamis, generated by submarine landslides in the Hawaiian Islands, have been thought to be responsible for the deposition of chaotic gravels high on the southern coastal slopes of the islands of Lana’i and Moloka’i, Hawaii. Here we investigate this hypothesis, using uranium-thorium dating of the Hulopoe gravel (on Lana’i) and a study of stratigraphic relationships, such as facies changes and hiatuses, within the deposit. The Hulopoe gravel contains corals of two age groups, representing marine isotope stages be and 7 (similar to 135,000 and 240,000 years ago, respectively), with significant geographical and stratigraphic ordering. We show that the Hulopoe gravel was formed by multiple depositional events, separated by considerable periods of time, thus invalidating the main premise of the ‘giant wave’ hypothesis. Instead, the gravels were probably deposited during interglacial periods (when sea level was relatively high) by typical Hawaiian shoreline processes such as seasonal wave patterns, storm events and possibly ‘normal’ tsunamis, and reached their present height by uplift: of Lana’i.

Keywords: Corals, Diagenesis, Hawaii, Island, Last Interglacial Period, Oahu, Sea-Level, Subsidence, TH-230 Ages, Wave

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Abstract: The human genome holds an extraordinary trove of information about human development, physiology, medicine and evolution. Here we report the results of an international collaboration to produce and make freely available a draft sequence of the human genome. We also present an initial analysis of the data, describing some of the insights that can be gleaned from the sequence.

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Abstract: In the light of the tremendous progress that has been made in raising the transition temperature of the copper oxide superconductors (for a review, see ref. 1), it is natural to wonder how high the transition temperature, Tc, can be pushed in other classes of materials. At present, the highest reported values of T-c for non-copper-oxide bulk superconductivity are 33 K in electron-doped CsxRbyC60 (ref. 2), and 30 K in Ba1-xKxBiO3 (ref. 3). (Hole-doped C-60 was recently found(4) to be superconducting with a T-c as high as 52 K, although the nature of the experiment meant that the supercurrents were confined to the surface of the C-60 crystal, rather than probing the bulk.) Here we report the discovery of bulk superconductivity in magnesium diboride, MgB2. Magnetization and resistivity measurements establish a transition temperature of 39 K, which we believe to be the highest yet determined for a non-copper-oxide bulk superconductor.

Keywords: C60, Copper, Discovery, Experiment, Magnesium, Mar, Natural, Oxide, Progress, Resistivity, Review, Surface, Temperature

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Abstract: RNA interference (RNAi) is the process of sequence-specific, post-transcriptional gene silencing in animals and plants, initiated by double-stranded RNA (dsRNA) that is homologous in sequence to the silenced gene(1-4). The mediators of sequence-specific messenger RNA degradation are 21- and 22-nucleotide small interfering RNAs (siRNAs) generated by ribonuclease III cleavage from longer dsRNAs(5-9). Here we show that 21-nucleotide siRNA duplexes specifically suppress expression of endogenous and heterologous genes in different mammalian cell lines, including human embryonic kidney (293) and HeLa cells. Therefore, 21-nucleotide siRNA duplexes provide a new tool for studying gene function in mammalian cells and may eventually be used as gene-specific therapeutics.

Keywords: Animals, Cleavage, Degradation, Double-Stranded-Rna, Drosophila Cells, Embryonic, Expression, Function, Gene, Human, Inhibition, Kidney, Methylation, Plants, Protein-Kinase, Rna, Small

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Abstract: Nanostructured carbon materials are potentially of great technological interest for the development of electronic(1,2), catalytic(3,4) and hydrogen-storage systems(5,6). Here we describe a general strategy for the synthesis of highly ordered, rigid arrays of nanoporous carbon having uniform but tunable diameters (typically 6 nanometres inside and 9 nanometres outside). These structures are formed by using ordered mesoporous silicas as templates, the removal of which leaves a partially ordered graphitic framework. The resulting material supports a high dispersion of platinum nanoparticles, exceeding that of other common microporous carbon materials (such as carbon black, charcoal and activated carbon fibres). The platinum cluster diameter can be controlled to below 3 nanometres, and the high dispersion of these metal clusters gives rise to promising electrocatalytic activity for oxygen reduction, which could prove to be practically relevant for fuel-cell technologies. These nanomaterials can also be prepared in the form of free-standing films by using ordered silica films as the templates.

Keywords: Mesoporous Silica**,** Xenon-Adsorption**,** Molecular-Sieves**,** Oxygen Reduction**,** Nanotubes**,** Zeolite**,** Nanostructures**,** Particles**,** Catalysis**,** Hydrogen

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Abstract: Most cellular processes are carried out by multiprotein complexes. The identification and analysis of their components provides insight into how the ensemble of expressed proteins (proteome) is organized into functional units. We used tandem-affinity purification (TAP) and mass spectrometry in a large-scale approach to characterize multiprotein complexes in Saccharomyces cerevisiae. We processed 1,739 genes, including 1,143 human orthologues of relevance to human biology, and purified 589 protein assemblies. Bioinformatic analysis of these assemblies defined 232 distinct multiprotein complexes and proposed new cellular roles for 344 proteins, including 231 proteins with no previous functional annotation. Comparison of yeast and human complexes showed that conservation across species extends from single proteins to their molecular environment. Our analysis provides an outline of the eukaryotic proteome as a network of protein complexes at a level of organization beyond binary interactions. This higher-order map contains fundamental biological information and offers the context for a more reasoned and informed approach to drug discovery.

Keywords: Saccharomyces-Cerevisiae, Mass-Spectrometry, Genomic Analysis, Gene-Expression, Identification, Subunits, Generation, Cell

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Abstract: Breast cancer patients with the same stage of disease can have markedly different treatment responses and overall outcome. The strongest predictors for metastases (for example, lymph node status and histological grade) fail to classify accurately breast tumours according to their clinical behaviour(1-3). Chemotherapy or hormonal therapy reduces the risk of distant metastases by approximately one-third; however 70-80% of patients receiving this treatment would have survived without it(4,5). None of the signatures of breast cancer gene expression reported to date(6-12) allow for patient-tailored therapy strategies. Here we used DNA microarray analysis supervised classification to identify a gene expression signature strongly predictive of a short interval to distant metastases (‘poor prognosis’ signature) in patients without tumour cells in local lymph nodes at diagnosis (lymph node negative). In addition, we established a signature that identifies tumours of BRCA1 carriers. The poor prognosis signature consists of genes regulating cell cycle, invasion, metastasis and angiogenesis. This gene expression profile will outperform all currently used clinical parameters in predicting disease outcome. Our findings provide a strategy to select patients who would benefit from adjuvant therapy.

Keywords: Analysis, Angiogenesis, Brca1, Breast Cancer, Cancer, Cell Cycle, Classification, Clinical, Diagnosis, Disease, DNA, Expression, Gene, Gene Expression, Interval, Local, Metastases, Metastasis, Microarray, Microarray Analysis, Outcome, Patients, Patterns, Predictive, Predictors, Profiling, Prognosis, Risk, Sporadic Breast, Strategy, Therapy, Treatment, Tumors

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Keywords: Researchers

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Abstract: Tropical peatlands are one of the largest near-surface reserves of terrestrial organic carbon, and hence their stability has important implications for climate change(1-3). In their natural state, lowland tropical peatlands support a luxuriant growth of peat swamp forest overlying peat deposits up to 20 metres thick(4,5). Persistent environmental change-in particular, drainage and forest clearing-threatens their stability 2, and makes them susceptible to fire(6). This was demonstrated by the occurrence of widespread fires throughout the forested peatlands of Indonesia(7-10) during the 1997 El Nino event. Here, using satellite images of a 2.5 million hectare study area in Central Kalimantan, Borneo, from before and after the 1997 fires, we calculate that 32% (0.79 Mha) of the area had burned, of which peatland accounted for 91.5% (0.73 Mha). Using ground measurements of the burn depth of peat, we estimate that 0.19-0.23 gigatonnes (Gt) of carbon were released to the atmosphere through peat combustion, with a further 0.05 Gt released from burning of the overlying vegetation. Extrapolating these estimates to Indonesia as a whole, we estimate that between 0.81 and 2.57 Gt of carbon were released to the atmosphere in 1997 as a result of burning peat and vegetation in Indonesia. This is equivalent to 13-40% of the mean annual global carbon emissions from fossil fuels, and contributed greatly to the largest annual increase in atmospheric CO2 concentration detected since records began in 1957 (ref. 1).

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Abstract: Recent data have expanded the concept that inflammation is a critical component of tumour progression. Many cancers arise from sites of infection, chronic irritation and inflammation. It is now becoming clear that the tumour microenvironment, which is largely orchestrated by inflammatory cells, is an indispensable participant in the neoplastic process, fostering proliferation, survival and migration. In addition, tumour cells have co-opted some of the signalling molecules of the innate immune system, such as selectins, chemokines and their receptors for invasion, migration and metastasis. These insights are fostering new antiinflammatory therapeutic approaches to cancer development.

Keywords: Angiogenesis, Carcinogenesis, Expression, Growth, Helicobacter-Pylori, Macrophage Infiltration, Mast-Cells, Metastasis, Migration, P-Selectin, Tumor Stroma

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Abstract: Over the past 100 years, the global average temperature has increased by approximately 0.6 degreesC and is projected to continue to rise at a rapid rate(1). Although species have responded to climatic changes throughout their evolutionary history(2), a primary concern for wild species and their ecosystems is this rapid rate of change(3). We gathered information on species and global warming from 143 studies for our meta-analyses. These analyses reveal a consistent temperature-related shift, or ‘fingerprint’, in species ranging from molluscs to mammals and from grasses to trees. Indeed, more than 80% of the species that show changes are shifting in the direction expected on the basis of known physiological constraints of species. Consequently, the balance of evidence from these studies strongly suggests that a significant impact of global warming is already discernible in animal and plant populations. The synergism of rapid temperature rise and other stresses, in particular habitat destruction, could easily disrupt the connectedness among species and lead to a reformulation of species communities, reflecting differential changes in species, and to numerous extirpations and possibly extinctions.

Keywords: Information, Primary

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Keywords: Hokkaido, Japan, Kamchatka, Recurrence, Subduction Zone

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Keywords: Complex, Crohns-Disease, Diversity, Estimating Recombination, Genetic-Variation, Human Genome, Linkage-Disequilibrium, Sequence Variation, Single-Nucleotide Polymorphisms, Susceptibility

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Keywords: Mortality; Africa; Burden; Transmission; Population; Morbidity; Children; Absence; Disease; World

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Keywords: Access, Charge, Conductivity, Electron Transport, Experiment, Experimental, First, Graphite, Minimum, Nov, Particles, States, Systems, Theory, Transport, Understanding, Value

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Keywords: Organic-Matter, Nitrogen Mineralization, Microbial Respiration, Ecosystem Respiration, Plant Respiration, Gene-Expression, Lignin Control, CO2 Emissions, Tundra Soils, Forest Soils

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Keywords: Association, Differences, Differentiation, Efficacy, Genes, Genetic, Genetic Association, Genome-Wide Association, Hapmap Project, Hot-Spots, Human, Human-Populations, Identity, Linkage Disequilibrium, Meiotic Recombination, Natural, Natural-Selection, Polymorphisms, Power, Recessive Traits, Single Nucleotide, Strength, Systematic, Tag Snps

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Abstract: One of the most pervasive problems afflicting people throughout the world is inadequate access to clean water and sanitation. Problems with water are expected to grow worse in the coming decades, with water scarcity occurring globally, even in regions currently considered water- rich. Addressing these problems calls out for a tremendous amount of research to be conducted to identify robust new methods of purifying water at lower cost and with less energy, while at the same time minimizing the use of chemicals and impact on the environment. Here we highlight some of the science and technology being developed to improve the disinfection and decontamination of water, as well as efforts to increase water supplies through the safe re- use of wastewater and efficient desalination of sea and brackish water.

Keywords: Of-the-Art; Poly(Vinylidene Fluoride) Membranes; Carbon Nanotube Membranes; Granular Activated Carbon; Ultrafiltration Membranes; Polymer Membranes; Drinking-Water; Nanofiltration Membranes; Surface Segregation; Waste-Water

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Keywords: Research

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Keywords: Critical Ricochet Angle, Model, Plagiarism

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Full Text: 2009\Nature462, 704.pdf

Keywords: Iran, Management, Plagiarism, Risk, Supplier Networks

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Full Text: 2009\Nature462, 847.pdf

Keywords: Plagiarism

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Full Text: [2010\Nature466, 159.pdf](2010/Nature466,%20159.pdf)

Keywords: Plagiarism

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Full Text: [2010\Nature466, 167.pdf](2010/Nature466,%20167.pdf)

Keywords: Journals, Plagiarism

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Full Text: [2010\Nature467, 43.pdf](2010/Nature467,%2043.pdf)

Abstract: China is the world’s most populous country and a major emitter of greenhouse gases. Consequently, much research has focused on China’s influence on climate change but somewhat less has been written about the impact of climate change on China. China experienced explosive economic growth in recent decades, but with only 7% of the world’s arable land available to feed 22% of the world’s population, China’s economy may be vulnerable to climate change itself. We find, however, that notwithstanding the clear warming that has occurred in China in recent decades, current understanding does not allow a clear assessment of the impact of anthropogenic climate change on China’s water resources and agriculture and therefore China’s ability to feed its people. To reach a more definitive conclusion, future work must improve regional climate simulations-especially of precipitation-and develop a better understanding of the managed and unmanaged responses of crops to changes in climate, diseases, pests and atmospheric constituents.

Keywords: Yangtze-River Basin, Last 50 Years, Yellow-River, Carbon-Dioxide, Future Climate, Winter-Wheat, Elevated CO2, Tibetan Plateau, Northwest China, Spring Wheat

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Full Text: [2010\Nature467, 153.pdf](2010/Nature467,%20153.pdf)

Keywords: Chinese Journal, Journal

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Full Text: [2010\Nature467, 555.pdf](2010/Nature467,%20555.pdf)

Abstract: Protecting the world’s freshwater resources requires diagnosing threats over a broad range of scales, from global to local. Here we present the first worldwide synthesis to jointly consider human and biodiversity perspectives on water security using a spatial framework that quantifies multiple stressors and accounts for downstream impacts. We find that nearly 80% of the world’s population is exposed to high levels of threat to water security. Massive investment in water technology enables rich nations to offset high stressor levels without remedying their underlying causes, whereas less wealthy nations remain vulnerable. A similar lack of precautionary investment jeopardizes biodiversity, with habitats associated with 65% of continental discharge classified as moderately to highly threatened. The cumulative threat framework offers a tool for prioritizing policy and management responses to this crisis, and underscores the necessity of limiting threats at their source instead of through costly remediation of symptoms in order to assure global water security for both humans and freshwater biodiversity.

Keywords: American Fresh-Water, Conservation, Marine, Vulnerability, Indicators, Challenges, Ecosystems, Resources, Map

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Keywords: Ethics, Self-Plagiarism

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Full Text: [2011\Nature470, 39.pdf](../Bibliometric%20References/2011/Nature470,%2039.pdf)

Keywords: Music, Science, Self-Plagiarism

# Title: Nature Biotechnology

Full Journal Title: [Nature Biotechnology](http://www.nature.com/nbt/archive/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Notes: highly cited

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Full Text: [1996\Nat Bio14, 1129.pdf](1996/Nat%20Bio14,%201129.pdf)

Abstract: Taxus cell culture may be an alternative source of paclitaxel and related taxane production. Significantly increased amounts of paclitaxel and baccatin III were observed in cultured cells of Taxus species after exposure to methyl jasmonate. Among the three species of Taxus tested, Taxus media showed the highest paclitaxel content while Taxus baccata showed the highest baccatin III content when 100 mu M of methyl jasmonate was added to the culture media. Furthermore, the activities of methyl jasmonate and related substances for inducing paclitaxel production were compared in cell suspension cultures of T. media. Methyl jasmonate and its free acid showed the strongest promoting activity. Reduction of the keto group at the C-3 position greatly reduced this activity. cis-Jasmone, which does not have a carboxyl group at the C-1 position, had almost no activity. These results suggest that these two regions of methyl jasmonate are important for promoting the production of paclitaxel and related taxanes in Taxus cell cultures.

Keywords: Paclitaxel, Baccatin III, Methyl Jasmonate, Taxus Cell Suspension Cultures, Taxol Production, Acid, Brevifolia, Growth, Accumulation, Biosynthesis, Initiation, Cuspidata, Agent, Leaf

Notes: highly cited

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Full Text: [1999\Nat Bio17, 969.pdf](1999/Nat%20Bio17,%20969.pdf)

Abstract: We have cloned six fluorescent proteins homologous to the green fluorescent protein (GFP) from Aequorea victoria, Two of these have spectral characteristics dramatically different from GFP, emitting at yellow and red wavelengths. All the proteins were isolated from nonbioluminescent reef corals, demonstrating that GFP-like proteins are not always functionally linked to bioluminescence. The new proteins share the same beta-can fold first observed in GFP, and this provided a basis for the comparative analysis of structural features important for fluorescence. The usefulness of the new proteins for in vivo labeling was demonstrated by expressing them in mammalian cell culture and in mRNA microinjection assays in Xenopus embryos.

Keywords: Anthozoa, Bioluminescence, Excitation, Extinction Coefficients, Fluorophore, Green Fluorescent Protein

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Full Text: [2003\Nat Bio21, 21.pdf](2003/Nat%20Bio21,%2021.pdf)

Keywords: Genetic, Literature

# Title: Nature Cell Biology

Full Journal Title: [Nature Cell Biology](http://www.nature.com/ncb/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1465-7392

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

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Full Text: [2004\Nat Cel Bio6, 68.pdf](2004/Nat%20Cel%20Bio6,%2068.pdf)

# Title: Nature Climate Change

Full Journal Title: Nature Climate Change

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Huang, C.R., Barnett, A.G., Wang, X.M. and Tong, S.L. (2012), The impact of temperature on years of life lost in Brisbane, Australia. *Nature Climate Change*, **??** (??), ??-??.

Full Text: [2012\Nat Cli Cha-Huang](2012/Nat%20Cli%20Cha-Huang)

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Full Text: [2012\Nat Cli Cha-Huang1](2012/Nat%20Cli%20Cha-Huang1)

# Title: Nature Environment and Pollution Technology

Full Journal Title: Nature Environment and Pollution Technology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

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# Title: Nature Genetics

Full Journal Title: [Nature Genetics](http://www.nature.com/ng/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1061-4036

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

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Full Text: [2002\Nat Gen30, 13.pdf](2002/Nat%20Gen30,%2013.pdf)

Abstract: Recent genome-wide analyses of alternative splicing indicate that 40-60% of human genes have alternative splice forms, suggesting that alternative splicing is one of the most significant components of the functional complexity of the human genome. Here we review these recent results from bioinformatics studies, assess their reliability and consider the impact of alternative splicing on biological functions. Although the ‘big picture’ of alternative splicing that is emerging from genomics is exciting, there are many challenges. High-throughput experimental verification of alternative splice forms, functional characterization, and regulation of alternative splicing are key directions for research. We recommend a community-based effort to discover and characterize alternative splice forms comprehensively throughout the human genome.

Keywords: Pre-Messenger-Rna, Human Genes, Sequence, Introns, Consequences, Information, Database, Elegans

# Title: Nature Immunology

Full Journal Title: Nature Immunology

ISO Abbreviated Title:

JCR Abbreviated Title: Nat Immunol

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

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Full Text: [2006\Nat Imm7, 673.pdf](2006/Nat%20Imm7,%20673.pdf)

Keywords: Quality, Research, Research Quality

# Title: Nature Materials

Full Journal Title: [Nature Materials](http://www.nature.com/nmat/archive/)

ISO Abbreviated Title:

JCR Abbreviated Title: Nat Mater

ISSN: 1476-1122

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

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Full Text: [2004\Nat Mat3, 495.pdf](2004/Nat%20Mat3,%20495.pdf)

Keywords: Impact

Notes: highly cited

Arico, A.S., Bruce, P., Scrosati, B., Tarascon, J.M. and Van Schalkwijk, W. (2005), Nanostructured materials for advanced energy conversion and storage devices. *Nature Materials*, **4** (5), 366-377.

Full Text: [2005\Nat Mat4, 366.pdf](2005/Nat%20Mat4,%20366.pdf)

Abstract: New materials hold the key to fundamental advances in energy conversion and storage, both of which are vital in order to meet the challenge of global warming and the finite nature of fossil fuels. Nanomaterials in particular offer unique properties or combinations of properties as electrodes and electrolytes in a range of energy devices. This review describes some recent developments in the discovery of nanoelectrolytes and nanoelectrodes for lithium batteries, fuel cells and supercapacitors. The advantages and disadvantages of the nanoscale in materials design for such devices are highlighted.

Keywords: Carbon Nanotubes, Crystalline Polymer Electrolytes, Electrochemical Properties, Global, High-Capacity, Hydrogen Sorption Properties, Intercalation Electrodes, Italy, Lithium-Ion Batteries, Methanol Fuel-Cells, Nanoscale Materials, Oxygen Reduction, Review, Storage

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Full Text: [2005\Nat Mat4, 455.pdf](2005/Nat%20Mat4,%20455.pdf)

Abstract: Excitonic solar cells(1)-including organic, hybrid organic inorganic and dye-sensitized cells (DSCs)-are promising devices for inexpensive, large-scale solar energy conversion. The DSC is currently the most efficient(2) and stable(3) excitonic photocell. Central to this device is a thick nanoparticle film that provides a large surface area for the adsorption of light-harvesting molecules. However, nanoparticle DSCs rely on trap-limited diffusion for electron transport, a slow mechanism that can limit device efficiency, especially at longer wavelengths. Here we introduce a version of the dye-sensitized cell in which the traditional nanoparticle film is replaced by a dense array of oriented, crystalline ZnO nanowires. The nanowire anode is synthesized by mild aqueous chemistry and features a surface area up to one-fifth as large as a nanoparticle cell. The direct electrical pathways provided by the nanowires ensure the rapid collection of carriers generated throughout the device, and a full Sun efficiency of 1.5% is demonstrated, limited primarily by the surface area of the nanowire array.

Keywords: Adsorption, Aqueous, Back-Reaction, Chemistry, Conversion, Dependence, Diffusion, Energy, Films, Mechanism, Nanoparticle, Nanoporous TiO2, Nanostructured ZnO Electrodes, Nanowire, Nanowires, Organic, Photocarriers, Photocurrent, Recombination, Solar Cells, Surface Area, Temperature, Transport, USA, ZnO

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Full Text: [2007\Nat Mat6, 183.pdf](2007/Nat%20Mat6,%20183.pdf)

Abstract: Graphene is a rapidly rising star on the horizon of materials science and condensed-matter physics. This strictly two-dimensional material exhibits exceptionally high crystal and electronic quality, and, despite its short history, has already revealed a cornucopia of new physics and potential applications, which are briefly discussed here. Whereas one can be certain of the realness of applications only when commercial products appear, graphene no longer requires any further proof of its importance in terms of fundamental physics. Owing to its unusual electronic spectrum, graphene has led to the emergence of a new paradigm of ‘relativistic’ condensed-matter physics, where quantum relativistic phenomena, some of which are unobservable in high-energy physics, can now be mimicked and tested in table-top experiments. More generally, graphene represents a conceptually new class of materials that are only one atom thick, and, on this basis, offers new inroads into low-dimensional physics that has never ceased to surprise and continues to provide a fertile ground for applications.

Keywords: Dirac Fermions, Berrys Phase, Electronic-Structure, Bilayer Graphene, Graphite, Films, Gas, Semiconductors, Nucleation, Surface

? von Maltzahn, G., Park, J.H., Lin, K.Y., Singh, N., Schwöppe, C., Mesters, R., Berdel, W.E., Ruoslahti, E., Sailor, M.J. and Bhatia, S.N. (2011), Nanoparticles that communicate *in vivo* to amplify tumour targeting. *Nature Materials*, **10** (7), 545-552.

Full Text: [2011\Nat Mat10, 545.pdf](2011/Nat%20Mat10,%20545.pdf)

Abstract: Nanomedicines have enormous potential to improve the precision of cancer therapy, yet our ability to efficiently home these materials to regions of disease in vivo remains very limited. Inspired by the ability of communication to improve targeting in biological systems, such as inflammatory-cell recruitment to sites of disease, we construct systems where synthetic biological and nanotechnological components communicate to amplify disease targeting in vivo. These systems are composed of `signalling’ modules (nanoparticles or engineered proteins) that target tumours and then locally activate the coagulation cascade to broadcast tumour location to clot-targeted `receiving’ nanoparticles in circulation that carry a diagnostic or therapeutic cargo, thereby amplifying their delivery. We show that communicating nanoparticle systems can be composed of multiple types of signalling and receiving modules, can transmit information through multiple molecular pathways in coagulation, can operate autonomously and can target over 40 times higher doses of chemotherapeutics to tumours than non-communicating controls.

Keywords: Tissue Factor, Drug-Delivery, Plasmonic Properties, Synthetic Biology, Contrast Agent, Gene Delivery, Liposomes, Cells, Vasculature, Antibody

# Title: Nature Medicine

Full Journal Title: [Nature Medicine](http://www.nature.com/nm/index.html)

ISO Abbreviated Title: Nat. Med.

JCR Abbreviated Title: Nat Med

ISSN: 1078-8956

Issues/Year: 12

Journal Country/Territory: United States

Language: English

Publisher: Nature America Inc

Publisher Address: 345 Park Ave South, New York, NY 10010-1707

Subject Categories:

Biochemistry & Molecular Biology: Impact Factor 27.906, / (2001)

Cell Biology: Impact Factor 27.906, / (2001)

Medicine, Research & Experimental: Impact Factor 27.906, / (2001)

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Full Text: [2011\Nat Med17, 280.pdf](2011/Nat%20Med17,%20280.pdf)

Keywords: Cancer, Papers

# Title: Nature Methods

Full Journal Title: [Nature Methods](http://www.nature.com/nmeth/archive/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

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Full Text: [2007\Nat Met4, 675.pdf](2007/Nat%20Met4,%20675.pdf)

# Title: Nature Nanotechnology

Full Journal Title: Nature Nanotechnology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Notes: highly cited

? Li, D., Müller, M.B., Gilje, S., Kaner, R.B. and Wallace, G.G. (2008), Processable aqueous dispersions of graphene nanosheets. *Nature Nanotechnology*, **3** (2), 101-105.

Full Text: [2008\Nat Nan3, 101.pdf](2008/Nat%20Nan3,%20101.pdf)

Abstract: Graphene sheets offer extraordinary electronic, thermal and mechanical properties and are expected to find a variety of applications. A prerequisite for exploiting most proposed applications for graphene is the availability of processable graphene sheets in large quantities. The direct dispersion of hydrophobic graphite or graphene sheets in water without the assistance of dispersing agents has generally been considered to be an insurmountable challenge. Here we report that chemically converted graphene sheets obtained from graphite can readily form stable aqueous colloids through electrostatic stabilization. This discovery has enabled us to develop a facile approach to large-scale production of aqueous graphene dispersions without the need for polymeric or surfactant stabilizers. Our findings make it possible to process graphene materials using low-cost solution processing techniques, opening up enormous opportunities to use this unique carbon nanostructure for many technological applications.

Keywords: Exfoliated Graphite Oxide, Walled Carbon Nanotubes, Composite, Films, Nanoplatelets, Reduction, Chemistry, Sheets, Route

# Title: Nature Neuroscience

Full Journal Title: Nature Neuroscience

ISO Abbreviated Title:

JCR Abbreviated Title: Nat Neurosci

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

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Keywords: Impact, Impact Factor

# Title: Nature Protocols

Full Journal Title: [Nature Protocols](http://www.nature.com/nprot/archive/index.html)

ISO Abbreviated Title: Nat. Protoc.

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

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Full Text: 2006\Nat Pro1, 2661.pdf

Abstract: Among various water purification and recycling technologies, adsorption is a fast, inexpensive and universal method. The development of low-cost adsorbents has led to the rapid growth of research interests in this field. The present protocol describes salient features of adsorption and details experimental methodologies for the development and characterization of low-cost adsorbents, water treatment and recycling using adsorption technology including batch processes and column operations. The protocol describes the development of inexpensive adsorbents from waste materials, which takes only 1-2 days, and an adsorption process taking 15-120 min for the removal of pollutants. The applications of batch and column processes are discussed, along with suggestions to make this technology more popular and applicable.

# Title: Nature Reviews Drug Discovery

Full Journal Title: [Nature Reviews Drug Discovery](http://www.nature.com/nrd/archive/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Agarwal, P. and Searls, D.B. (2009), Can literature analysis identify innovation drivers in drug discovery? *Nature Reviews Drug Discovery*, **8** (11), 865-878.

Full Text: [2009\Nat Rev Dru Dis8, 865.pdf](2009/Nat%20Rev%20Dru%20Dis8,%20865.pdf)

Abstract: Drug discovery must be guided not only by medical need and commercial potential, but also by the areas in which new science is creating therapeutic opportunities, such as target identification and the understanding of disease mechanisms. To systematically identify such areas of high scientific activity, we use bibliometrics and related data-mining methods to analyse over half a terabyte of data, including PubMed abstracts, literature citation data and patent filings. These analyses reveal trends in scientific activity related to disease studied at varying levels, down to individual genes and pathways, and provide methods to monitor areas in which scientific advances are likely to create new therapeutic opportunities.

Keywords: Act, Antibiotics, Bibliometrics, Field, Impact, Networks, Publication, Science, Targets, Therapies, Trends

# Title: Nature Reviews Genetics

Full Journal Title: [Nature Reviews Genetics](http://www.nature.com/nrg/index.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1471-0056

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Hagen, J.B. (2000), The origins of bioinformatics. *Nature Reviews Genetics*, **1** (3), 231-236.

Full Text: [N\Nat Rev Gen1, 231.pdf](N/Nat%20Rev%20Gen1,%20231.pdf)

Abstract: Bioinformatics is often described as being in its infancy, but computers emerged as important tools in molecular biology during the early 1960s. A decade before DNA sequencing became feasible, computational biologists focused on the rapidly accumulating data from protein biochemistry. Without the benefits of supercomputers or computer networks. these scientists laid important conceptual and technical foundations for bioinformatics today.

Keywords: Information, Sequence, Biology, Life

# Title: Nature Reviews Immunology

Full Journal Title: Nature Reviews Immunology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Medzhitov, R., Shevach, E.M., Trinchieri, G., Mellor, A.L., Munn, D.H., Gordon, S., Libby, P., Hansson, G.K., Shortman, K., Dong, C., Gabrilovich, D., Gabrysova, L., Howes, A. and O’Garra, A. (2011), Highlights of 10 years of immunology in *Nature Reviews Immunology*. *Nature Reviews Immunology*, **11** (10), 693-702.

Full Text: [2011\Nat Rev Imm11, 693.pdf](2011/Nat%20Rev%20Imm11,%20693.pdf)

Abstract: As Nature Reviews Immunology reaches its 10(th) anniversary, the authors of one of the top-cited articles from each year take a trip down memory lane. We’ve asked them to look back on the state of research at the time their Review was published, to consider why the article has had the impact it has and to discuss the future directions of their field. This Viewpoint article provides an interesting snapshot of some of the fundamental advances in immunology over the past 10 years. Highlights include our improved understanding of Toll-like receptor signalling, and of immune regulation mediated by regulatory T cells, indoleamine 2,3-dioxygenase, myeloid-derived suppressor cells and interleukin-10. The complexities in the development and heterogeneity of macrophages, dendritic cells and T helper cells continue to engage immunologists, as do the immune processes involved in diseases such as atherosclerosis. We look forward to what the next 10 years of immunology research may bring.

Keywords: Authors, C-Reactive Protein, Dendritic Cells, Development, Heterodimeric Cytokine, IL-10 Production, Immune, Immune-Responses, Impact, Indoleamine 2,3-Dioxygenase, Memory, Precursor Cells, Regulatory T-Cells, Research, Review, Signalling, Stimulatory Factor, Suppressor-Cells

# Title: Nature Reviews Neuroscience

Full Journal Title: Nature Reviews Neuroscience

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Luo, L.Q., Rodriguez, E., Jerbi, K., Lachaux, J.P., Martinerie, J., Corbetta, M., Shulman, G.L., Piomelli, D., Turrigiano, G.G., Nelson, S.B., Joels, M., de Kloet, E.R., Holsboer, F., Amodio, D.M., Frith, C.D., Block, M.L., Zecca, L., Hong, J.S., Dantzer, R., Kelley, K.W. and Craig, A.D. (2010), Ten years of *Nature Reviews Neuroscience*: Insights from the highly cited. *Nature Reviews Neuroscience*, **11** (10), 718-726.

Full Text: [2010\Nat Rev Neu11, 718.pdf](2010/Nat%20Rev%20Neu11,%20718.pdf)

Abstract: To celebrate the first 10 years of Nature Reviews Neuroscience, we invited the authors of the most cited article of each year to look back on the state of their field of research at the time of publication and the impact their article has had, and to discuss the questions that might be answered in the next 10 years. This selection of highly cited articles provides interesting snapshots of the progress that has been made in diverse areas of neuroscience. They show the enormous influence of neuroimaging techniques and highlight concepts that have generated substantial interest in the past decade, such as neuroimmunology, social neuroscience and the ‘network approach’ to brain function. These advancements will pave the way for further exciting discoveries that lie ahead.

Keywords: Authors, Cannabinoid Receptor, Glucocorticoid-Receptor Gene, Highly Cited Articles, Homeostatic Synaptic Plasticity, Human Brain, Impact, Neurodegenerative Disease, Neurological Disorders, Publication, Research, Rho-Gtpases, Spatial Attention, Stimulus-Driven Attention, Visual-Cortex

# Title: Nature Structural & Molecular Biology

Full Journal Title: [Nature Structural & Molecular Biology](http://203.64.48.29/cgi-bin/er/browse.cgi?ccd=WEuxdI&o=e0&s=c-1-4337)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Feig, A.L. (2004), Challenge your teaching. *Nature Structural & Molecular Biology*, **11** (1), 16-19.

Full Text: [N\Nat Str Mol Bio11, 16.pdf](N/Nat%20Str%20Mol%20Bio11,%2016.pdf)

# Title: Natureza & Conservacao

Full Journal Title: Natureza & Conservacao

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Pinto, M.P. and Bini, L.M. (2008), Geographic and taxonomic biases in research on reserve selection: A quantitative analysis from 1992 to 2004. *Natureza & Conservacao*, **6** (1), 153-163.

Full Text: [2008\Nat Con6, 153.pdf](2008/Nat%20Con6,%20153.pdf)

Abstract: There is a growing trend in the number of publications about reserve selection. The objective of this study was to quantify the trends in literature within this sub area of conservation biology using scientometric analysis. The following information was obtained from articles found using key words related to reserve selection: journal, year of publication, country of authors and country of study, taxonomic group studied and the number of article citations. Of the 479 studies found in the search, 191 did some sort of reserve selection. Among the articles that did reserve selection, 27% were published in Biological Conservation and, although South Africa has been the most studied country, most of the authors were American. A large number of the studies were conducted in countries with high per capita income and which are not necessarily mega diverse. Vertebrates, especially birds and mammals, were the most considered group in the reserve selection process. This taxonomic bias has already been documented in several studies and may have been caused by the adoption of charismatic species and the shortage of data.

Keywords: Africa, Areas, Articles, Authorship, Bibliometrics, Biodiversity, Biologists, Chauvinism, Citations, Complementarity, Conservation, Diversity, Hotspots, Literature, Nations, Number of Publications, Priority Areas, Publication, Publications, Research, Science, Scientometrics, South Africa, Species, Trends

# Title: Naturwissenschaften

Full Journal Title: [Naturwissenschaften](http://springerlink.metapress.com/(wqca3u45vfpsls45ky11bbvh)/app/home/journal.asp?referrer=parent&backto=linkingpublicationresults,1:100479,1); [Naturwissenschaften](http://www.springerlink.com/app/home/journal.asp?wasp=a81ed58ff443423ea9c8782756cbb2e2&referrer=parent&backto=linkingpublicationresults,1:100479,1); [Naturwissenschaften](http://springerlink.metapress.com/(yyfbbkewjhjftfa34vu0k3qc)/app/home/journal.asp?referrer=parent&backto=linkingpublicationresults,1:100479,1)

ISO Abbreviated Title: Naturwissenschaften

JCR Abbreviated Title: Naturwissenschaften

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? London, F. and Polanyi, M. (1930), Über die atomtheoretische Deutung der Adsorptionskräfte. *Naturwissenschaften*, **18** (50), 1099-1100.

Full Text: [-1959\Naturwissenschaften18, 1099.pdf](-1959/Naturwissenschaften18,%201099.pdf)

? London, F. and Polanyi, M. (1930), About the atomic theory analysis of the adsorption forces. *Naturwissenschaften*, **18**, 1099-1100.

# Title: Nauchno-Tekhnicheskaya Informatsiya

Full Journal Title: Nauchno-Tekhnicheskaya Informatsiya

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mikhailo, A.I., Chernyi, A.I. and Gilyarev, R.S. (1966), Informatics: A new name for science information theory. *Nauchno-Tekhnicheskaya Informatsiya*, (12), 35-??.

# Title: Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty

Full Journal Title: Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Zhdanova, G.S. and Kobzeva, L.V. (1972), Serials and periodicals in informatics and allied fields of knowledge. *Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty*, (1), 19-??.

? Khlebnik, R.A. (1969), New tasks of informatics and role of scientist-cumabstractor. *Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty*, (2), 25-??.

? Stoeva, L. and Shekerdzhiiska, I. (1993), Bibliometric analysis of publications on superconductivity. *Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty*, (5), 20-23.

Keywords: Bibliometric, Bibliometric Analysis, Publications

? Goldgame, G.I. (1971), Terminology of informatics and information activities. *Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty*, (6), 5-??.

? Lantsber, G.S. (1972), Topical problems of informatics - theory and practice - russian - Popov, AS. *Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty*, (6), 27-28.

? Mamaev, V.M. (1973), Patent terminology of informatics. *Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty*, (6), 36-37.

? Shekhuri, D.E. and Feldblyu, I.S. (1969), Writers culture in informatics. *Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty*, (8), 11-??.

? Polushki, V.A. (1971), Some terms in informatics. *Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty*, (9), 5-??.

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? Milman, B.L. and Gavrilova, Y.A. (1990), Clustering the Science Citation Index as the method of scientometric analysis of general chemical-technology. *Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty*, (12), 24-28

Keywords: Co-Citations, Science Citation Index

? Tomov, D.T. (1993), Bibliometric Analysis of Internationalization of Modern Interdisciplinary Science. *Nauchno-Tekhnicheskaya Informatsiya Seriya 1-Organizatsiya I Metodika Informatsionnoi Raboty*, (10), 30-32

Keywords: Bibliometric, Bibliometric Analysis, Internationalization, Science

# Title: Nauchno-Tekhnicheskaya Informatsiya Seriya 2-Informatsionnye Protsessy I Sistemy

Full Journal Title: Nauchno-Tekhnicheskaya Informatsiya Seriya 2-Informatsionnye Protsessy I Sistemy

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Ursul, A.D. (1967), Some problems of methods of informatics (information science theory). *Nauchno-Tekhnicheskaya Informatsiya Seriya 2-Informatsionnye Protsessy I Sistemy*, (7), 3-??.

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? Muskhelishvili, N.L., Oganyan, E.A. and Shreider, Y.A. (1987), Analysis of self-citation as a method for studying the formation of scientific views and perceptions of the author. *Nauchno-Tekhnicheskaya Informatsiya Seriya 2-Informatsionnye Protsessy I Sistemy*, (12), 10-15.

# Title: Nauchnye Doki Vyss Shkoly Biol Nauki

Full Journal Title: Nauchnye Doki Vyss Shkoly Biol Nauki

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Zubchenko, I.A. and Petrova, T.A. (1973), Biosorption of amino acids by the leech, Hirudo medicinalis. *Nauchnye Doki Vyss Shkoly Biol Nauki*, **110** (2), 7-11.

# Title: Naunyn-Schmiedebergs Archives of Pharmacology

Full Journal Title: [Naunyn-Schmiedebergs Archives of Pharmacology](http://springerlink.metapress.com/app/home/journal.asp?wasp=34gnnjrhupdn491hfj6u&referrer=parent&backto=searchpublicationsresults,1,1;)

ISO Abbreviated Title: Naunyn-Schmiedebergs Arch. Pharmacol.

JCR Abbreviated Title: N-S Arch Pharmacol

ISSN: 0028-1298

Issues/Year: 12

Journal Country/Territory: Germany

Language: English

Publisher: Springer Verlag

Publisher Address: 175 Fifth Ave, New York, NY 10010

Subject Categories:

Pharmacology & Pharmacy: Impact Factor181 (2000)

? Till, M., Behnisch, P., Hagenmaier, H., Bock, K.W. and Schrenk, D. (1997), EROD-bioanalysis of ‘dioxin-like’ compounds of incinerator fly ashes. *Naunyn-Schmiedebergs Archives of Pharmacology*, **355** (4 SS), 581.

# Title: NEC Research & Development

Full Journal Title: NEC Research & Development

ISO Abbreviated Title: NEC Res. Dev.

JCR Abbreviated Title: Nec Res Dev

ISSN: 0547-051X

Issues/Year: 4

Journal Country/Territory: Japan

Language: English

Publisher: NEC Corporation

Publisher Address: 7-1 Shiba 5-Chome, Minato-Ku, Tokyo 108-01, Japan

Subject Categories:

Engineering, Electrical & Electronic: Impact Factor

? Toyoda, A. and Taira, T. (1998), A novel treatment system for fluorine wastewater. *NEC Research & Development*, **39** (2), 106-110.

Abstract: A novel technique for treating fluorine wastewater has been developed in order to reduce sludge. This technique utilizes the dependence of solubility and adsorption characteristics of Al (OH)3 gel on pH, and uses Al (OH)3 gel itself repeatedly as a fluorine adsorbent. The reclamation process of AI (OH) (3) gel involves varying the pH level of its slurry to allow Al (OH)3 gel to desorb fluorine and be dissolved as an aluminate ion. The system applying this technique can treat fluorine wastewater to several ppm at low-cost, and reduce the resulting volume of sludge to a level one-thirtieth the amount produced by the conventional treatment method.

Keywords: Fluorine, Wastewater, Treatment, Sludge, Aluminum Hydroxide, Adsorbent

# Title: Nederlands Tijdschrift voor Geneeskunde

Full Journal Title: Nederlands Tijdschrift voor Geneeskunde

ISO Abbreviated Title:

JCR Abbreviated Title: Ned Tijdschr Geneeskd

ISSN: 0028-2162

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Hofman, L. (1993), The impact factor of dental journals. *Nederlands Tijdschrift voor Tandheelkunde*, **100** (12), 542.

Keywords: Impact, Impact Factor, Journals

? van Duursen, R.A., Hart, W. and Overbeke, A.J. (2000), Increase of the proportion of women physicians published in the Dutch Journal of Medicine (1948-1998), stable proportion of male physicians. *Nederlands Tijdschrift voor Geneeskunde*, **144** (24), 1171-1174.

Abstract: OBJECTIVE: To determine the number of female authors in six volumes of the Nederlands Tijdschrift voor Geneeskunde (NTvG) and the number of physicians who contributed to at least one article in those volumes. DESIGN: Retrospective. METHOD: We counted the number of articles in the NTvG in 10 different article categories in volumes 1948, 1958, 1968, 1978, 1988 and 1998. The number of authors and the sex and profession of the authors were registered. No author was counted more than once per volume. The results were compared with the number of physicians in the Netherlands in those years. RESULTS: In the first 4 volumes studied 3-5% of the total number of authors were female (n = 19; 22; 21; 16); this increased to 10 and 21% in 1988 (125) and 1998 (326). The percentage of female physicians who contributed to at least one article in one volume was 0.7% in 1948 (5) and 1958 (9), and increased to 1.0 (83) and 1.4% (211) in 1988 and 1998. The percentage of male physicians who contributed to at least one article fluctuated between 2.4 (471) and 3.1% (325) between 1958 and 1998. The mean number of authors per article increased from 1.2 in 1948 (354 articles) to 3.3 in 1998 (472 articles). CONCLUSION: The number of female authors steadily increased in the past fifty years. The percentage of female physicians that contributed to at least one article in the NTvG doubled in the volumes investigated, while the percentage of male physicians remained stable.

Keywords: Design, Dutch, Female, First, Male, Physicians, Profession, Sex, The Netherlands, Volume, Women

? Van Eijkelenburg-Waterreus, Y.J. and Kaas, R. (2000), Increase of the proportion of women physicians published in the Dutch Journal of Medicine (1948-1998), stable proportion of male physicians. *Nederlands Tijdschrift voor Geneeskunde*, **144** (36), 1757.

Keywords: Dutch, Male, Physicians, Women

? Lagro-Janssen, A.L. (2000), Increase of the proportion of women physicians published in the Dutch Journal of Medicine (1948-1998), stable proportion of male physicians. *Nederlands Tijdschrift voor Geneeskunde*, **144** (36), 1757-1758.

Keywords: Dutch, Male, Physicians, Women

? van Ieperen, J.J., Overbeke, A.J. and Hart, W. (2001), Original articles in the *Netherlands Tijdschrift voor Geneeskunde* in the second part of the 20th century: Type of research described and the number and background of authors. *Nederlands Tijdschrift voor Geneeskunde*, **145** (1), 30-33.

Abstract: OBJECTIVE: To determine the quantitative changes in methods and number of authors of original articles (OA) describing a (medical) scientific study in the Nederlands Tijdschrift voor Geneeskunde (NTvG) during 6 volumes in the second part of the 20th century. DESIGN: Retrospective bibliometric. METHOD: All OA published in 1949, 1959, 1969, 1979, 1989 and 1999 were screened on describing a (medical) scientific study, the method used, the number of authors, (medical) students or interns being part of the author list, the number of disciplines of the authors and the institutes where the authors did the study. RESULTS: The volumes mentioned contained 888 OA. The percentage of OA describing the used method increased from 47 in 1949 to 98 in 1999. In these OS 52% of the designs were retrospective. The proportion of prospective studies increased, but never met 25% of all OA. The median number of authors increased from 1 (range: 1-5) in 1949 to 5 (1-16) in 1999. The median number of disciplines of the authors increased from 1 (1-2) in 1949 to 3 (1-6) in 1999. The percentage of OA with students or interns being part of the author list varied from 1 in 1949 to 13 in 1999. In 1969-1999 most OA were received from authors from universities or academic hospitals. The percentage of OA received from authors from academic hospitals in collaboration with general hospitals increased from 0 in 1949 to 15 in 1999. Randomized clinical trials and prospective studies were mainly received from authors from universities or academic hospitals. The part of retrospective studies was largest among OA received from authors from general hospitals (58%). CONCLUSION: In the second part of the 20th century the OA published in the NTvG changed. The number of authors increased. In recent years most authors were from universities or academic hospitals, although the proportion written by authors from these institutes in collaboration with those from general hospitals increased. Most OA described retrospective studies, the proportion received from authors from general hospitals being the largest. The percentage of OA describing prospective studies increased over the years.

Keywords: Bibliometric, Changes, Clinical, Clinical Trials, Collaboration, Design, General, Hospitals, Medical, Methods, Prospective, Prospective Studies, Research, Retrospective Studies, Students, the Netherlands, Universities

# Title: Nefrologia

Full Journal Title: Nefrologia

ISO Abbreviated Title: Nefrologia

JCR Abbreviated Title: Nefrologia

ISSN: 0211-6995

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Garcia, A.P. (2000), Bibliographic reference errors in *Nefrologia* 1981-95. A quality control procedure. *Nefrologia*, **20**, 23-28.

Abstract: The accuracy of the reference list is considered an essential factor in determining the quality of a scientific publication, and has been reviewed and published in several medical journals. The rate of citation errors in NEFROLOGIA has not been published before. The aim of this study has been to examine the accuracy of the references citation in the numbers of the journal published for a period of 15 years, from the first issue in 1981 to the last one on 1995. Material and methods: In this period 68 ordinary issues of the journal were published, with 520 original articles that constituted the data base, 87 articles were selected applying a fable of random numbers with 5 references of each article selected to be reviewed with a total of 435. The accuracy of the name of the authors, title of the article, volume, initial and last page and year of publication were evaluated, accordingly with the NEFROLOGIA normative. Citation errors were considered major or minor depending on whether they prevented or not the immediate retrieval of the article listed. Results: Of the 435 citations examined, 433 could be located, being impossible in 2 with the data supplied. In 189 (43,45%) 237 errors were detected, with 13,50% of them being considered major and 86,50% minor, with the greatest percentage of errors occurring in the data about the authors of the articles referenced 96 (40,50%). Conclusions: The issues of NEFROLOGIA published in this period present a high number of bibliographic reference errors, being the rate similar to other evaluated scientific periodical journals. This fact should be improved, and authors and reviewers should thoroughly check their references in order. to avoid these mistakes, as they affect the quality standard of the publication.

Keywords: Accuracy, Anesthesia, Authors Check, Citation, Citation Errors, Citations, Control, Data, Data Base, Errors, First, Journal, Journals, Medical, Medical Journals, Methods, Minor, Nefrologia, Periodical, Procedure, Publication, Quality, Quality Control, Quality of, Quality Standard, Reference, References, Standard, Volume

? Perez, A.R., Perez, J.C.R. and Matesanz, R. (2000), Scientific publications and impact factor. *Nefrologia*, **20**, 29-33.

Keywords: Bibliometric Indicators, Impact, Impact Factor, Publications

? Villanueva Serrano, S.J., Jiménez Jaén, P., Maldonado López, L., De Granda-Orive, J.I., Carballo Fernández, D., Valderrama, J.C., González Alcaide, G., García Río, F. and Aleixandre-Benavent, R. (2008), Risk of exposure to cross-transmission of infections in a dialysis unit: Structural analysis of a simulated epidemic model. *Nefrologia*, **28** (6), 613-620.

Full Text: [2008\Nefrologia28, 613.pdf](2008/Nefrologia28,%20613.pdf)

Abstract: Several studies show that cross-transmission of germs among patients under dialysis can occur as a consequence of processes in which the dialysis machine participates. The need of vascular access and lengthy periods of extracorporeal circulation increases the vulnerability to infection from nearby microorganisms. This study is intended to analyze the structural and dynamic features of the cross-transmission network generated by the propagation of germs which are capable of contaminating the hemodialyzers. Methods: The simulation was carried out in a Dialysis Unit equipped with 19 machines for 62 patients. One of these patients was randomly chosen and considered as a carrier of an infectious agent capable of being transmitted to other patients, by means of the shared use of the same dialysis machine. For 10 days, the patient-machine allocation couples were registered. Co-occurrence matrices were elaborated and processed with the program UCINET 6.1 (R) for social network analysis. Graphs were designed to visualize the networks of contagion, the centrality measures were calculated and the dynamic performance of the network generated by the chaining of the successive exposures of machines and patients was studied. Results: The simulation let us visualize a rapid expansion of the risk of contagion of patients and contamination of machines. In 10 days, 87, 09% of patients could have been exposed to the infection, and 68,42% of the machines could have been contaminated. These figures supposes that 5,4 new patients and 1,3 new machines could be potentially exposed every day Along the first 5 days, the daily rate of exposure for patients and machines remains relatively low (3 new exposed patients and 1,2 new exposed machines every day). But the speed with witch the risk of contagion spreads, increases drastically in the last 5 days (7,8 new exposed patients every day). The fact that each patient requires at least 3 weekly sessions of dialysis and that a different machine can be allocated to him in each session explains that the risk of exposure can spread in some few days to a lot of patients and machines. It can also explain the difficulties found by the researches in identifying the responsible source of the origin of the sero-conversion outbreaks studied by the moment. Conclusions: If a germ can be transmitted from patient to patient by means of the incidental contamination of a dialysis machine, the appearance of an infected patient in a dialysis unit generates a risk of exposition that spreads quickly among other patients. Few days after an infected patient gets a dialysis session, it cannot be ruled out that most of the patients have been exposed to contagion and most of the machines exposed to contamination.

Keywords: Access, Analysis, Bibliometrics, Dialysis, Hemodialysis, Hepatitis-C Virus, Network, Network Analysis, Scientific Information, Social Networks, Transmission, Vulnerability

# Title: Nematropica

Full Journal Title: Nematropica

ISO Abbreviated Title: Nematropica

JCR Abbreviated Title: Nematropica

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Pons, S. (1981), Some bibliometric guidelines of the banana literature concerning radopholus-similis during the last 20 years. *Nematropica*, **11** (2), 145-154.

Abstract: Some fundamental lines in banana research on R. similis were delineated. The main research centers on the subject were identified. The volume of documents and the languages of publication were also determined. Banana exporting countries publish less than banana producers and the English language predominates in publications. A balance exists between fundamental and applied research. Subjects dealing with variables on the rational use of nematocides, and biological control have been excluded from research endeavors.

# Title: Neotropical Ichthyology

Full Journal Title: Neotropical Ichthyology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Stumpf, I.R.C., Vanz, S.A.D., Gastaud, N., Vargas, R. and Bentancourt, S.M.P. (2011), *Neotropical Ichthyology*: Trajectory and bibliometric index (2003-2010). *Neotropical Ichthyology*, **9** (4), 921-926.

Full Text: [2011\Neo Ich9, 921.pdf](2011/Neo%20Ich9,%20921.pdf)

Abstract: The Neotropical Ichthyology journal was created in 2003 and soon became one of the main publications in its field as it is reflected in the number of articles submitted every year and the fact that it has been indexed by both SciELO and ISI. In order to understand the reasons for its trajectory, the journal history was recovered and bibliometric indices on author, citation and impact factor were mapped for the period between 2003 and 2010. A descriptive study on journal information source and a bibliometric study of the 388 articles published by the journal and the 642 articles that cite it have been carried out. Bibliometric analyses showed that 75.8% of the articles had been written by Brazilian authors and 91.3% had been published in collaboration. The journal was cited by 171 different publications from 28 countries, including renowned journals in the field. Self-citation accounted for 26.8% of journal citation. Analyses have been able to show that strict evaluation control and editing of the articles have contributed towards its success and internationalization.

Keywords: Articles, Author, Authors, Bibliometric, Bibliometric Indices, Bibliometric Study, Bibliometrics, Brazil, Citation, Citation Analysis, Co-Authorship, Collaboration, Control, Countries, Evaluation, History, Impact, Impact Factor, Information, ISI, Journal, Journals, Publications, Scielo, Scientific Co-Authorship, Scientific Journal, Self-Citation, Success, Trajectory

# Title: Nephrologie

Full Journal Title: [Nephrologie](http://sdos.ejournal.ascc.net/cgi-bin/sciserv.pl?collection=journals&journal=16386248)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Montagnac, R., Schillinger, F., Roquebert, M.F., Croix, J.C. and Eloy, C. (1991), Fungal contamination of a dialysis water-supply. *Nephrologie*, **12** (1), 27-30.

Abstract: The authors report fungal contamination of the water delivery system in one of their dialysis centers. They emphasize the insufficiency of the legal recommendations for water analysis, as well as the economical and logistical consequences of this type of contamination. Finally, they suggest disinfection procedures allowing eradication of fungi.

Keywords: Hemodialysis, Dialysate, Fungi

# Title: Nephrology Dialysis Transplantation

Full Journal Title: [Nephrology Dialysis Transplantation](http://ndt.oxfordjournals.org/); [Nephrology Dialysis Transplantation](http://intl-ndt.oxfordjournals.org/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0931-0509

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Schena, F.P. and Zoccali, C. (1996), Bibliometric analysis of the scientific productivity of the Italian Society of Nephrology for a period of five consecutive years (1990-1994). *Nephrology Dialysis Transplantation*, **11** (11), 2359-2360.

? Davison, A.M. (2010), The five most cited *NDT* articles from 1985 to 1993. *Nephrology Dialysis Transplantation*, **25** (9), 2809-2813.

Full Text: [2010\Nep Dia Tra25, 2809.pdf](2010/Nep%20Dia%20Tra25,%202809.pdf)

? Ritz, E. (2010), The five most cited *NDT* articles from 1993 to 1999. *Nephrology Dialysis Transplantation*, **25** (9), 2814-2817.

Full Text: [2010\Nep Dia Tra25, 2814.pdf](2010/Nep%20Dia%20Tra25,%202814.pdf)

? Drueke, T.B. (2010), The five most cited *NDT* articles from 1999 to 2004. *Nephrology Dialysis Transplantation*, **25** (9), 2818-2824.

Full Text: [2010\Nep Dia Tra25, 2818.pdf](2010/Nep%20Dia%20Tra25,%202818.pdf)

Keywords: All-Cause Mortality, Cardiovascular Mortality, Chronic Kidney-Disease, Coronary-Artery Calcification, Dialysis Patients, Ischemic-Heart-Disease, Long-Term Hemodialysis, Matrix Metalloproteinase-2, Stage Renal-Disease, Vascular Calcification

? Lameire, N., Floege, J. and Wheeler, D.C. (2010), The five most cited *NDT* papers from 2005 to 2009. *Nephrology Dialysis Transplantation*, **25** (9), 2825-2831

Full Text: [2010\Nep Dia Tra25, 2825.pdf](2010/Nep%20Dia%20Tra25,%202825.pdf)

Keywords: Chronic Kidney-Disease, Critically-ILL Patients, Fabry-Disease, Glomerular-Filtration-Rate, Improving Global Outcomes, Intensive-Care-Unit, Nephrogenic Systemic Fibrosis, Papers, Randomized Controlled-Trial, Renal-Replacement Therapy, Serum Creatinine

? Davison, A.M. (2010), The five most cited *NDT* articles from 1985 to 1993 (vol 25, pg 2809, 2010). *Nephrology Dialysis Transplantation*, **25** (12), 4119-4123.

Full Text: [2010\Nep Dia Tra25, 4119.pdf](2010/Nep%20Dia%20Tra25,%204119.pdf)

# Title: Nervenarzt

Full Journal Title: [Nervenarzt](http://203.64.48.29/cgi-bin/er/browse.cgi?ccd=WEuxdI&o=e0&s=c-1-1766)

ISO Abbreviated Title: Neth.

JCR Abbreviated Title:

ISSN: 0028-2804

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Pantel, J. and Mundt, C. (1999), The evaluation of research performance in psychiatry. Potential and pitfalls of bibliometric analysis. *Nervenarzt*, **70** (3), 281-287.

Full Text: [N\Nervenarzt70, 281.pdf](N/Nervenarzt70,%20281.pdf)

Abstract: ecent scientific and economic developments have emphasized the need far objective and operationalized criteria for the evaluation of collective and individual research performance. In this context the present article discusses the possibilities and limitations of bibliometric analysis in the evaluation of psychiatric research. Taking into account recent scientometric knowledge, the potentials and pitfalls of the so called impact factor are critically discussed with respect to its usefulness in the evaluation of psychiatric research performance in Germany. A major criticism arises from the observation that the unreflecting use of the impact factor may overemphasize quantitative aspects to the disadvantage of qualitative aspects of research. This may however lead to unwanted distortions and misjudgements. The critical analysis of the current use of scientometric indices in the evaluation process emphasizes the need for alternative criteria, which should take into account disciplinary as well as national idiosyncrasis. Accordingly, the authors aim to induce and contribute to a discussion process within the scientific community, which may lead to a more appropriate evaluation of psychiatric research performance.

Keywords: Research Performance, Evaluation, Impact Factor, Psychiatric Research, Scientometrics, Impact Factor, Citation Analysis, Medical Journals, Science, German, Tool

# Title: Netherlands Heart Journal

Full Journal Title: Netherlands Heart Journal

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Opthof, T. and Wilde, A.A.M. (2009), The Hirsch-index: A simple, new tool for the assessment of scientific output of individual scientists. The case of Dutch professors in clinical cardiology. *Netherlands Heart Journal*, **17** (4), 145-154.

Full Text: [2009\Net Hea J17, 145.pdf](2009/Net%20Hea%20J17,%20145.pdf)

Abstract: In this brief paper we explore the Hirsch-index together with a couple of other bibliometric parameters for the assessment of the scientific output of 29 Dutch professors in clinical cardiology. It appears that even within such a homogeneous group there is large interindividual variability. Although the differences are quite remarkable, it remains undetermined what they mean; at least it is premature to interpret them as differences in scientific quality. It goes without saying that even more prudence is required when different fields of medicine and life sciences are compared (for example within University Medical Centres). Recent efforts to produce an amalgam of scientific ‘productivity, ‘relevance’ and ‘viability’ as a surrogate parameter for the assessment of scientific quality, as for example performed in the AMC in Amsterdam, should. be discouraged in the absence of a firm scientific base. Unfortunately for politicians and ‘managers of science’ only reading papers and studying are suitable for quality assessment of scientific output. Citations analyses can’t substitute that. (Neth Heart J 2009;17:145-54.).

Keywords: Analyses, Assessment, Bibliometric, Bibliometric Indicators, Cardiology, Citation, Citation Analysis, Citations, Clinical, Clinical Cardiology, Couple, Dutch, Grant Proposals, Group, h-Index, Hirsch Index, Hirsch-Index, Impact, Impact Factor, Life, Life Sciences, Managers, Medicine, Papers, Peer Judgment, Peer Review, Politicians, Premature, Productivity, Quality, Reading, Relevance, Science, Sciences, Scientific Output, Surrogate, Tool, University, Variability, Viability

? Spaan, J.A.E. (2010), Arrogance and ignorance in assessing scientific quality in a multidisciplinary academic medical centre. *Netherlands Heart Journal*, **18** (6), 319-322.

Full Text: [2010\Net Hea J18, 319.pdf](2010/Net%20Hea%20J18,%20319.pdf)

Abstract: Several academic institutions in the Netherlands and elsewhere develop indices to rank their scientists which will impact evaluation and steering of research. An important part of these indices is based on bibliometric indices. The development of such ranking indices is often seen as the prerogative of management and is kept out of the process where scientific instruments should be presented and evaluated: peer-reviewed journals. In this case the index of the author’s institution is criticised both for the evasion of discussion as for the lack of compensation for bias related to discipline, gender and personal history. Furthermore, it is argued that the ranking based on ‘numbers’ rather than scientific contributions is detrimental to the motivation of the staff suffering under the several modi of bias, is counterproductive for interdisciplinary achievements and discourages young researchers in less scoring disciplines to find their way in the medical academic arena. (Neth Heart J 2010;18:319-22).

Keywords: Academic Medical Centers, Bibliometrics, Biomedical Research, Index, Netherlands Research Personnel, Output, Research

? Opthof, T. and Wilde, A.A.M. (2011), Bibliometric data in clinical cardiology revisited. The case of 37 Dutch professors. *Netherlands Heart Journal*, **19** (5), 246-255.

Full Text: [2011\Net Hea J19, 246.pdf](2011/Net%20Hea%20J19,%20246.pdf)

Abstract: In this paper, we assess the bibliometric parameters of 37 Dutch professors in clinical cardiology. Those are the Hirsch index (h-index) based on all papers, the h-index based on first authored papers, the number of papers, the number of citations and the citations per paper. A top 10 for each of the five parameters was compiled. In theory, the same 10 professors might appear in each of these top I Os. Alternatively, each of the 37 professors under assessment could appear one or more times. In practice, we found 22 out of these 37 professors in the 5 top 10s. Thus, there is no golden parameter. In addition, there is too much inhomogeneity in citation characteristics even within a relatively homogeneous group of clinical cardiologists. Therefore, citation analysis should be applied with great care in science policy. This is even more important when different fields of medicine are compared in university medical centres. It may be possible to develop better parameters in the future, but the present ones are simply not good enough. Also, we observed a quite remarkable explosion of publications per author which can, paradoxical as it may sound, probably not be interpreted as an increase in productivity of scientists, but as the effect of an increase in the number of co-authors and the strategic effect of networks.

Keywords: Academic-Medical-Center, Assessing Scientific Quality, Assessment, Bibliometric, Bibliometric Analysis, Citation, Citation Analysis, Citation Analysis, Citations, Clinical Cardiology, h-Index, Hirsch Index, Impact, Index, Individual Scientists, Output, Papers, Policy, Professors, Publications, Science, Science Policy, University

# Title: Netherlands Heart Journal

Full Journal Title: Netherlands Heart Journal

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Opthof, T. and Wilde, A.A.M. (2011), One more time: Bibliometric analysis of scientific output remains complicated. *Netherlands Heart Journal*, **19** (7-8), 359-360.

Full Text: [2011\Net Hea J19, 359.pdf](2011/Net%20Hea%20J19,%20359.pdf)

Keywords: Analysis, Bibliometric, Bibliometric Analysis, Hirsch-Index, Scientific Output

# Title: Netherlands Journal of Agricultural Science

Full Journal Title: Netherlands Journal of Agricultural Science

ISO Abbreviated Title: Neth. J. Agric. Sci.

JCR Abbreviated Title: Neth J Agr Sci

ISSN: 0028-2928

Issues/Year: 4

Journal Country/Territory: Netherlands

Language: Multi-Language

Publisher: Royal Netherlands Soc Agr Sci

Publisher Address: Postbox 79, 6700 Wageningen, Netherlands

Subject Categories:

Agriculture, Dairy & Animal Science Agriculture: Impact Factor

Schindler, P.W., Liechti, P. and Westall, J.C. (1987), Adsorption of copper, cadmium and lead from aqueous solution to the kaolinite/water interface. *Netherlands Journal of Agricultural Science*, **35**, 219-230.

# Title: Netherlands Journal of Medicine

Full Journal Title: [Netherlands Journal of Medicine](http://www.njmonline.nl/njm/all_issues.php)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mueller, P.S., Murali, N.S., Cha, S.S., Erwin, P.J. and Ghosh, A.K. (2006), The effect of online status on the impact factors of general internal medicine journals. *Netherlands Journal of Medicine*, **64** (2), 39-44.

Full Text: [2006\Net J Med64, 39.pdf](2006/Net%20J%20Med64,%2039.pdf)

Abstract: Background: We sought to determine the effects of becoming available online on impact factors of general medicine journals. Methods: Through MEDLINE with an institutional subscription, the 2004 online status of “Medicine, General and Internal” journals listed in the Institute for Scientific Information (ISI) journal Citation Reports (JCR) was classified as full text on the Net (FUTON), abstract only, or no abstract available (NAA)/unavailable in MEDLINE. Similarly, through use of a home computer without an institutional subscription, the 2004 online status of the same journals was determined. For each journal, impact factors for 1992 to 2003 were obtained. Results: Of the 102 “Medicine, General and Internal” journals listed in the ISI JCR, 71 (70%) existed in both pre-Internet (1992) and Internet (2003) eras. Of these 71 journals, those available as FUTON in 2004 had higher median impact factors than non-FUTON journals in 1992 (p < 0.0001) and 2003 (p < 0.0001). journals that became available online, at least partially, had significant increases in median impact factors from 1992 to 2003 (p < 0.0001 for journals that became available as FUTON and for journals that provided an abstract only). However, journals that became available as FUTON had a greater increase in median impact factor from 1992 to 2003 than other journals (p=0.002). Similar results were obtained using impact factor data according to journal online status through use of a home computer without an institutional subscription and for English-language journals only. Conclusion: Becoming available online as FUTON is associated with a significant increase in journal impact factor.

Keywords: Access, Bias, Bias, Citation, Computer, Data, Effects, Factors, Futon, General, Home, Impact, Impact Factor, Impact Factors, Institute for Scientific Information, Institutional, Internet, ISI, Journal, Journal Impact, Journal Impact Factor, Journals, Listed, Medicine, MEDLINE, Status, Visibility

? Sood, R., Sood, A. and Ghosh, A.K. (2007), Non-evidence-based variables affecting physicians’ test-ordering tendencies: A systematic review. *Netherlands Journal of Medicine*, **65** (5), 167-177.

Full Text: 2007\Net J Med65, 167.pdf

Abstract: Background: The concept of evidence-based medicine (EBM) was introduced in 1992. Incorporation of EBM into physicians’ practices, however, has been slow. Test-ordering tendencies are still based on variables that are not necessarily evidence-based. Methods: The literature was reviewed to identify the non-EBM variables that affect physicians’ practices of test ordering. Studies of interest were limited to original research on the determinants of physicians’ test-ordering tendencies. The search strategy included queries in MEDLINE (1992-2006), Web of Science (1993-2006), EMBASE (1992-2006), and PsycINFO (1992-2006); checking of reference lists; hand searching relevant journals; and personal communication with experts. Two independent reviewers abstracted information on the design, quality, and limitations of the study. Review articles, letters, and editorials were excluded from analysis. Results: 104 original studies reporting on the variables affecting test ordering were identified. of these, 53 studies assessing physician variables affecting test ordering were identified. Some of the recognisable physician factors included age, sex, degree of specialisation, geographic location and practice setting, individual belief systems, experience, knowledge, fear of malpractice litigation, physician regret, financial incentives, awareness of costs of tests ordered, and provision of written feedback by peers or employers. Conclusion: Despite considerable advances in our understanding of EBM and its application to patient care, several non-EBM physician variables influence physicians’ test-ordering characteristics. Ongoing effort is needed to identify the modifiable non-EBM determinants of physicians’ test ordering and to use appropriate tools and techniques to encourage evidence-based behaviours for test ordering.

Keywords: Analysis, Awareness, Communication, Costs, Decision-Making, Decision-Making, Determinants, Diagnostic Tests, Diagnostic-Tests, Embase, Evaluation Studies, Evidence-Based Guidelines, Evidence-Based Medicine, Family Physicians, Feedback, Feedback Intervention, Graduate Medical-Education, Hand, Incentives, Information, Interest, Journals, Knowledge, Literature, Low-Back-Pain, Medicine, Medline, Methods, Physicians, Practice, Primary-Care Physicians, Randomized Controlled-Trial, Research, Review, Review Articles, Routine Electrocardiogram Use, Science, Strategy, Systematic, Systematic Review, Web of Science

Levi, M. (2009), How academic is internal medicine in the Netherlands? A bibliometric analysis. *Netherlands Journal of Medicine*, **67** (10), 318-319

Full Text: [2009\Net J Med67, 318.pdf](2009/Net%20J%20Med67,%20318.pdf)

Keywords: Bibliometric, Bibliometric Analysis, Publication

? Gevers, T.J.G., Slavenburg, S., van Oijen, M.G.H. and Drenth, J.P.H. (2011), Treatment extension benefits HCV genotype I patients without rapid virological response: A systematic review. *Netherlands Journal of Medicine*, **69** (5), 216-221.

Full Text: 2011\Net J Med69, 216.pdf

Abstract: Background: Current guidelines recommend 48 weeks of treatment with pegylated interferon and ribavirin for patients infected with chronic hepatitis C virus (HCV) genotype I. Several clinical trials have investigated the efficacy of treatment duration longer than 48 weeks, but yielded discordant results. Methods: We performed a structured search of PUBMED, Web of Science and the Cochrane library to identify randomised clinical trials in HCV genotype I patients who were treated either for 48 or 72 weeks. Sustained viral response (SVR) data were pooled and a sample size weighted pooled proportion was calculated. Results: We identified five studies matching our criteria. Studies randomised at baseline (n=I), at absence of rapid virological response (RVR) at week 4 (n=I), at early virological response at week 12 (EVR) (n=I) or at slow response at week 24 (n=2). In the RCT that randomised at absence of RVR, SVR was significantly higher in the extended treatment arm (57 vs 42%, p=0.02) with an RR of 1.35 (95% CI 1.04 to 1.75). This tendency was also observed in the studies that randomised at slow response (44 vs 35%), although no longer statistically significantly different. Conclusion: Prolonged 72-week treatment should be considered in HCV genotype I patients without RV R at week 4, as this increased SVR.

Keywords: Antiviral Therapy, Chronic Hepatitis-C, Clinical Trials, Cochrane, Discordant, Efficacy, Extended Treatment, Guidelines, Hcv, Hepatitis C, Methods, Peginterferon Alpha-2B, Plus Ribavirin, Pubmed, Quality, Randomized-Trial, Review, RNA, Science, Systematic, Systematic Review, Treatment, Treatment Duration, Treatment Duration, Type-1, Virus-Infection, Web of Science

# Title: Neues Jahrbuch fur Mineralogie-Monatshefte

Full Journal Title: Neues Jahrbuch fur Mineralogie-Monatshefte

ISO Abbreviated Title: Neues Jahrb. Mineral.-Mon.hefte

JCR Abbreviated Title: Neues JB Miner Monat

ISSN: 0028-3649

Issues/Year: 12

Journal Country/Territory: Germany

Language: Multi-Language

Publisher: E Schweizerbartsche Verlags

Publisher Address: Naegele U Obermiller Johannesstrasse 3A, D 70176 Stuttgart, Germany

Subject Categories:

Mineralogy: Impact Factor

? Cho, H.G. (2000), Adsorption of Cu, Zn, Fe, Cd and Pb onto the illite from the Dongchang Mine, Korea. *Neues Jahrbuch fur Mineralogie-Monatshefte*, **1**, 34-48.

Abstract: Mineralogy and heavy metals such as Cu, Zn, Pb, Cd, Fe adsorption of illite from the Dongchang mine, Korea. are studied by X-ray powder diffraction (XRD) analysis, electron probe microanalysis (EPMA), cation exchange capacity (CEC) measurement, atomic absorption (AA) spectroscopy, and inductively coupled plasma (ICP) spectroscopy. Illite may be a hydrothermal alteration product of Precambrian mica schist. which is composed of muscovite, quartz, and plagioclase. Illite ore consists mainly of illite with few quartz particles. The illite ore has two different colors, one is white and the other is yellow. The iron content of the yellow illite is remarkably higher (6.21-6.86 %) than that of the white illite (2.30-2.53 %). Therefore it might be possible that the yellow color is caused predominantly by Fe3+ in octahedral position. XRD patterns of the size fractionated illite ores show that illite content increases toward the finer fraction. The polytype of illite is 2M (1). XRD pattern of ethylene glycolated illite shows little variation from that of air-dried specimen, which suggests that the studied illites contain few or no expandable layers. CEC is 2.6 meq/100 gr for white illite and 4.0 meq/100 gr for yellow one. The capabilities of removing five heavy metals (Cu, Zn, Fe, Cd, and Pb) are compared with white and yellow illites. Concentration of illite suspension is 5.67 and 2.14 g/l for white and yellow illite, respectively. As the amount of illite suspension increases, residual concentrations of heavy metals decrease. White illite adsorbs 17 % of Cu, 24 % of Zn, 9 % of Fel 13 % of Cd and 10 % of Pb, when illite suspension is 40 ml. Yellow illite removes 34 % of Cu, 35 % of Zn, 9 % of Fe, 8 % of Cd and 4 % of Pb at the same condition. The Cu and Zn adsorption capabilities for unit weight (ppm/g) are 2.07 and 3.59 for white illite and 11.09 and 11.23 for yellow illite, respectively. Average grain size of white illite (5.09 µm) is larger than yellow illite (2.97 µm), however zeta potential of white illite (-32.8) is lower than yellow illite (-26.3). The high adsorption capability of yellow illite for Cu and Zn attributes to the small grain size and high zeta potential.

Keywords: Copper, Illite, Adsorption, Polytype, Zeta Potential, Dongchang Mine, ICP Spectroscopy, Heavy Metal

# Title: Neural Computing & Applications

Full Journal Title: [Neural Computing & Applications](http://www.springerlink.com/content/8xjw562434177un5/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Tabari, H., Marofi, S., Abyaneh, H.Z. and Sharifi, M.R. (2010), Comparison of artificial neural network and combined models in estimating spatial distribution of snow depth and snow water equivalent in Samsami basin of Iran. *Neural Computing & Applications*, **19** (4), 625-635.

Full Text: [2010\Neu Com App19, 625.pdf](2010/Neu%20Com%20App19,%20625.pdf)

Abstract: Snow water equivalent (SWE) is a key parameter in hydrological cycle, and information on regional SWE is required for various hydrological and meteorological applications, as well as for hydropower production and flood forecasting. This study compares the snow depth and SWE estimated by multivariate linear regression (MLR), discriminant function analysis, ordinary kriging, ordinary kriging-multivariate linear regression, ordinary kriging-discriminant function analysis, artificial neural network (ANN) and neural network-genetic algorithm (NNGA) models. The analysis was performed in the 5.2 km(2) area of Samsami basin, located in the southwest of Iran. Statistical criteria were used to measure the models’ performances. The results indicated that NNGA, ANN and MLR methods were able to predict SWE at the desirable level of accuracy. However, the NNGA model with the highest coefficient of determination (R (2) = 0.70, P value < 0.05) and minimum root mean square error (RMSE = 0.202 cm) provided the best results among the other models. The lower SWE values were registered in the east of study area and higher SWE values appeared in the west of study area where altitude was higher.

Keywords: Snow Water Equivalent, Snow Depth, Spatial Distribution, Artificial Neural Network, Combined Methods, Regression, Runoff, Cover, Tree, Simulations, Prediction, Selection, Patterns, Events, Scale

# Title: Neural Regeneration Research

Full Journal Title: Neural Regeneration Research

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Xu, Z.H., Tang, T., Pan, D.S., Fan, D., Song, Z.Q. and Xue, H.L. (2011), Scientific literature addressing brain glioma in the Web of Science A 10-year bibliometric analysis. *Neural Regeneration Research*, **6** (32), 2537-2544.

Full Text: 2011\Neu Reg Res6, 2537.pdf

Abstract: Brain glioma is a hot topic in recent years; however, brain glioma remains poorly understood. A bibliometric analysis based on the Science Citation Index (SCI) published by the Institute of Scientific Information (ISI) was performed to identify the global research and to improve the understanding of research trends in the brain glioma field from 2001 to 2010. During 2001 to 2010, there were 8 413 papers addressing brain glioma added to the SCI, and this trend is increasing annually. Of these reports, 6 945 papers are written in English. Journals published in the United States had the most papers, including ten core source titles. The Journal of Neuro-Oncology published the most articles followed by Cancer Research. Furthermore, the University of California, San Francisco, is the most productive institution for publishing articles in the brain glioma field. Finally, this study highlights the topics in brain glioma research that are being published around the world.

Keywords: Analysis, Bibliometric, Bibliometric Analysis, Bibliometrics, Brain, Brain Glioma, Cancer, Citation, Endothelial Growth-Factor, English, Glioblastoma-Multiforme, High-Grade Glioma, In-Vivo, ISI, Journal, Journals, Literature, Malignant Glioma, Medical-Research-Council, Mesenchymal Stem-Cells, Papers, Prognostic-Factors, Publishing, Research, Research Productivity, Research Trends, SCI, Science, Science Citation Index, Scientific Information, Scientific Literature, Topics, Trend, Trends, United States, University, Web of Science

# Title: Neurochemical Research

Full Journal Title: Neurochemical Research

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Dorea, J.G. (2011), Integrating Experimental (In Vitro and In Vivo) Neurotoxicity studies of low-dose thimerosal relevant to vaccines. *Neurochemical Research*, **36** (6), 927-938.

Abstract: There is a need to interpret neurotoxic studies to help deal with uncertainties surrounding pregnant mothers, newborns and young children who must receive repeated doses of Thimerosal-containing vaccines (TCVs). This review integrates information derived from emerging experimental studies (in vitro and in vivo) of low-dose Thimerosal (sodium ethyl mercury thiosalicylate). Major databases (PUBMED and Web-of-science) were searched for in vitro and in vivo experimental studies that addressed the effects of low-dose Thimerosal (or ethylmercury) on neural tissues and animal behaviour. Information extracted from studies indicates that: (a) activity of low doses of Thimerosal against isolated human and animal brain cells was found in all studies and is consistent with Hg neurotoxicity; (b) the neurotoxic effect of ethylmercury has not been studied with co-occurring adjuvant-Al in TCVs; (c) animal studies have shown that exposure to Thimerosal-Hg can lead to accumulation of inorganic Hg in brain, and that (d) doses relevant to TCV exposure possess the potential to affect human neuro-development. Thimerosal at concentrations relevant for infants’ exposure (in vaccines) is toxic to cultured human-brain cells and to laboratory animals. The persisting use of TCV (in developing countries) is counterintuitive to global efforts to lower Hg exposure and to ban Hg in medical products; its continued use in TCV requires evaluation of a sufficiently nontoxic level of ethylmercury compatible with repeated exposure (co-occurring with adjuvant-Al) during early life.

Keywords: Aluminum, Brain, Breast-Milk, Cell-Lines, Children, Databases, Developing Countries, Ethylmercury, Evaluation, Exposure, Human, In Vivo, Infants, Information, Lead, Medical, Mercury, Mercury Concentrations, Methyl Mercury, Methylmercury, Mothers, Neonatal Mice, Neural Origin, Neurodevelopment, Pregnancy, Pubmed, Review, Thimerosal, Toxicity, Vaccines, Web of Science

# Title: Neurochemistry International

Full Journal Title: Neurochemistry International

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Burchinsky, S.G. (1992), Neurochemistry of aging: Scientometric analysis as a tool for mapping of modern trends of research. *Neurochemistry International*, **21** (S1), A5.

Full Text: [1992\Neu Int21, A5.pdf](1992/Neu%20Int21,%20A5.pdf)

# Title: Neurocirugia

Full Journal Title: Neurocirugia

ISO Abbreviated Title: Neurocirugia

JCR Abbreviated Title: Neurocirugia

ISSN: 1130-1473

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Ibanez, J., Sauquillo, J., Poca, M.A., Arikan, F. and Rubio, E. (2000), The incorporation of Neurocirugia to the Journal of Citation Reports: Bibliometric analysis of the Spanish neurosurgical scientific production. *Neurocirugia*, **11** (5), 329-349.

Full Text: Neurocirugia11, 329.pdf

Abstract: Introduction and Objectives: The Journal of Citation Reports 1998(th) edition includes Neurocirugia for the first time within the analyzed publications. This implies the incorporation of our journal to the most selected group of international scientific publications and awards it with the desired impact factor. The aims of this paper are firstly to review the basic bibliometric concepts that govern the influence of publications and research groups on biomedical sciences; secondly to know the present status of the scientific production in neurosurgery and the situation of Spain in the world and European context, analyzing its national distribution and evolution during the last years and finally, to show the present status of Neurocirugia, considering some aspects in order to improve its indicators in the future.

Material and methods: A review of the neurosurgical literature in 1998 was done as well as a follow-up of the national production between 1987-99. The articles were distributed according to the authors geographical origin, journals, area and type of investigation. Data were mainly obtained from MEDLINE. The main bibliometric variables analyzed were the total number of articles and the impact factor. The absolute data were weighted up with demographic and economic variables in order to know the relative potential of each country.

Results: Three thousand and twenty one articles that were published in 314 journals were localized. Following the total number of articles and the cumulated impact factor, the main producing countries were the United States, Japan and Germany. Spain holds the ninth position by number of articles and the thirteenth one by impact factor. The gross domestic product has been the weighting variable that has demonstrated a stronger correlation with the scientific output generated by each country. By applying it, our country descends considerably. However, the Spanish production shows a favourable tendency during the last years, not only because of the total number of published articles, but also for the theoretical better quality of them.

Conclusions: Despite of the achievements during the last years, the Spanish neurosurgery holds a lower position than the one it should according to our country economical potential. The challenge of the forthcoming years must be working in order to improve these indicators.

Keywords: Neurosurgery, Bibliometry, Impact Factor, Scientific Production, Impact Factor, Medical Journals, Biomedical Journals, Index, Publications, Clinica, Sciences, Spain

? Lobato, R.D. (2000), The incorporation of Neurocirugia to the Journal of Citation Reports: Bibliometric analysis of the Spanish neurosurgical scientific production - Commentary. *Neurocirugia*, **11** (5), 349-350

Full Text: Neurocirugia11, 349.pdf

Keywords: Scientific Production, Spain, Spanish

? Poza, M. (2001), Training in neurosurgery. *Neurocirugia*, **12** (5), 388-396.

Full Text: Neurocirugia12, 388.pdf

Abstract: It is not a trivial matter to think about the topic of training neurosurgeons in Spain. To raise the question, I review the requirements in several countries. I comment on the process of selection, the length of training, the control of quality in the training program and the opportunities for clinical research in hospitals and in basic neurosciences. I express my opinion against a compulsory final exam. I propose that residents should inform the local or regional Health and Education Authorities about the dedication of staff members to training of postgraduate doctors and that this report should be taken into account and compensated economically in a proportional way to their efforts.

Keywords: Bibliometric Analysis, Countries, Experience, Hospitals, Neurocirugia, Neurosurgery, Of-Citation-Reports, Quality, Research, Residents, Residents, Scientific Production, Spain, Training

# Title: Neurocritical Care

Full Journal Title: Neurocritical Care

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Eden, S.V., Heisler, M., Green, C. and Morgenstern, L.B. (2008), Racial and ethnic disparities in the treatment of cerebrovascular diseases: Importance to the practicing neurosurgeon. *Neurocritical Care*, **9** (1), 55-73.

Abstract: Objectives In various surgical procedures, evidence for racial/ethnic disparities has continued to grow in recent years. Our purpose was to review the current literature regarding racial/ethnic disparities in the United States in the surgical treatment and outcome of three different cerebrovascular disease entities: carotid stenosis, intracranial aneurysm, and cerebral arteriovenous malformation (AVM). Methods We conducted an electronic search of literature published between January 1, 1966 and December 10, 2005 using MEDLINE (OVID), EMBASE, CINAHL, and Science Citation Index (Web of Science), along with manual reference checking, resulting in 313 screened items. Main outcome measures examined were racial/ethnic differences in procedure utilization rates and perioperative stroke, death, and complications. Results Out of 3,624,581 articles indexed in MEDLINE pertaining to the treatment of these 3 cerebrovascular diseases, 141 (0.004%) articles pertained to minority groups and 33 (0.001%) articles met search criteria for inclusion in this review. Two additional articles were found in other searched databases. Carotid endarterectomy was the focus of 30 articles, and 5 articles pertained to craniotomy for treatment of intracranial aneurysms. No articles were found that examined racial differences in AVM treatment. Our systematic review found evidence of racial disparities in the surgical treatment of patients with carotid stenosis and aneurysmal subarachnoid hemorrhage. The data, however, is limited and confounded. Conclusion Results of this comprehensive literature review suggest that racial disparities in cerebrovascular disease are understudied. Race-associated differences in neurosurgical outcomes must be documented and vigorously investigated to determine the basis of any observed differences and ensure that we are providing the best care possible to all of our patients.

Keywords: Articles, Atherosclerosis, Carotid Endarterectomy, Carotid Stenosis, Carotid-Artery Stenosis, Cerebral Arteriovenous Malformation, Cerebrovascular Disease, Citation, Criteria, Databases, Disparities, Endarterectomy, Groups, Health Disparity, Intracranial Aneurysm, Literature, Literature Review, Medicare Beneficiaries, Medline, Outcomes, Preoperative Risk-Factors, Race, Race, Ethnicity, Review, Science, Science Citation Index, Stroke, Subarachnoid Hemorrhage, Surgery, Systematic Review, Transient Ischemic Attacks, Treatment, United States, United-States, Web of Science

# Title: Neuroepidemiology

Full Journal Title: Neuroepidemiology

ISO Abbreviated Title: Neuroepidemiology

JCR Abbreviated Title: Neuroepidemiology

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Guehne, U., Riedel-Heller, S. and Angermeyer, M.C. (2005), Mortality in dementia: A systematic review. *Neuroepidemiology*, **25** (3), 153-162.

Abstract: The objective of this work is to provide a review of the mortality risk in dementia and potential influencing factors. In order to do so, studies on mortality in dementia based on population-based samples of the last 15 years published in PUBMED, Web of Science and PSYNDEX-plus were considered. Without exception, all types of dementia are associated with a considerably increased mortality risk. Moreover, the risk of death rises with advancing severity of the disorder. Often, a more favorable course of the disease can be found in Alzheimer’s disease. Further questions, such as the influence of age and sex, cannot be answered conclusively. Very little information can be found on aspects concerning comorbidity, APOE polymorphism or depressive symptomatology. Copyright (C) 2005 S. Karger AG, Basel.

Keywords: 5-Year Follow-Up, Alzheimer’S Disease, Alzheimers-Disease Patients, Clinically Diagnosed Dementia, Cognitive Impairment, Comorbidity, Copyright, Dementia, Disease, Disorder, Elderly Community Sample, Increased Risk, Information, Mental State, Mortality, Oldest-Old, Polymorphism, Population-Sample, Pubmed, Review, Risk, Science, Survival, Systematic, Systematic Review, Vascular Dementia, Web of Science

# Title: Neurogastroenterology and Motility

Full Journal Title: [Neurogastroenterology and Motility](http://www3.interscience.wiley.com/journal/118498177/home)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Camilleri, M. and Schemann, M. (2005), Important notice for authors: Impact, paper length, and prize. *Neurogastroenterology and Motility*, **17** (1), 1.

Full Text: [2005\Neu Mot17, 1.pdf](2005/Neu%20Mot17,%201.pdf)

Keywords: Authors

# Title: NeuroImage

Full Journal Title: [NeuroImage](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=6968&_auth=y&_acct=C000010279&_version=1&_urlVersion=0&_userid=1187928&md5=5ae2335f92a15ce77e7b7d1cc3400379)

ISO Abbreviated Title: NeuroImage

JCR Abbreviated Title: NeuroImage

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Genovese, C.R., Lazar, N.A. and Nichols, T. (2002), Thresholding of statistical maps in functional neuroimaging using the false discovery rate. *NeuroImage*, **15** (4), 870-878.

Full Text: [2002\NeuroImage15, 870.pdf](2002/NeuroImage15,%20870.pdf)

Abstract: Finding objective and effective thresholds for voxel-wise statistics derived from neuroimaging data has been a long-standing problem. With at least one test performed for every voxel in an image, some correction of the thresholds is needed to control the error rates, but standard procedures for multiple hypothesis testing (e.g., Bonferroni) tend to not be sensitive enough to be useful in this context. This paper introduces to the neuroscience literature statistical procedures for controlling the false discovery rate (FDR). Recent theoretical work in statistics suggests that FDR-controlling procedures will be effective for the analysis of neuroimaging data. These procedures operate simultaneously on all voxelwise test statistics to determine which tests should be considered statistically significant. The innovation of the procedures is that they control the expected proportion of the rejected hypotheses that are falsely rejected. We demonstrate this approach using both simulations and functional magnetic resonance imaging data from two simple experiments. (C) 2002 Elsevier Science (USA).

Keywords: Activation, Bonferroni Correction, False Discovery Rate, Functional Magnetic Resonance Imaging, Functional Neuroimaging, Images, Imaging, Innovation, Literature, Magnetic Resonance Imaging, Multiple Testing, Science, Statistical, Statistics

? Wu, M.T., Sheen, J.M., Chuang, K.H.S., Yang, P.C., Chin, S.L., Tsai, C.Y., Chen, C.J., Liao, J.R., Lai, P.H., Chu, K.A., Pan, H.B. and Yang, C.F. (2002), Neuronal specificity of acupuncture response: A fMRI study with electroacupuncture. *NeuroImage*, **16** (4), 1028-1037.

Full Text: [2002\NeuroImage16, 1028.pdf](2002/NeuroImage16,%201028.pdf)

Abstract: Recently, neuronal correlates of acupuncture stimulation in human brain have been investigated by functional neuroimaging. The preliminary findings suggest that acupuncture at analgesic points involves the pain-related neuromatrix and may have acupoint-brain correlation. Although multiple models of control stimulations have been applied to address the specificity of the needling effect clinically, their impacts have not been evaluated by functional neuroimaging. With the advantage of objective parameter setting, electroacupuncture (EA) was used in this study to devise three distinct controls for real EA, i.e., mock EA (no stimulation), minimal EA (superficial and light stimulation), and sham EA (same stimulation as real EA) applied at nonmeridian points. Fifteen healthy volunteers received real EA at analgesic point Gallbladder 34 (Yanglinquan), sham EA, and one of either mock EA or minimal EA over the left leg in counter-balanced orders. Multi-subject analysis showed that sham EA and real EA both activated the reported distributed pain neuromatrix. However, real EA elicited significantly higher activation than sham EA over the hypothalamus and primary somatosensory-motor cortex and deactivation over the rostral segment of anterior cingulate cortex. In the comparison of minimal EA versus mock EA, minimal EA elicited significantly higher activation over the medial occipital cortex. Single-subject analysis showed that superior temporal gyrus (encompassing the auditory cortex) and medial occipital cortex (encompassing the visual cortex) frequently respond to minimal EA, sham EA, or real EA. We concluded that the hypothalamus-limbic system was significantly modulated by EA at acupoints rather than at nonmeridian points, while visual and auditory cortical activation Was not a specific effect of treatment-relevant acupoints and required further investigation of the underlying neurophysiological mechanisms. (C) 2002 Elsevier Science (USA).

Keywords: Acupuncture, Brain Mapping, Positron-Emission-Tomography, Pain, Brain, Stimulation

Notes: highly cited

? Tzourio-Mazoyer, N., Landeau, B., Papathanassiou, D., Crivello, F., Etard, O., Delcroix, N., Mazoyer, B. and Joliot, M. (2002), Automated anatomical labeling of activations in SPM using a macroscopic anatomical parcellation of the MNI MRI single-subject brain. *NeuroImage*, **15** (1), 273-289.

Full Text: [2002\NeuroImage15, 273.pdf](2002/NeuroImage15,%20273.pdf)

Abstract: An anatomical parcellation of the spatially normalized single-subject high-resolution T1 volume provided by the Montreal Neurological Institute (MNI) (D. L. Collins et al., 1998, Trans. Med. Imag. 17, 463-468) was performed. The MNI single-subject main sulci were first delineated and further used as landmarks for the 3D definition of 45 anatomical volumes of interest (AVOI) in each hemisphere. This procedure was performed using a dedicated software which allowed a 3D following of the sulci course on the edited brain. Regions of interest were then drawn manually with the same software every 2 mm on the axial slices of the high-resolution MNI single subject. The 90 AVOI were reconstructed and assigned a label. Using this parcellation method, three procedures to perform the automated anatomical labeling of functional studies are proposed: (1) labeling of an extremum defined by a set of coordinates, (2) percentage of voxels belonging to each of the AVOI intersected by a sphere centered by a set of coordinates, and (3) percentage of voxels belonging to each of the AVOI intersected by an activated cluster. An interface with the Statistical Parametric Mapping package (SPM, J. Ashburner and K. J. Friston, 1999, Hum. Brain Mapp. 7, 254-266) is provided as a freeware to researchers of the neuroimaging community. We believe that this tool is an improvement for the macroscopical labeling of activated area compared to labeling assessed using the Talairach atlas brain in which deformations are well known. However, this tool does not alleviate the need for more sophisticated labeling strategies based on anatomical or cytoarchitectonic probabilistic maps. (C) 2002 Elsevier Science.

Keywords: Atlas, Brain, Central Sulcus, Cerebral-Cortex, Cingulate, Cortices, Localization, Morphometry, MRI, Planum-Temporale, Science, SPM, System, Variability, Visualization

? Nielsen, F.Å., Balslev, D. and Hansen, L.K. (2005), Mining the posterior cingulate: Segregation between memory and pain components. *NeuroImage*, **27** (3), 520-532.

Full Text: [2005\NeuroImage27, 520.pdf](2005/NeuroImage27,%20520.pdf)

Abstract: We present a general method for automatic meta-analyses in neuroscience and apply it on text data from published functional imaging studies to extract main functions associated with a brain area-the posterior cingulate cortex (PCC). Abstracts from PubMed are down-loaded, words extracted and converted to a bag-of-words matrix representation. The combined data are analyzed with hierarchical non-negative matrix factorization. We find that the prominent themes in the PCC corpus are episodic memory retrieval and pain. We further characterize the distribution in PCC of the Talairach coordinates available in some of the articles. This shows a tendency to functional segregation between memory and pain components where memory activations are predominantly in the caudal part and pain in the rostral part of PCC. (c) 2005 Elsevier Inc. All rights reserved.

Keywords: Alzheimer’s Disease, Autobiographical Memory, Automatic Data Processing, Bibliometrics, Brain Mapping, Cerebral-Blood-Flow, Childhood Sexual-Abuse, Cingulate Gyrus, Conscious Resting State, Episodic Memory, Human Brain, Irritable-Bowel-Syndrome, Magnetic Resonance Imaging, Memory, Meta-Analysis, Nonnegative Matrix Factorization, Pain, Positron Emission Tomography, Positron-Emission-Tomography, Posttraumatic-Stress-Disorder, PubMed

? Desikan, R.S., Segonne, F., Fischl, B., Quinn, B.T., Dickerson, B.C., Blacker, D., Buckner, R.L., Dale, A.M., Maguire, R.P., Hyman, B.T., Albert, M.S. and Killiany, R.J. (2006), An automated labeling system for subdividing the human cerebral cortex on MRI scans into gyral based regions of interest. *Neuroimage*, **31** (3), 968-980.

Full Text: [2006\NeuroImage31, 968.pdf](2006/NeuroImage31,%20968.pdf)

Abstract: In this study, we have assessed the validity and reliability of an automated labeling system that we have developed for subdividing the human cerebral cortex on magnetic resonance images into gyral based regions of interest (ROIs). Using a dataset of 40 MRI scans we manually identified 34 cortical ROIs in each (if the individual hemispheres. This information was then encoded in the form of an atlas that was utilized to automatically label ROIs. To examine the validity, as well as the intra- and inter-rater reliability of the automated system, we used both intraclass correlation coefficients (ICC), and a new method known as mean distance maps, to assess the degree of mismatch between the manual and the automated sets of ROIs. When compared with the manual ROIs, the automated ROIs were highly accurate, with an average ICC of 0.835 across all of the ROIs, and a mean distance error of less than 1 mm. Intra- and inter-rater comparisons yielded little to no difference between the sets of ROIs. These findings suggest that the automated method we have developed for subdividing the human cerebral cortex into standard gyral-based neuroanatomical regions is both anatomically valid and reliable. This method may be useful for both morphometric and functional studies of the cerebral cortex as well as for clinical investigations aimed at tracking the evolution of disease-induced changes over time, including clinical trials in which MRI-based measures are used to examine response to treatment. (c) 2006 Elsevier Inc. All rights reserved.

Keywords: Atlas, Clinical Trials, Human, Information, MRI

? Smith, S.M., Jenkinson, M., Johansen-Berg, H., Rueckert, D., Nichols, T.E., Mackay, C.E., Watkins, K.E., Ciccarelli, O., Cader, M.Z., Matthews, P.M. and Behrens, T.E.J. (2006), Tract-based spatial statistics: Voxelwise analysis of multi-subject diffusion data. *NeuroImage*, **31** (4), 1487-1505.

Full Text: [2006\NeuroImage31, 1487.pdf](2006/NeuroImage31,%201487.pdf)

Abstract: There has been much recent interest in using magnetic resonance diffusion imaging to provide information about anatomical connectivity in the brain, by measuring the anisotropic diffusion of water in white matter tracts. One of the measures most commonly derived from diffusion data is fractional anisotropy (FA), which quantifies how strongly directional the local tract structure is. Many imaging studies are starting to use FA images in voxelwise statistical analyses, in order to localise brain changes related to development, degeneration and disease. However, optimal analysis is compromised by the use of standard registration algorithms; there has not to date been a satisfactory solution to the question of how to align FA images from multiple subjects in a way that allows for valid conclusions to be drawn from the subsequent voxelwise analysis. Furthermore, the arbitrariness of the choice of spatial smoothing extent has not yet been resolved. In this paper, we present a new method that aims to solve these issues via (a) carefully tuned non-linear registration, followed by (b) projection onto an alignment-invariant tract representation (the "mean FA skeleton"). We refer to this new approach as Tract-Based Spatial Statistics (TBSS). TBSS aims to improve the sensitivity, objectivity and interpretability of analysis of multi-subject diffusion imaging studies. We describe TBSS in detail and present example TBSS results from several diffusion imaging studies. (c) 2006 Elsevier Inc. All rights reserved.

Keywords: Anisotropy, Brain, Connections, Development, Diffusion, Diffusion Imaging, DTI, England, FA, Fractional Anisotropy, Human Brain, Images, Imaging, Information, Morphometry, Morphometry, MRI, Normalization, Optimization, Registration, Schizophrenia, Science, Statistical, Statistics, Tensor MRI, Tract, VBM, White Matter

? Di Maio, S., Kapur, T., Cleary, K., Aylward, S., Kazanzides, P., Vosburgh, K., Ellis, R., Duncan, J., Farahani, K., Lemke, H., Peters, T., Lorensen, W., Gobbi, D., Haller, J., Clarke, L., Pizer, S., Taylor, R., Galloway, R., Fichtinger, G., Hata, N., Lawson, K., Tempany, C., Kikinis, R. and Jolesz, F. (2007), Challenges in image-guided therapy system design. *Neuroimage*, **37**, S144-S151.

Abstract: System development for image-guided therapy (IGT), or image-guided interventions (IGI), continues to be an area of active interest across academic and industry groups. This is an emerging field that is growing rapidly: major academic institutions and medical device manufacturers have produced IGT technologies that are in routine clinical use, dozens of high-impact publications are published in well regarded journals each year, and several small companies have successfully commercialized sophisticated IGT systems. In meetings between IGT investigators over the last two years, a consensus has emerged that several key areas must be addressed collaboratively by the community to reach the next level of impact and efficiency in IGT research and development to improve patient care. These meetings culminated in a two-day workshop that brought together several academic and industrial leaders in the field today. The goals of the workshop were to identify gaps in the engineering infrastructure available to IGT researchers, develop the role of research funding agencies and the recently established US-based National Center for Image Guided Therapy (NCIGT), and ultimately to facilitate the transfer of technology among research centers that are sponsored by the National Institutes of Health (NIH). Workshop discussions spanned many of the current challenges in the development and deployment of new IGT systems. Key challenges were identified in a number of areas, including: validation standards; workflows, usecases, and application requirements; component reusability; and device interface standards. This report elaborates on these key points and proposes research challenges that are to be addressed by a joint effort between academic, industry, and NIH participants. (c) 2007 Published by Elsevier Inc.

Keywords: Glioma, Industry, Journals, Neurosurgery, Publications, Registration, Research

# Title: Neurologia

Full Journal Title: Neurologia

ISO Abbreviated Title: Neurologia

JCR Abbreviated Title: Neurologia

ISSN: 0213-4853

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Pareja, F.B. (2004), Neurological investigation in Spain. Present and future. *Neurologia*, **19** (S1), 64-72.

Full Text: 2004\Neurologia19, 64.pdf

Abstract: Objectives. To analyze the situation of neurological research in relationship to the biomedical and neuroscience research in Spain. To discuss alternatives of neurology research for the future.

Methods. Author review. Review of neurology research bibliometric by means of three quantitative bibliometric indexes of neurological publications in MEDLINE (research in neurology, neurology evidence-based medicine publications, and clinical trials); and review of the database of grants funded by the FIS (Health Research Fund) in 1989 and in the 1994-2000 period.

Results. Spain is in a middle position in country biomedical publication ranking in Europe, although the Spanish expenditure from GNP granted to research is lower than the mean situation among EU countries. Investigation in neurosciences stands out in biomedical research in Spain, however the bibliometric indexes analyzed and the study performed of the database of the FIS are not favorable for Spanish Neurology. This study shows that, for the 1994-2000 period, the neurologists only performed 32.1% of the projects funded in clinical research, 6% in neurosciences; 66.7% in epidemiology; and 4.3% in management-public health.

Discussion and conclusions. The expenditure for biomedical research should be increased in Spain. Furthermore, clinical research and neurological clinical management research should be intensified. One of the better strategies to achieve this objective is to obtain medical part-time schedules for patient oriented research in hospitals. To solve this situation and to set up communication networks among basic neuro-scientific, clinicians and epidemiologists is one of the major challenges of the current neurological research in Spain.

Keywords: Neurological-Investigation, Neurological-Literature, Spain-Neurology, Spanish Scientific Production, Science-Citation-Index, Clinical-Research, Biomedical-Research, Research-Projects, Health-Care, Fondo, Publications, Hospitals, Sanitaria

? Aleixandre-Benavent, R., Zurian, J.C.V., Alonso-Arroyo, A., Miguel-Dasit, A., de Dios, J.G. and Orive, J.I.D. (2007), Spanish versus English as a language of publication and impact factor of NEUROLOGiA. *Neurologia*, **22** (1), 19-26.

Full Text: [2007\Neurologia22, 19.pdf](2007/Neurologia22,%2019.pdf)

Abstract: Although the English language is considered nowadays as the international language of medical publications, some important Spanish journals with impact factor in the Journal Citation Reports as NEUROLOGIA, they bet for the publication in Spanish. NEUROLOGIA is the Official publication of the Sociedad Espanola de Neurologia and there is the conviction that you can have a Spanish language journal with a high quality and a strong impact. Its presence in the most important international data bases and the possibility of free access to its contents through Internet guarantees its proper diffusion around the world. From the point of view of citation, the repercussion of the language for NEUROLOGIA, is reflected in the fact that the 46,8% of the citations that receive are from journals that are published in Spanish. The main factor to improve the impact of the journal is the quality of their papers, as well as the fulfilment of the international rules about periodical publications, the punctuality in its edition and distribution, the presence in national and international bibliographical data bases, its free diffusion in Internet, the training of its researchers and their sensitivity to consult and cite articles that have been published in quality Spanish journals, when necessary.

Keywords: Citation, Citations, Design, Diffusion, Impact Factor, Internet, Journals, Language, Medicina-Clinica, Publication, Publications, Quality, Researchers, Self-Citation, Spanish Journals

? Matias-Guiu, J. and Garcia-Ramos, R. (2009), Author and authorship in medical journals. *Neurologia*, **24** (1), 1-6.

Full Text: [2009\Neurologia24, 1.pdf](2009/Neurologia24,%201.pdf)

Abstract: Introduction. There is an on-going debate on questions of authorship in the scientific publications. Adherence to the International Committee of Medical Journal Editors (ICMJE) recommendations for medical journals is low, which should be cause for reflection. Development. We have reviewed the authorship criteria from ICMJE recommendations as well as some problems on authorship as gift authors or ghost authors. We have also analyzed the increasing number of signers on scientific papers and its potentials causes and the responsibility of the scientific editors in that regards. We describe the criteria from our Journal on authorship. Conclusions. Authorship criteria for our journal include demonstration of their relevance in the development of the research and manuscript as well as the responsibility in it. This line is not as restrictive as that of the ICMJE criteria, whose recommendations may not be easy to adapt to the current organization of the multidisciplinary research groups.

Keywords: Authorship, Biomedical-Research, Coauthorship Networks, Cocitation Analysis, Conflict-of-Interest, Editors, Groups, Impact Factor, Institutional Collaboration, International, Medical Journals, Multiple Authorship, Publications, Research, Research Articles, Research Integrity, Scientific Societies

? Matias-Guiu, J. and Garcia-Ramos, R. (2010), Fraud and misconduct in scientific publications. *Neurologia*, **25** (1), 1-4.

Full Text: 2010\Neurologia25, 1.pdf

Abstract: Introduction: Editors of scientific publications have, traditionally, been unaware of frauds and misconduct, being more concerned with subjects associated to impact or with editorial review. But, in the last few years they have been checking and reporting that there is misconduct in the scientific field, and furthermore, it is not uncommon. Method: The most common misconduct of authors is reviewed. These are seen as an infringement of the conditions that a scientific work must have, and include fraud, such as plagiarism, repeated publications or redundant publications. Their frequency and the perspectives from a publishing point of view are discussed. Conclusions: Many editors are demanding clear regulations to prevent misconduct. Editorial review and the provision of evaluation tools for reviewers are prevention, but not infallible formulas. What is most important could be that editorial teams be aware of its existence. (C) 2009 Sociedad Espanola de Neurologia. Published by Elsevier Espana, S.L. All rights reserved.

Keywords: Articles, Authors, Authorship, Duplicate Publication, Editorial Review, Editors, Ethics, Field, Fraud, Integrity, Medical Journals, Misconduct, Multiple Publication, Plagiarism, Prevention, Publications, Publishing, Redundant Publication, Redundant Publications, Review, Scientific Publications

# Title: Neurologic Clinics

Full Journal Title: [Neurologic Clinics](http://www.sciencedirect.com/science/journal/07338619)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

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Subject Categories:

: Impact Factor

? Busis, N. (2010), Mobile phones to improve the practice of neurology. *Neurologic Clinics*, **28** (2), 395-410.

Full Text: Neu Cli28, 395.pdf[C:\Users\YSHo\AppData\Roaming\Microsoft\Word\2007\Neu Sci28, 287.pdf](2007/Neu%20Sci28,%20287.pdf)

Abstract: Smartphones make mobile computing at point of care practical. Smartphones can think, sync, and link. Built-in and user-installed applications facilitate communications between neurologists and their medical colleagues and patients and augment data acquisition and processing in the core medical information domains of patient data, clinical decision support, and practice management. Mobile telemedicine is becoming practical in certain scenarios. Smartphones can improve neurologic diagnosis and treatment, teaching, and research. Patients can benefit from smartphone technology. In addition to enhanced communication, patient education, and social networking, these devices can promote healthy lifestyles, preventive medicine, and compliance and even serve as monitoring and prosthetic devices.

Keywords: Mobile Phones, Smartphones, Information Technology, Neurology Practice

# Title: Neurological Sciences

Full Journal Title: Neurological Sciences

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0304-3940

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Robert, C., Arreto, C.D., Gaudy, J.R. and Wilson, C.S. (2007), Utilisation of the c-fos immunohistochemical method: a 2004 quantitative study. *Neurological Sciences*, **28** (5), 287-293.

Full Text: [2007\Neu Sci28, 287.pdf](2007/Neu%20Sci28,%20287.pdf)

Abstract: The aim of this study was to provide a quantitative view of the utilisation of the c-fos immunohistochemical method. Articles including the term “c-fos” in their title, abstract or keywords and published in 2004 were retrieved from the Current Content/Life Sciences or Current Content/Clinical Medicine collection of the SCI database. The 933 article-type documents retained were distributed in almost all the sub-disciplines of the Life Sciences and Clinical Medicine, but were principally published in the field of neuroscience. They were authored by researchers from 44 countries - the most prolific were the USA (435 articles), Japan (135) and the UK (55). The 933 articles were published in 283 different journals; all but one of the top-20 most prolific journals are in the Life Sciences discipline, and. their Impact Factors ranged from 2.0 to 7.9. A comparison of the USA and the European Union scientific profiles is also made.

Keywords: Bibliometrics, Brain, c-fos, China, Countries, Database, European Union, Field, Immunohistochemical Method, Journals, Neurological Research, Neuroscience Literature, SCI, Science, USA, World

# Title: Neurology

Full Journal Title: [Neurology](http://ovidsp.uk.ovid.com/sp-2.3.1b/ovidweb.cgi?QS2=434f4e1a73d37e8c3149ddec6b03142c5437f85d8e78bffb309ba33a72450868ca620826f8ed25e5741b8ee386b49c59849a75efc4cf07b7f12602b42589e74bbe52ca59d78a26b25b4f3d0bab2f433503fba2dc9a264911616538d73f6d8d31279d7e361226)

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ISSN: 0028-3878

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Language: English

Publisher: Lippincott Williams & Wilkins

Publisher Address: 530 Walnut St, Philadelphia, PA 19106-3621

Subject Categories:

Clinical Neurology: Impact Factor

Notes: highly cited

? Mcdermott, J.R., Smith, A.I., Iqbal, K. and Wisniewski, H.M. (1979), Brain aluminum in aging and Alzheimer disease. *Neurology*, **29** (6), 809-814.

Full Text: 1960-80\Neurology29, 809.pdf

Notes: highly cited

? Mckhann, G., Drachman, D., Folstein, M., Katzman, R., Price, D. and Stadlan, E.M. (1984), Clinical diagnosis of Alzheimer’s disease: Report of the NINCDS-ADRDA work group under the auspices of department of health and human services task force on Alzheimer’s disease. *Neurology*, **34** (7), 939-944.

Full Text: [1984\Neurology34, 939.pdf](1984/Neurology34,%20939.pdf)

Abstract: Clinical criteria for the diagnosis of Alzheimer’s disease include insidious onset and progressive impairment of memory and other cognitive functions. There are no motor, sensory, or coordination deficits early in the disease. The diagnosis cannot be determined by laboratory tests. These tests are important primarily in identifying other possible causes of dementia that must be excluded before the diagnosis of Alzheimer’s disease may be made with confidence. Neuropsychological tests provide confirmatory evidence of the diagnosis of dementia and help to assess the course and response to therapy. The criteria proposed are intended to serve as a guide for the diagnosis of probable, possible, and definite Alzheimer’s disease; these criteria will be revised as more definitive information becomes available. (C)1984Advanstar Communications, Inc.

? Liu, C.K., Miller, B.L., Cummings, J.L., Mehringer, C.M., Goldberg, M.A., Howng, S.L. and Benson, D.F. (1992), A quantitative MRI study of vascular dementia. *Neurology*, **42** (1), 138-143.

Abstract: We studied the MRI and clinical factors associated with dementia following stroke by quantifying ventricle-to-brain ratio (VBR), anatomic region of infarction, and cortical, subcortical, and white matter areas of infarction in 24 stroke patients with dementia and 29 nondemented stroke patients. The factors that most strongly correlated with dementia were total white matter lesion (WML) area, left WML, VBR, right WML, age, left cortical infarction area, left parietal infarction area, and total infarction area. Using discriminant analysis, these factors correctly classified 28 of 29 nondemented patients and 18 of 24 demented patients. Both cortical and white matter total infarction area measurements were strongly associated with dementia in stroke patients, suggesting that these factors strongly influenced the development of dementia following stroke. There was a strong association between dementia and left- but not right-hemisphere infarction area. The only demographic factor that strongly associated with dementia was age.

Keywords: White-Matter Lesions, Computed-Tomography, Leuko-Araiosis, Alzheimers-Disease, Intellectual Impairment, Cerebral Atrophy, Lucencies, Severity, Brain, CT

? Mcdowell, I., Hill, G., Lindsay, J., Helliwell, B., Costa, L., Beattie, L., Hertzman, C., Tuokko, H., Gutman, G., Parhad, I., Parboosingh, J., Bland, R., Newman, S., Dobbs, A., Hazlett, C., Rule, B., Darcy, C., Segall, A., Chappell, N., Manfreda, J., Montgomery, P., Ostbye, T., Robertson, J., Hachinski, V., Chambers, L., Munroeblum, H., Eastwood, R., Rifat, S., Verdon, J., Navarro, J., Gauthier, S., Wolfson, C., Baumgarten, M., Ska, B., Joanette, Y., Kergoat, M.J., Nazerali, N., Hebert, R., Bravo, G., Doyon, J., Bouchard, R., Morin, J., Gauvreau, D., Balram, C., Rockwood, K., Gray, J., Fisk, J., Nilsson, T., Donald, A., Buehler, S., Prysephillips, W. and Kozma, A. (1994), The canadian study of health and aging - risk-factors for Alzheimers-disease in Canada. *Neurology*, **44** (11), 2073-2080.

Full Text: Neurology44, 2073.pdf

Abstract: Objective: To study risk factors for Alzheimer’s disease (AD) based on data from the Canadian Study of Health and Aging. Design: Population-based case-control study. Setting: Communities and institutions in 10 Canadian provinces. Participants: Two hundred fifty-eight cases clinically diagnosed with probable AD, with onset of symptoms within 3 years of diagnosis, and 535 controls, frequency matched on age group, study center, and residence in community or institution, clinically confirmed to be cognitively normal. Main outcome measure: Odds ratios (ORs) were calculated using unconditional logistic regression for previously hypothesized and potential risk factors for AD. Results: The OR for family history of dementia was significantly elevated (2.62; 95% confidence interval [CI], 1.53 to 4.51) and increased with the number of relatives with dementia. Those with less education were at higher risk of AD, with an OR of 4.00 (95% CI, 2.49 to 6.43) for those with 0 to 6 years, in comparison with those with 10 or more years. Head injury achieved borderline significance. A history of arthritis resulted in a low risk of AD (OR = 0.54; 95% CI, 0.36 to 0.81), as did a history of use of nonsteroidal anti-inflammatory drugs, Initial analyses showed an increased risk of AD for occupational exposure to glues as well as to pesticides and fertilizers; the increased risk was greater in those with less education. Conclusion: This study confirmed a number of previously reported risk factors for AD, but provided little support for others. A new finding was an increased risk for those with occupational exposure to glues as well as pesticides and fertilizers, but this needs further study.

Keywords: Drinking-Water, Parkinsons-Disease, Senile Dementia, Aluminum, Education, Epidemiology, Association, Population, Prevalence, China

? McLachlan, D.R., Bergeron, C., Smith, J.E., Boomer, D. and Rifat, S.L. (1996), Risk for neuropathologically confirmed Alzheimer’s disease and residual aluminum in municipal drinking water employing weighted residential histories [see comments]. *Neurology*, **46** (2), 401-405.

Full Text: [N\Neurology46, 401.pdf](N/Neurology46,%20401.pdf)

Abstract: We investigated a possible relation between aluminum concentration ([Al]) in public drinking water and Alzheimer’s disease (AD), with AD cases and controls defined on the basis of strict neuropathologic criteria. Using the case/control odds ratio as an estimate of relative risk and [Al] > or = 100 microgram/L as the cutoff point, elevated risks for histopathologically verified AD were associated with higher [Al]. Comparing all AD cases with all non-AD controls, and using the [Al] of public drinking water at last residence before death as the measure of exposure, the estimated relative risk associated with [Al] > or = 100 microgram/L was 1.7 (95% CI: 1.2-2.5). Estimating aluminum exposure from a 10-year weighted residential history resulted in estimates of relative risk of 2.5 or greater. The public health implications of the observed relationship between [Al] in drinking water and AD prevalence in the population depend in large measure on population exposure characteristics. In Ontario, it is estimated that 19% of the population was exposed to residual [Al] greater than or equal to 100 microgram/L. Based on the estimated relative risk and the assumption of causality, this translates to an etiologic fraction of 0.23. Although the potential contributions of confounding and mitigating factors are not defined in this report, the merit of limiting residual aluminum in drinking water supplies deserves serious attention.

? Huang, X.M., Chen, P.C. and Poole, C. (2004), APOE-epsilon 2 allele associated with higher prevalence of sporadic Parkinson disease. *Neurology*, **62** (12), 2198-2202.

Abstract: Background: The link of the apolipoprotein (APOE) - epsilon4 allele to Alzheimer disease (AD) has led to studies investigating the role of apoE polymorphisms in Parkinson disease (PD). The authors hypothesized that any association between PD and APOE alleles and genotypes would be too small to be detected or precisely estimated by an individual case-controlled study. Method: The hypothesis was tested by systematic review and meta-analysis of results from case-control studies that provided clear clinical or pathologic criteria for PD and that reported APOE genotype frequencies. Published reports were obtained from MEDLINE, Biosis Previews, and ISI Web of Science searches, supplemented by citation analysis from retrieved articles. The authors estimated and compared prevalence odds ratios (OR) for PD in relation to each allele and genotype. Results: Twenty-two eligible studies were identified. There was no evidence of heterogeneity (p > 0.4) or publication bias (p > 0.2) for any allele or genotype. The estimated summary OR for one or more copies of each APOE allele was 1.20 for APOE-epsilon2 (95% CI, 1.02 to 1.42), 0.83 for APOE-epsilon3 (95% CI, 0.63 to 1.09), and 0.99 for APOE-epsilon4 (95% CI, 0.87 to 1.14). Conclusions: Unlike Alzheimer disease, for which the APOE-epsilon4 allele increases the prevalence and the APOE-epsilon2 allele is protective, the authors’ analysis shows the APOE-epsilon2 allele, but not the APOE-epsilon4 allele, to be positively associated with sporadic Parkinson disease.

Keywords: Alzheimer, Alzheimers-Disease, Analysis, Apolipoprotein-E Genotype, Authors, Bias, Case-Control, Case-Control Studies, Citation, Citation Analysis, Disease, E Epsilon-4 Allele, E Gene, Frequency, ISI, Medline, Meta-Analysis, Neurodegenerative Disorders, Onset, Polymorphism, Polymorphisms, Prevalence, Publication, Publication Bias, Review, Science, Senile Dementia, Susceptibility, Systematic, Systematic Review, Web of Science

? Zesiewicz, T.A., Elble, R., Louis, E.D., Hauser, R.A., Sullivan, K.L., Dewey, R.B., Ondo, W.G., Gronseth, G.S. and Weiner, W.J. (2005), Practice parameter: Therapies for essential tremor - Report of the quality standards subcommittee of the American Academy of Neurology. *Neurology*, **64** (12), 2008-2020.

Abstract: Background: Essential tremor (ET) is one of the most common tremor disorders in adults and is characterized by kinetic and postural tremor. To develop this practice parameter, the authors reviewed available evidence regarding initiation of pharmacologic and surgical therapies, duration of their effect, their relative benefits and risks, and the strength of evidence supporting their use. Methods: A literature review using MEDLINE, EMBASE, Science Citation Index, and CINAHL was performed to identify clinical trials in patients with ET published between 1966 and August 2004. Articles were classified according to a four- tiered level of evidence scheme and recommendations were based on the level of evidence. Results and Conclusions: Propranolol and primidone reduce limb tremor (Level A). Alprazolam, atenolol, gabapentin (monotherapy), sotalol, and topiramate are probably effective in reducing limb tremor (Level B). Limited studies suggest that propranolol reduces head tremor (Level B). Clonazepam, clozapine, nadolol, and nimodipine possibly reduce limb tremor (Level C). Botulinum toxin A may reduce hand tremor but is associated with dose-dependent hand weakness (Level C). Botulinum toxin A may reduce head tremor (Level C) and voice tremor (Level C), but breathiness, hoarseness, and swallowing difficulties may occur in the treatment of voice tremor. Chronic deep brain stimulation (DBS) (Level C) and thalamotomy (Level C) are highly efficacious in reducing tremor. Each procedure carries a small risk of major complications. Some adverse events from DBS may resolve with time or with adjustment of stimulator settings. There is insufficient evidence regarding the surgical treatment of head and voice tremor and the use of gamma knife thalamotomy (Level U). Additional prospective, double-blind, placebo-controlled trials are needed to better determine the efficacy and side effects of pharmacologic and surgical treatments of ET.

Keywords: Adjustment, Articles, Benign Essential Tremor, Botulinum Toxin, Botulinum Toxin Treatment, Brain, Citation, Clinical Trials, Deep Brain-Stimulation, Double-Blind Trial, Essential Head Tremor, Follow-up, Gamma-Knife Thalamotomy, Kinetic, Literature, Literature Review, Medline, Neurology, Parkinsons-Disease, Placebo-Controlled Trial, Review, Risk, Science, Science Citation Index, Standards, Thalamic-Stimulation, Treatment

? Burwick, R.M., Ramsay, P.P., Haines, J.L., Hauser, S.L., Oksenberg, J.R., Pericak-Vance, M.A., Schmidt, S., Compston, A., Sawcer, S., Cittadella, R., Savettieri, G., Quattrone, A., Polman, C.H., Uitdehaag, B.M.J., Zwemmer, J.N.P., Hawkins, P., Ollier, W.E.R., Weatherby, S., Enzinger, C., Fazekas, F., Schmidt, H., Schmidt, R., Hillert, J., Masterman, T., Hogh, P., Niino, M., Kikuchi, S., Maciel, P., Santos, M., Rio, M.E., Kwiecinski, H., Zakrzewska-Pniewska, B., Evangelou, N., Palace, J. and Barcellos, L.F. (2006), APOE epsilon variation in multiple sclerosis susceptibility and disease severity - Some answers. *Neurology*, **66** (9), 1373-1383.

Abstract: Background: Previous studies have examined the role of APOE variation in multiple sclerosis (MS), but have lacked the statistical power to detect modest genetic influences on risk and disease severity. The meta- and pooled analyses presented here utilize the largest collection, to date, of MS cases, controls, and families genotyped for the APOE epsilon polymorphism. Methods: Studies of MS and APOE were identified by searches of PUBMED, Biosis, Web of Science, Cochrane Review, and EMBASE. When possible, authors were contacted for individual genotype data. Meta-analyses of MS case-control data and family-based analyses were performed to assess the association of APOE epsilon genotype with disease risk. Pooled analyses of MS cases were also performed to assess the influence of APOE epsilon genotype on disease severity. Results: A total of 22 studies (3,299 MS cases and 2,532 controls) were available for meta- analysis. No effect of epsilon 2 or epsilon 4 status on MS risk was observed (summary OR 1.14, 95% CI 0.96-1.34 and OR 0.89, 95% CI 0.78-1.01). Results obtained from analyses of APOE genotypes in 1,279 MS families were also negative (p = 0.61). Finally, results from pooled analyses of 4,048 MS cases also argue strongly that APOE epsilon status does not distinguish a relapsing-remitting from primary progressive disease course, or influence disease severity, as measured by the Expanded Disability Status Scale and disease duration. Conclusion: Overall, these findings do not support a role for APOE in multiple sclerosis, and underscore the importance of using large sample sizes to detect modest genetic effects, particularly in studies of genotype-phenotype relationships.

Keywords: Alzheimers-Disease, Amino-Acid-Sequence, Analysis, Apolipoprotein-E Genotype, Authors, Case-Control, Cochrane, Cognitive Impairment, Diagnostic-Criteria, Disease, Disease Risk, E Polymorphism, Expanded Disability Status Scale, Families, Genetic, Linkage Disequilibrium, Long-Term Progression, Methods, Multiple Sclerosis, Pedigree Disequilibrium Test, Polymorphism, Primary, Pubmed, Relapsing-Remitting, Review, Risk, Scale, Science, Statistical, Susceptibility, Web of Science, Whole Genome Screen

? Singh, S. and Kumar, A. (2007), Wernicke encephalopathy after obesity surgery - A systematic review. *Neurology*, **68** (11), 807-811.

Abstract: To characterize the clinical features, risk factors, radiographic findings, and prognosis of Wernicke encephalopathy after bariatric surgery. Methods: We performed a systematic review of MEDLINE, Embase, Ovid, ISI (Science Citation Index), and Google Scholar for case reports, case series, or cohort studies of Wernicke encephalopathy after bariatric surgery. Results: We found 32 cases (27 of whom were women) reported, from 2 weeks to 18 months after the procedure. Most patients had vomiting as a risk factor (n= 25) and presented with the triad of Wernicke encephalopathy (confusion, ataxia, and nystagmus; n = 21). Optic neuropathy, papilledema, deafness, seizures, asterixis, weakness, and sensory and motor neuropathy were also reported. Characteristic radiographic findings were hyperintense signals in the periaqueductal gray area and dorsal medial nucleus of the thalamus; radiographs were normal in 15 patients. One series from Brazil reported 4 patients (among 50 patients) with Wernicke encephalopathy; all presented with vomiting and concomitant peripheral neuropathy at a median of 2.5 months (1.5 to 3 months) after bariatric surgery. Another series identified 2 of 23 patients (both women) with Wernicke encephalopathy after bariatric surgery. Conclusion: Wernicke encephalopathy after bariatric surgery usually occurs between 4 and 12 weeks postoperatively, especially in young women with vomiting. Atypical neurologic features are common. The diagnosis is mainly clinical, because radiographic findings are normal in some patients. Prospective studies to determine the prevalence of this problem and protocols for preventive thiamine supplementation need evaluation.

Keywords: Bariatric Surgery, Case Reports, Case Series, Citation, Clinical Features, Cohort, Complications, Deafness, Degeneration, Diagnosis, Evaluation, Gastric Bypass, Google Scholar, ISI, Korsakoff Encephalopathy, Medline, Morbid-Obesity, Plication, Polyneuropathy, Prevalence, Prognosis, Review, Risk, Risk Factors, Science, Science Citation Index, Surgery, Systematic Review, Thiamine-Deficiency, Vertical Banded Gastroplasty, Women

? Zesiewicz, T.A., Sullivan, K.L., Arnulf, I., Chaudhuri, K.R., Morgan, J.C., Gronseth, G.S., Miyasaki, J., Iverson, D.J. and Weiner, W.J. (2010), Practice Parameter: Treatment of nonmotor symptoms of Parkinson disease Report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology*, **74** (11), 924-931.

Full Text: [2010\Neurology74, 924.pdf](2010/Neurology74,%20924.pdf)

Abstract: Objective: Nonmotor symptoms (sleep dysfunction, sensory symptoms, autonomic dysfunction, mood disorders, and cognitive abnormalities) in Parkinson disease (PD) are a major cause of morbidity, yet are often underrecognized. This evidence-based practice parameter evaluates treatment options for the nonmotor symptoms of PD. Articles pertaining to cognitive and mood dysfunction in PD, as well as treatment of sialorrhea with botulinum toxin, were previously reviewed as part of American Academy of Neurology practice parameters and were not included here. Methods: A literature search of MEDLINE, EMBASE, and Science Citation Index was performed to identify clinical trials in patients with nonmotor symptoms of PD published between 1966 and August 2008. Articles were classified according to a 4-tiered level of evidence scheme and recommendations were based on the level of evidence. Results and Recommendations: Sildenafil citrate (50 mg) may be considered to treat erectile dysfunction in patients with Parkinson disease (PD) (Level C). Macrogol (polyethylene glycol) may be considered to treat constipation in patients with PD (Level C). The use of levodopa/carbidopa probably decreases the frequency of spontaneous nighttime leg movements, and should be considered to treat periodic limb movements of sleep in patients with PD (Level B). There is insufficient evidence to support or refute specific treatments for urinary incontinence, orthostatic hypotension, and anxiety (Level U). Future research should include concerted and interdisciplinary efforts toward finding treatments for nonmotor symptoms of PD. Neurology (R) 2010; 74:924-931.

Keywords: Bilateral Subthalamic Stimulation, Botulinum Neurotoxin, Citation, Citrate, Constipation, Daytime Sleepiness, Double-Blind, Dysfunction, Interdisciplinary, Literature, Medline, Multiple System Atrophy, Neurogenic Orthostatic Hypotension, of-Neurology, PD, Randomized Controlled-Trial, Research, Science, Science Citation Index, Treatment

? Liu, R., Gao, X., Lu, Y. and Chen, H.L. (2011), Meta-analysis of the relationship between Parkinson disease and melanoma. *Neurology*, **76** (23), 2002-2009.

Full Text: 2011\Neurology76, 2002.pdf

Abstract: Objective: To assess the epidemiologic evidence on melanoma in relation to Parkinson disease (PD) via systematic review and meta-analysis. Methods: Epidemiologic studies on melanoma and PD were searched using PUBMED, Web of Science, Scoups, and EMBASE (1965 through June 2010). Eligible studies were those that reported risk estimates of melanoma among patients with PD or vice versa. Pooled odds ratios (ORs) with 95% confidence intervals (CIs) were calculated using random-effects models. Results: We identified 12 eligible publications on melanoma and PD: 8 had fewer than 10 cases with both PD and melanoma, and 7 provided gender-specific results. The pooled OR was 2.11 (95% CI 1.26-3.54) overall, 2.04 (1.55-2.69) for men, and 1.52 (0.85-2.75) for women. Analyses by temporal relationship found that melanoma occurrence was significantly higher after the diagnosis of PD (OR 3.61, 95% CI 1.49-8.77), but not before PD diagnosis (OR 1.07, 95% CI 0.62-1.84). Further analyses revealed that the lack of significance in the latter analysis was due to one study, which when excluded resulted in a significant association (OR 1.44, 95% CI 1.06-1.96). We also analyzed nonmelanoma skin cancers in relation to PD and found no significant relationship (OR 1.11, 95% CI 0.94-1.30). Conclusions: Collective epidemiologic evidence supports an association of PD with melanoma. Further research is needed to examine the nature and mechanisms of this relationship. Neurology (R) 2011;76:2002-2009.

Keywords: Amyotrophic-Lateral-Sclerosis, Analysis, Cancer Incidence, Confidence Intervals, Diagnosis, Disease, Epidemiologic Studies, Gender, Levodopa, Malignant-Melanoma, Melanoma, Meta Analysis, Meta-Analysis, Methods, Publications, Pubmed, Research, Review, Risk, Science, Skin-Cancer, Smoking, Systematic, Systematic Review, Trial, Web of Science, Women

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Full Text: 2011\Neurology77, 1752.pdf

Abstract: Background: This evidence-based guideline is an update of the 2005 American Academy of Neurology practice parameter on the treatment of essential tremor (ET). Methods: A literature review using MEDLINE, EMBASE, Science Citation Index, and CINAHL was performed to identify clinical trials in patients with ET published between 2004 and April 2010. Results and Recommendations: Conclusions and recommendations for the use of propranolol, primidone (Level A, established as effective); alprazolam, atenolol, gabapentin (monotherapy), sotalol, topiramate (Level B, probably effective); nadolol, nimodipine, clonazepam, botulinum toxin A, deep brain stimulation, thalamotomy (Level C, possibly effective); and gamma knife thalamotomy (Level U, insufficient evidence) are unchanged from the previous guideline. Changes to conclusions and recommendations from the previous guideline include the following: 1) levetiracetam and 3,4-diaminopyridine probably do not reduce limb tremor in ET and should not be considered (Level B); 2) flunarizine possibly has no effect in treating limb tremor in ET and may not be considered (Level C); and 3) there is insufficient evidence to support or refute the use of pregabalin, zonisamide, or clozapine as treatment for ET (Level U). Neurology (R) 2011;77:1752-1755.

Keywords: Botulinum Toxin A, Brain, Citation, Clinical Trials, Crossover, Double-Blind, Embase, Evidence-Based Guideline, Levetiracetam, Literature, Literature Review, Medline, Methods, Monotherapy, Patients, Pilot, Placebo-Controlled Trial, Practice, Pregabalin, Propranolol, Quality, Recommendations, Review, Science, Science Citation Index, Tolerability, Topiramate, Treatment, Tremor, Zonisamide

# Title: Neurology India

Full Journal Title: [Neurology India](http://www.neurologyindia.com/backissues.asp)

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: Impact Factor

? Bala, A. and Gupta, B.M. (2010), Mapping of Indian neuroscience research: A scientometric analysis of research output during 1999-2008. *Neurology India*, **58** (1), 35-41.

Full Text: [2010\Neu Ind58, 35.pdf](2010/Neu%20Ind58,%2035.pdf)

Abstract: Objective: This study analyses the research output in India in neurosciences during the period 1999-2008 and the analyses included research growth, rank, global publications share, citation impact, share of international collaborative papers and major collaborative partner countries and patterns of research communication in most productive journals. It also analyses the characteristics of most productive institutions, authors and high-cited papers. The publication output and impact of India is also compared with China, Brazil and South Korea. Materials and Method s: Scopus Citation database was used for retrieving the publications output of India and other countries in neurosciences during 1999-2008. Results: Indias global publications share in neurosciences during the study period was 0.99 (with 4503 papers) and it ranked 21 (st) among the top 26 countries in neurosciences. The average annual publication growth rate was 11.37, shared 17.34 of international collaborative papers and the average citation per paper was 4.21. India was far behind China, Brazil and South Korea in terms of publication output, citation quality and share of international collaborative papers in neurosciences. Conclusion: India is far behind in terms of publication output, citation quality and share of international collaborative papers in neurosciences when compared to other countries with an emerging economy. There is an urgent need to substantially increase the research activities in the field of neurosciences in India.

Keywords: Characteristics, China, Citation, Citation Impact, Database, Global, Growth, Impact, India, Journals, Korea, Mapping, Neurological Research, Neuroscience, Publication, Publication Output, Publications, Quantitative Analysis, Research, Research Output, Scientometric Analysis, Scopus

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? Maayan, L., Vakhrusheva, J. and Correll, C.U. (2010), Effectiveness of medications used to attenuate antipsychotic-related weight gain and metabolic abnormalities: A systematic review and meta-analysis. *Neuropsychopharmacology*, **35** (7), 1520-1530.

Abstract: Antipsychotic-related weight gain and metabolic effects are a critical outcome for patients requiring these medications. A literature search using MEDLINE, Web of Science, PsycNET, and EMBASE for randomized, open and double-blind, placebo-controlled trials of medications targeting antipsychotic-induced weight gain was performed. Primary outcome measures were change and endpoint values in body weight and body mass index (BMI). Secondary outcomes included >= 7% weight gain, all-cause discontinuation, change in waist circumference, glucose and lipid metabolism parameters, and psychiatric symptoms. Sensitivity analyses were conducted to explain heterogeneity of the results. Across 32 studies including 1482 subjects, 15 different medications were tested: Amantadine, dextroamphetamine, d-fenfluramine, famotidine, fluoxetine, fluvoxamine, metformin, nizatidine, orlistat, phenylpropanolamine, reboxetine, rosiglitazone, sibutramine, topiramate, and metformin + sibutramine. Compared with placebo, metformin had the greatest weight loss (N = 7, n = 334, -2.94 kg (confidence interval (CI: -4.89, -0.99)), followed by d-fenfluramine (N = 1, n = 16, -2.60 kg (CI: -5.14, -0.06)), sibutramine (N = 2, n = 55, -2.56 kg (CI: -3.91, -1.22)), topiramate (N = 2, n = 133, -2.52 kg (CI: -4.87, -0.16)), and reboxetine (N = 2, n = 79, -1.90 kg (CI: -3.07, -0.72)). Weight loss remained significant with metformin initiation after weight gain had occurred, but not when started concomitantly with antipsychotics. Nausea rates were not higher with any treatment compared with placebo. In all, 5 of 15 psychopharmacologic interventions aimed at ameliorating antipsychotic-induced weight gain outperformed placebo. Results were most robust for metformin, although these were modest and heterogeneous. Only one (negative) combination treatment study was available and head-to-head studies are absent. None of the agents were able to entirely reverse weight gain because of antipsychotics. At present, no treatment has sufficient evidence to recommend broad clinical usage. Antipsychotics with no or minimal cardiometabolic liability, as well as interventions that prevent or normalize adverse antipsychotic cardiometabolic effects are needed. Neuropsychopharmacology (2010) 35, 1520-1530; doi: 10.1038/npp.2010.21; published online 24 March 2010.

Keywords: 1st-Episode Schizophrenia-Patients, Adolescents, Antipsychotics, Atypical Antipsychotics, Bmi, Body Mass Index, Body Weight, Body-Weight, Clozapine, Double-Blind, Effectiveness, Embase, Insulin-Resistance, Intervention, Interventions, Lipid, Literature, Medline, Metformin, Metformin Treatment, Olanzapine Treatment, Outcome, Outcomes, Pharmacologic, Placebo-Controlled Trial, Primary, Review, Science, Symptoms, Systematic, Systematic Review, Treatment, Waist Circumference, Web of Science, Weight Gain, Weight Loss

# Title: Neuroscience and Biobehavioral Reviews

Full Journal Title: [Neuroscience and Biobehavioral Reviews](http://www.sciencedirect.com/science/journal/01497634)

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? Broekman, B.F.P., Olff, M. and Boer, F. (2007), The genetic background to PTSD. *Neuroscience and Biobehavioral Reviews*, **31** (3), 348-362.

Full Text: 2007\Neu Bio Rev31, 348.pdf

Abstract: Although extensive research has already been done on the genetic bases of psychiatric disorders, little is known about polygenetic influences in posttraumatic stress disorder (PTSD). This article reviews molecular genetic studies relating to PTSD that were found in a literature search in MEDLINE, EMBASE and Web of Science. Association studies have investigated 8 major genotypes in connection with PTSD. They have tested hypotheses involving key candidate genes in the serotonin (5-HTT), dopamine (DRD2, DAT), glucocorticoid (GR), GABA (GABRB), apolipoprotein systems (APOE2), brain-derived neurotrophic factor (BDNF) and neuropeptide Y (NPY). The studies have produced inconsistent results, many of which may be attributable to methodological shortcomings and insufficient statistical power. The complex aetiology of PTSD, for which experiencing a traumatic event forms a necessary condition, makes it difficult to identify specific genes that substantially contribute to the disorder. Gene-finding strategies are difficult to apply. Interactions between different genes and between them and the environment probably make certain people vulnerable to developing PTSD. Gene-environmental studies are needed that focus more narrowly on specific, distinct endophenotypes and on influences from environmental factors. (c) 2006 Elsevier Ltd. All rights reserved.

Keywords: Apoe, Apolipoprotein-E, Bdnf, Body-Mass Index, Disorder, Dopamine, Environment, Environmental, Gaba, Genetic, Genetics, Glucocorticoid, Glucocorticoid-Receptor Gene, Literature, Major Depression, Molecular, Motor-Vehicle Accidents, Neuropeptide-Y, Neurotrophic Factor, Npy, Peritraumatic Dissociation, Posttraumatic Stress, Posttraumatic Stress Disorder, Posttraumatic-Stress-Disorder, Ptsd, Research, Science, Serotonin, Serotonin Transporter Gene, Statistical, Stress, Web of Science

? Han, J.S. and Ho, Y.S. (2011), Global trends and performances of acupuncture research. *Neuroscience and Biobehavioral Reviews*, **35** (3), 680-687.

Full Text: [2011\Neu Bio Rev35, 680.pdf](2011/Neu%20Bio%20Rev35,%20680.pdf); [2010\Neu Bio Rev-Han.pdf](2010/Neu%20Bio%20Rev-Han.pdf); [2010\Neu Bio Rev-Han1.pdf](2010/Neu%20Bio%20Rev-Han1.pdf); [2010\Neu Bio Rev-Han2.pdf](2010/Neu%20Bio%20Rev-Han2.pdf)

Abstract: This study was designed to evaluate the global scientific output of acupuncture research in the Science Citation Index-Expanded and to assess the tendencies and research performances of leading countries/territories and institutes. Articles referring to acupuncture were assessed by distribution of document types, languages, journals, subject categories, source countries, and source institutes. Results showed that 15 languages were represented in articles from 65 countries/territories. Journal of Alternative and Complementary Medicine published the most articles, followed by American Journal of Chinese Medicine and Acupuncture & Electro-Therapeutics Research which were listed in category of integrative & complementary medicine. In the study period of 1991-2009, USA was the top producing country, followed by China (mainland) with a sharply growth trend. In 2009, publication of China (mainland) ranked top one in the world. In addition, an acupuncture research trend was found in two phases in terms of the increase of number of SCI-expanded journals’ articles. Among the acupuncture research, pain control has been the most prevalent direction of study, and brain imaging is attracting the most recent attention. (C) 2010 Elsevier Ltd. All rights reserved.

Keywords: Acupoint, Acupuncture, Analgesia, Bibliometric, Bibliometric Analysis, Brain, Cerebrospinal-Fluid, China, Chinese, Citation, Complementary, Complementary Medicine, Control, Country, Distribution, Electroacupuncture, Electroacupuncture, fMRI, fMRI, Functional Magnetic Resonance Imaging, Functional MRI, Growth, Human Brain, Integrative, Journal, Journals, Languages, Manual Acupuncture, Medicine, Opioid Peptides, Pain, Pain, Pain Control, Publication, Research, Research Trend, Rights, Science, Scientific Output, Source, Stimulation, Trend, Trends, USA, World

# Title: Neuroscience Bulletin

Full Journal Title: Neuroscience Bulletin

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Chen, J. (2011), History of pain theories. *Neuroscience Bulletin*, **27** (5), 343-350.

Full Text: [2011\Neu Bul27, 343.pdf](2011/Neu%20Bul27,%20343.pdf)

Abstract: The concept of pain has remained a topic of long debate since its emergence in ancient times. The initial ideas of pain were formulated in both the East and the West before 1800. Since 1800, due to the development of experimental sciences, different theories of pain have emerged and become central topics of debate. However, the existing theories of pain may be appropriate for the interpretation of some aspects of pain, but are not yet comprehensive. The history of pain problems is as long as that of human beings; however, the understanding of pain mechanisms is still far from sufficient. Thus, intensive research is required. This historical review mainly focuses on the development of pain theories and the fundamental discoveries in this field. Other historical events associated with pain therapies and remedies are beyond the scope of this review.

Keywords: Pain, Theory, History, Noxious Stimuli, Nervous-System, Sensory Units, Neurons, Fibers, Fibres, Skin, Mechanoreceptors, Mechanisms, Analgesia

# Title: Neuroscience Letters

Full Journal Title: [Neuroscience Letters](http://www.sciencedirect.com/science/journal/03043940)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0304-3940

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Smith, M.Z., Nagy, Z. and Esiri, M.M. (1999), Cell cycle-related protein expression in vascular dementia and Alzheimer’s disease. *Neuroscience Letters*, **271** (1), 45-48.

Full Text: [1999\Neu Let271, 45.pdf](1999/Neu%20Let271,%2045.pdf)

Abstract: Recent findings from our and other laboratories indicate that cell cycle-related phenomena may play a key role in the formation of Alzheimer-type pathology and neuronal cell death in both Alzheimer’s and cerebro-vascular diseases. In this study we examine the expression patterns of cyclins A, B1, D1 and E in neuronal nuclei in the hippocampus in autopsied healthy elderly individuals, Alzheimer’s disease patients and subjects suffering from cerebrovascular disease with and without co-existing Alzheimer’s disease. Nuclear cyclin B1 and cyclin E expression was detected in hippocampal neurones in each subject category. However, cyclin B1 expression was significantly elevated in the CA1 of patients suffering from cerebro-vascular disease alone, while cyclin E. expression was significantly higher in the CA4 subfield in patients suffering from mixed Alzheimer’s and cerebro-vascular diseases compared to subjects in other categories. We hypothesize that cell cycle re-entry may occur in healthy elderly people leading to age-related cell death and mild Alzheimer-type pathology in the hippocampus. However, in pathological conditions, the cell cycle arrest may lead either to the development of severe Alzheimer-related pathology or to excess apoptotic cell death as in vascular dementia. (C) 1999 Elsevier Science Ireland Ltd. All rights reserved.

Keywords: Alzheimer’S Disease, Apoptosis, Apoptosis, Author, Cell-Cycle, Cyclins, Death, Development, Elderly, Elderly People, England, Global-Ischemia, Hippocampus, Hypoxia, Hypoxia, Ischaemia, Markers, Neurons, Rat-Brain, Science, Subject Category

? Li, T., Ho, Y.S. and Li, C.Y. (2008), Bibliometric analysis on global Parkinson’s disease research trends during 1991-2006. *Neuroscience Letters*, **441** (3), 248-252.

Full Text: [2008\Neu Let441, 248.pdf](2008/Neu%20Let441,%20248.pdf)

Abstract: In 10 years, we will mark the 200th anniversary of the James Parkinson’s original description of the disease that now bears his name. This study was to explore an alternative statistical approach to quantitatively and qualitatively assessing current research trends on global Parkinson’s disease, using the related literatures from the Institute for Scientific Information (ISI) Web of Science databases during the period of 1991-2006. Articles were concentrated on the analysis by scientific output characters, world collaboration, and the frequency of author keywords used. An exponential regression was applied to model the high correlation between cumulative number of articles and the year. International collaborative articles were more prevalent in recent years than earlier years, and increasing international collaboration would lead to more powerful articles due to the sharing of ideas and workloads, while China, Italy, Spain, and Austria are benefit a lot from the international cooperation. Finally, author keywords were analyzed contrastively, with research trends and recent hotspots provided.

Keywords: Articles, Author Keywords, Author Keywords Analysis, Bibliometric, Bibliometric Analysis, China, Collaboration, Correlation, Databases, Dopaminergic-Neurons, Elsevier, Frequency, Global, Global Trend, Institute for Scientific Information, International, International Collaboration, International Cooperation, ISI, ISI Database, Italy, Lead, Model, Parkinson’s Disease, Parkinson’s Diseases, Regression, Research, Research Trends, Science, Scientific Output, Spain, Statistical, Substantia-Nigra, Trends, Web of Science

? Han, X.M., Wang, C.H., Sima, X. and Liu, S.Y. (2011), Interleukin-6-174G/C polymorphism and the risk of Alzheimer’s disease in caucasians: A meta-analysis. *Neuroscience Letters*, **504** (1), 4-8.

Full Text: [2011\Neu Let504, 4.pdf](2011/Neu%20Let504,%204.pdf)

Abstract: Interleukin-6 (IL-6), identified as a pleiotropic inflammatory cytokine, plays important roles in the acute inflammatory response and in the modulation of the neuroimmune response. To date, large amounts of epidemiological studies have been performed to investigate the association between the IL-6 -174G/C polymorphism and Alzheimer’s disease (AD) risk. Inconclusive results, however, have been reported. We aimed to assess the effect of the 1L-6 -174G/C polymorphism on AD susceptibility with the use of a meta-analysis. 14 studies involving 3769 cases of AD and 9431 control subjects were identified by a search of Pubmed, Embase and ISI Web of Science databases. Crude odds ratios (ORs) with 95% confidence intervals (CIs) for the IL-6 -174G/C polymorphism and AD risk were computed using fixed- or random-effects model when appropriate. Obvious heterogeneity among studies was detected, and a borderline statistically significant association was observed between the IL-6 -174G/C polymorphism and AD risk in Caucasians (GG vs. CC: OR = 1.35, 95%CI, 1.06-1.72; GG/GC vs. CC: OR = 1.27, 95%CI, 1.05-1.53, respectively). After exclusion of one study, the heterogeneity disappeared and no significant association was observed between the polymorphism and AD risk. These findings indicate that the 11-6 -174G/C polymorphism may not be an independent risk factor for the development of AD. (C) 2011 Elsevier Ireland Ltd. All rights reserved.

Keywords: 6-174 G, C Promoter, Acute, Allele, Alzheimer’S Disease, Association, Central-Nervous-System, Confidence Intervals, Control, Cytokine, Databases, Dementia, Development, Disease, Il-6, Inflammation, Interleukin-6, ISI, ISI Web of Science, Meta Analysis, Meta-Analysis, Model, Polymorphism, Population, Promoter Gene Polymorphism, Risk, Risk Factor, Science, Susceptibility, Web of Science

# Title: Neurosciences and Music II: from Perception to Performance

Full Journal Title: [Neurosciences and Music II: from Perception to Performance](http://www.nyas.org/annals/detail.asp?annalID=846)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Sabbatella, P.L. (2005), Music therapy research in Ibero-American countries - An overview focused on assessment and clinical evaluation. *Neurosciences and Music II: from Perception to Performance*, **1060**, 294-302.

Full Text: Neu Mus II Per Per1060, 294.pdf

Abstract: The aim of this article is to present an overview of some contemporary ideas concerning the status of music therapy research in Ibero-American countries, with a focus on assessment and clinical evaluation of music therapy clinical practice.

Keywords: Assessment, Clinical, Clinical Practice, Evaluation, Music Therapy, Practice, Research, Therapy

# Title: Neurosurgical Review

Full Journal Title: Neurosurgical Review

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

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Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Zahl, S.M., Egge, A., Helseth, E. and Wester, K. (2011), Benign external hydrocephalus: A review, with emphasis on management. *Neurosurgical Review*, **34** (4), 417-432.

Full Text: [2011\Neu Rev34, 417.pdf](2011/Neu%20Rev34,%20417.pdf)

Abstract: Benign external hydrocephalus in infants, characterized by macrocephaly and typical neuroimaging findings, is considered as a self-limiting condition and is therefore rarely treated. This review concerns all aspects of this condition: etiology, neuroimaging, symptoms and clinical findings, treatment, and outcome, with emphasis on management. The review is based on a systematic search in the Pubmed and Web of Science databases. The search covered various forms of hydrocephalus, extracerebral fluid, and macrocephaly. Studies reporting small children with idiopathic external hydrocephalus were included, mostly focusing on the studies reporting a long-term outcome. A total of 147 studies are included, the majority however with a limited methodological quality. Several theories regarding pathophysiology and various symptoms, signs, and clinical findings underscore the heterogeneity of the condition. Neuroimaging is important in the differentiation between external hydrocephalus and similar conditions. A transient delay of psychomotor development is commonly seen during childhood. A long-term outcome is scarcely reported, and the results are varying. Although most children with external hydrocephalus seem to do well both initially and in the long term, a substantial number of patients show temporary or permanent psychomotor delay. To verify that this truly is a benign condition, we suggest that future research on external hydrocephalus should focus on the long-term effects of surgical treatment as opposed to conservative management.

Keywords: Aciduria Type-I, Cerebral Blood-Flow, Cerebrospinal-Fluid, Children, Communicating Hydrocephalus, Communicating Hydrocephalus, Databases, Development, Differentiation, Etiology, Extracerebral Fluid Collections, Idiopathic Intracranial Hypertension, Infants, Intracranial Pressure, Long-Term Outcome, Macrocephaly, Management, Neuroimaging, Normal-Pressure Hydrocephalus, Outcome, Outcome Studies, Patients, Psychomotor, Research, Review, Science, Signs, Subarachnoid Space, Subarachnoid Space Enlargement, Subdural Collections, Surgical, Symptoms, Systematic, Term-Follow-up, Theories, Treatment, Web of Science

# Title: Neurosurgery

Full Journal Title: [Neurosurgery](http://gateway.ut.ovid.com/gw1/ovidweb.cgi?QS2=434f4e1a73d37e8ceb49fbbfe17c3e8fe510ae09b42236009f9cea934597f6f62840c7973c8d462b47435b6df13affa235cff66aa773f950bba6e68ad33315ae572b5bf14106a7f10e1c6120a2c9f5710bd9144ba44aed8200a2915eebf5d56d24103e08d8f7774be); [Neurosurgery](http://www.freebooks4doctors.com/)

ISO Abbreviated Title: Neurosurgery

JCR Abbreviated Title: Neurosurgery

ISSN: 0148-396X

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? King, J.T. (2000), How many neurosurgeons does it take to write a research article? Authorship proliferation in neurosurgical research. *Neurosurgery*, **47** (2), 435-440.

Full Text: [N\Neurosurgery47, 435.pdf](N/Neurosurgery47,%20435.pdf)

Abstract: OBJECTIVE: Authorship proliferation in biomedical research has become rampant; the proportion of single-author articles is decreasing, the percentage of multiauthor articles is increasing, and the number of authors per publication is increasing. To determine whether authorship trends in the North American neurosurgical literature parallel trends observed in other areas of the biomedical literature, I studied original neurosurgical research articles published in the past 50 years.

METHODS: I sampled clinical, anatomic, and laboratory investigations in Neurosurgery and the Journal of Neurosurgery at 10-year intervals from 1945 to 1995. For each research article, I determined the number of authors, the countries of origin, and the educational degrees of the authors.

RESULTS: The mean number of authors per article has increased steadily in the past 50 years, from 1.8 (standard deviation, ±0.8) authors per article in 1945 to 4.6 (standard deviation, ±2.1) authors in 1995. The proportion of single-author articles is decreasing; these articles accounted for 43% of articles in 1945 and only 3% of articles in 1995. Increases in the proportions of non-M.D. authors and of articles originating outside the United States were also observed.

CONCLUSION: The proliferation of multiauthor articles and the decrease in the proportion of single-author articles in the neurosurgical literature parallel trends observed in many other areas of biomedical research. Possible explanations include larger research teams, variable or absent journal criteria for defining authorship, and the increased awarding of ‘gift’ authorships.

Keywords: Authorship, Bibliometrics, Neurosurgery, Research, Multiple Authorship, Citation Analysis, Journals, Coauthorship, Trends, Publications, Frequency, Publish, Perish, Tool

? Cusimano, M.D., Nassiri, F. and Chang, Y.J. (2010), The effectiveness of interventions to reduce neurological injuries in rugby union: A systematic review. *Neurosurgery*, **67** (5), 1404-1418.

Full Text: 2010\Neurosurgery67, 1404.pdf

Abstract: BACKGROUND: Rugby is characterized by high-speed collisions among the players that predispose them to injuries, particularly to the head, neck, and spine. OBJECTIVE: To evaluate the effectiveness of current neurological injury prevention strategies in rugby union. METHODS: Systematic review in May 2010. We assessed the quality and content of studies that evaluated injury prevention strategies for rugby players and reported on neurological outcomes. We searched OVID MEDLINE, OVID Health Star, CINAHL, Sport Discus, Pub Med, Scholar’s Portal Physical Education Index, Web of Science, and the Cochrane Controlled Clinical Trials Register (CENTRAL) and conducted a manual search of the cited literature lists of each included study. RESULTS: Ten articles are included in the review, with 2 of these assessing both headgear and mouthguards. Four studies reported insignificant reductions in neurological injury with the use of headgear. The results of 4 studies on the effectiveness of mouthguards in preventing neurological injury were inconclusive. Four studies reported significant reductions in neurological injury after the implementation of nationwide multifaceted injury prevention strategies with a focus on education CONCLUSION: There is limited evidence to support the effectiveness of mouthguards and headgear in reducing neurological injuries; however, system-wide, mandatory interventions are useful in reducing neurological injuries in rugby.

Keywords: Cochrane, Concussion, Education, Effectiveness, Epidemiology, Football, Head Injury, Headgear, Health, High-School, Injury, Injury Prevention, Interventions, Literature, Mandatory, Outcomes, Players, Prevention, Protective Equipment, Protective Headgear, Protective Mouthguard, Pub Med, Review, Rugby, Science, Spinal Injury, Spinal-Cord, Spine, Sports Injury Prevention, Systematic, Systematic Review, Web of Science, Womens Rugby, World-Cup

? Macrae, D.A. and Oyesiku, N.M. (2011), Formalizing neurosurgery’s anti-plagiarism policy. *Neurosurgery*, **68** (4), 851-853.

Full Text: 2011\Neurosurgery68, 851.pdf

# Title: Neurotoxicology

Full Journal Title: [Neurotoxicology](http://sdos.ejournal.ascc.net/cgi-bin/sciserv.pl?collection=journals&journal=0161813x)

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Publisher: Intox Press Inc

Publisher Address: PO Box 24865, Little Rock, AR 72221

Subject Categories:

Neurosciences: Impact Factor

Pharmacology & Pharmacy: Impact Factor181 (2000)

Toxicology: Impact Factor

? Johnson, B.L. and Mason, R.W. (1984), A review of public health regulations on lead. *Neurotoxicology*, **5** (3), 1-22.

Abstract: A review of public health regulations pertaining to lead exposure is the subject of this paper. Although lead had been used for centuries in the fabrication of a host of products, it was not until the mid-nineteenth century that the clinical pattern of lead poisoning was described in the medical literature. With this recognition gradually came government health regulations designed to limit human exposure to lead from occupational and environmental sources. The British, in particular, developed during the period 1890 to 1920 comprehensive rules and regulations pertaining to occupational lead exposures. The development and imposition of U.S. health regulations occurred later in the twentieth century; federal regulations not generally appearing until the 1970’s. At present, several U.S. government agencies have promulgated regulations intended to prevent lead poisoning from paint; limit lead in ambient air, drinking water, workplace environments and consumer products; and reduce lead in fuels and fuel additives used in motor vehicles. These regulations are reviewed in terms of their extent of coverage. There is evidence, in some instances indirect in nature, that human exposure to lead in U.S. populations has been reduced, though comprehensive data are lacking. The Centers for Disease Control has reported that the mean blood lead level in the U.S. has decreased 36%, paralleling a reduction in the lead content of gasoline. For occupational lead exposure, comprehensive morbidity data do not exist, but an evaluation of NIOSH health hazard evaluations (HHE’s) specific to lead show a gradual reduction since 1977 in the percentage of HHE’s for which airborne lead exceeded 0.20 mg/m3, which at one time had been the federal standard for occupational lead exposure, prior to reduction of the U.S. standard to 0.05 mg/m3.

? Davis, J.M., Elias, R.W. and Grant, L.D. (1993), Current issues in human lead exposure and regulation of lead. *Neurotoxicology*, **14** (2-3), 15-27.

Abstract: Concern about lead as a significant public health problem has increased as epidemiological and experimental evidence has mounted regarding adverse health effects at successively lower levels of lead exposure. This concern has led to downward revision of criteria for acceptable blood lead concentrations to the 10 micrograms/dL mark now designated by EPA as a target level for regulatory development and enforcement/clean-up purposes. Much progress has been made in reducing lead exposures during the past 10-15 years, with marked declines evident both in air lead and blood lead concentrations in parallel to the phase-down of lead in gasoline and notable decreases in food lead exposure due to elimination of lead soldered cans by U.S. food processors. With the lessening of exposure from these sources, the importance of other components of multimedia exposure pathways has grown and stimulated increasing regulatory attention and abatement efforts to reduce health risks associated with lead exposure from drinking water, from lead-based paint, and from household dust and soil contaminated by deteriorating paint, smelter emissions, or various other sources. Increasing attention is also being accorded to reduction of occupational lead exposures (including those related to lead abatement activities), with particular concern for protection of men and women during their reproductive years.

? Needleman, H.L. (1993), The current status of childhood low-level lead toxicity. *Neurotoxicology*, **14** (2-3), 161-166.

Abstract: Lead’s toxicity has been recognized since antiquity, and certain themes recur during the history of its understanding. Warnings have been frequently pronounced, and frequently followed by statements that these warnings were exaggerated. Childhood lead poisoning was first discovered in Brisbane, Australia in 1894. The cause, lead on the rails of the porches was demonstrated by J.L. Gibson, and promptly derided by the business and medical communities. The first lead paint prevention act was passed in Australia in 1920. In the United States, it was believed that if a lead-poisoned child did not die, they recovered with no residua. This was disproved by R. K Byers in 1943, and the modern era of childhood lead poisoning was begun. In the 1960’s, the defined toxic level of lead in the blood was 60 µg/dl. In some areas, as many as 20% of children had blood lead levels above 40 µg/dl. Questions about silent toxicity at these doses were raised. Studies of lower lead exposure began to be published in the early 1970’s. Some reported an effect, others did not. Many of these early studies were of small sample size, used crude measures of outcome, relied on a short term markers of exposure, and had limited control of covariates. In the latter part of the 1970’s, studies of better quality reported positive relationships between lead and IQ. We used tooth lead levels to classify asymptomatic 1st and 2nd grade children and, controlling for socioeconomic status, mother’s IQ and other potential confounders, demonstrated that high lead in the teeth was associated with decreased IQ, impaired attention, and impaired speech performance. Twelve years later, children with elevated lead had increased school failure and reading disabilities. All investigations must balance Type I versus Type II risks in designing and executing the study. This paper examines six flaws encountered in many studies that increase the Type II bias, and examines some of the forces, economic and political, that condition the bias. The newer data on lead’s neurotoxicity argue strongly that the current definition of toxicity requires downward revision. As expected the same industrial forces encountered over history continue to assert that the threat of lead is exaggerated. (C) 1993 Intox Press, Inc.

Keywords: Lead, Behavior, Epidemiology, Children, Blood Lead, Children, Exposure, Intelligence, Performance, Behavior

? Adrian, G.S., Rivera, E.V., Adrian, E.K., Lu, Y., Buchanan, J., Herbert, D.C., Weaker, F.J., Walter, C.A. and Bowman, B.H. (1993), Lead suppresses chimeric human transferrin gene expression in transgenic mouse liver. *Neurotoxicology*, **14** (2-3), 273-282.

Abstract: The major iron-transport protein in serum is transferrin (TF) which also has the capacity to transport other metals. This report presents evidence that synthesis of human TF can be regulated by the metal lead. Transgenic mice carrying chimeric human TF-chloramphenicol acetyl transferase (CAT) genes received lead or sodium salts by intraperitoneal injections or in drinking water. Transgene expression in liver was suppressed 31 to 50% by the lead treatment. Lead regulates human TF transgenes at the mRNA level since liver CAT enzyme activity, CAT protein, and TF-CAT mRNA levels were all suppressed. The dosages of lead did not alter synthesis of the other liver proteins, mouse TF and albumin, as measured by Northern blot analysis of total liver RNA and rocket immunoelectrophoresis of mouse sera. Moderate levels of lead exposure were sufficient to evoke the human TF transgene response; blood lead levels in mice that received lead acetate in drinking water ranged from 30 micrograms/dl to 56 micrograms/dl. In addition to suppressing expression of TF-CAT genes in transgenic mice, lead also suppressed synthesis of TF protein in cultured human hepatoma HepG2 cells. The regulation of human TF apparently differs from the regulation of mouse TF which is unresponsive to lead exposure.

? Cohn, J., Cox, C. and Coryslechta, D.A. (1993), The effects of lead-exposure on learning in a multiple repeated acquisition and performance schedule. *Neurotoxicology*, **14** (2-3), 329-346.

Abstract: This study sought to determine the selectivity of Pb-induced changes in learning, as distinct from non-specific or performance effects, and to explore the nature of the underlying error patterns contributing to any learning deficits. To accomplish this, rats were chronically exposed to 0, 50, or 250 ppm Pb acetate in drinking water from weaning and trained on a multiple repeated acquisition (RA) and performance (P) schedule beginning at 55 days of age. The RA component required the rat to learn a new 3-member sequence of responses during each experimental session (Center Right Left, RLC, CLR, RCL, and LRC), while the correct sequence of responses for the P component was constant across sessions (LCR). Significant decrements in accuracy on the RA component but not on the P component were found in Pb-exposed groups compared to control, effects that could not be attributed to differential rates of responding. Analyses of error patterns revealed that the effects of Pb exposure on RA accuracy levels derived from two sources. The first consisted of a perseveration of P-like sequence responding (LCR) even during the RA component. Secondly, Pb exposure increased perseverative responding on a single lever, even though the schedule itself never directly reinforced such repetitive responding. The increase in frequency of these two types of perseverative behavior was incompatible with acquisition of non P-like sequences during the RA component. Adding a 5 sec tone to the light stimuli signalling the transition between RA and P components of the multiple schedule failed to attenuate these effects of Pb, suggesting that deficits in stimulus control were not the sole behavioral mechanism of these impairments. Examination of individual data revealed the presence of both ‘learners’ and ‘non-learners’ in each group, with the prevalence of the latter being suggestively higher in Pb-exposed groups than in controls. These findings may be relevant to the classroom setting, where periods requiring learning may frequently be interspersed with periods of performance of learned skills. (C) 1993 Intox Press, Inc.

Keywords: Lead, Learning, Repeated Acquisition, Performance, Perseveration, Cognitive Behavior, Low-Level Lead, Discrimination Reversal, Behavioral Toxicity, Delayed Alternation, Adult Monkeys, Rats, Deficits, Scopolamine, Children, MK-801

? Surkan, P.J., Zhang, A., Trachtenberg, F., Daniel, D.B., McKinlay, S. and Bellinger, D.C. (1993), Neuropsychological function in children with blood lead levels < 10 μg/dL. *Neurotoxicology*, **28** (6), 1170-1177.

Abstract: Clear adverse effects of blood lead levels > 10 μg/dL have been documented in children. Given that the majority of US children have levels below 10 mu g/dL, clarification of adverse effects below this cutoff value is needed. Our study evaluated the associations between blood lead levels < 10 μg/dL and abroad spectrum of children’s cognitive abilities. Data were analyzed from 534 children aged 6-10, enrolled in the Children’s Amalgam Trial (NECAT) from the urban area of Boston, Massachusetts and rural Farmington, Maine. Adjusting for covariates (age, race, socioeconomic status, and primary caregiver IQ), children with 5-10 μg/dL had 5.0 (S.D. 2.3) points lower IQ scores compared to children with blood lead levels of 1-2 mu g/dL (p = 0.03). Verbal IQ was more negatively affected than performance IQ, with the most prominent decrement occurring in children’s vocabulary. Wechsler Individual Achievement Test scores were strongly negatively associated with blood lead levels of 5-10 μg/dL. In adjusted analyses, children with levels of 5-10 μg/dL scored 7.8 (S.D. 2.4) and 6.9 (S.D. 2.2) points lower on reading and math composite scores, respectively, compared to children with levels of 1-2 μg/dL (p < 0.01). Finally, levels of 5-10 μg/dL were associated with decreased attention and working memory. Other than associations of lead exposure with achievement, which even persisted after adjustment for child IQ, the most pronounced deficits were in the areas of spatial attention and executive function. Overall, our analyses support prior research that children’s blood levels < 10 μg/dL are related to compromised cognition and highlight that these may especially be related to academic achievement. (c) 2007 Elsevier Inc. All rights reserved.

Keywords: Lead, Children, Cognition, Intellectual Impairment, Delayed Alternation, Cognitive Deficits, Exposed Children, MU-G/DL, Monkeys, Amalgam, Health, Trial

# Title: Neurourology and Urodynamics

Full Journal Title: [Neurourology and Urodynamics](http://www3.interscience.wiley.com/journal/35693/home)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Cartwright, R., Khoo, A.K. and Cardozo, L. (2007), Publish or be damned? The fate of abstracts presented at the International Continence Society Meeting 2003. *Neurourology and Urodynamics*, **26** (2), 154-157.

Full Text: [2007\Neu Uro26, 154.pdf](2007/Neu%20Uro26,%20154.pdf)

Abstract: Aims: This study examined the presented abstracts from the International Continence Society (ICS) Meeting, 2003. It analyzed the rate and timing of full publication, the factors predicting successful publication, the consistency of reporting between presented abstracts and published abstracts, and the barriers to publication. Materials and Methods: The abstracts presented at ICS 2003, were categorized according to topic, nationality, and a range of methodological factors. Using keywords and author names, PubMed was searched for published papers corresponding to the work presented. For abstracts that had been published, the original abstract was compared with the abstract accompanying the full-text paper. For abstracts that could not be identified in PubMed, the main authors were surveyed with an email questionnaire, asking about reasons for non-publication. Results: Of 130 presented abstracts, 77 (61.6%) had been published in full by February 2006. Authors from the US were significantly more likely to have had their work published. Uniquely among topics, “Clinical Pharmacology” abstracts were significantly more likely to have been published. Fourteen (18.2%) abstracts were classified as having major inconsistencies between the presented abstract and the abstract accompanying the full-text paper. Inconsistencies between presented and published abstracts were significantly associated with delay in publication on Kaplan-Meier analysis. Most unpublished abstracts had never been submitted for publication. Conclusions: The high publication rate reflects well on the scientific quality of the ICS meeting. All authors should be encouraged to publish their work after presentation. Caution is advised when referencing or generalizing from abstracts that have not been published in full.

Keywords: Analysis, Barriers, Consistency, Fate, Papers, Presentation, Publication, Pubmed, Quality, Quality of, Questionnaire, Referencing, Reporting, Timing, US, Work

? Siddiqui, N.Y., Wu, J.M. and Amundsen, C.L. (2010), Efficacy and adverse events of sacral nerve stimulation for overactive bladder: A systematic review. *Neurourology and Urodynamics*, **29**, S18-S23.

Full Text: 2010\Neu Uro29, S18.pdf

Abstract: Aims: To systematically review the literature regarding efficacy and adverse events of sacral nerve stimulation (SNS) via the InterStim device for treatment of women with refractory overactive bladder (OAB). Methods: We searched MEDLINE, EMBASE, Web of Science, and the Cochrane Collaboration databases from 1980 to September 2008. All English studies reporting on efficacy or adverse events of SNS for the treatment of refractory OAB were considered. Only studies where 30 or more women received the complete therapy (implanted lead and generator) were included. The quality of the studies (good, fair, or poor) was assessed based on predefined criteria. Results: Seven studies were designated “good” regarding efficacy of SNS for OAB. Multiple authors reported results from the same cohort of patients. In this instance, the highest quality study was chosen, leaving three independent studies regarding efficacy. In these studies, incontinent episodes per day and pad usage significantly improved after SNS therapy. Six studies were designated “good” regarding adverse events. Using tined leads, surgical revision rates ranged from 3% to 16%. Six percent of patients were explanted due to lack of efficacy and 5 11% of patients were explanted due to infection. Conclusions: Based on observational data, SNS appears effective for treatment of OAB in women. Adverse event rates with tined leads are lower than previously published estimates using non-tined leads. High-quality studies are needed to confirm our findings and to provide additional data regarding reprogramming, quality of life, and efficacy when compared to other therapies. Neurourol. Urodynam. 29:S18-S23, 2010. (C) 2010 Wiley-Liss, Inc.

Keywords: Authors, Bladder, Cochrane, Collaboration, Databases, Efficacy, Electric Stimulation, Experience, Frequency, Implantation, Infection, Intractable Urge Incontinence, Lead, Literature, Medline, Methods, Multicenter, Multiple Authors, Neuromodulation Therapy, Observational, Overactive Bladder, Quality of Life, Review, Sacral Neuromodulation, Science, Surgical, Systematic, Systematic Review, Therapy, Tined Lead, Treatment, Urge, Urinary Bladder, Urinary Incontinence, Voiding Dysfunction, Web of Science, Women

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Full Text: [2010\Neu Uro29, 1373.pdf](2010/Neu%20Uro29,%201373.pdf)

Abstract: Aims: We aimed to assess the impact of the 2002 International Continence Society (ICS) standardization report on usage of lower urinary tract terminology in research publications, and compare published usage with awareness of standardized terminology among practicing clinicians. Methods: We searched articles indexed in the Scopus database for pairs of words or phrases, where one was introduced by the 2002 report, making the other obsolete or discouraged. We calculated frequencies of publications using each word or phrase by year. We calculated odds ratios and relative risks for usage of each item of 2002 terminology or its obsolete counterpart, comparing the periods 1996-2002 and 2003-2009. We distributed an email questionnaire to members of the British Society of Urogynecologists (BSUG), asking them to identify which items from a list of terms were current standardized or obsolete terminology. Results: Bibliometric trends varied markedly by word pair. The terms “genuine stress incontinence,” “detrusor hyperreflexia,” and “detrusor instability” became obsolete as recommended by the 2002 report, with a delay of 2-3 years. However, for terms with wider usage beyond the continence field, including “vulvodynia” and “dysuria,” there was no significant adoption of the suggested replacements. Members of BSUG were familiar only with those items of standardized terminology that had been widely used in the literature. Conclusions: The 2002 ICS standardization report was associated with significant shifts in usage of some items of terminology. ICS and IUGA should redouble efforts to raise awareness of the 2009 standardization report. Neurourol. Urodynam. 29:1373-1379, 2010. (C) 2010 Wiley-Liss, Inc.

Keywords: Database, Education, Field, Literature, Lower Urinary-Tract, Luts, Neurourology, Publications, Research, River, Scopus, Sub-Committee, Terminology, Trends, Urodynamics, USA

? Farag, F.F. and Heesakkers, J.P. (2011), Non-invasive techniques in the diagnosis of bladder storage disorders. *Neurourology and Urodynamics*, **30** (8), 1422-1428.

Full Text: [2011\Neu Uro30, 1422.pdf](2011/Neu%20Uro30,%201422.pdf)

Abstract: Aims: To review clinical studies thus have been conducted to develop non-invasive diagnostic tools in the storage phase of the micturition cycle. Methods: Pub Med and Web of Science searches were carried out. The search covered the published data of non-invasive diagnostic techniques for detrusor overactivity (DO) and/or low compliance bladder in patients with urinary storage symptoms. The patho-physiological and clinical relevance of these methods were addressed. Diagnostic accuracy of these techniques was scrutinized. Results: Eighteen studies were included in the review. Ultrasonography and biomarkers were the most investigated techniques in the diagnosis of storage disorders. Assessment of diagnostic accuracy was possible in four studies. The heterogeneity in data reporting was too high to conduct a meta-analysis. Ultrasonographic parameters and cut-off values have been developed to define DO; such as bladder wall thickness (BWT), detrusor wall thickness and bladder weight. The likelihood ratio of vaginal ultrasonography in measurement of BWT was good. Guidelines are currently developing to standardize the methodologies applied in these techniques. Laboratory biomarkers of DO are gaining more attention recently, but their specificity for DO should be carefully defined. Near infrared spectroscopy (NIRS) is potential non-invasive diagnostic method that is able to detect the DO episodes in real time. However, a solution needs to be found for motion artifacts in this technique. Conclusion: Non-invasive diagnostic techniques for storage disorders show limited progress with some limitations. Yet these techniques still cannot replace the standard filling cystometry in standard clinical practice. Neurourol. Urodynam. 30: 1422-1428, 2011. (C) 2011 Wiley Periodicals, Inc.

Keywords: Accuracy, Assessment, Attention, Biological Markers, Biomarkers, Bladder, Blood-Flow, Clinical Relevance, Compliance, Cystitis, Bladder Pain Syndrome, Detrusor Wall Thickness, Diagnosis, Factor Level, Geriatric Voiding Dysfunction, Infravesical Obstruction, Likelihood Ratio, Lower Urinary-Tract, Measurement, Meta Analysis, Meta-Analysis, Methods, Near-Infrared, Nerve Growth Factor, Nerve Growth-Factor, Outlet Obstruction, Overactive, Overactive Bladder, Patients, Practice, Pub Med, Ratio, Review, Science, Specificity, Spectroscopy, Symptoms, Ultrasonography, Urinary Bladder, Web of Science

# Title: New Blackfriars

Full Journal Title: New Blackfriars

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? O’Loughlin, T. (2004), Celibate clergy: The need for historical debate. *New Blackfriars*, **85** (1000), 583-597.

Full Text: New Bla85, 583

# Title: New Carbon Materials

Full Journal Title: [New Carbon Materials](http://www.sciencedirect.com/science/journal/18725805); [New Carbon Materials](http://xxtcl.sxicc.ac.cn/EN/article/showTenYearOldVolumn.do)

ISO Abbrev. Title: New Carbon Mater.

JCR Abbrev. Title: New Carbon Mater

ISSN: 1007-8827

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Language: Chinese

Journal Country/Territory: Peoples R China

Publisher: Science China Press

Publisher Address: 16 Donghuangchenggen North St, Beijing 100717, Peoples R China

Subject Categories:

Materials Science, Multidisciplinary: Impact Factor 0.888, 137/225 (2010)

? Zhu, J.T., Huang, Z.H., Kang, F.Y., Fu, J.H. and Yue, Y.D. (2008), Adsorption kinetics of activated bamboo charcoal for phenol. *New Carbon Materials*, **23** (4), 326-330.

Full Text: [2008\New Car Mat23, 326.pdf](2008/New%20Car%20Mat23,%20326.pdf)

Abstract: Dynamic adsorption of phenol at 30°C on activated bamboo charcoal was investigated. Effects of phenol initial concentration and adsorbent size on kinetics were discussed. Three models were used to study the adsorption kinetics. It was Pound that a pseudo-second-order equation provided the best correlation to the data. The initial adsorption rates derived from the model increased with concentration and decreased with size. An intraparticle diffusion was the rate-controlling step for the adsorption of phenol on activated bamboo charcoal.

Keywords: Activated Bamboo Charcoal, Phenol, Adsorption Kinetics, Microstructure, Performance, Removal

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Full Text: [2010\New Car Mat25, 401.pdf](2010/New%20Car%20Mat25,%20401.pdf)

Abstract: This article analyzes graphene-related papers using the Thomson data analyzer according to publication year, country, organization, subject and research focus, and compares the research situation of China with that of the international community in this field. We find that research relevant to graphene has developed very rapidly since 2005, which is mainly in the fields of polymer physics, materials science and applied physics. The main countries that are engaged in the study of graphene are the United States, China, Japan, Britain, Germany, etc. The hot topic in this field is the properties of graphene such as electronic conductivity and thermal conductivity, preparation methods and composite materials. In the recent two years, China has paid great attention to graphene research, but is far behind the leading countries.

Keywords: Bibliometric Analysis, Britain, China, Community, Composite, Composite Materials, Conductivity, Country, Data, Field, Germany, Graphene, International, Japan, Methods, Organization, Papers, Polymer, Preparation, Publication, Research, Science, Thomson Data Analyzer, Trends, United States

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Full Text: [2011\New Car Mat26, 299.pdf](2011/New%20Car%20Mat26,%20299.pdf)

Abstract: An composite adsorbent for the removal of phosphate from aqueous solutions was synthesized by loading iron oxide onto activated carbon. The adsorbent can be separated from the medium by a simple magnetic procedure owing to the magnetic properties of the iron oxides. The properties of the composite were investigated by nitrogen adsorption, scanning electron microscopy and X-ray diffraction. The adsorption of phosphate ions by the composite adsorbent and the activated carbon was compared in batch experiments. The composite adsorbent showed fast adsorption rates and high adsorption capacities and its adsorptive performance for phosphate ions was dependent on the pH value, iron content and anion concentration. The adsorption capacities of phosphate ions at pH 3.0 were 98. 39 mg/g for iron oxide/activated carbon composite and 78.90 mg/g for activated carbon. The adsorptive isotherms for phosphate ions with activated carbon and the composite adsorbent all match the Freundlich model better than the Langmuir model. The adsorption kinetic data could be well described by the Lagergren pseudo-second-order kinetic equation. The adsorption by the composite adsorbent is endothermic for phosphate ions.

Keywords: Activated Carbon, Adsorbent, Adsorption, As(V), Composite, Copper(II), Drinking-Water, Electron Microscopy, Engineered Sorbents, Fe(III), Freundlich, Iron, Iron Oxide, Isotherms, Kinetic, Langmuir, Lead(II), pH, Phosphate, Phosphorus Removal, Pseudo Second Order, Removal, Sorption, Waste-Water, Wastewaters, X-Ray Diffraction

# Title: New Century Library

Full Journal Title: [New Century Library](http://e48.cnki.net/KNS50/Navi/item.aspx?NaviID=1&BaseID=JSTS&NaviLink=%e6%96%b0%e4%b8%96%e7%ba%aa%e5%9b%be%e4%b9%a6%e9%a6%86)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1672-514X

Issues/Year:

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Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Wang, D. and Hua, W. (2006), Quantitative analysis of degree theses on consulting overseas. *New Century Library*, **6**, 6-9.

Full Text: [2006\New Cen Lib6, 6.pdf](2006/New%20Cen%20Lib6,%206.pdf)

Abstract: Taking the theses about consulting service in the database of PQDD as the research target, this paper uses the bibliometric statistical methods, opens out the general situation of the studies on international consulting service, so as to initiate somewhat to research of that field at home.

Keywords: Studies on Consulting Service, Dissertation, Quantitative Analysis

# Title: New England Journal of Medicine

Full Journal Title: [New England Journal of Medicine](http://content.nejm.org/)

ISO Abbreviated Title: N. Engl. J. Med.

JCR Abbreviated Title: New Engl J Med

ISSN: 0028-4793

Issues/Year: 52

Journal Country/Territory: United States

Language: English

Publisher: Massachusetts Medical Soc/Nejm

Publisher Address: Waltham Woods Center, 860 Winter St, Waltham, MA 02451-1413

Subject Categories:

Medicine, General & Internal: Impact Factor 29.065, 1/112 (2001); Impact Factor 31.736 (2002)

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Full Text: 1960-80\New Eng J Med276, 368.pdf

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Full Text: 1960-80\New Eng J Med296, 260.pdf

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Full Text: 1960-80\New Eng J Med300, 689.pdf

Abstract: To measure the neuropsychologic effects of unidentified childhood exposure to lead, the performance of 58 children with high and 100 with low dentine lead levels was compared. Children with lead levels scored significantly less well on the Wechsler Intelligence Scale for Children (Revised) than those with low lead levels. This difference was also apparent on verbal subtests, on three other measures of auditory or speech processing and on a measure of attention. Analysis of variance showed that none of these differences could be explained by any of the 39 other variables studied. Also evaluated by a teachers’ questionnaire was the classroom behavior of all children (2146 in number) whose teeth were analyzed. The frequency of non-adaptive classroom behavior increased in a dose-related fashion to dentine lead level. Lead exposure, at doses below those producing symptoms severe enough to be diagnosed clinically, appears to be associated with neuropsychologic deficits that may interfere with classroom performance.

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Full Text: 1987\New Eng J Med316, 1384.pdf

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Full Text: 1989\New Eng J Med320, 250.pdf

Keywords: Acupuncture

Notes: highly cited

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Full Text: [1991\New Eng J Med325, 1127.pdf](1991/New%20Eng%20J%20Med325,%201127.pdf)

Abstract: Background. Infection with Helicobacter pylori has been linked with chronic atrophic gastritis, an inflammatory precursor of gastric adenocarcinoma. In a nested case-control study, we explored whether H. pylori infection increases the risk of gastric carcinoma. Methods. From a cohort of 128,992 persons followed since the mid-1960s at a health maintenance organization, 186 patients with gastric carcinoma were selected as case patients and were matched according to age, sex, and race with 186 control subjects without gastric carcinoma. Stored serum samples collected during the 1960s were tested for IgG antibodies to H. pylori by enzyme-linked immunosorbent assay. Data on cigarette use, blood group, ulcer disease, and gastric surgery were obtained from questionnaires administered at enrollment. Tissue sections and pathology reports were reviewed to confirm the histologic results. Results. The mean time between serum collection and the diagnosis of gastric carcinoma was 14.2 years. Of the 109 patients with confirmed gastric adenocarcinoma (excluding tumors of the gastroesophageal junction), 84 percent had been infected previously with H. pylori, as compared with 61 percent of the matched control subjects (odds ratio, 3.6; 95 percent confidence interval, 1.8 to 7.3). Tumors of the gastroesophageal junction were not linked to H. pylori infection, nor were tumors in the gastric cardia. H. pylori was a particularly strong risk factor for stomach cancer in women (odds ratio, 18) and blacks (odds ratio, 9). A history of gastric surgery was independently associated with the development of cancer (odds ratio, 17; P = 0.03), but a history of peptic ulcer disease was negatively associated with subsequent gastric carcinoma (odds ratio, 0.2; P = 0.02). Neither blood group nor smoking history affected risk. Conclusions. Infection with H. pylori is associated with an increased risk of gastric adenocarcinoma and may be a cofactor in the pathogenesis of this malignant condition.

Keywords: Association, Campylobacter-Pylori, Cancer, Case-Control, Cohort, Diet, Epidemiology, Helicobacter Pylori, Immune-Response, Nested Case-Control Study, Population, Stomach, Stomach Cancer

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Full Text: [1991\New Eng J Med325, 1180.pdf](1991/New%20Eng%20J%20Med325,%201180.pdf)

Abstract: Background. Efficient, undistorted communication of the results of medical research is important to physicians, the scientific community, and the public. Information that first appears in the scientific literature is frequently retransmitted in the popular press. Does popular coverage of medical research in turn amplify the effects of that research on the scientific community?

Methods. To test the hypothesis that researchers are more likely to cite papers that have been publicized in the popular press, we compared the number of references in the Science Citation Index to articles in the New England Journal of Medicine that were covered by The New York Times with the number of references to similar articles that were not covered by the Times. We also performed the comparison during a three-month period when the Times was on strike but continued to prepare an ‘edition of record’ that was not distributed; doing so enabled us to address the possibility that coverage in the Times was simply a marker of the most important articles, which would therefore be cited more frequently, even without coverage in the popular press.

Results. Articles in the Journal that were covered by the Times received a disproportionate number of scientific citations in each of the 10 years after the Journal articles appeared. The effect was strongest in the first year after publication, when Journal articles publicized by the Times received 72.8 percent more scientific citations than control articles. This effect was not present for articles published during the strike; articles covered by the Times during this period were no more likely to be cited than those not covered. Conclusions. Coverage of medical research in the popular press amplifies the transmission of medical information from the scientific literature to the research community.

Keywords: Citation Analysis

Notes: highly cited

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Full Text: [1992\New Eng J Med326, 524.pdf](1992/New%20Eng%20J%20Med326,%20524.pdf)

Abstract: Background and Methods. Cisplatin (cis-diamminedichloroplatinum) has been reported to enhance the cell-killing effect of radiation, an effect whose intensity varies with the schedule of administration. We randomly assigned 331 patients with nonmetastatic inoperable non-small-cell lung cancer to one of three treatments: radiotherapy for two weeks (3 Gy given 10 times, in five fractions a week), followed by a three-week rest period and then radiotherapy for two more weeks (2.5 Gy given 10 times, five fractions a week); radiotherapy on the same schedule, combined with 30 mg of cisplatin per square meter of body-surface area, given on the first day of each treatment week; or radiotherapy on the same schedule, combined with 6 mg of cisplatin per square meter, given daily before radiotherapy. Results. Survival was significantly improved in the radiotherapy-daily-cisplatin group as compared with the radiotherapy group (P = 0.009): survival in the radiotherapy-daily-cisplatin group was 54 percent at one year, 26 percent at two years, and 16 percent at three years, as compared with 46 percent, 13 percent, and 2 percent, respectively, in the radiotherapy group. Survival in the radiotherapy-weekly-cisplatin group was intermediate (44 percent, 19 percent, and 13 percent) and not significantly different from survival in either of the other two groups. The survival benefit of daily combined treatment was due to improved control of local disease (P = 0.003). Survival without local recurrence was 59 percent at one year and 31 percent at two years in the radiotherapy-daily-cisplatin group; 42 percent and 30 percent, respectively, in the radiotherapy-weekly-cisplatin group; and 41 percent and 19 percent, respectively, in the radiotherapy group. Cisplatin induced nausea and vomiting in 86 percent of the patients given it weekly and in 78 percent of those given it daily; these effects were severe in 26 percent and 28 percent, respectively. Conclusions. Cisplatin, given daily in combination with the radiotherapy described here to patients with nonmetastatic but inoperable non-small-cell lung cancer, improved rates of survival and control of local disease at the price of substantial side effects.

Keywords: Therapy Oncology Group, Radiation-Therapy, Randomized Trial, Fractionated Schedules, Prognostic Factors, Tumor-Control, Carcinoma, Irradiation, Survival, Mouse

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Full Text: [1992\New Eng J Med326, 862.pdf](1992/New%20Eng%20J%20Med326,%20862.pdf)

Abstract: Background. Asthma is a common chronic illness. Recently, increases in morbidity and mortality due to this disease have been reported. We studied the distribution of health care resources used for asthma in order to lay the groundwork for further policy decisions aimed at reducing the economic burden of this disorder.

Methods. Estimates of direct medical expenditures and indirect costs (in 1985 dollars) were derived from data available from the National Center for Health Statistics. These cost estimates were projected to 1990 dollars.

Results. The cost of illness related to asthma in 1990 was estimated to be $6.2 billion. Inpatient hospital services represented the largest single direct medical expenditure for this chronic condition, approaching $1.6 billion. The value of reduced productivity due to loss of school days represented the largest single indirect cost, approaching $1 billion in 1990. Although asthma is often considered to be a mild chronic illness treatable with ambulatory care, we found that 43 percent of its economic impact was associated with emergency room use, hospitalization, and death. Nearly two thirds of the visits for ambulatory care were to physicians in three primary care specialties - pediatrics, family medicine or general practice, and internal medicine.

Conclusions. Potential reductions in the costs related to asthma in the United States may be identified through a closer examination of the effectiveness of care associated with each category of cost. Future health policy efforts to improve the effectiveness of primary care interventions for asthma in the ambulatory setting may reduce the costs of this common illness.

Keywords: Changing Patterns, Childhood Asthma, Hospitalization, Children, Mortality, Cost

Notes: highly cited

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Full Text: [1992\New Eng J Med3267, 1473.pdf](1992/New%20Eng%20J%20Med3267,%201473.pdf)

Abstract: Background. Cerebral malaria is a severe complication of Plasmodium falciparum infection in children, with a mortality rate of 15 to 50 percent despite antimalarial therapy.

Methods. To determine whether combining iron chelation with quinine therapy speeds the recovery of consciousness, we conducted a randomized, double-blind, placebo-controlled trial of the iron chelator deferoxamine in 83 Zambian children with cerebral malaria. To be enrolled, patients had to be less than six years old, have P. falciparum parasitemia, have normal cerebrospinal fluid without evidence of bacterial infection, and be in a coma from which they could not be aroused. Deferoxamine (100 mg per kilogram of body weight per day, infused intravenously for 72 hours) or placebo was added to standard therapy with quinine and sulfadoxine-pyrimethamine. The time to the recovery of full consciousness, time to parasite clearance, and mortality were examined with Cox proportional-hazards regression analysis.

Results. The rate of recovery of full consciousness among the 42 patients given deferoxamine was 1.3 times that among the 41 given placebo (95 percent confidence interval, 0.7 to 2.3); the median time to recovery was 20.2 hours in the deferoxamine group and 43.1 hours in the placebo group (P = 0.38). Among 50 patients with deep coma, the rate of recovery of full consciousness was increased 2.2-fold with deferoxamine (95 percent confidence interval, 1.1 to 4.7), decreasing the median recovery time from 68.2 to 24.1 hours (P = 0.03). Among 69 patients for whom data on parasite clearance were available, the rate of clearance with deferoxamine was 2.0 times that with placebo (95 percent confidence interval, 1.2 to 3.6). Among all 83 patients, mortality was 17 percent in the deferoxamine group and 22 percent in the placebo group (P = 0.52).

Conclusions. Iron chelation therapy may hasten the clearance of parasitemia and enhance recovery from deep coma in cerebral malaria.

Keywords: Tissue-Injury, Plasmodium-Falciparum, Desferrioxamine, Hemoglobin, Complement, Invitro

Notes: highly cited

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Full Text: [1993\New Eng J Med328, 246.pdf](1993/New%20Eng%20J%20Med328,%20246.pdf)

Abstract: Background. Many people use unconventional therapies for health problems, but the extent of this use and the costs are not known. We conducted a national survey to determine the prevalence, costs, and patterns of use of unconventional therapies, such as acupuncture and chiropractic.

Methods. We limited the therapies studied to 16 commonly used interventions neither taught widely in U.S. medical schools nor generally available in U.S. hospitals. We completed telephone interviews with 1539 adults (response rate, 67 percent) in a national sample of adults 18 years of age or older in 1990. We asked respondents to report any serious or bothersome medical conditions and details of their use of conventional medical services; we then inquired about their use of unconventional therapy.

Results. One in three respondents (34 percent) reported using at least one unconventional therapy in the past year, and a third of these saw providers for unconventional therapy. The latter group had made an average of 19 visits to such providers during the preceding year, with an average charge per visit of $27.60. The frequency of use of unconventional therapy varied somewhat among sociodemographic groups, with the highest use reported by nonblack persons from 25 to 49 years of age who had relatively more education and higher incomes. The majority used unconventional therapy for chronic, as opposed to life-threatening, medical conditions. Among those who used unconventional therapy for serious medical conditions, the vast majority (83 percent) also sought treatment for the same condition from a medical doctor; however, 72 percent of the respondents who used unconventional therapy did not inform their medical doctor that they had done so. Extrapolation to the U.S. population suggests that in 1990 Americans made an estimated 425 million visits to providers of unconventional therapy. This number exceeds the number of visits to all U.S. primary care physicians (388 million). Expenditures associated with use of unconventional therapy in 1990 amounted to approximately $13.7 billion, three quarters of which ($10.3 billion) was paid out of pocket. This figure is comparable to the $12.8 billion spent out of pocket annually for all hospitalizations in the United States.

Conclusions. The frequency of use of unconventional therapy in the United States is far higher than previously reported. Medical doctors should ask about their patients’ use of unconventional therapy whenever they obtain a medical history.

Keywords: Alternative Medicine, Primary Care, Practitioners, Therapies, Remedies, Patient

Notes: highly cited

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Full Text: [1993\New Eng J Med329, 977.pdf](1993/New%20Eng%20J%20Med329,%20977.pdf)

Abstract: Background. Long-term microvascular and neurologic complications cause major morbidity and mortality in patients with insulin-dependent diabetes mellitus (IDDM). We examined whether intensive treatment with the goal of maintaining blood glucose concentrations close to the normal range could decrease the frequency and severity of these complications. Methods. A total of 1441 patients with IDDM - 726 with no retinopathy at base line (the primary-prevention cohort) and 715 with mild retinopathy (the secondary-intervention cohort) were randomly assigned to intensive therapy administered either with an external insulin pump or by three or more daily insulin injections and guided by frequent blood glucose monitoring or to conventional therapy with one or two daily insulin injections. The patients were followed for a mean of 6.5 years, and the appearance and progression of retinopathy and other complications were assessed regularly. Results. In the primary-prevention cohort, intensive therapy reduced the adjusted mean risk for the development of retinopathy by 76 percent (95 percent confidence interval, 62 to 85 percent), as compared with conventional therapy. In the secondary-intervention cohort, intensive therapy slowed the progression of retinopathy by 54 percent (95 percent confidence interval, 39 to 66 percent) and reduced the development of proliferative or severe nonproliferative retinopathy by 47 percent (95 percent confidence interval, 14 to 67 percent). In the two cohorts combined, intensive therapy reduced the occurrence of microalbuminuria (urinary albumin excretion of greater-than-or-equal-to 40 mg per 24 hours) by 39 percent (95 percent confidence interval, 21 to 52 percent), that of albuminuria (urinary albumin excretion of greater-than-or-equal-to 300 mg per 24 hours) by 54 percent (95 percent confidence interval, 19 to 74 percent), and that of clinical neuropathy by 60 percent (95 percent confidence interval, 38 to 74 percent). The chief adverse event associated with intensive therapy was a two-to-threefold increase in severe hypoglycemia. Conclusions. Intensive therapy effectively delays the onset and slows the progression of diabetic retinopathy, nephropathy, and neuropathy in patients with IDDM.

Keywords: Age, Albumin, Albuminuria, Appearance, Base, Blood, Clinical, Cohort, Complications, Concentrations, Confidence, Development, Diabetes, Diabetes Mellitus, Diagnosis, Excretion, Glucose, Glucose Control, Glycemic Control, Goal, Hypoglycemia, Iddm, Infusion, Injections, Insulin, Intensive Therapy, Major, Metabolic Control, Microalbuminuria, Microvascular, Monitoring, Morbidity, Mortality, Nephropathy, Neurologic, Neuropathy, Occurrence, Patients, Prevalence, Primary Prevention, Progression, Range, Retinopathy, Risk, Therapy, Treatment, Urinary Albumin Excretion

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Full Text: [1994\New Eng J Med330, 1267.pdf](1994/New%20Eng%20J%20Med330,%201267.pdf)

Abstract: Background, Helicobacter pylori infection is a risk factor for gastric adenocarcinoma. We examined whether this infection is also a risk factor for primary gastric non-Hodgkin’s lymphoma. Methods. This nested case-control study involved two large cohorts (230,593 participants). Serum had been collected from cohort members and stored, and all subjects were followed for cancer. Thirty-three patients with gastric non-Hodgkin’s lymphoma were identified, and each was matched to four controls according to cohort, age, sex, and date of serum collection. For comparison, 31 patients with nongastric non-Hodgkin’s lymphoma from one of the cohorts were evaluated, each of whom had ;been previously matched to 2 controls. Pathological reports and specimens were reviewed to confirm the histologic type of the tumor. Serum samples from all subjects were tested for H. pylori IgG by an enzyme-linked immunosorbent assay. Results. Thirty-three cases of gastric non-Hodgkin’s lymphoma occurred a median of 14 years after serum collection. Patients with gastric lymphoma were significantly more likely than matched controls to have evidence of previous H. pylori infection (matched odds ratio, 6.3; 95 percent confidence interval, 2.0 to 19.9). The results were similar in both cohorts. Among the 31 patients with nongastric lymphoma, 8 median of six years had elapsed between serum collection and the development of disease. No association was found between nongastric non-Hodgkin’s lymphoma and previous H. pylori infection (matched odds ratio, 1.2; 95 percent confidence interval, 0.5 to 3.0). Conclusions. Non-Hodgkin’s lymphoma affecting the stomach, but not other sites, is associated with previous H. pylori infection. A causative role for the organism is plausible, but remains unproved.

Keywords: Association, Binding, Cancer, Case-Control, Cohort, Helicobacter Pylori, Nested Case-Control Study

Notes: highly cited

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Full Text: [1994\New Eng J Med331, 161.pdf](1994/New%20Eng%20J%20Med331,%20161.pdf)

Abstract: Background. Early in the spring of 1993 there was a widespread outbreak of acute watery diarrhea among the residents of Milwaukee.

Methods. We investigated the two Milwaukee water-treatment plants, gathered data from clinical laboratories on the results of tests for enteric pathogens, and examined ice made during the time of the outbreak for cryptosporidium oocysts. We surveyed residents with confirmed cryptosporidium infection and a sample of those with acute watery diarrhea consistent with cryptosporidium infection. To estimate the magnitude of the outbreak, we also conducted a survey using randomly selected telephone numbers in Milwaukee and four surrounding counties.

Results. There were marked increases in the turbidity of treated water at the city’s southern water-treatment plant from March 23 until April 9, when the plant was shut down. Cryptosporidium oocysts were identified in water from ice made in southern Milwaukee during these weeks. The rates of isolation of other enteric pathogens remained stable, but there was more than a 100-fold increase in the rate of isolation of cryptosporidium. The median duration of illness was 9 days (range, 1 to 55). The median maximal number of stools per day was 12 (range, 1 to 90). Among 285 people surveyed who had laboratory-confirmed cryptosporidiosis, the clinical manifestations included watery diarrhea (in 93 percent), abdominal cramps (in 84 percent), fever (in 57 percent), and vomiting (in 48 percent). We estimate that 403,000 people had watery diarrhea attributable to this outbreak.

Conclusions. This massive outbreak of watery diarrhea was caused by cryptosporidium oocysts that passed through the filtration system of one of the city’s water-treatment plants. Water-quality standards and the testing of patients for cryptosporidium were not adequate to detect this outbreak.

Keywords: Drinking-Water, Surface-Water, Giardia, Immunocompetent, Transmission, Diarrhea

Notes: highly cited

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Full Text: [1994\New Eng J Med331, 574.pdf](1994/New%20Eng%20J%20Med331,%20574.pdf)

Abstract: Background. The prognosis of patients with homozygous beta-thalassemia (thalassemia major) has been improved by transfusion and iron-chelation therapy. We analyzed outcome and prognostic factors among patients receiving transfusions and chelation therapy who had reached the age at which iron-induced cardiac disease, the most common cause of death, usually occurs.

Methods. Using the duration of life without the need for either inotropic or antiarrhythmic drugs as a measure of survival without cardiac disease, we studied 97 patients born before 1976 who were treated with regular transfusions and chelation therapy. We used Cox proportional-hazards analysis to assess the effect of prognostic factors and life-table analysis to estimate freedom from cardiac disease over time.

Results. Of the 97 patients, 59 (61 percent) had no cardiac disease; 36 (37 percent) had cardiac disease, and 18 of them had died. Univariate analysis demonstrated that factors affecting cardiac disease-free survival were age at the start of chelation therapy (P<0.001), the natural log of the serum ferritin concentration before chelation therapy began (P=0.01), the mean ferritin concentration (P<0.001), and the proportion of ferritin measurements exceeding 2500 ng per milliliter (P<0.001). With stepwise Cox modeling, only the proportion of ferritin measurements exceeding 2500 ng per milliliter affected cardiac disease-free survival (P<0.001). Patients in whom less than 33 percent of the serum ferritin values exceeded 2500 ng per milliliter had estimated rates of survival without cardiac disease of 100 percent after 10 years of chelation therapy and 91 percent after 15 years.

Conclusions. The prognosis for survival without cardiac disease is excellent for patients with thalassemia major who receive regular transfusions and whose serum ferritin concentrations remain below 2500 ng per milliliter with chelation therapy.

Keywords: Bone-Marrow Transplantation, Sickle-Cell-Anemia, Subcutaneous Deferoxamine, Iron Stores, Chelation-Therapy, Cardiac Disease, Overload, Ferritin

Notes: highly cited

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Full Text: [1994\New Eng J Med331, 889.pdf](1994/New%20Eng%20J%20Med331,%20889.pdf)

Abstract: Background. Full-thickness defects of articular cartilage in the knee have a poor capacity for repair. They may progress to osteoarthritis and require total knee replacement. We performed autologous chondrocyte transplantation in 23 people with deep cartilage defects in the knee.

Methods. The patients ranged in age from 14 to 48 years and had full-thickness cartilage defects that ranged in size from 1.6 to 6.5 cm(2). Healthy chondrocytes obtained from an uninvolved area of the injured knee during arthroscopy were isolated and cultured in the laboratory for 14 to 21 days. The cultured chondrocytes were then injected into the area of the defect. The defect was covered with a sutured periosteal flap taken from the proximal medial tibia. Evaluation included clinical examination according to explicit criteria and arthroscopic examination with a biopsy of the transplantation site.

Results. Patients were followed for 16 to 66 months (mean, 39). initially, the transplants eliminated knee locking and reduced pain and swelling in all patients. After three months, arthroscopy showed that the transplants were level with the surrounding tissue and spongy when probed, with visible borders. A second arthroscopic examination showed that in many instances the transplants had the same macroscopic appearance as they had earlier but were firmer when probed and similar in appearance to the surrounding cartilage. Two years after transplantation, 14 of the 16 patients with femoral condylar transplants had good-to-excellent results. Two patients required a second operation because of severe central wear in the transplants, with locking and pain. A mean of 36 months after transplantation, the results were excellent or good in two of the seven patients with patellar transplants, fair in three, and poor in two; two patients required a second operation because of severe chondromalacia. Biopsies showed that 11 of the 15 femoral transplants and 1 of the 7 patellar transplants had the appearance of hyaline cartilage.

Conclusions. Cultured autologous chondrocytes can be used to repair deep cartilage defects in the femorotibial articular surface of the knee joint.

Keywords: Rabbit Articular-Cartilage, Perichondrial Grafts, Periosteal Grafts, Osteo-Arthritis, Repair, Reconstruction, Surfaces

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Full Text: [1996\New Eng J Med334, 1642.pdf](1996/New%20Eng%20J%20Med334,%201642.pdf)

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Full Text: [1996\New Eng J Med335, 1001.pdf](1996/New%20Eng%20J%20Med335,%201001.pdf)

Abstract: Background In patients with high cholesterol levels, lowering the cholesterol level reduces the risk of coronary events, but the effect of lowering cholesterol levels in the majority of patients with coronary disease, who have average levels, is less clear. Methods in a double-blind trial lasting five years, we administered either 40 mg of pravastatin per day or placebo to 4159 patients (3583 men and 576 women) with myocardial infarction who had plasma total cholesterol levels below 240 mg per deciliter (mean, 209) and low-density lipoprotein (LDL) cholesterol levels of 115 to 174 mg per deciliter (mean, 139). The primary end point was a fatal coronary event or a nonfatal myocardial infarction. Results The frequency of the primary end point was 10.2 percent in the pravastatin group and 13.2 percent in the placebo group, an absolute difference of 3 percentage points and a 24 percent reduction in risk (95 percent confidence interval, 9 to 36 percent; P=0.003). Coronary bypass surgery was needed in 7.5 percent of the patients in the pravastatin group and 10 percent of those in the placebo group, a 26 percent reduction (P=0.005), and coronary angioplasty was needed in 8.3 percent of the pravastatin group and 10.5 percent of the placebo group, a 23 percent reduction (P=0.01). The frequency of stroke was reduced by 31 percent (P=0.03). There were no significant differences in overall mortality or mortality from noncardiovascular causes. Pravastatin lowered the rate of coronary events more among women than among men. The reduction in coronary events was also greater in patients with higher pretreatment levels of LDL cholesterol. Conclusions These results demonstrate that the benefit of cholesterol-lowering therapy extends to the majority of patients with coronary disease who have average cholesterol levels. (C) 196 Massachusetts Medical Society.

Keywords: A-I, Angiographic Trials, Artery Disease, Atherosclerosis, Cardiovascular Events, Density-Lipoprotein Cholesterol, Heart-Disease, Recurrent Events, Secondary Prevention Trial, Serum-Cholesterol

Notes: highly cited

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Full Text: [1997\New Eng J Med336, 973.pdf](1997/New%20Eng%20J%20Med336,%20973.pdf)

Abstract: Background Inflammation may be important in the pathogenesis of atherothrombosis. We studied whether inflammation increases the risk of a first thrombotic event and whether treatment with aspirin decreases the risk. Methods We measured plasma C-reactive protein, a marker for systemic inflammation, in 543 apparently healthy men participating in the Physicians’ Health Study in whom myocardial infarction, stroke, or venous thrombosis subsequently developed, and in 543 study participants who did not report vascular disease during a follow-up period exceeding eight years. Subjects were randomly assigned to receive aspirin or placebo at the beginning of the trial. Results Base-line plasma C-reactive protein concentrations were higher among men who went on to have myocardial infarction (1.51 vs. 1.13 mg per liter, P<0.001) or ischemic stroke (1.38 vs. 1.13 mg per liter, P=0.02), but not venous th rombosis (1.26 vs. 1.13 mg per liter, P=0.34), than among men without vascular events. The men in the quartile with the highest C-reactive protein values had three times the risk of myocardial infarction (relative risk, 2.9; P<0.001) and two times the risk of ischemic stroke (relative risk, 1.9; P=0.02) of the men in the lowest quartile. Risks were stable over long periods, were not modified by smoking, and were independent of other lipid-related and non-lipid-related risk factors. The use of aspirin was associated with significant reductions in the risk of myocardial infarction (55.7 percent reduction, P=0.02) among men in the highest quartile but with only small, nonsignificant reductions among those in the lowest quartile (13.9 percent, P=0.77). Conclusions The base-line plasma concentration of C-reactive protein predicts the risk of future myocardial infarction and stroke. Moreover, the reduction associated with the use of aspirin in the risk of a first myocardial infarction appears to be directly related to the level of C-reactive protein, raising the possibility that antiinflammatory agents may have clinical benefits in preventing cardiovascular disease. (C) 1997, Massachusetts Medical Society.

Keywords: Atherosclerosis, C-Reactive Protein, Chlamydia-Pneumoniae, Coronary-Artery Disease, Heart-Disease, Helicobacter-Pylori, Infection, Myocardial-Infarction, Pathogenesis, Risk Factors, Serum, Treatment

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Full Text: [N\New Eng J Med336, 1769.pdf](N/New%20Eng%20J%20Med336,%201769.pdf)

Abstract: Background Postmenopausal hormone therapy has both benefits and hazards, including decreased risks of osteoporosis and cardiovascular disease and an increased risk of breast cancer.

Methods We examined the relation between the use of postmenopausal hormones and mortality among participants in the Nurses’ Health Study, who were 30 to 55 years of age at base line in 1976. Data were collected by biennial questionnaires beginning in 1976 and continuing th rough 1992. We documented 3637 deaths from 1976 to 1994. Each participant who died was matched with 10 controls alive at the time of her death. For each death, we defined the subject’s hormone status according to the last biennial questionnaire before her death or before the diagnosis of the fatal disease; this reduced bias caused by the discontinuation of hormone use between the time of diagnosis of a potentially fatal disease and death.

Results After adjustment for confounding variables, current hormone users had a lower risk-of death (relative risk, 0.63; 95 percent confidence interval, 0.56 to 0.70) than subjects who had never taken hormones; however, the apparent benefit decreased with long-term use (relative risk, 0.80; 0.67 to 0.96, after 10 or more years) because of an increase in mortality from breast cancer among long-term hormone users. Current hormone users with coronary risk factors (69 percent of the women) had the largest reduction in mortality (relative risk, 0.51; 95 percent confidence interval, 0.45 to 0.57), with substantially less benefit for those at low risk (13 percent of the women; relative risk, 0.89; 95 percent confidence interval, 0.62 to 1.28).

Conclusions On average, mortality among women who use postmenopausal hormones is lower than among nonusers; however, the survival benefit diminishes with longer duration of use and is lower for women at low risk for coronary disease. (C)1997, Massachusetts Medical Society.

Keywords: Estrogen Replacement Therapy, Follow-Up, Women, Disease, Cancer, Risk

Notes: highly cited

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Full Text: 1999\New Eng J Med341, 709.pdf

Abstract: Background and Methods Aldosterone is important in the pathophysiology of heart failure, In a double-blind study, we enrolled 1663 patients who had severe heart failure and a left ventricular ejection fraction of no more than 35 percent and who were being treated with an a agiotensin-converting-enzyme inhibitor, a loop diuretic, and in most cases digoxin. A total of 822 patients were randomly assigned to receive 25 mg of spironolactone daily, and 841 to receive placebo. The primary end point was death from all causes. Results The trial was discontinued early, after a mean follow-up period of 24 months, because an interim analysis determined that spironolactone was efficacious, There were 386 deaths in the placebo group (46 percent) and 284 in the spironolactone group (35 percent; relative risk of death, 0.70; 95 percent confidence interval, 0.60 to 0.82; P<0.001). This 30 percent reduction in the risk of death among patients in the spironolactone group was attributed to a lower risk of both death from progressive heart failure and sudden death from cardiac causes. The frequency of hospitalization for worsening heart failure was 35 percent lower in the spironolactone group than in the placebo group (relative risk of hospitalization, 0.65; 95 percent confidence interval, 0.54 to 0.77; P<0.001). In addition, patients who received spironolactone had a significant improvement in the symptoms of heart failure, as assessed on the basis of the New York Heart Association functional class (P<0.001). Gynecomastia or breast pain was reported in 10 percent of men who were treated with spironolactone, as compared with 1 percent of men in the placebo group (P<0.001). The incidence of serious hyperkalemia was minimal in both groups of patients. Conclusions Blockade of aldosterone receptors by spironolactone, in addition to standard therapy, substantially reduces the risk of both morbidity and death among patients with severe heart failure. (N Engl J Med 1999:341:709-17.) (C)1999, Massachusetts Medical Society.

Keywords: Ace-Inhibitors, Analysis, Angiotensin-Aldosterone System, Blockade, Clinical-Trials, Converting Enzyme-Inhibitor, Efficacy, Follow-Up, Frequency, Functional, Hospitalization, Hypertension, Incidence, Men, Methods, Morbidity, Mortality, Pain, Patients, Potassium, Primary, Reduction, Relative Risk, Risk, Secondary, Symptoms, Therapy

Notes: highly cited

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Full Text: [2000\New Eng J Med343, 269.pdf](2000/New%20Eng%20J%20Med343,%20269.pdf)

Keywords: Necrosis-Factor-Alpha, Positive-Pressure Ventilation, Bronchoalveolar Lavage Fluid, Randomized Controlled Trial, Acute Respiratory-Failure, Volume-Reduction Surgery, Exhaled Nitric-Oxide, Term Oxygen-Therapy, Chronic-Bronchitis, Lung-Function

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Full Text: [2001\New Eng J Med344, 1421.pdf](2001/New%20Eng%20J%20Med344,%201421.pdf)

Abstract: Background: Thousands of children, especially poor children living in deteriorated urban housing, are exposed to enough lead to produce cognitive impairment. It is not known whether treatment to reduce blood lead levels prevents or reduces such impairment.

Methods: We enrolled 780 children with blood lead levels of 20 to 44 mug per deciliter (1.0 to 2.1 mu mol per liter) in a randomized, placebo-controlled, double-blind trial of up to three 26-day courses of treatment with succimer, a lead chelator that is administered orally. The children lived in deteriorating inner-city housing and were 12 to 33 months of age at enrollment; 77 percent were black, and 5 percent were Hispanic. Follow-up included tests of cognitive, motor, behavioral, and neuropsychological function over a period of 36 months.

Results: During the first six months of the trial, the mean blood lead level in the children given succimer was 4.5 mug per deciliter (0.2 mu mol per liter) lower than the mean level in the children given placebo (95 percent confidence interval, 3.7 to 5.3 mug per deciliter [0.2 to 0.3 mu mol per liter]). At 36 months of follow-up, the mean IQ score of children given succimer was 1 point lower than that of children given placebo, and the behavior of children given succimer was slightly worse as rated by a parent. However, the children given succimer scored slightly better on the Developmental Neuropsychological Assessment, a battery of tests designed to measure neuropsychological deficits thought to interfere with learning. All these differences were small, and none were statistically significant.

Conclusions: Treatment with succimer lowered blood lead levels but did not improve scores on tests of cognition, behavior, or neuropsychological function in children with blood lead levels below 45 mug per deciliter. Since succimer is as effective as any lead chelator currently available, chelation therapy is not indicated for children with these blood lead levels. (N Engl J Med 2001;344:1421-6.) Copyright (C) 2001 Massachusetts Medical Society.

Keywords: Port-Pirie Cohort, Cognitive Function, Cincinnati Lead, Clinical-Trial, Intelligence, Age

Notes: highly cited

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Full Text: [2001\New Eng J Med345, 784.pdf](2001/New%20Eng%20J%20Med345,%20784.pdf)

Abstract: Background: Although many studies have found an association between Helicobacter pylori infection and the development of gastric cancer, many aspects of this relation remain uncertain.

Methods: We prospectively studied 1526 Japanese patients who had duodenal ulcers, gastric ulcers, gastric hyperplasia, or nonulcer dyspepsia at the time of enrollment; 1246 had H. pylori infection and 280 did not. The mean follow-up was 7.8 years (range, 1.0 to 10.6). Patients underwent endoscopy with biopsy at enrollment and then between one and three years after enrollment. H. pylori infection was assessed by histologic examination, serologic testing, and rapid urease tests and was defined by a positive result on any of these tests.

Results: Gastric cancers developed in 36 (2.9 percent) of the infected and none of the uninfected patients. There were 23 intestinal-type and 13 diffuse-type cancers. Among the patients with H. pylori infection, those with severe gastric atrophy, corpus-predominant gastritis, and intestinal metaplasia were at significantly higher risk for gastric cancer. We detected gastric cancers in 21 (4.7 percent) of the 445 patients with nonulcer dyspepsia, 10 (3.4 percent) of the 297 with gastric ulcers, 5 (2.2 percent) of the 229 with gastric hyperplastic polyps, and none of the 275 with duodenal ulcers.

Conclusions: Gastric cancer develops in persons infected with H. pylori but not in uninfected persons. Those with histologic findings of severe gastric atrophy, corpus-predominant gastritis, or intestinal metaplasia are at increased risk. Persons with H. pylori infection and nonulcer dyspepsia, gastric ulcers, or gastric hyperplastic polyps are also at risk, but those with duodenal ulcers are not. (N Engl J Med 2001;345:784-9.) Copyright (C) 2001 Massachusetts Medical Society.

Keywords: Duodenal-Ulcer Disease, Carcinoma, Stomach, Risk, Classification, Inflammation, Epidemiology, Prevalence, Antibody, Atrophy

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Keywords: Ranitidine Bismuth Citrate, Gastric Epithelial-Cells, Proton Pump Inhibitor, Randomized Controlled Trial, Cytokine Messenger-RNA, Triple Therapy, Vacuolating Cytotoxin, Antibiotic-Resistance, Pathogenicity Island, Campylobacter-Pylori

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Full Text: [2002\New Eng J Med347, 2020.pdf](2002/New%20Eng%20J%20Med347,%202020.pdf)

Abstract: Background: Caspofungin is an echinocandin agent with fungicidal activity against candida species. We performed a double-blind trial to compare caspofungin with amphotericin B deoxycholate for the primary treatment of invasive candidiasis. Methods: We enrolled patients who had clinical evidence of infection and a positive culture for candida species from blood or another site. Patients were stratified according to the severity of disease, as indicated by the Acute Physiology and Chronic Health Evaluation (APACHE II) score, and the presence or absence of neutropenia and were randomly assigned to receive either caspofungin or amphotericin B. The study was designed to compare the efficacy of caspofungin with that of amphotericin B in patients with invasive candidiasis and in a subgroup with candidemia. Results: Of the 239 patients enrolled, 224 were included in the modified intention-to-treat analysis. Base-line characteristics, including the percentage of patients with neutropenia and the mean APACHE II score, were similar in the two treatment groups. A modified intention-to-treat analysis showed that the efficacy of caspofungin was similar to that of amphotericin B, with successful outcomes in 73.4 percent of the patients treated with caspofungin and in 61.7 percent of those treated with amphotericin B (difference after adjustment for APACHE II score and neutropenic status, 12.7 percentage points; 95.6 percent confidence interval, -0.7 to 26.0). An analysis of patients who met prespecified criteria for evaluation showed that caspofungin was superior, with a favorable response in 80.7 percent of patients, as compared with 64.9 percent of those who received amphotericin B (difference, 15.4 percentage points; 95.6 percent confidence interval, 1.1 to 29.7). Caspofungin was as effective as amphotericin B in patients who had candidemia, with a favorable response in 71.7 percent and 62.8 percent of patients, respectively (difference, 10.0 percentage points; 95.0 percent confidence interval, -4.5 to 24.5). There were significantly fewer drug-related adverse events in the caspofungin group than in the amphotericin B group. Conclusions: Caspofungin is at least as effective as amphotericin B for the treatment of invasive candidiasis and, more specifically, candidemia.

Keywords: Antifungal Mk-0991 L-743,872, Blood-Stream Infections, Candidemia, Echinocandin Antifungal, Evaluation, Fluconazole-Resistant, Fungal-Infections, In-Vitro Activity, Multicenter, Outcomes, Primary, Randomized Trial, Surveillance

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Full Text: [2003\New Eng J Med348, 518.pdf](2003/New%20Eng%20J%20Med348,%20518.pdf)

Abstract: Background: Infection with human papilloma virus (HPV) is the main cause of cervical cancer, but the risk associated with the various HPV types has not been adequately assessed. Methods: We pooled data from 11 case-control studies from nine countries involving 1918 women with histologically confirmed squamous-cell cervical cancer and 1928 control women. A common protocol and questionnaire were used. Information on risk factors was obtained by personal interviews, and cervical cells were collected for detection of HPV DNA and typing in a central laboratory by polymerase-chain-reaction-based assays (with MY09/MY11 and GP5+/6+ primers). Results: HPV DNA was detected in 1739 of the 1918 patients with cervical cancer (90.7 percent) and in 259 of the 1928 control women (13.4 percent). With the GP5+/6+ primer, HPV DNA was detected in 96.6 percent of the patients and 15.6 percent of the controls. The most common HPV types in patients, in descending order of frequency, were types 16, 18, 45, 31, 33, 52, 58, and 35. Among control women, types 16, 18, 45, 31, 6, 58, 35, and 33 were the most common. For studies using the GP5+/6+ primer, the pooled odds ratio for cervical cancer associated with the presence of any HPV was 158.2 (95 percent confidence interval, 113.4 to 220.6). The odds ratios were over 45 for the most common and least common HPV types. Fifteen HPV types were classified as high-risk types (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 68, 73, and 82); 3 were classified as probable high-risk types (26, 53, and 66); and 12 were classified as low-risk types (6, 11, 40, 42, 43, 44, 54, 61, 70, 72, 81, and CP6108). There was good agreement between our epidemiologic classification and the classification based on phylogenetic grouping. Conclusions: In addition to HPV types 16 and 18, types 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 68, 73, and 82 should be considered carcinogenic, or high-risk, types, and types 26, 53, and 66 should be considered probably carcinogenic.

Keywords: Cancer, Colombia, DNA, HPV, Hybridization, Infection, Intraepithelial Neoplasia, PCR, Questionnaire, Spain

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Full Text: [2003\New Eng J Med348, 1517.pdf](2003/New%20Eng%20J%20Med348,%201517.pdf)

Abstract: BACKGROUND: Despite dramatic declines in children’s blood lead concentrations and a lowering of the Centers for Disease Control and Prevention’s level of concern to 10 microg per deciliter (0.483 micromol per liter), little is known about children’s neurobehavioral functioning at lead concentrations below this level.

METHODS: We measured blood lead concentrations in 172 children at 6, 12, 18, 24, 36, 48, and 60 months of age and administered the Stanford-Binet Intelligence Scale at the ages of 3 and 5 years. The relation between IQ and blood lead concentration was estimated with the use of linear and nonlinear mixed models, with adjustment for maternal IQ, quality of the home environment, and other potential confounders.

RESULTS: The blood lead concentration was inversely and significantly associated with IQ. In the linear model, each increase of 10 microg per deciliter in the lifetime average blood lead concentration was associated with a 4.6-point decrease in IQ (P=0.004), whereas for the subsample of 101 children whose maximal lead concentrations remained below 10 microg per deciliter, the change in IQ associated with a given change in lead concentration was greater. When estimated in a nonlinear model with the full sample, IQ declined by 7.4 points as lifetime average blood lead concentrations increased from 1 to 10 microg per deciliter.

CONCLUSIONS: Blood lead concentrations, even those below 10 microg per deciliter, are inversely associated with children’s IQ scores at three and five years of age, and associated declines in IQ are greater at these concentrations than at higher concentrations. These findings suggest that more U.S. children may be adversely affected by environmental lead than previously estimated.

Keywords: Port-Pirie Cohort, Environmental Lead, Cognitive Function, Neuropsychological Development, Preschool-Children, Primary Prevention, Bone Lead, Exposure, Intelligence, Level

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Wenzel, R.P., Echmond, M.B. (2003), Managing SARS amidst uncertainty. *New England Journal of Medicine*, **348** (20), 1947-1948.

Full Text: [N\New Eng J Med348, 1947.pdf](N/New%20Eng%20J%20Med348,%201947.pdf)

Abstract: Discusses the difficulty in managing severe acute respiratory syndrome (SARS) amidst uncertainty. Businessman from the city of Foshan in the southern Chinese province of Guangdong and how he may have been the first victim of SARS; Suggestion that a novel coronavirus is the causative agent; Coronaviruses, which cause illness in many animals, and their association with upper respiratory infections in humans; Transmission through droplet nuclei; What should be done to contain the disease.

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Full Text: [N\New Eng J Med348, 1948.pdf](N/New%20Eng%20J%20Med348,%201948.pdf)

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Full Text: [N\New Eng J Med348, 1953.pdf](N/New%20Eng%20J%20Med348,%201953.pdf)

Abstract:

background

A worldwide outbreak of severe acute respiratory syndrome (SARS) has been associated with exposures originating from a single ill health care worker from Guangdong Province, China. We conducted studies to identify the etiologic agent of this outbreak.

methods

We received clinical specimens from patients in seven countries and tested them, using virus-isolation techniques, electron-microscopical and histologic studies, and molecular and serologic assays, in an attempt to identify a wide range of potential pathogens.

results

None of the previously described respiratory pathogens were consistently identified. However, a novel coronavirus was isolated from patients who met the case definition of SARS. Cytopathological features were noted in Vero E6 cells inoculated with a throatswab specimen. Electron-microscopical examination revealed ultrastructural features characteristic of coronaviruses. Immunohistochemical and immunofluorescence staining revealed reactivity with group I coronavirus polyclonal antibodies. Consensus coronavirus primers designed to amplify a fragment of the polymerase gene by reverse transcription -polymerase chain reaction (RT-PCR) were used to obtain a sequence that clearly identified the isolate as a unique coronavirus only distantly related to previously sequenced coronaviruses. With specific diagnostic RT-PCR primers we identified several identical nucleotide sequences in 12 patients from several locations, a finding consistent with a point-source outbreak. Indirect fluorescence antibody tests and enzymelinked immunosorbent assays made with the new isolate have been used to demonstrate a virus-specific serologic response. This virus may never before have circulated in the U.S. population.

conclusions

A novel coronavirus is associated with this outbreak, and the evidence indicates that this virus has an etiologic role in SARS. Because of the death of Dr. Carlo Urbani, we propose that our first isolate be named the Urbani strain of SARS-associated coronavirus.

Keywords: Porcine Epidemic Diarrhea, Virus, Infection, Propagation, Disease, Fever

Drosten, C., Günther, S., Preiser, W., van der Werf, S., Brodt, H.R., Becker, S., Rabenau, H., Panning, M., Kolesnikova, L., Fouchier, R.A.M., Berger, A., Burguière, A.M., Cinatl, J., Eickmann, M., Escriou, N., Grywna, K., Kramme, S., Manuguerra, J.C., Müller, S., Rickerts, V., Stürmer, M., Vieth, S., Klenk, H.D., Osterhaus, A.D.M.E., Schmitz, H., and Doerr, H.W. (2003), Identification of a novel coronavirus in patients with severe acute respiratory syndrome. *New England Journal of Medicine*, **348** (20), 1967-1976.

Full Text: [N\New Eng J Med348, 1967.pdf](N/New%20Eng%20J%20Med348,%201967.pdf)

Abstract: *Background*

The severe acute respiratory syndrome (SARS) has recently beenidentified as a new clinical entity. SARS is thought to be causedby an unknown infectious agent.

*Methods* Clinical specimens from patients with SARS were searchedfor unknown viruses with the use of cell cultures and moleculartechniques.

*Results* A novel coronavirus was identified in patients withSARS. The virus was isolated in cell culture, and a sequence300 nucleotides in length was obtained by a polymerase-chain-reaction(PCR)–based random-amplification procedure. Genetic characterizationindicated that the virus is only distantly related to knowncoronaviruses (identical in 50 to 60 percent of the nucleotidesequence). On the basis of the obtained sequence, conventional and real-time PCR assays for specific and sensitive detectionof the novel virus were established. Virus was detected in avariety of clinical specimens from patients with SARS but notin controls. High concentrations of viral RNA of up to 100 millionmolecules per milliliter were found in sputum. Viral RNA wasalso detected at extremely low concentrations in plasma duringthe acute phase and in feces during the late convalescent phase.Infected patients showed seroconversion on the Vero cells inwhich the virus was isolated.

*Conclusions* The novel coronavirus might have a role in causingSARS.

Keywords: Lassa Virus, Fever

Tsang, K.W., Ho, P.L., Ooi, G.C., Yee, W.K., Wang, T., Chan-Yeung, M., Lam, W.K., Seto, W.H., Yam, L.Y., Cheung, T.M., Wong, P.C., Lam, B., Ip, M.S., Chan, J., Yuen, K.Y. and Lai, K.N. (2003), A Cluster of Cases of Severe Acute Respiratory Syndrome in Hong Kong. *New England Journal of Medicine*, **348** (20), 1977-1985.

Full Text: [N\New Eng J Med348, 1977.pdf](N/New%20Eng%20J%20Med348,%201977.pdf)

Abstract: Background Information on the clinical features of the severe acute respiratory syndrome (SARS) will be of value to physicians caring for patients suspected of having this disorder.

Methods We abstracted data on the clinical presentation and course of disease in 10 epidemiologically linked Chinese patients (5 men and 5 women 38 to 72 years old) in whom SARS was diagnosed between February 22, 2003, and March 22, 2003, at our hospitals in Hong Kong, China.

Results Exposure between the source patient and subsequent patients ranged from minimal to that between patient and health care provider. The incubation period ranged from 2 to 11 days. All patients presented with fever (temperature, >38°C for over 24 hours), and most presented with rigor, dry cough, dyspnea, malaise, headache, and hypoxemia. Physical examination of the chest revealed crackles and percussion dullness. Lymphopenia was observed in nine patients, and most patients had mildly elevated aminotransferase levels but normal serum creatinine levels. Serial chest radiographs showed progressive air-space disease. Two patients died of progressive respiratory failure; histologic analysis of their lungs showed diffuse alveolar damage. There was no evidence of infection by Mycoplasma pneumoniae, Chlamydia pneumoniae, or Legionella pneumophila. All patients received corticosteroid and ribavirin therapy a mean (±SD) of 9.6±5.42 days after the onset of symptoms, and eight were treated earlier with a combination of beta-lactams and macrolide for 4±1.9 days, with no clinical or radiologic efficacy.

Conclusions SARS appears to be infectious in origin. Fever followed by rapidly progressive respiratory compromise is the key complex of signs and symptoms from which the syndrome derives its name. The microbiologic origins of SARS remain unclear.

Keywords: Organizing Pneumonia, CT Findings

Lee, N., Hui, D., Wu, A., Chan, P., Cameron, P., Joynt, G.M., Ahuja, A., Yung, M.Y., Leung, C.B., To, K.F., Lui, S.F., Szeto, C.C., Chung, S. and Sung, J.J.Y. (2003), A major outbreak of severe acute respiratory syndrome in Hong Kong. *New England Journal of Medicine*, **348** (20), 1986-1994.

Full Text: [N\New Eng J Med348, 1986.pdf](N/New%20Eng%20J%20Med348,%201986.pdf)

Abstract: *Background* There has been an outbreak of the severe acute respiratory syndrome (SARS) worldwide. We report the clinical, laboratory, and radiologic features of 138 cases of suspected SARS during a hospital outbreak in Hong Kong.

*Methods* From March 11 to 25, 2003, all patients with suspected SARS after exposure to an index patient or ward were admitted to the isolation wards of the Prince of Wales Hospital. Their demographic, clinical, laboratory, and radiologic characteristics were analyzed. Clinical end points included the need for intensive care and death. Univariate and multivariate analyses were performed.

*Results* There were 66 male patients and 72 female patients in this cohort, 69 of whom were health care workers. The most common symptoms included fever (in 100 percent of the patients); chills, rigors, or both (73.2 percent); and myalgia (60.9 percent). Cough and headache were also reported in more than 50 percent of the patients. Other common findings were lymphopenia (in 69.6 percent), thrombocytopenia (44.8 percent), and elevated lactate dehydrogenase and creatine kinase levels (71.0 percent and 32.1 percent, respectively). Peripheral air-space consolidation was commonly observed on thoracic computed tomographic scanning. A total of 32 patients (23.2 percent) were admitted to the intensive care unit; 5 patients died, all of whom had coexisting conditions. In a multivariate analysis, the independent predictors of an adverse outcome were advanced age (odds ratio per decade of life, 1.80; 95 percent confidence interval, 1.16 to 2.81; P=0.009), a high peak lactate dehydrogenase level (odds ratio per 100 U per liter, 2.09; 95 percent confidence interval, 1.28 to 3.42; P=0.003), and an absolute neutrophil count that exceeded the upper limit of the normal range on presentation (odds ratio, 1.60; 95 percent confidence interval, 1.03 to 2.50; P=0.04).

*Conclusions* SARS is a serious respiratory illness that led to significant morbidity and mortality in our cohort.

Keywords: Obliterans Organizing Pneumonia, Bronchiolitis

Poutanen, S.M., Donald, M.P.H., Low, E., Henry, B., Finkelstein, S., Rose, D., Green, K., Raymond Tellier, R.N., Draker, R., Adachi, D., Ayers, M., Chan, A.K., Skowronski, D.M., Salit, I., Simor, A.E., Slutsky, A.S., Doyle, P.W., Krajden, M., Petric, M., Brunham, R.C., McGeer, A.J., for the National Microbiology Laboratory, Canada, and the Canadian Severe Acute Respiratory Syndrome Study Team (2003), Identification of severe acute respiratory syndrome in Canada. *New England Journal of Medicine*, **348** (20), 1995-2005.

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Abstract: Background Severe acute respiratory syndrome (SARS) is a condition of unknown cause that has recently been recognized in patients in Asia, North America, and Europe. This report summarizes the initial epidemiologic findings, clinical description, and diagnostic findings that followed the identification of SARS in Canada.

Methods SARS was first identified in Canada in early March 2003. We collected epidemiologic, clinical, and diagnostic data from each of the first 10 cases prospectively as they were identified. Specimens from all cases were sent to local, provincial, national, and international laboratories for studies to identify an etiologic agent.

Results The patients ranged from 24 to 78 years old; 60 percent were men. Transmission occurred only after close contact. The most common presenting symptoms were fever (in 100 percent of cases) and malaise (in 70 percent), followed by nonproductive cough (in 100 percent) and dyspnea (in 80 percent) associated with infiltrates on chest radiography (in 100 percent). Lymphopenia (in 89 percent of those for whom data were available), elevated lactate dehydrogenase levels (in 80 percent), elevated aspartate aminotransferase levels (in 78 percent), and elevated creatinine kinase levels (in 56 percent) were common. Empirical therapy most commonly included antibiotics, oseltamivir, and intravenous ribavirin. Mechanical ventilation was required in five patients. Three patients died, and five have had clinical improvement. The results of laboratory investigations were negative or not clinically significant except for the amplification of human metapneumovirus from respiratory specimens from five of nine patients and the isolation and amplification of a novel coronavirus from five of nine patients. In four cases both pathogens were isolated.

Conclusions SARS is a condition associated with substantial morbidity and mortality. It appears to be of viral origin, with patterns suggesting droplet or contact transmission. The role of human metapneumovirus, a novel coronavirus, or both requires further investigation.

Keywords: Human Metapneumovirus, Mechanical Ventilation, Coronavirus, Infections, Ribavirin, Children, Trial

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Full Text: [N\New Eng J Med348, e6.pdf](N/New%20Eng%20J%20Med348,%20e6.pdf)

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Full Text: [N\New Eng J Med030666.pdf](N/New%20Eng%20J%20Med030666.pdf)

Abstract: *Background* Information on the clinical features of severeacute respiratory syndrome (SARS) will be of value to physicianscaring for patients suspected of having this disorder.

*Methods* We abstracted the clinical presentation and course of diseasein 10 epidemiologically linked Chinese patients (5 men and 5women 38 to 72 years old) in whom SARS was diagnosed betweenFebruary 22, 2003, and March 22, 2003, at our hospitals in HongKong, China.

*Results* Exposure between the source patient and subsequent patients ranged from minimal to that between patient and health care provider. The incubation period ranged from2 to 11 days. All patients presented with fever (temperature, >38°C for over 24 hours), and most presented with rigor, dry cough, dyspnea, malaise, headache, and hypoxemia. Physicalexamination of the chest revealed crackles and percussion dullness.Lymphopenia was observed in nine patients, and most patientshad mildly elevated aminotransferase levels but normal serumcreatinine levels. Serial chest radiographs showed progressiveair-space disease. Two patients died of progressive respiratoryfailure; histologic analysis of their lungs showed diffuse alveolardamage. There was no evidence of infection by *Mycoplasma pneumoniae*, *Chlamydia pneumoniae*, or *Legionella pneumophila.* All patientsreceived corticosteroid and ribavirin therapy a mean (±SD)of 9.6±5.42 days after the onset of symptoms, and eightwere treated earlier with a combination of beta-lactams and macrolide for 4±1.9 days, with no clinical or radiologicalefficacy.

*Conclusions* SARS appears to be infectious in origin.Fever followed by rapidly progressive respiratory compromiseis the key complex of signs and symptoms from which the syndromederives its name. The microbiologic origins of SARS remain unclear.

Poutanen, S.M., Low, D.E., Henry, B., Finkelstein, S., Rose, D., Green, K., Tellier, R., Draker, R., Adachi, D., Ayers, M., Chan, A.K., Skowronski, D.M., Salit, I., Simor, A.E., Slutsky, A.S., Doyle, P.W., Krajden, M., Petric, M., Brunham, R.C., McGeer, A.J., and the National Microbiology Laboratory, Canada, and the Canadian Severe Acute Respiratory Syndrome Study Team (2003), Identification of severe acute respiratory syndrome in Canada. *New England Journal of Medicine*, **Apr**, 306343.

Full Text: [N\New Eng J Med306343.pdf](N/New%20Eng%20J%20Med306343.pdf)

Abstract: Background Severe acute respiratory syndrome (SARS) is a conditionof unknown cause that has recently been recognized in patientsin Asia, North America, and Europe. This report summarizes theinitial epidemiologic findings, clinical description, and diagnosticfindings that followed the identification of SARS in Canada.

MethodsSARS was first identified in Canada in early March 2003. Wecollected epidemiologic, clinical, and diagnostic data fromeach of the first 10 cases prospectively as they were identified.Specimens from all cases were sent to local, provincial, national, and international laboratories for studies to identify an etiologicagent.

Results The patients ranged from 24 to 78 years old;60 percent were men. Transmission occurred only after closecontact. The most common presenting symptoms were fever (in100 percent of cases) and malaise (in 70 percent), followedby nonproductive cough (in 100 percent) and dyspnea (in 80 percent)associated with infiltrates on chest radiography (in 100 percent).Lymphopenia (in 89 percent of those for whom data were available), elevated lactate dehydrogenase levels (in 80 percent), elevatedaspartate aminotransferase levels (in 78 percent), and elevatedcreatinine kinase levels (in 56 percent) were common. Empiricaltherapy most commonly included antibiotics, oseltamivir, and intravenous ribavirin. Mechanical ventilation was required infive patients. Three patients died, and five have had clinicalimprovement. The results of laboratory investigations were negativeor not clinically significant except for the amplification ofhuman metapneumovirus from respiratory specimens from five ofnine patients and the isolation and amplification of a novelcoronavirus from five of nine patients. In four cases both pathogenswere isolated.

Conclusions SARS is a condition associated withsubstantial morbidity and mortality. It appears to be of viralorigin, with patterns suggesting droplet or contact transmission.The role of human metapneumovirus, a novel coronavirus, or bothrequires further investigation.

Lee, N., Hui, D., Wu, A., Chan, P., Cameron, P., Joynt, G.M., Ahuja, A., Yung, M.Y., Leung, C.B., To, K.F., Lui, S.F., Szeto, C.C., Chung, S. and Sung, J.J.Y. (2003), A major outbreak of severe acute respiratory syndrome in Hong Kong. *New England Journal of Medicine*, **Apr**, 306852.

Full Text: [N\New Eng J Med, 306852.pdf](N/New%20Eng%20J%20Med,%20306852.pdf)

Abstract: *Background* There has been an outbreak of the severe acuterespiratory syndrome (SARS) worldwide. We report the clinical, laboratory, and radiologic features of 138 cases of suspectedSARS during a hospital outbreak in Hong Kong.

*Methods* From March 11 to 25, 2003, all patients with suspected SARS after exposureto an index patient or ward were admitted to the isolation wardsof the Prince of Wales Hospital. Their demographic, clinical, laboratory, and radiologic characteristics were analyzed. Clinicalend points included the need for intensive care and death. Univariate and multivariate analyses were performed.

*Results* There were66 male patients and 72 female patients in this cohort, 69 ofwhom were health care workers. The most common symptoms includedfever (in 100 percent of the patients); chills, rigors, or both(73.2 percent); and myalgia (60.9 percent). Cough and headachewere also reported in more than 50 percent of the patients. Other common findings were lymphopenia (in 69.6 percent), thrombocytopenia (44.8 percent), and elevated lactate dehydrogenase and creatine kinase levels (71.0 percent and 32.1 percent, respectively). Peripheral air-space consolidation was commonly observed onthoracic computed tomographic scanning. A total of 32 patients(23.2 percent) were admitted to the intensive care unit; 5 patientsdied, all of whom had coexisting conditions. In a multivariate analysis, the independent predictors of an adverse outcome wereadvanced age (odds ratio per decade of life, 1.80; 95 percentconfidence interval, 1.16 to 2.81; P=0.009), a high peak lactatedehydrogenase level (odds ratio per 100 U per liter, 2.09; 95percent confidence interval, 1.28 to 3.42; P=0.003), and anabsolute neutrophil count that exceeded the upper limit of thenormal range on presentation (odds ratio, 1.60; 95 percent confidenceinterval, 1.03 to 2.50; P=0.04).

*Conclusions* SARS is a seriousrespiratory illness that led to significant morbidity and mortalityin our cohort.

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Full Text: [N\New Eng J Med, 307472.pdf](N/New%20Eng%20J%20Med,%20307472.pdf)

Abstract: *Background* The severe acute respiratory syndrome (SARS) hasrecently been identified as a new clinical entity. SARS is thoughtto be caused by an unknown infectious agent.

*Methods* Clinicalspecimens from patients with SARS were searched for unknownviruses with the use of cell cultures and molecular techniques.

*Results*A novel coronavirus was identified in patients with SARS. Thevirus was isolated in cell culture, and a sequence 300 nucleotidesin length was obtained by a polymerase-chain-reaction (PCR)-basedrandom-amplification procedure. Genetic characterization indicatedthat the virus is only distantly related to known coronaviruses(identical in 50 to 60 percent of the nucleotide sequence).On the basis of the obtained sequence, conventional and real-timePCR assays for specific and sensitive detection of the novelvirus were established. Virus was detected in a variety of clinicalspecimens from patients with SARS but not in controls. Highconcentrations of viral RNA of up to 100 million molecules permilliliter were found in sputum. Viral RNA was also detectedat extremely low concentrations in plasma during the acute phase and in feces during the late convalescent phase. Infected patientsshowed seroconversion on the Vero cells in which the virus wasisolated.

*Conclusions* The novel coronavirus might have a rolein causing SARS.

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Full Text: [N\New Eng J Med030781.pdf](N/New%20Eng%20J%20Med030781.pdf)

Abstract: *Background* A worldwide outbreak of severe acute respiratory syndrome (SARS) has been associated with exposures originating from a single ill health care worker from Guangdong Province, China. We conducted studies to identify the etiologic agent of this outbreak.

*Methods* We received clinical specimens from patients in six countries and tested them, using virus isolation techniques, electron-microscopical and histologic studies, and molecular and serologic assays, in an attempt to identify a wide range of potential pathogens.

*Results* No classic respiratory or bacterial respiratory pathogen was consistently identified. However, a novel coronavirus was isolated from patients who met the case definition of SARS. Cytopathological features were noted microscopically in Vero E6 cells inoculated with a throat-swab specimen. Electron-microscopical examination of cultures revealed ultrastructural features characteristic of coronaviruses. Immunohistochemical and immunofluorescence staining revealed reactivity with group I coronavirus polyclonal antibodies. Consensus coronavirus primers designed to amplify a fragment of the polymerase gene by reverse transcription-polymerase chain reaction (RT-PCR) were used to obtain a sequence that clearly identified the isolate as a unique coronavirus only distantly related to previously sequenced coronaviruses. With specific diagnostic RT-PCR primers we identified several identical nucleotide sequences in 12 patients from several locations, a finding consistent with a point source outbreak. Indirect fluorescent antibody tests and enzyme-linked immunosorbent assays made with the new coronavirus isolate have been used to demonstrate a virus-specific serologic response. Preliminary studies suggest that this virus may never before have infected the U.S. population.

*Conclusions* A novel coronavirus is associated with this outbreak, and the evidence indicates that this virus has an etiologic role in SARS. The name Urbani SARS-associated coronavirus is proposed for the virus.

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Full Text: [2004\New Eng J Med350, 2129.pdf](2004/New%20Eng%20J%20Med350,%202129.pdf)

Abstract: BACKGROUND: Most patients with non-small-cell lung cancer have no response to the tyrosine kinase inhibitor gefitinib, which targets the epidermal growth factor receptor (EGFR). However, about 10 percent of patients have a rapid and often dramatic clinical response. The molecular mechanisms underlying sensitivity to gefitinib are unknown.

METHODS: We searched for mutations in the EGFR gene in primary tumors from patients with non-small-cell lung cancer who had a response to gefitinib, those who did not have a response, and those who had not been exposed to gefitinib. The functional consequences of identified mutations were evaluated after the mutant proteins were expressed in cultured cells.

RESULTS: Somatic mutations were identified in the tyrosine kinase domain of the EGFR gene in eight of nine patients with gefitinib-responsive lung cancer, as compared with none of the seven patients with no response (P<0.001). Mutations were either small, in-frame deletions or amino acid substitutions clustered around the ATP-binding pocket of the tyrosine kinase domain. Similar mutations were detected in tumors from 2 of 25 patients with primary non-small-cell lung cancer who had not been exposed to gefitinib (8 percent). All mutations were heterozygous, and identical mutations were observed in multiple patients, suggesting an additive specific gain of function. In vitro, EGFR mutants demonstrated enhanced tyrosine kinase activity in response to epidermal growth factor and increased sensitivity to inhibition by gefitinib.

CONCLUSIONS: A subgroup of patients with non-small-cell lung cancer have specific mutations in the EGFR gene, which correlate with clinical responsiveness to the tyrosine kinase inhibitor gefitinib. These mutations lead to increased growth factor signaling and confer susceptibility to the inhibitor. Screening for such mutations in lung cancers may identify patients who will have a response to gefitinib.

Keywords: Tyrosine Kinase Inhibitor, Phase-II Trial, EGF Receptor, Solid Tumors, Zd1839, Combination, Phenotype, Leukemia, Efficacy, IRESSA

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Full Text: [2005\New Eng J Med353, 1659.pdf](2005/New%20Eng%20J%20Med353,%201659.pdf)

Abstract: BACKGROUND: Trastuzumab, a recombinant monoclonal antibody against HER2, has clinical activity in advanced breast cancer that overexpresses HER2. We investigated its efficacy and safety after excision of early-stage breast cancer and completion of chemotherapy. METHODS: This international, multicenter, randomized trial compared one or two years of trastuzumab given every three weeks with observation in patients with HER2-positive and either node-negative or node-positive breast cancer who had completed locoregional therapy and at least four cycles of neoadjuvant or adjuvant chemotherapy. RESULTS: Data were available for 1694 women randomly assigned to two years of treatment with trastuzumab, 1694 women assigned to one year of trastuzumab, and 1693 women assigned to observation. We report here the results only of treatment with trastuzumab for one year or observation. At the first planned interim analysis (median follow-up of one year), 347 events (recurrence of breast cancer, contralateral breast cancer, second nonbreast malignant disease, or death) were observed: 127 events in the trastuzumab group and 220 in the observation group. The unadjusted hazard ratio for an event in the trastuzumab group, as compared with the observation group, was 0.54 (95 percent confidence interval, 0.43 to 0.67; P<0.0001 by the log-rank test, crossing the interim analysis boundary), representing an absolute benefit in terms of disease-free survival at two years of 8.4 percentage points. Overall survival in the two groups was not significantly different (29 deaths with trastuzumab vs. 37 with observation). Severe cardiotoxicity developed in 0.5 percent of the women who were treated with trastuzumab. CONCLUSIONS: One year of treatment with trastuzumab after adjuvant chemotherapy significantly improves disease-free survival among women with HER2-positive breast cancer.

Keywords: 1st-Line Treatment, Cancer, Efficacy, HER2, Neu-Overexpressing Metastatic Breast, Mammary-Carcinoma, Monoclonal-Antibody, NEU Oncogene, Phase-II, Receptor, Safety, Therapy

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Keywords: Methods

Notes: highly cited

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Full Text: [2006\New Eng J Med354, 11.pdf](2006/New%20Eng%20J%20Med354,%2011.pdf)

Abstract: BACKGROUND: The safety and efficacy of an attenuated G1P[8] human rotavirus (HRV) vaccine were tested in a randomized, double-blind, phase 3 trial. METHODS: We studied 63,225 healthy infants from 11 Latin American countries and Finland who received two oral doses of either the HRV vaccine (31,673 infants) or placebo (31,552 infants) at approximately two months and four months of age. Severe gastroenteritis episodes were identified by active surveillance. The severity of disease was graded with the use of the 20-point Vesikari scale. Vaccine efficacy was evaluated in a subgroup of 20,169 infants (10,159 vaccinees and 10,010 placebo recipients). RESULTS: The efficacy of the vaccine against severe rotavirus gastroenteritis and against rotavirus-associated hospitalization was 85 percent (P<0.001 for the comparison with placebo) and reached 100 percent against more severe rotavirus gastroenteritis. Hospitalization for diarrhea of any cause was reduced by 42 percent (95 percent confidence interval, 29 to 53 percent; P<0.001). During the 31-day window after each dose, six vaccine recipients and seven placebo recipients had definite intussusception (difference in risk, -0.32 per 10,000 infants; 95 percent confidence interval, -2.91 to 2.18; P=0.78). CONCLUSIONS: Two oral doses of the live attenuated G1P[8] HRV vaccine were highly efficacious in protecting infants against severe rotavirus gastroenteritis, significantly reduced the rate of severe gastroenteritis from any cause, and were not associated with an increased risk of intussusception.

Keywords: America, Children, Hospitalizations, Hospitals, Immunogenicity, Infants, Intestinal Intussusception, Live, Santiago, Surveillance

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Full Text: [2006\New Eng J Med355, 281.pdf](2006/New%20Eng%20J%20Med355,%20281.pdf)

Abstract: Background: Participation of women in the medical profession has increased during the past four decades, but issues of concern persist regarding disparities between the sexes in academic medicine. Advancement is largely driven by peer-reviewed original research, so we sought to determine the representation of female physician-investigators among the authors of selected publications during the past 35 years. Methods: Original articles from six prominent medical journals - the New England Journal of Medicine (NEJM), the Journal of the American Medical Association (JAMA), the Annals of Internal Medicine (Ann Intern Med), the Annals of Surgery (Ann Surg), Obstetrics & Gynecology (Obstet Gynecol), and the Journal of Pediatrics (J Pediatr) - were categorized according to the sex of both the first and the senior (last listed) author. Sex was also determined for the authors of guest editorials in NEJM and JAMA. Data were collected for the years 1970, 1980, 1990, 2000, and 2004. The analysis was restricted to authors from U.S. institutions holding M.D. degrees. Results: The sex was determined for 98.5 percent of the 7249 U.S. authors of original research with M.D. degrees. The proportion of first authors who were women increased from 5.9 percent in 1970 to 29.3 percent in 2004 (P < 0.001), and the proportion of senior authors who were women increased from 3.7 percent to 19.3 percent (P < 0.001) during the same period. The proportion of authors who were women increased most sharply in Obstet Gynecol (from 6.7 percent of first authors and 6.8 percent of senior authors in 1970 to 40.7 percent of first authors and 28.0 percent of senior authors in 2004) and J Pediatr (from 15.0 percent of first authors and 4.3 percent of senior authors in 1970 to 38.9 percent of first authors and 38.0 percent of senior authors in 2004) and remained low in Ann Surg (from 2.3 percent of first authors and 0.7 percent of senior authors in 1970 to 16.7 percent of first authors and 6.7 percent of senior authors in 2004). In 2004, 11.4 percent of the authors of guest editorials in NEJM and 18.8 percent of the authors of guest editorials in JAMA were women. Conclusions: Over the past four decades, the proportion of women among both first and senior physician-authors of original research in the United States has significantly increased. Nevertheless, women still compose a minority of the authors of original research and guest editorials in the journals studied.

Keywords: Analysis, Authorship, England, Female, First, Institutions, Journals, Medical, Medical Journals, Medical Profession, Medicine, P, Peer-Reviewed, Profession, Publications, Representation, Research, Sex, United States, Women

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Keywords: Faculty, Compensation, Advancement, Physicians, Men

Notes: highly cited

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Full Text: [2010\New Eng J Med362, 2251.pdf](2010/New%20Eng%20J%20Med362,%202251.pdf)

Abstract: Background Nilotinib has been shown to be a more potent inhibitor of BCR-ABL than imatinib. We evaluated the efficacy and safety of nilotinib, as compared with imatinib, in patients with newly diagnosed Philadelphia chromosome-positive chronic myeloid leukemia (CML) in the chronic phase. Methods In this phase 3, randomized, open-label, multicenter study, we assigned 846 patients with chronic-phase Philadelphia chromosome-positive CML in a 1: 1: 1 ratio to receive nilotinib (at a dose of either 300 mg or 400 mg twice daily) or imatinib (at a dose of 400 mg once daily). The primary end point was the rate of major molecular response at 12 months. Results At 12 months, the rates of major molecular response for nilotinib (44% for the 300-mg dose and 43% for the 400-mg dose) were nearly twice that for imatinib (22%) (P<0.001 for both comparisons). The rates of complete cytogenetic response by 12 months were significantly higher for nilotinib (80% for the 300-mg dose and 78% for the 400-mg dose) than for imatinib (65%) (P<0.001 for both comparisons). Patients receiving either the 300-mg dose or the 400-mg dose of nilotinib twice daily had a significant improvement in the time to progression to the accelerated phase or blast crisis, as compared with those receiving imatinib (P = 0.01 and P = 0.004, respectively). No patient with progression to the accelerated phase or blast crisis had a major molecular response. Gastrointestinal and fluid-retention events were more frequent among patients receiving imatinib, whereas dermatologic events and headache were more frequent in those receiving nilotinib. Discontinuations due to aminotransferase and bilirubin elevations were low in all three study groups. Conclusions Nilotinib at a dose of either 300 mg or 400 mg twice daily was superior to imatinib in patients with newly diagnosed chronic-phase Philadelphia chromosome-positive CML. (ClinicalTrials.gov number, NCT00471497.).

Keywords: 800 MG, BCR-ABL Transcripts, Chronic Myelogenous Leukemia, Crisis, Efficacy, Follow-Up, Harmonizing Current Methodology, Low, Methods, Molecular, Molecular Responses, Patients, Patients PTS, Patients Receiving Imatinib, Phase CML-CP, Primary, Progression, Ratio, Safety, Up Sustained Survival

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Full Text: [2010\New Eng J Med363, 411.pdf](2010/New%20Eng%20J%20Med363,%20411.pdf)

Abstract: Background: Sipuleucel-T, an autologous active cellular immunotherapy, has shown evidence of efficacy in reducing the risk of death among men with metastatic castration-resistant prostate cancer. Methods: In this double-blind, placebo-controlled, multicenter phase 3 trial, we randomly assigned 512 patients in a 2:1 ratio to receive either sipuleucel-T (341 patients) or placebo (171 patients) administered intravenously every 2 weeks, for a total of three infusions. The primary end point was overall survival, analyzed by means of a stratified Cox regression model adjusted for baseline levels of serum prostate-specific antigen (PSA) and lactate dehydrogenase. Results: In the sipuleucel-T group, there was a relative reduction of 22% in the risk of death as compared with the placebo group (hazard ratio, 0.78; 95% confidence interval [CI], 0.61 to 0.98; P=0.03). This reduction represented a 4.1-month improvement in median survival (25.8 months in the sipuleucel-T group vs. 21.7 months in the placebo group). The 36-month survival probability was 31.7% in the sipuleucel-T group versus 23.0% in the placebo group. The treatment effect was also observed with the use of an unadjusted Cox model and a log-rank test (hazard ratio, 0.77; 95% CI, 0.61 to 0.97; P=0.02) and after adjustment for use of docetaxel after the study therapy (hazard ratio, 0.78; 95% CI, 0.62 to 0.98; P=0.03). The time to objective disease progression was similar in the two study groups. Immune responses to the immunizing antigen were observed in patients who received sipuleucel-T. Adverse events that were more frequently reported in the sipuleucel-T group than in the placebo group included chills, fever, and headache. Conclusions: The use of sipuleucel-T prolonged overall survival among men with metastatic castration-resistant prostate cancer. No effect on the time to disease progression was observed. (Funded by Dendreon; ClinicalTrials.gov number, NCT00065442.) N Engl J Med 2010;363:411-22.

Keywords: Cancer, Clinical-Trials, Dendritic Cells, Disease, Disease Progression, Docetaxel, Efficacy, Fever, Immunotherapy, Leukemia, Men, Methods, Mitoxantrone Plus Prednisone, Model, Overall Survival, Patients, Phase-III, Primary, Progression, Prostate, Prostate Cancer, Randomized Controlled-Trial, Ratio, Reduction, Risk, Surrogate Marker, Survival, Therapy, Treatment

Notes: highly cited

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Full Text: [2010\New Eng J Med363, 809.pdf](2010/New%20Eng%20J%20Med363,%20809.pdf)

Abstract: BACKGROUND

The identification of somatic mutations in the gene encoding the serine-threonine protein kinase B-RAF (BRAF) in the majority of melanomas offers an opportunity to test oncogene-targeted therapy for this disease.

METHODS

We conducted a multicenter, phase 1, dose-escalation trial of PLX4032 (also known as RG7204), an orally available inhibitor of mutated BRAF, followed by an extension phase involving the maximum dose that could be administered without adverse effects (the recommended phase 2 dose). Patients received PLX4032 twice daily until they had disease progression. Pharmacokinetic analysis and tumor-response assessments were conducted in all patients. In selected patients, tumor biopsy was performed before and during treatment to validate BRAF inhibition.

RESULTS

A total of 55 patients (49 of whom had melanoma) were enrolled in the dose-escalation phase, and 32 additional patients with metastatic melanoma who had BRAF with the V600E mutation were enrolled in the extension phase. The recommended phase 2 dose was 960 mg twice daily, with increases in the dose limited by grade 2 or 3 rash, fatigue, and arthralgia. In the dose-escalation cohort, among the 16 patients with melanoma whose tumors carried the V600E BRAF mutation and who were receiving 240 mg or more of PLX4032 twice daily, 10 had a partial response and 1 had a complete response. Among the 32 patients in the extension cohort, 24 had a partial response and 2 had a complete response. The estimated median progression-free survival among all patients was more than 7 months.

CONCLUSIONS

Treatment of metastatic melanoma with PLX4032 in patients with tumors that carry the V600E BRAF mutation resulted in complete or partial tumor regression in the majority of patients. (Funded by Plexxikon and Roche Pharmaceuticals.)

Keywords: Mismatch Repair Deficiency, Papillary Carcinomas, Malignant-Melanoma, Tumor Progression, KRAS Mutations, Phase-III, Cancer, RAF, Dacarbazine, Sorafenib

# Title: NFD Information-Wissenschaft und Praxis

Full Journal Title: NFD Information-Wissenschaft und Praxis

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Wagner-Dobler, R. (2001), How German sociologists make use of citation indexes. Results of a survey. *NFD Information-Wissenschaft und Praxis*, **52** (7), 401-405.

Abstract: Little is known about the extent of the use of the citation indexes of the Institute for Scientific Information; especially with regard to the Social Sciences Citation Index (SSCI). A survey among German sociologists, conducted in summer 1999, confirmed well-known limitations of the SSCI with regard to language and forms of literature. Approximately half of the answering sociologists were users, but half of this group consults the SSCI only rarely. Half of the answering sociologists agree with the opinion that the exploitation of citation indexes should lead to meaningful information supplementing the evaluation of social science research. Also in sociology the phenomenon of unsubstantial co-authorships is well-known, according to this survey.

Keywords: Citation, Citation Indexes, Evaluation, Information, Institute for Scientific Information, Lead, Literature, Research, Science, Science Research, Social, Sociology, SSCI, Survey

# Title: New Genetics and Society

Full Journal Title: New Genetics and Society

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

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Full Text: [2001\New Gen Soc20, 157.pdf](2001/New%20Gen%20Soc20,%20157.pdf)

Abstract: Increasing scientific and commercial interest is being paid to the creation of large population-based genetic databases to study the relationship between genes and disease. This paper will use ideas from the sociology of technology to look at the network of actors involved in the production, use and commercial exploitation of human genetic data, the social and ethical issues posed by genetic databases and the development of new governance arrangements in this domain. It will be argued that we are witnessing the creation of a new type of research system in the field of human genetics, which also forms the centre of an emerging market for personal and population-based genetic information. Some proposals for improving the governance of human genetic data in the UK will be offered in conclusion.

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Full Text: New Gen Soc28, 67.pdf

Abstract: The aim of this article is to put into critical perspective the empirical findings on secrecy and withholding in research. In other words, by taking existing empirical literature into account, it is intended that a crucial question is answered: Is secrecy and withholding in research harmful or innocuous to science? To understand how secrecy and withholding in research have affected academic science, empirical studies have been placed in the wider context of Mertonian underpinnings of the anticommons threat. The turning point in testing the effects of secrecy and withholding of data and material on scientific research was marked by statistical studies based on surveys and bibliometric measures. These two types of empirical studies have given answers to the basic question since academia was threatened by different modes of practicing science.

Keywords: Academia, Academic, Access, Bibliometric, Brain, Context, Data, DNA, Effects, Empirical, Empirical Studies, Evidence, Faculty, Intellectual Property, Life-Science, Literature, National-Survey, Open Science, Patents, Research, Research Data, Research Material, Science, Scientific Research, Scientific-Data, Secrecy, Secrecy, Sharing Primary Data, Statistical, Statistical Studies, Surveys, Testing, Threat, Threatened, Withholding, Witholding

# Title: New Journal of Chemistry

Full Journal Title: New Journal of Chemistry

ISO Abbreviated Title:

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ISSN: 1144-0546

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Flogeac, K., Guillon, E., Marceau, E. and Aplincourt, M. (2003), Speciation of chromium on a straw lignin: Adsorption isotherm, EPR, and XAS studies. *New Journal of Chemistry*, **27** (4), 714-720.

Full Text: [N\New J Che27, 714.pdf](N/New%20J%20Che27,%20714.pdf)

Abstract: The binding ability of a lignocellulosic substrate extracted from wheat straw with chromium(III) ion was investigated. The study was carried out at macroscopic and microscopic scales. The adsorbent used was first characterised using X-ray diffraction and electron microscopy. Then, macroscopic studies were conducted using batch adsorption experiments, at room temperature, as a function of time, pH, and metal concentration. The results obtained indicate that several successive phenomena take place at the substrate surface. Indeed, sorption, co-precipitation, and precipitation processes arise depending on the experimental conditions. The speciation of Cr was also investigated, at the atomic scale, by EPR, extended X-ray absorption. ne structure (EXAFS), and X-ray absorption near edge structure (XANES). This study revealed that chromium(III) surface complexes have an octahedral geometry. Chromium ions are held in inner-sphere complexes, and are coordinated to six oxygen atoms at an average distance of 1.90 Angstrom.

Keywords: X-Ray-Absorption, Cell-Wall Residue, Silica Minerals, Sorption, Hydroxide, Cr(III), Water, Copper(II), Complexes, Oxidation

Bissey, D. and Viossat, V. (2003), A chemical concept from the Science Citation Index database. *New Journal of Chemistry*, **27** (7), 1023-1025.

Full Text: [N\New J Che27, 1023.pdf](N/New%20J%20Che27,%201023.pdf)

Abstract: We study the concept ‘modeling in combustion’ from 1980 to 2000 with data from the ‘Science Citation Index’. A statistical study of this concept shows (i) the growth of the number of publications and their authors and (II) the distribution laws concerning the cited references.

Keywords: Ideas

? Fang, X., Xiao, S.L., Shen, M.W., Guo, R., Wang, S.Y. and Shi, X.Y. (2011), Fabrication and characterization of water-stable electrospun polyethyleneimine/polyvinyl alcohol nanofibers with super dye sorption capability. *New Journal of Chemistry*, **35** (2), 360-368.

Full Text: [2011\New J Che35, 360.pdf](2011/New%20J%20Che35,%20360.pdf)

Abstract: We report the fabrication of water-stable electrospun polyethyleneimine (PEI)/polyvinyl alcohol (PVA) nanofibers that have super dye sorption capability. Electrospinning parameters including flow rate, applied voltage, and polymer concentration were optimized to obtain smooth and uniform PEI/PVA nanofibers. The nanofibers with a mean diameter of 490±83 nm can be rendered water insoluble via crosslinking using glutaraldehyde vapor. The formed nanofibers with a smooth and uniform morphology before and after crosslinking were characterized using scanning electron microscopy, Fourier transform infrared spectroscopy, and mechanical property testing. The sorption capability of the PEI/PVA nanofibers was confirmed by UV-vis spectrometry. We show that the water-stable nanofibrous mats can effectively absorb methyl blue, which is a typical dye used in the printing and dyeing industry. The dye sorption kinetics and isotherm follow the pseudo-second-order model and the Langmuir model, respectively. The developed polymer nanofiber system has a great potential in decolorizing dyeing wastewater for environmental remediation applications.

Keywords: Aqueous-Solutions, Bending Instability, Cross-Linking, Environmental Applications, Fibers, Gelatin Nanofibers, Gene Delivery, Kinetics, Langmuir, Morphology, Polymer, Valent Iron Nanoparticles

# Title: New Journal of Physics

Full Journal Title: New Journal of Physics

ISO Abbreviated Title:

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ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Schreiber, M. (2008), To share the fame in a fair way, h(m) modifies h for multi-authored manuscripts. *New Journal of Physics*, **10**, 040201

Full Text: New J Phy10, 040201

Abstract: The h-index has been introduced by Hirsch as a useful measure to characterize the scientific output of a researcher. I suggest a simple modification in order to take multiple co-authorship appropriately into account, by counting each paper only fractionally according to (the inverse of) the number of authors. The resulting h(m)-indices for eight famous physicists lead to a different ranking from the original h-indices.

Keywords: Co-Authorship, Coauthorship, h Index, h-Index, Hirsch, Index, Lead, Modification, Ranking, Scientific Output, Scientific-Research

# Title: New Library World

Full Journal Title: New Library World

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Knudsen, P. (1996), Marketing: An information-intensive territory of the modern private company. *New Library World*, **97** (5), 12-16.

Full Text: [N\New Lib Wor97, 12.pdf](N/New%20Lib%20Wor97,%2012.pdf)

Abstract: Explains that database marketing (DBM) allows the return on investment of marketing activities to be assessed. Interprets the concepts of DBM, and illustrates the typicality of the subject with a bibliometric analysis. Examines the components of a DBM system, and identifies the relationships between the components using practical examples.

Keywords: Database Marketing, Marketing Information, Strategy

# Title: New Media & Society

Full Journal Title: New Media & Society

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Park, H.W. and Thelwall, M. (2006), Web-science communication in the age of globalization. *New Media & Society*, **8** (4), 629-650.

Full Text: [2006\New Med Soc8, 629.pdf](2006/New%20Med%20Soc8,%20629.pdf)

Abstract: The web is important for academic communication and publishing on an international scale, but it is difficult to assess the extent to which globalization actually has occurred. This article examines the connectivity structure of links between university websites in 25 Asian and European countries as a case study of an inter-regional and intra-regional web phenomenon. The five most linked-to universities in each nation-state were selected and network analysis techniques were used. The results suggested that the UK (and to a lesser extent some other European countries) has a high impact on the formation of link-mediated academic networks in Asia and Europe. Universities’ websites in Asia are more heavily connected to European universities than linked to each other. The overall findings were indicative of globalization rather than regionalism, but a better characterization might be globalization with regional imbalances and individual high performing countries.

Keywords: Academic-Institutions, Analysis, Asia, Asia-Europe Meeting (ASEM), Bibliometrics, Countries, Europe, Globalization, Hyperlink, Impact, Information, Interlinking, Network, Network Analysis, Online Impact, Publishing, Science Communication, Scientific Communication, Sites, South-Korea, Universities, University Website, Web, Webometrics, World-Wide-Web

# Title: New Microbiol

? Divizia, M., Ruscio, V., Degener, A.M. and Panà, A. (1998), Hepatitis A virus detection in wastewater by PCR and hybridization. *New Microbiol*, **21** (2), 161-167.

Abstract: Hepatitis A virus is a member of the Picornaviridae family and is a principal agent of acute hepatitis worldwide, causing from mild to severe illness. Although the incidence of hepatitis A is in decline, the risk of this disease is still high in the Mediterranean area. Detection of hepatitis A in the environment is difficult because this virus needs a prolonged incubation in cell culture, therefore we used an antigen capture PCR (AC-PCR) followed by a hybridization on membrane to identify HAV in wastewater samples. The raw sewage, concentrated by ultrafiltration, showed 8 positive samples out of 10 (80%), while after the oxidation step of the sewage, 2 out of 10 (20%) and 3 out of 10 (30%) were found positive respectively after concentration by electronegative (HAWP Millipore) and electropositive (1MDS Cuno-Div.) membranes. In the final effluent the positivity was 1 out of 10 (10%) for the electronegative membranes and 3 out of 10 (30%) for the electropositive membranes. Our results indicate: i) the possibility of HAV to cross the wastewater treatment plant and contaminate water and food (such as mussels); ii) PCR-hybridization as a rapid method for HAV identification in the environment.

? de Luca, G., Stampi, S., Lezzi, L. and Zanetti, F. (1999), Effect of heat and acid decontamination treatments on the recovery of *Legionella* *Pneumophila* from drinking water using two selective media. *New Microbiol*, **22** (3), 203-208.

Abstract: Two different decontamination systems, heat and acid, and two isolation media, GVPC and MWY agar were tested for the recovery of *Legionella* *Pneumophila* from drinking water. The samples were concentrated by filtration through 0.2 micron polyamide filter and the membranes were resuspended in the original water samples. The suspension was divided into three parts: the first was placed in a 50°C water bath, the second was acidified in HCl-KCl solution and the third did not undergo any treatment. The isolation was made by means of media containing charcoal, yeast extract and glycine with cycloeximide (GVPC) or vancomycin, polimixin B, anysomicin and dyes (MWY). Heating at 50°C for 30 minutes was seen to be the best decontamination system above all when used with GVPC agar. Moreover, with this pretreatment higher counts were obtained both on MWY and GVPC agar. The MWY agar produced the highest isolatin percentages and the highest counts.

# Title: New Phytologist

Full Journal Title: [New Phytologist](http://uk.jstor.org/journals/0028646x.html)

ISO Abbreviated Title: New Phytol.

JCR Abbreviated Title: New Phytol

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Language: English

Publisher: Cambridge Univ Press

Publisher Address: 40 West 20th Street, New York, NY 10011-4211

Subject Categories:

Plant Sciences: Impact Factor 2.149, 21/137 (2000)

? Kothari, S.K., Marschner, H. and Romheld, V. (1990), Direct and indirect effects of va mycorrhizal fungi and rhizosphere microorganisms on acquisition of mineral nutrients by maize (*Zea-mays* L) in a calcareous soil. *New Phytologist*, **116** (4), 637-645.

Full Text: [1990\New Phy116, 637.pdf](1990/New%20Phy116,%20637.pdf)

Keywords: Absorption, Availability, Fertilizer, Glomus-Mosseae, Growth, Manganese, Micronutrient Uptake, Nutrient Acquisition, Phosphorus, Plants, Rhizosphere Microorganisms, Root Morphology, Roots, Water, Zea-Mays

? Koide, R.T. (1991), Nutrient supply, nutrient demand and plant-response to mycorrhizal infection. *New Phytologist*, **117** (3), 365-386.

Full Text: [1991\New Phy117, 365.pdf](1991/New%20Phy117,%20365.pdf)

Abstract: One of the most dramatic effects of infection by vesicular-arbuscular mycorrhizal fungi on the physiology of the host plant is an increase in phosphorus absorption. When phosphorus is limiting, the maximum extent to which mycorrhizal infection can improve plant performance is thus predicted to be a function of the phosphorus deficit of the plant, the difference between phosphorus demand and phosphorus supply. Phosphorus demand is defined as the rate of phosphorus absorption that would result in optimum performance of the plant as measured by growth rate, reproduction or fitness. The phosphorus supply is defined as the actual rate of phosphorus absorption under the prevailing conditions. Variation among plant taxa in morphological, physiological or phenological traits which affect either phosphorus demand or phosphorus supply (and thus phosphorus deficit) is predicted to lead to variation in potential response to mycorrhizal infection. The actual response to mycorrhizal infection is predicted to be a function of the increase in phosphorus uptake due to mycorrhizal infection and the phosphorus utilization efficiency of the plant. Demonstrated variability in responsiveness to mycorrhizal infection among plant taxa suggests that mycorrhizal fungi may play an important role in determining the structure of plant communities. Mycorrhizal infection may alter the phosphorus deficit or phosphorus utilization efficiency independently from its direct effect on phosphorus uptake, making the prediction of response to mycorrhizal infection based on the traits of non-mycorrhizal plants quite difficult. For example, infection may at times increase the rate of phosphorus accumulation beyond that which can be currently utilized in growth, reducing the current phosphorus utilization efficiency. Such monentary ‘luxury consumption’ of phosphorus may, however, serve a storage function and be utilized subsequently, allowing mycorrhizal plants ultimately to outperform non-mycorrhizal plants.

Keywords: Brassica-Napus Var, Calcined Montmorillonite Clay, Communities, Field Conditions, Growth-Responses, Infection, Internal Phosphorus Concentration, Lupinus-Albus L, Moderate P-Fertility, Mycorrhizal Dependency, Mycorrhizal Fungi, Nutrient Deficit, Nutrient Demand, Nutrient Supply, Nutrient Utilization Efficiency, Phosphatase-Activity, Phosphorus, Phosphorus Absorption, Phosphorus Supply, Plant Nutrient Ecology, Soil Root Interface, Vesicular-Arbuscular Mycorrhizas

? Azcon, R., Gomez, M. and Tobar, R. (1992), Effects of nitrogen-source on growth, nutrition, photosynthetic rate and nitrogen-metabolism of mycorrhizal and phosphorus-fertilized plants of lactuca-sativa l. *New Phytologist*, **121** (2), 227-234.

Full Text: [1992\New Phy121, 227.pdf](1992/New%20Phy121,%20227.pdf)

Abstract: Plants of Lactuca sativa L. cv. Romana were inoculated with two vesicular-arbuscular (VA) mycorrhizal fungi, Glomus mosseae (Nicol. & Gerd.) Gerd. & Trappe and Glomus fasciculatum (Thaxter sensu Gerd.) Gerd. & Trappe, or provided with phosphorus. These three treatments plus a control were supplemented with 3.0 mM nitrogen as nitrate or ammonium in 1 of 5 NO3-/NH4+ ratios. Leaf and root weights, N, P, K, Ca and Mg absorption, as well as the percentage of root length colonized, were evaluated. Physiological parameters such as leaf area, photosynthetic rate, glutamine synthetase (EC 6.3.1. 2) and nitrate reductase (EC 1.6.6.1) activity and leaf proline accumulation were also determined. Mycorrhizal lettuce and P-fertilized plants derived significantly more benefit from N fertilization regardless of the N-source than did controls. Ammonium was a better N-source for non-mycorrhizal plants and nitrate for mycorrhizal plants. P-fertilized lettuce reached maximum growth when N was supplied as 50 % NO3-/ 50 % NH4+ so that mycorrhizal status particularly affected the plant response to the form of N provided. Growth of mycorrhizal plants was comparable to non-mycorrhizal P-fertilized plants when N was provided as 100 % NH4+ or 25 % NO3-/ 75 % NH4+. When N applications were as 50 % NO3-/ 50 % NH4+ or 75 % NO3-/ 25 % NH4+, growth of P-fertilized plants was greater than mycorrhizal ones. Lettuce colonized by G. mosseae grew fastest when fed nitrate only. Separation of NO3- and NH4+ assimilation into shoot and root compartments may account for the differential effects of such ions into symbiotic and non-symbiotic plants. Uptake or metabolism of nitrogenous forms was particularly affected in G. mosseae-colonized plants, independent of P nutrition. P fertilization increased activities of nitrate reductase (NR) by 29 % and glutamine synthetase (GS) by 24 % compared with activities in control plants. In the case of G. fasciculatum-colonized plants, NR and GS were increased 54 % and 117 %, respectively, over control activities. In general, concentration of minerals, except Ca, were increased in mycorrhizal and P-fertilized plants compared with controls. Assimilation of CO2 and accumulation of proline were increased in G. fasciculatum-colonized lettuce under all N regimes.

Keywords: Ammonium, CO2, Glomus, Glomus Mosseae, Glutamine Synthetase, Glutamine-Synthetase, Infection, Mycorrhizal Fungi, N-15, Nitrate, Nitrate Reductase, Nitrogen, Nitrogen Nutrition, Nodulation, Phosphate Nutrition, Phosphorus, Root, Root Length, Transport, Trifolium-Subterraneum, Vesicular-Arbuscular Mycorrhizae, Vesicular-Arbuscular Mycorrhizal Fungi

Rogers, R.W. and Clifford, H.T. (1993), The taxonomic and evolutionary significance of leaf longevity. *New Phytologist*, **123** (4), 811-821.

Full Text: [N\New Phy123, 811.pdf](N/New%20Phy123,%20811.pdf)

Abstract: The half-lives of leaves of 202 taxa of vascular plants were estimated mostly from the literature and ranged from 1 to 350 wk. The longevity of leaves in the plant groups studied is in the order Pinophyta > Pteridophyta > Liliatae > Magnoliatae. Substantial differences are evident between the superorders of flowering plants proposed by Dahlgren and the subclasses proposed by Cronquist. The mean leaf half-life for families of Magnoliatae was shown to be inversely related to their Advancement Index. Length of life of leaves, therefore, appears to have taxonomic significance, with more primitive vascular plants tending to have longer-lived leaves than the more advanced. The ecological significance of leaf half-life is less clear, except in that annual leaf fall is not necessarily associated with deciduousness. The capacity to shed individual leaves may give the angiosperms a flexibility in environmental response which allows them a competitive advantage over the gymnosperms except in the most stressful habitats.

Keywords: Evolution, Leaf Longevity, Taxonomy, Broad-Leaved Forests, Tree-Fern, Spruce Forest, Woody-Plants, Demography, Phenology, Dynamics, Survival, Ecology, Biomass

? Gadd, G.M. (1993), Interactions of fungi with toxic metals. *New Phytologist*, **124** (1), 25-60.

Full Text: [1993\New Phy124, 25.pdf](1993/New%20Phy124,%2025.pdf)

Abstract: This review details the major interactions of fungi with toxic metal species. Physico-chemical and biological aspects are discussed including definitions and classification of metals in biological contexts, mechanisms of metal fungitoxicity, resistance and tolerance, environmental influences and the occurrence of fungi in metal-polluted habitats. Cellular interactions include extracellular precipitation and complexation, binding to cell walls, transport of monovalent and divalent metal cations, intracellular fates of toxic metal species (including metal-binding proteins and peptides, and vacuolar compartmentation), and metal transformations including organometal(loid) synthesis. Significant interactions between metals and mycorrhizal fungi and macrofungi are summarized with reference to the amelioration of plant phytotoxicity and metal accumulation respectively. Biotechnological aspects of metal-fungal interactions relate to the biological treatment of metal-contaminated effluents and waste streams for metal removal/recovery and environmental protection.

Keywords: Biosorption, Cadmium-Resistant Mutants, Copper-Metallothionein, Dna-Binding Protein, Fungi, Heavy-Metal, Metal Accumulation, Metallothionein Gene-Transcription, Metals, Mycorrhizal Fungi, Penicillium-Ochro-Chloron, Plasma-Membrane Atpase, *Rhizopus-Arrhizus* Biomass, Tolerance, Toxicity, Transport, X-Ray-Microanalysis, Yeast Saccharomyces-Cerevisiae

? Denny, H.J. and Ridge, I. (1995), Fungal slime and its role in the mycorrhizal amelioration of zinc toxicity to higher-plants. *New Phytologist*, **130** (2), 251-257.

Full Text: [1995\New Phy130, 251.pdf](1995/New%20Phy130,%20251.pdf)

Abstract: The degree of sliminess of a range of fungal isolates which form endomycorrhizas with Calluna vulgaris L. was investigated and related to their performance in the presence of potentially toxic concentrations of zinc. Some fungal isolates possess, to a greater or lesser extent, a mass of loosely adherent slime (LAS). The amount of this was proportional to the ability of the fungal mycelium to take up zinc from solution, the zinc tolerance of the fungal isolates, and the amount of growth enhancement exhibited by the associated C. vulgaris plants in the presence of potentially toxic concentrations of zinc. Furthermore the amount of LAS was inversely proportional to the concentration of zinc found in the shoots of the associated C. vulgaris plants. These observations support the hypothesis that LAS plays a central role in removing zinc ions from solution, removal which in turn determines the zinc tolerance of the fungus itself and the degree of amelioration of zinc toxicity to the host plant.

Keywords: Ericaceous Mycorrhizas, Zinc Toxicity, Slime, Metal Tolerance, Ultrastructural Aspects, Ericaceae, Infection, Endomycorrhiza, Resistance, Tolerance, Betula

Bates, J.W., Mcnee, P.J. and Mcleod, A.R. (1996), Effects of sulfur dioxide and ozone on lichen colonization of conifers in the Liphook Forest Fumigation Project. *New Phytologist*, **132** (4), 653-660.

Full Text: [N\New Phy132, 653.pdf](N/New%20Phy132,%20653.pdf)

Abstract: In the Liphook Forest Fumigation Project the conifers Picea abies (L.) Karst., P. sitchensis (Bong.) Carr. and Pinus sylvestris L, were grown from the seedling stage and subjected, by open-air fumigation, to three regimes of SO, (ambient, 4 ppb (parts in 10 (9) by volume); low, 12 ppb; high, 20 ppb) and two regimes of O3 (ambient, 25 ppb; high, 30 ppb) in factorial combination, between 1987 and 1990. We determined the abundance of three lichens, Evernia prunastri (L.) Ach., Hypogymnia physodes (L.) Nyl. and Lecanora conizaeoides Nyl. ex Crombie, which colonized the trunks and branches of the saplings, at the end of the experiment between May-July 1991. All three species showed a marked preference for P. abies and were scarcest on P. sylvestris which had the most acidic bark. E. prunastri was the rarest of the three lichens and only colonized plots exposed to ambient SO2 (4 ppb). Diminutive thalli of H. physodes were relatively numerous in the ambient SO2 plots, much scarcer in those receiving low SO2 (12 ppb) and rare in those with high SO2 (20 ppb). Coverage by L. conizaeoides was very low in the ambient SO2 plots but appreciable in the low and high SO2 treatment plots. The results indicate a directly beneficial effect of SO2 on L. conizaeoides colonization rather than an indirect benefit through competitor release. The O3 treatment (1.3 times ambient during Spring-Autumn) did not influence the abundance of the lichens. All three lichen species appeared to be more sensitive (positive and negative effects) to SO2 than mapping studies have suggested. Possible reasons for the high SO2- sensitivity of the lichens are discussed. These include the high acidity of conifer bark and the fact that growth from diaspores and development of immature thalli is involved rather than survival of established populations.

? Nagahashi, G., Abney, G.D. and Doner, L.W. (1996), A comparative study of phenolic acids associated with cell walls and cytoplasmic extracts of host and non-host roots for AM fungi. *New Phytologist*, **133** (2), 281-288.

Full Text: [1996\New Phy133, 281.pdf](1996/New%20Phy133,%20281.pdf)

Abstract: Carrots (Daucus carota L.) are a ubiquitous host for arbuscular mycorrhizal fungi whereas sugar beets (Beta vulgaris L.) are a non-host. Root cultures were used to compare the constitutive phenolic compounds associated with the cell wall or present in the cytoplasm of the host and non-host. Phenolic acids were released from purified cell walls by alkaline hydrolysis and were separated and identified by HPLC, TLC and u.v. absorption spectra analyses. Two phenolic acids unique to carrot root cell walls were identified as p-hydroxybenzoic acid (p-HBA) and vanillic acid. Sugar beet root cell walls had ferulic acid as major constituent and contained several unique phenyl propanoids which were not identified. Caffeic acid was found only in the cytoplasm of carrot roots and was present in the conjugated form (chlorogenic acid). The sugar beet cytoplasm also contained several unidentified hydroxycinnamic acid-type phenolics which were not found in carrot roots.

Keywords: Am Fungi, Am Host and Non-Host Roots, Arbuscular Mycorrhizal Fungi, Cell-Wall Phenolics, CO2, Cytoplasmic Phenolics, Hyphal Growth, Invitro, Mycorrhizal Fungi, Phenolic Acids, Plant, Root, Vesicular-Arbuscular Mycorrhiza

? Pattinson, G.S. and Mcgee, P.A. (1997), High densities of arbuscular mycorrhizal fungi maintained during long fallows in soils used to grow cotton except when soil is wetted periodically. *New Phytologist*, **136** (4), 571-580.

Full Text: [1997\New Phy136, 571.pdf](1997/New%20Phy136,%20571.pdf)

Abstract: Sequential harvests of cotton seedlings grown in soil cores enabled the quantification of the density of arbuscular mycorrhizal fungi to detect the effects of time, cultivation and periodic wetting of the soil. Cotton seedlings grown in soil cores from three locations formed arbuscular mycorrhizas at similar rates when cores were stored dry for up to 18 months. Disturbance of dry cores followed by dry storage for 18 months did not reduce the rate of establishment of mycorrhizas. Periodic wetting and drying of the cores, especially if the cores had first been disturbed, significantly reduced the rate of establishment of mycorrhizas. We suggest that long fallow disorder is possibly caused by falls of rain in clay soils of eastern Australia used to grow cotton. The proportion of the root with mycorrhizas at 3 wk was strongly correlated with the infection at 8 wk. We also suggest that it might be possible to predict maximum levels of infection and early uptake of phosphate of seedlings by determining the proportion of roots that are mycorrhizal 3 wk after emergence of cotton seedlings.

Keywords: Am Fungi, Arbuscular Mycorrhizal Fungi, Colonization, Cotton, Disorder, Disturbance-Induced Reduction, Infection, Infectivity, Inoculum Levels, Jarrah Forest, Long Fallows, Maize, Mycorrhizal Fungi, Nutrient Absorption, Phosphate, Propagules, Root, Soil, Storage, Survival

? Graham, J.H. and Eissenstat, D.M. (1998), Field evidence for the carbon cost of citrus mycorrhizas. *New Phytologist*, **140** (1), 103-110.

Full Text: [1998\New Phy140, 103.pdf](1998/New%20Phy140,%20103.pdf)

Abstract: Mycorrhizas can produce negative crop responses when phosphorus availability is sufficient in agricultural soils because the fungi are of no benefit in nutrient acquisition yet continue to colonize roots and invoke parasitic costs. Benomyl fungicide was used to test this prediction in the field by limiting mycorrhizal colonization of 2-yr-old Valencia orange trees (Citrus sinensis (L.) Osbeck) on four rootstocks of varying mycorrhizal dependency in P-deficient soil fertilized with and without phosphate. No known fungal pathogens of citrus roots controlled by benomyl were present on the trees or in the field soil. Young trees with or without P fertilization and benomyl treatment remained sufficient in P (greater than or equal to 0.10% leaf P) throughout the 27-month study. Root zone drenches of benomyl reduced mycorrhizal colonization and leaf P status of Valencia orange trees on the three slower-growing rootstocks, trifoliate orange (Poncirus trifoliata (L.) Raf.), Swingle citrumelo (Citrus paradisi Macf. x P. trifoliata) and sour orange (Citrus aurantium L.), for the duration of three growing seasons. Benomyl affected root colonization and P status of trees on the faster-growing rootstock, Volkamer lemon (Citrus volkameriana Tan. and Pasq.), less than for trees on the slower-growing rootstocks and the effects were sustained for only two seasons. The shorter duration of benomyl effect for trees on Volkamer lemon rootstock compared with the slower-growing rootstocks was explained by the loss of inhibition of mycorrhizal activity when roots grew out of the drench zone and mycorrhizas were no longer in direct contact with the fungicide. Benomyl treatment increased growth rate of Valencia orange on the slow-growing rootstocks from 5 to 17 % after three seasons, and from 2 to 9 % on Volkamer lemon rootstock after two seasons compared with the non-benomyl treated trees. The benomyl effect was attributed to reduction of costs of root colonization over time, and consequently, a greater availability of carbon assimilate for shoot growth of trees. Since mycorrhizal fungi are ubiquitous in fertilized agricultural soils and obligate biotrophs on the roots of most crop species, these results indicate a need to further investigate whether negative growth responses of P-sufficient plants in the field occur because mycorrhizal fungi are no longer behaving as mutualists.

Keywords: Benomyl, Citrus Rootstocks, Colonization, Dependency, Fungi, Growth, Infection, Mutualism, Mycorrhizal Colonization, Mycorrhizal Dependency, Mycorrhizal Fungi, Parasitism, Phosphate, Phosphorus, Phosphorus Absorption, Phosphorus Supply, Root, Root Colonization, Sour Orange, Symbiosis, Valencia Orange Trees, Vesicular Arbuscular Mycorrhizas

? Olesniewicz, K.S. and Thomas, R.B. (1999), Effects of mycorrhizal colonization on biomass production and nitrogen fixation of black locust (Robinia pseudoacacia) seedlings grown under elevated atmospheric carbon dioxide. *New Phytologist*, **142** (1), 133-140.

Full Text: [1999\New Phy142, 133.pdf](1999/New%20Phy142,%20133.pdf)

Abstract: Interactive effects of elevated atmospheric CO2 and arbuscular mycorrhizal (AM) fungi on biomass production and N2 fixation were investigated using black locust (Robinia pseudoacacia). Seedlings were grown in growth chambers maintained at either 350 μmol mol-1 or 710 μmol mol-1 CO2. Seedlings were inoculated with Rhizobium spp. and were grown with or without AM fungi. The N-15 isotope dilution method was used to determine N source partitioning between N, fixation and inorganic fertilizer uptake. Elevated atmospheric CO2 significantly increased the percentage of fine roots that were colonized by AM fungi. Mycorrhizal seedlings grown under elevated CO2 had the greatest overall plant biomass production, nodulation, N and P content, and root N absorption. Additionally, elevated CO2 levels enhanced nodule and root mass production, as well as N, fixation rates, of nonmycorrhizal seedlings. However, the relative response of biomass production to CO2 enrichment was greater in non-mycorrhizal seedlings than in mycorrhizal seedlings. This study provides strong evidence that arbuscular mycorrhizal fungi play an important role in the extent to which plant nutrition of symbiotic N2-fixing tree species is affected by enriched atmospheric CO2.

Keywords: Am Fungi, Arbuscular Mycorrhiza, Arbuscular Mycorrhizal Fungi, Biomass Production, Bouteloua-Gracilis, Climate-Change, CO2, CO2 Enrichment, Elevated CO2, External Hyphae, Glomus-Rhizobium Symbiosis, Mycorrhizal Fungi, N2 Fixation, N2 Fixation, N-Uptake, Nitrogen, Nitrogen Source Partitioning, Phosphate Nutrition, Root, Soil-N, Trifolium-Subterraneum L

? Koide, R.T. and Kabir, Z. (2000), Extraradical hyphae of the mycorrhizal fungus *Glomus intraradices* can hydrolyse organic phosphate. *New Phytologist*, **148** (3), 511-517.

Full Text: [2000\New Phy148, 511.pdf](2000/New%20Phy148,%20511.pdf)

Abstract: Organic phosphorus sources make a large fraction of the total P in some soils. Vesicular-arbuscular mycorrhizal fungi provide a large surface area for the absorption of inorganic P. The question of whether or not they have direct access to organic P by producing extracellular phosphatases has hitherto been controversial because experiments had not been performed in the absence of other soil microorganisms. We used a split-dish in vitro carrot mycorrhiza system free from contaminating microorganisms. The extraradical hyphae of *Glomus intraradices* hydrolysed both 5-bromo-4-chloro-3-indolyl phosphate and phenolphthalein diphosphate. Moreover, they transferred significantly more P to roots when they had access to inositol hexaphosphoric acid (phytate) than when they did not. Thus we show unequivocally that extraradical hyphae of G. intraradices can hydrolyse organic P, and, further, that the resultant inorganic P can be taken up and transported to host roots.

Keywords: Acid-Phosphatase, Gellan, Glomus, Growth, In Vitro Carrot Mychorrhiza, Mycorrhiza, Mycorrhizal Fungi, Mycorrhizal Fungus, Organic P, P Transfer, Phosphatase, Phosphate, Phosphorus, Phytate, Plants, Rhizosphere, Roots, Vesicular-Arbuscular Mycorrhiza

# Title: New Republic

Full Journal Title: [New Republic](http://www.tnr.com/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Brownlee, S. (2003), Shot in the Arm. *New Republic*, **228** (18), 17-19.

Full Text: [N\New Republic228, 17.pdf](N/New%20Republic228,%2017.pdf)

Becker, J. (2003), Breath Test. *New Republic*, **228** (18), 19-20.

Full Text: [N\New Republic228, 19.pdf](N/New%20Republic228,%2019.pdf)

Mukherjee, S. (2003), Oversight. *New Republic*, **228** (18), 20-23.

Full Text: [N\New Republic228, 20.pdf](N/New%20Republic228,%2020.pdf)

# Title: New Scientist

Full Journal Title: New Scientist

ISO Abbreviated Title: New Sci.

JCR Abbreviated Title: New Sci

ISSN: 0262-4079

Issues/Year: 52

Journal Country/Territory: United States

Language: English

Publisher: New Scientist Publ Expediting Inc

Publisher Address: 200 Meacham Ave, Elmont, NY 11003

Subject Categories:

Multidisciplinary Sciences: Impact Factor 0.451, / (2001)

? Jermy, C. (1983), Ferns and allied plants: Tryon, R, Tryon, A. *New Scientist*, **99** (1366), 129.

? Postgate, J. (1988), The ghost in the laboratory. *New Scientist*, **117** (1598), 49-52.

? Nowak, R. (1988), Progress in hunt for virus. *New Scientist*, **177** (2388), 10.

Abstract: Uncertainty surrounds the identity of the virus responsible for super-pneumonia cases around the world. But that has not prevented a basic test for the disease being developed. A research team at the University of Hong Kong has developed a virus isolated from a patient suffering with severe acute respiratory syndrome (SARS). The Centers for Disease Control in the US has also identified a previously unrecognized virus in SARS patients.

? Lassesen, K. (1988), SARS is serious. *New Scientist*, **178** (2393), 24.

# Title: New Testament Studies

Full Journal Title: New Testament Studies

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0361-204X

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Elliott, J.K. (2009), Manuscripts cited by stephanus. *New Testament Studies*, **55** (3), 390-395.

Full Text: [2009\New Tes Stu55, 390.pdf](2009/New%20Tes%20Stu55,%20390.pdf)

Keywords: Greek Manuscripts, Stephanus, Textual Criticism

# Title: New York Folklore

Full Journal Title: New York Folklore

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0361-204X

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Azzolina, D.S. (1983), Scholarly communication among folklorists + information-science, citation-indexing, and the Arts-and-Humanities-Citation-Index - issues and prospects. *New York Folklore*, **9** (1-2), 5-12.

# Title: The New York Times

? Reston, J. (1971), Now, about my operation in Peking; now, let me tell you about my appendectomy in Peking.. *The New York Times*, July 26.

PEKING, July 25 -- There is something a little absurd about a man publishing an obituary notice on his own appendix, but for the last 10 days this correspondent has had a chance to learn a little about the professional and political direction of a major Chinese hospital from the inside, and this is a report on how I got there and what I found.

# Title: New Zealand Journal of Agricultural Research

Full Journal Title: New Zealand Journal of Agricultural Research

ISO Abbreviated Title: N. Z. J. Agric. Res.

JCR Abbreviated Title: New Zeal J Agr Res

ISSN: 0028-8233

Issues/Year: 4

Journal Country/Territory: New Zealand

Language: English

Publisher: Sir Publishing

Publisher Address: PO Box 399, Wellington, New Zealand

Subject Categories:

Agriculture, Dairy & Animal Science Agriculture: Impact Factor

? Nguyen, M.L., Tanner, C.C. (1998), Ammonium removal from wastewaters using natural New Zealand zeolites. *New Zealand Journal of Agricultural Research*, **41** (3), 427-446.

Full Text: [1998\New Zea J Agr Res41, 427.pdf](1998/New%20Zea%20J%20Agr%20Res41,%20427.pdf)

Abstract: Ammoniacal nitrogen (ammonia and ammonium) in agricultural wastewaters can promote eutrophication of receiving waters and be potentially toxic to fish and other aquatic life. Zeolites, which are hydrated aluminum-silicate minerals, have an affinity for ammonium ions (NH4+) and are, therefore, potentially useful in removing this contaminant from wastewaters. The major objectives of this study were to evaluate the capacity of two natural New Zealand zeolites (clinoptilolite and mordenite) to remove NH4+ from a range of wastewaters under both batch and flow-through conditions. Effects of two zeolite particle size ranges (0.25-0.50 mm and 2.0-2.83 mm) on NH4+ removal performance were also investigated. Results obtained from the batch adsorption experiments indicated that both zeolites tested, regardless of their particle sizes, were equally effective (87-98%) at NH4+ removal from domestic wastewaters or synthetic solutions containing NH4+ concentrations of up to 150 g NH4-N m-3. However, mordenite showed more effective NH4+ removal than clinoptilolite for dairy and piggery wastewaters, and for synthetic solutions containing high NH4+ concentrations (350-750 g NH4-N m-3). At all equilibrium NH4+ concentrations tested (0.2-300 g NH4-N m-3), NH4+ removal by both mordenite and clinoptilolite was significantly (P < 0.0001) reduced by the presence of competing sodium (Na+) cations in the synthetic solutions. The maximum amounts of NH4+ removed by coarse and fine clinoptilolite and coarse and fine mordenite, calculated by the Langmuir model, were 5.77 and 5.74, and 8.09 and 8.28 g NH4-N kg-1, respectively. In the slow flow-through experiment (0.47 mm min-1), NH4+ breakthrough (>1.2 g NH4-N m-3) for both zeolite sources (regardless of their particle sizes) did not occur even after receiving 40 bed volumes (BV) of wastewaters containing 100 g NH4-N m-3. The NH4+ removal at this breakthrough was approximately 99 g NH4-N m-3 of wastewater throughput, which equates up to 5.8-6.5 g NH4-N kg-1 zeolite. In contrast, at a faster loading flow rate (15.9 mm min-1), the breakthrough was almost immediate (1 BV) for coarse zeolites and after 22 BVs for fine zeolite. The NH4+ breakthrough capacity for fine mordenite was 2.0-4.4 g NH4-N kg-1 zeolite. Fine zeolites were more effective than coarse zeolites in removing wastewater NH4+ (95% and 55% removal, respectively), even after receiving 64 BV of wastewater.

Keywords: Ion Exchange, Effluent, Zeolite, Clinoptilolite, Mordenite, Ammonium Removal, Wastewater, Dairy Effluent, Piggery Affluent, Synthetic Effluent, Agricultural Wastewaters

? McDowell, R.W., Hawke, M. and McIntosh, J.J. (2007), Assessment of a technique to remove phosphorus from streamflow. *New Zealand Journal of Agricultural Research*, **50** (4), 503-510.

Full Text: [2007\New Zea J Agr Res50, 503.pdf](2007/New%20Zea%20J%20Agr%20Res50,%20503.pdf)

Abstract: Decreasing the load of phosphorus (P) in streamflow and entering P-limited lakes is central to preventing eutrophication. We trialled a technique to remove P from streamflow of an agricultural catchment by sorbing P onto a heavy weight steel slag mixture encased in a mesh: termed a P-sock. This technology allows entrained P to be removed on demand, and prevents P-rich material from washing downstream in storm events. One-hundred-and-ninety P-socks were installed in a 200 m reach of streambed in a herringbone fashion, which allowed both fish passage and mixing with stream water. In water samples and suspended sediment, pH and P fractions, including dissolved reactive P (DRP) and total P (TP) were determined. P-socks and bed sediment were also subsampled, which indicated that after 6 months, only 20% capacity remained (P sorption maximum 4.5 g kg(-1)). Overall, concentrations of DRP and TP decreased on average 35 and 21%, respectively after the P-socks were installed, while loads decreased 44 and 10%, respectively. While this was an effective removal strategy at low flows, relatively little P was retained at flow rates >20 litres s(-1). In addition, the technology is expensive compared to alum dosing. Hence, this approach to P retention is limited to small, slow flowing waterways and may be more useful in stopping P loss from sources such as runoff from lane ways where dung is regularly deposited.

Keywords: Alum, Assessment, By-Products, Constructed Wetland Systems, Fish, Flow, Lake, pH, Retention, Sediment, Slag, Soil-Phosphorus, Sorption, Steel Slag, Strategy, Surface Waters, Uptake

# Title: New Zealand Journal of Ecology

Full Journal Title: New Zealand Journal of Ecology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Ogden, J., Braggins, J., Stretton, K. and Anderson, S. (1997), Plant species richness under Pinus radiata stands on the central North Island Volcanic Plateau, New Zealand. *New Zealand Journal of Ecology*, **21** (1), 17-29.

Abstract: Exotic pine plantations constitute a significant landscape feature in the North Island of New Zealand but their conservation value for native plant species is not often documented. Pine stem density, height and basal area of nine plantations of Pinus radiata ranging in age from 6 to 67 years in Kinleith Forest was determined. Pines reached heights of 60 m, and stand basal areas up to 183±14 m2, ha-1. The abundance of woody shrubs, tree ferns and ground ferns was assessed in each stand. Understorey composition of shrubs and ferns was reflected on the first two axes of DCA ordinations and correlated with the age of the pines. Adventive shrubs predominated in stands < 20 years old. Light-demanding native shrubs with bird dispersed fruits predominated in older stands, with more shade-tolerant species in the oldest site. Species richness increased rapidly in the first 11 years, but thereafter more slowly. Twelve native shrub species and 22 ferns were recorded from the most diverse stands. Richness and species composition were related to stand age, and probably also to topographical heterogeneity and aspect. Tree ferns reached densities of 2000-2500 ha-1, and basal areas of 20-30 m2, ha-1, in the older stands. Initially the tree fern population was strongly dominated by Dicksonia squarrosa, which comprised 84% of individuals overall. Five species were present by 29 years. The faster growing Cynthea medullaris and C. smithii achieved greater heights than the Dicksonia spp., and their relative biomass was greatest in the oldest stands.

Keywords: Biodiversity, Species Richness, Pinus Radiata, Plantations, Ground Ferns, Tree Ferns, Trees

# Title: New Zealand Journal of Marine and Freshwater Research

Full Journal Title: New Zealand Journal of Marine and Freshwater Research

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0028-8330

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Pang, L.P., Close, M., Greenfield, H. and Stanton, G. (2004), Adsorption and transport of cadmium and rhodamine WT in pumice sand columns. *New Zealand Journal of Marine and Freshwater Research*, **38** (2), 367-378.

Abstract: The transport and attenuation of cadmium (Cd) and rhodamine WT (RWT) in a pumice sand aquifer media was investigated using column experiments to study a scenario of point-source contamination. A pore-water velocity of 1.7-1.8 m/day, which is a typical field groundwater velocity in a pumice sand aquifer system, was applied to triplicate columns. A pulse of a solution containing Cd and RWT, together with the conservative tracer tritiated water ((H2)-H-3) at pH = 7, was introduced into the columns. Experimental results showed that concentration breakthrough curves (BTCs) of (H2)-H-3 were symmetrical and fitted well into an equilibrium model. In contrast, BTCs of Cd and RWT were asymmetrical with significant tailings and fitted well with a two-site adsorption/desorption model. The symmetric (H2)-H-3 BTCs suggest that physical nonequilibrium was absent in the experimental system, therefore the asymmetrical BTCs of Cd and RWT were attributed to chemical non-equilibrium. Modelling results showed that, in comparison with (H2O)-H-3, Cd was apparently retarded by 101-108 times in pumice sand aquifer media (apparent adsorption coefficient 7.33-9.24 ml/g) and underwent a mass loss of 20-30% that was probably because of precipitation of CdCO3. As CdCO3 is extremely insoluble, Cd precipitation would be irreversible and therefore it would not contribute to the tailing of the Cd BTCs. The experimental results suggest that the adsorption and desorption of Cd in pumice sand aquifer media in hydrodynamic conditions was a kinetic process. Cd desorption rates were two orders-of-magnitude slower than its adsorption rates. This resulted in a prolonged mean residence time for Cd in pumice sand aquifer media, which was 10-12 days in the 18-cm-long columns under a flow velocity of 1.7-1.8 m/day. Since the mean residence time is only indicative for the arrival of the central of mass in a contaminant BTC, the time required for the total disappearance of Cd will be much longer than the mean residence time because of the significantly long tailing of the BTC. This implies that natural attenuation of Cd from a contaminated pumice sand aquifer would take a time period from decades to centuries. Batch isotherm experiments were also carried out to obtain Cd adsorption coefficients at equilibrium conditions. In comparison with the column results obtained from non-equilibrium conditions, adsorption coefficients of 20 ml/g obtained from the batch equilibrium experiments were 2-3 times higher for Cd. This finding suggests that care should be taken when using batch adsorption isotherm results to predict field problems because the delay in the appearance of contaminants in drinking water wells and springs could be overestimated. In comparison with (H2O)-H-3, RWT was retarded 5-7 times and had BTCs that were significantly more spread out. Hence the use of RWT to indicate groundwater flow in pumice sand aquifers will underestimate groundwater velocity and overestimate aquifer dispersivity. About 4-14% of RWT mass was lost during its transport, probably because of the irreversible adsorption of isomer 2 (one of two major components of RWT) dye onto the aquifer sand.

Keywords: Heavy Metals, Adsorption, Desorption, Pumice Sand Aquifer, Groundwater, Rhodamine WT, Alluvial Gravel Aquifer, Scale-Dependent Dispersion, Nonequilibrium Transport, Porous-Media, Sorption, Cd, Tracer, Soils, Coefficients, Attenuation

# Title: New Zealand Journal of Zoology

Full Journal Title: New Zealand Journal of Zoology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Thurley, T. and Bell, B.D. (1994), Habitat distribution and predation on a western population of terrestrial Leiopelma (Anura, Leiopelmatidae) in the northern king country, New-Zealand. *New Zealand Journal of Zoology*, **21** (4), 431-436.

Abstract: A new population of terrestrial Leiopelmatid frog was discovered in the Whareorino Forest, northern King Country, New Zealand, in 1991. Searches were carried out from June 1991 to December 1993 to determine the species present and to document variation in external morphology, habitat, and local distribution. These confirmed that a terrestrial frog resembling L, archeyi is present in the area, as well as Hochstetter’s frog Leiopelma hochstetteri and the introduced Australian hylid frog Litoria ia aurea.

In Whareorino Forest, the terrestrial Leiopelma was mostly above 500 m altitude and L, hochstetteri above 350 m. The terrestrial Leiopelma occupies sites under rocks and logs in forest. It also occurs in vegetation, such as crown fern Blechnum discolor, tree fern Cyathea smithii, hook grass Uncinia uncinata, and rice grass Microlaena avenacea. Egg clusters of this frog were found in crown fern and tree fern, as well as under stones.

The terrestrial Leiopelma is susceptible to predation by Litoria aurea and rats. This is the first documented evidence of predation on Leiopelma on the New Zealand mainland. The future of this small remnant Leiopelma population is uncertain, and further investigation of the impact of anuran and mammalian predators is needed.

Keywords: Leiopelma, Conservation, Distribution, Predation

# Title: New Zealand Medical Journal

Full Journal Title: [New Zealand Medical Journal](http://www.nzma.org.nz/journal/)

ISO Abbreviated Title: N. Z. Med. J.

JCR Abbreviated Title: New Zeal Med J

ISSN: 0028-8446

Issues/Year: 22

Journal Country/Territory: New Zealand

Language: English

Publisher: Southern Colour Print

Publisher Address: PO Box 920, Dunedin, New Zealand

Subject Categories:

Medicine, General & Internal: Impact Factor

? Gunn, A.J., Twigden, D.G. and Scoggins, B.A. (1999), Bibliometric analysis of HRC-supported biomedical publications, 1990 to 1994. *New Zealand Medical Journal*, **112** (1096), 351-354.

Abstract: Aim. To document changes in the rate and impact of publications resulting from Health Research Council of New Zealand (HRC) biomedical grants since its inception and to relate the number of publications to Health Priority Areas, fields of research and specific types of grant.

Methods. All original papers or reviews and editorials published by HRC-supported investigators in peer-refereed journals, from 1990 to 1994, were entered into a bibliographic database.

Results. In this five-year period, researchers receiving HRC biomedical grants published a total of 2094 articles in 623 peer-reviewed journals, of which 1190 (57%) derived from HRC support. Of the publications, 90.2% were original papers; the remainder were reviews or editorials. From 1990 to 1994, there was an increase in the number of HRC-supported publications (p<0.04) but not of those deriving from other support. There was no change in the quality of publications over this period, as reflected by the impact factor (a measure of the number of times that publications in a journal are cited). The majority (62.6%) of publications derived from project grants, however, the average cost per publication was 8.4% higher for project than for programme (multi-investigator) grants. Finally, nearly 40% of HRC publications directly addressed designated health priority areas.

Conclusions. The present study has examined one aspect of the value for money obtained from the public investment in biomedical research. As the HRC is the major provider of contestable biomedical research funding in New Zealand, bibliometric analysis may be of ongoing value to monitor the effects of changes to the organisation of biomedical research funding in New Zealand.

Keywords: Impact, Period

? Malcolm, M.S., Weinstein, P. and Woodward, A.J. (1999), Something in the water? A health impact assessment of disinfection by-products in New Zealand. *New Zealand Medical Journal*, **112** (1098), 404-407.

Abstract: Disinfection by-products (DBP) are a large group of halogenated chemicals formed by the reaction of disinfectant agents with naturally-occurring organic substances in water. Numerous studies have found associations between DBP and some cancers and adverse reproductive outcomes. For both cancer and birth defects the relative risk associated with exposure to DBP is about 1.5. About 66% of New Zealanders, or 2.4 million people, use chlorinated water supplies and are exposed to DBP. New Zealand’s unique combination of flora, climate and geology will create unique mixtures of DBP but little detailed information is available on the level or composition of DBP in New Zealand. The population attributable risk percent, for cancers and birth defects in New Zealand, is about 25%. In other words, a quarter of all bladder, colon and rectal cancers and birth defects may be preventable by reducing DBP exposure. This is equal to 329 preventable cancer deaths in (1995), and 94 preventable birth defects in 1996. DBP exposure can be reduced without compromising microbiological safety of water supplies. The health effects of DBPs must be weighed against the cost of DBP reduction and not against the potential water borne disease prevented by disinfection. Some aspects of New Zealand’s water supplies and population provide a unique opportunity to undertake research. Further research is needed on the occurrence of DBPs and their health consequences in order to undertake a properly informed risk assessment.

Keywords: Drinking-Water, Spontaneous-Abortion, Epidemic Cholera, Cancer, Chlorination, Transmission, Pregnancy, Outcomes

? Holt, S., Siebers, R., Suder, A., Loan, R. and Jeffrey, O. (2000), The accuracy of references in Australian and New Zealand Medical Journals. *New Zealand Medical Journal*, **113** (1119), 416-417.

Abstract: Aims. Previous studies have found high error rates in references in biomedical journals. The aim of this paper was to assess the accuracy of references in three Australian rind New Zealand general medical journals.

Methods. References from the August 1999 issues of the Medical Journal of Australia, the New Zealand Medical Journal and the Australian and New Zealand Journal of Medicine were assessed for accuracy using PubMed of the National Library of Medicine.

Results. This study found a high rate of reference errors in Australian and New Zealand medical journals. The reference error rate ranged from 33.5 to 48.8%, The most frequent errors were in the author’s names and in the title.

Conclusions, The reference error rate in Australia and New Zealand medical journals is high and is preventable. Authors should be more diligent and preferably verify cited references against the original article.

# Title: New Review of Information Behaviour Research

Full Journal Title: New Review of Information Behaviour Research

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Hultgren, F. and Limberg, L. (2003), A study of research on children’s information behaviour in a school context. *New Review of Information Behaviour Research*, **4** (1), 1-15.

Full Text: [N\New Rev Inf Beh Res4, 1.pdf](N/New%20Rev%20Inf%20Beh%20Res4,%201.pdf)

Abstract: This study examined research bearing on the relationship between information seeking and use and learning in a school context. Studies examined included research on how school assignments, reading ability, access tools and children’s understanding of information seeking and use influence their information behaviour and learning outcomes. Library catalogues and databases covering several disciplines were searched and the results were correlated with the findings of a bibliometric study in order to locate relevant research. The results indicate that little research has focused specifically on the relationship between information seeking and use and learning outcomes, although all research taken up in the study elucidates aspects that touch upon the relationship. Taken together, research shows that a strong relationship exists between schoolchildren’s understanding of information seeking and use, the nature of school assignments, the quality of access tools and children’s experience and knowledge of them. It seems likely that this relationship in turn influences learning outcomes and that further exploration would deepen our understanding.

# Title: Nickel in the Environment

Wiley-Interscience, New York, Chichester, Brisbane and Toronto

Nriagu, J.O. (1980), *Nickel in the enviroment*, Wiley-Interscience, New York, Chichester, Brisbane and Toronto.

Schmidt, J.A. and Andren, A.W. (1980), The atmospheric chemistry of nickel. in *Nickel in the Environment*. (Edited by Nriagu, J.O.), Wiley-Interscience, New York, Chichester, Brisbane and Toronto, 93-135.

Davidson, C.I. (1980), Dry deposition of nickel from the atmosphere. in *Nickel in the Environment*. (Edited by Nriagu, J.O.), Wiley-Interscience, New York, Chichester, Brisbane and Toronto, 137-149.

Richter, R.O. and Theis, T.L. (1980), Nickel speciation in a soil/water system. in *Nickel in the Environment*. (Edited by Nriagu, J.O.), Wiley-Interscience, New York, Chichester, Brisbane and Toronto, 189-202.

Mushak, P. (1980), Metabolism and systemic toxicity of nickel. in *Nickel in the Environment*. (Edited by Nriagu, J.O.), Wiley-Interscience, New York, Chichester, Brisbane and Toronto, 499-523.

Furst, A. and Radding, S.B. (1980), An update on nickel carcinogenesis. in *Nickel in the Environment*. (Edited by Nriagu, J.O.), Wiley-Interscience, New York, Chichester, Brisbane and Toronto, 585-600.

Nielsen, F.H. (1980), Interactions of nickel with essential minerals. in *Nickel in the Environment*. (Edited by Nriagu, J.O.), Wiley-Interscience, New York, Chichester, Brisbane and Toronto, 611-634.

Barton, R.Th. and Hogetveit, A.Ch. (1980), Screening health program for nickel workers. in *Nickel in the Environment*. (Edited by Nriagu, J.O.), Wiley-Interscience, New York, Chichester, Brisbane and Toronto, 653-659.

# Title: Nickel in the Human Evironment

International Agency for Research on Cancer, Oxford University Press, London

Sunderman, Jr., F.W., Aitio, A., Berlin, A., Bishop, C., Buringh, E., Davis, W., Gounar, M., Jacquignon, P.C., Mastromatteo, E., Rigaut, J.P., Rosenfeld, C., Saracci, R. and Sors, A. (1984), *Nickel in the Human Environment*, International Agency for Research on Cancer Scientific, Oxford University Press, London.

Reith, A. and Broegger, A. (1984), Carcinogenicity and mutagenicity of nickel and nickel compounds. in *Nickel in the Human Environment*, (Edited by Sunderman, Jr., F.W. *et al.*) International Agency for Research on Cancer Scientific, Oxford University Press, London, 175-192.

Camner, P., Casarett-Bruce, M., Curstedt, T, Jarstrand, C., Wiernik, A., Johansson, A., Lundborg, M. and Robertson, B. (1984), Toxicology of nickel. in *Nickel in the Human Environment*, (Edited by Sunderman, Jr., F.W. *et al.*) International Agency for Research on Cancer Scientific, Oxford University Press, London, 267-276.

Nielsen, G.D. and Flyvholm, M. (1984), Risks of high nickel intake with diet. in *Nickel in the Human Environment*. (Edited by Sunderman, Jr., F.W. *et al.*) International Agency for Research on Cancer Scientific, Oxford University Press, London, 333-338.

Anke, M., Groppel, B., Kronemann, H. and Grün, M. (1984), Nickel: An essential element. in *Nickel in the Human Environment*. (Edited by Sunderman, Jr., F.W. *et al.*) International Agency for Research on Cancer Scientific, Oxford University Press, London, 339-365.

Warner, J.S. (1984), Occupational exposure to airborne nickel in producing and using primary nickel products. in *Nickel in the Human Environment*. (Edited by Sunderman, Jr., F.W. *et al.*) International Agency for Research on Cancer Scientific, Oxford University Press, London, 419-437.

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# Title: Nickel Toxicology

Acadenic Press, London, New York, Toronto, Sydney and San Francisco

Costa, M. and Mollenhauer, H.H. (1980), Phagocytosis of particulate nickel compounds is related to their carcinogenic activity. in *Nickel Toxicology*, (Edited by Brown, S.S. and Sunderman, Jr., F.W.), Acadenic Press, London, New York, Toronto, Sydney and San Francisco, 43-46.

# Title: Nicotine & Tobacco Research

Full Journal Title: [Nicotine & Tobacco Research](http://ntr.oxfordjournals.org/archive/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Stokols, D., Fuqua, J., Gress, J., Harvey, R., Phillips, K., Baezconde-Garbanati, L., Unger, J., Palmer, P., Clark, M.A., Colby, S.M., Morgan, G. and Trochim, W. (2003), Evaluating transdisciplinary science. *Nicotine & Tobacco Research*, **5** (1), S21-S39.

Full Text: [2003\Nic Tob Res5, S21.pdf](2003/Nic%20Tob%20Res5,%20S21.pdf)

Abstract: The past two decades have seen a growing interest and investment in transdisciplinary research teams and centers. The Transdisciplinary Tobacco Use Research Centers (TTURCs) exemplify large-scale scientific collaborations undertaken for the explicit purpose of promoting novel conceptual and methodological integrations bridging two or more fields. Until recently, few efforts have been made to evaluate the collaborative processes, and the scientific and public policy outcomes, of such centers. This manuscript offers a conceptual framework for understanding and evaluating transdisciplinary science and describes two ongoing evaluation studies covering the initial phase of the TTURC initiative. The methods and measures used by these studies are described, and early evaluative findings from the first 4 years of the initiative are presented. These data reveal progress toward intellectual integration within and between several of the TTURCs, and cumulative changes in the collaborative behaviors and values of participants over the course of the initiative. The data also suggest that different centers may follow alternative pathways toward transdisciplinary integration and highlight certain environmental, organizational, and institutional factors that influence each center’s readiness for collaboration. Methodological challenges posed by the complexities of evaluating large-scale scientific collaborations (including those that specifically aspire toward transdisciplinary integrations spanning multiple fields) are discussed. Finally, new directions for future evaluative studies of transdisciplinary scientific collaboration, both within and beyond the field of tobacco science, are described.

? Kira, A., Glover, M., Bullen, C. and Viehbeck, S. (2011), Publications as an indicator of increased tobacco control research productivity (quantity and quality) in New Zealand. *Nicotine & Tobacco Research*, **13** (6), 474-478.

Full Text: [2011\Nic Tob Res13, 474.pdf](2011/Nic%20Tob%20Res13,%20474.pdf)

Abstract: Introduction: Tobacco control (TC) research capacity and productivity are critical for developing evidence-informed interventions that will reduce the harmful effects of smoking. The aim of this paper was to investigate New Zealand’s (NZ) TC research capacity along with the quantity and quality of publications, following two government initiatives aimed, in part, at improving the quantity and quality of NZ TC research. Method: Scopus was searched for articles with at least one NZ author and where the topic was of primary relevance to TC. Publications were organized into two time periods, following the government initiatives, 1993-2003 and 2004-2009. We analyzed the number of publications, publication journals, type of publications, impact (using the impact factor), and authorship. Results: There has been an increase in number and impact of publications and number of authors. The number of publications has increased from an average of 14 (1994-2003) to 38 per year (2004-2009). The number of journals published increased from 64 to 86. The impact during 2004-2009 was almost three fold than in 1993-2003. The number of authors increased from 212 to 345, and the number of authors who had at least one first-authored publication increased from 80 to 124. Conclusions: These results show an encouraging trend in NZ TC research, with an increase in research productivity, quality, and in research capacity. It is possible that government-initiated and -funded infrastructural support contributed to increasing needed TC research, which supports the worth of such initiatives.

Keywords: Authors, Authorship, Bibliometric Analysis, Building Capacity, Impact Factor, Interventions, Journals, Policy, Primary, Productivity, Publication, Publications, Research, Science, Scopus, Smoking, Tobacco, Trend

# Title: Nigerian Libraries

Full Journal Title: Nigerian Libraries

ISO Abbreviated Title:

JCR Abbreviated Title:

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Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Obajemu, A.S. (2001), Periodical productivity study of communicable diseases on Nigeria (Jan–Dec. 1996). *Nigerian Libraries*, **25** (1), 42-55.

# Title: Nineteenth-Century Literature

Full Journal Title: Nineteenth-Century Literature

ISO Abbreviated Title:

JCR Abbreviated Title:

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Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Saint-Amour, P.K. (2000), Oscar wilde: Orality, literary property, and crimes of writing. *Nineteenth-Century Literature*, **55** (1), 59-91.

Full Text: [2000\Nin-Cen Lit55, 59.pdf](2000/Nin-Cen%20Lit55,%2059.pdf)

Abstract: Oscar Wilde was both an aficionado and a practitioner of literary crime. Most notoriously, his 1886 notes for a lecture on Thomas Chatterton are largely plagiarized from two biographies about the poet. Wilde’s plagiarism and self-plagiarism have formerly been understood as coded expressions of nonliterary transgressions, as roundabout forms of self-promotion, and as the result of the time pressures of a professional writer. In this essay I propose that we understand Wilde’s fascination with and commission of literary crime not only in light of his professed socialism but also through his well known preference for talk over writing. By appropriating, recirculating, and donating language within literary circles, Wilde set up within a private print culture the lineaments of primary orality that he had encountered through his parents’ ethnographic studies of the illiterate rural Irish. In promulgating these oral dynamics of circulation, Wilde helped construct primary orality as the irrecuperable other of literate culture. But he also participated in a growing counterdiscourse to private literary-property law, particularly the conventions of individual and serial ownership proper to copyright, that were becoming consolidated in late-Victorian England. While the Chatterton lecture notes work partly to consecrate literary crime as a creative act, Wilde’s story “The Portrait of Mr. W.H.” (1889) warns that when ideas circulate like private property, they lose the power to unite their holders in a shared belief.

Keywords: Language, Plagiarism, Self-Plagiarism, Self-Promotion

# Title: Nippon Ganka Gakkai Zasshi

Full Journal Title: Nippon Ganka Gakkai Zasshi

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0029-0203

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Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Ohba, N. (2005), Bibliometric analysis of the current international ophthalmic publications. *Nippon Ganka Gakkai Zasshi*, **109** (3), 115-125.

Abstract: Purpose: To assess the current status of international ophthalmic publications. Methods: A collection of 55,591 original articles were found by an on-line National Library of Medicine database MEDLINE search for 32 international ophthalmic journals during a 15-year period from 1988 to 2002 (internet access, November 11 similar to 13, 2003). Results: The contributions to international ophthalmic publications were by 49.5% from North America, 31.3% from Western Europe, 15.1% from Asia and Oceania, 2.2% from Middle East, 0.85% from Central and South America, 0.53% from Eastern Europe, and 0.47% from Africa. Countries of Asia and Oceania showed an increasing trend in contributions while North America had a decreasing productivity in a relative sense. The top 10 productive countries were USA, United Kingdom, Japan, Germany, Canada, Australia, Italy, Netherlands, Sweden, and France. Among the Asian countries India ranked 13th, China 18th, and Korea 21st. When related to population, small countries such as Israel, France, Finland, Sweden, and Denmark were more productive. When related to economic productivity as defined by GDP, Israel, the United Kingdom, Australia, Finland, and Sweden were among the most productive countries, whereas rich countries such as Japan and Germany had a lower number of publications relative to their GDP. As regards clinical research in terms of randomized controlled trials, The USA was by far the most productive. The number of authors per article has shown an increasing trend worldwide, so that Japan and France had a significantly larger proportion of multiauthored articles. Conclusions: There is an increasing trend in the productivity of international ophthalmic publications from non-English-speaking countries including Japan, China, and Korea.

# Title: Nippon Ika Daigaku Zasshi

(Nippon Ika. Daigaku. Zasshi.)

? Fan, X.H. (1992), Effect of exposure to benzene on natural killer (NK) cell activity and interleukin-2 (IL-2) production of C57BL/6 mice. *Nippon Ika Daigaku Zasshi*, **59** (5), 393-399.

Abstract: To investigate the effect of benzene on murine splenic natural killer (NK) cell activity and interleukin-2 (IL-2) production, we exposed C57 BL/6 mice to benzene for 28 days. Benzene exposure via drinking water at doses of 27 and 154 mg/kg/day yielded the following results. 1) A decrease of spleen cell number was detected on the 14th day of benzene exposure at 154 mg/kg/day, and on the 21st and 28th day of exposure at both 27 mg/kg/day and 154 mg/kg/day. 2) NK activity per viable spleen cell was temporarily enhanced on the 21st day of exposure at doses of 27 and 154 mg/kg/day, thereafter returned to control levels. 3) IL-2 production was inhibited after 28 days of benzene exposure at 27 and 154 mg/kg/day. After ending exposure at doses of 27 mg/kg/day for 28 days, the decreased spleen cell number began to return to control levels from the 14th day on, and reduced IL-2 production returned to control levels. These results suggest that, NK cells are resistant to benzene toxicity, while IL-2 producing cells are sensitive. Thus, an imbalance in immune system was caused by toxic benzene action.

# Title: Nippon Kagaku Kaishi

Full Journal Title: [Nippon Kagaku Kaishi](http://nikkashi.jstage.jst.go.jp/cgi-bin/rs.cgi?FID=9000000&LANGUAGE=en)

ISO Abbreviated Title: Nippon Kagaku Kaishi

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Chemistry: Impact Factor 0.194, 98/121

? Suda, Y. and Nakajima, F. (1972), Studies on adsorption of direct dyes from non-aqueous media. 2. Adsorption isotherm of Direct Sky Blue FF from aqueous alcoholic solutions. *Nippon Kagaku Kaishi*, **1**, 122-??.

? Katsuzawa, H. and Higuchi, I. (1976), Size effect of elementary-particles on vapor sorption isotherm of compressed specimens. *Nippon Kagaku Kaishi*, **1**, 10-14.

Notes: KKinetics

? Urano, K. and Nakai, T. (1976), Intraparticle diffusivities in liquid phase adsorption under nonlinear equilibrium. *Nippon Kagaku Kaishi*, **9**, 1486-1491.

Full Text: [1960-80\Nip Kag Kai9, 1486.pdf](1960-80/Nip%20Kag%20Kai9,%201486.pdf)

? Yoshida, H., Kamegawa, K. and Arita, S. (1976), Adsorption of heavy metallic-ions on activated carbon. 2. Adsorption characteristics of mercury(II) ion on various kinds of activated carbon. *Nippon Kagaku Kaishi*, **10**, 1596-1601.

? Abe, I., Hayashi, K., Kitagawa, M. and Urahata, T. (1980), Adsorptive mechanism on activated carbon in the liquid-phase. 4. The approximate equation representing the adsorption- isotherm of aliphatic mono-functional compound on activated carbon from aqueous-solution. *Nippon Kagaku Kaishi*, **4**, 545-550.

? Shirakashi, T., Tsuruta, K., Kakii, K. and Kuriyama, M. (1983), Removal of heavy-metal ions by activated carbon. 1. The effect of organic-ligands on the adsorption of heavy-metal ions on activated carbon. *Nippon Kagaku Kaishi*, **7**, 1086-1091.

? Takasaka, A., Inaba, H. and Matsuda, Y. (1991), Removal of cations from solution by using Itaya zeolite. *Nippon Kagaku Kaishi*, **5**, 618-622.

Abstract: The adsorption of Zn2+, Pb2+, Ni2+, Hg2+, Ca2+, Mg2+, Cd2+, Cu2+, Cr6+, NH4+ and H+ on Itaya zeolite consisting mainly of clinoptilolite and mordenite was investigated.

The adsorption isotherms were found to be approximately expressed by the Freundlich equation. x/m = kC1/n

Where x is weight of ion, in grams adsorbed by m grams of zeolite, C is concentration of cation in solution g/l, and n and k are constants. In this experiment n is 3.82 approximately 0.89.

Because Itaya zeolite has excellent adsorption capacity comparable to synthetic zeolite (MS 5 A) or active carbon, it seems that a fixed bed of Itaya zeolite is applicable to removal of cations from waste water.

? Taguchi, Y., Kusumi, A., Mitani, F. and Mashima, M. (1991), Semipermanent removal method of orthophosphate with hydrated titanium-oxide by adsorption. *Nippon Kagaku Kaishi*, **5**, 623-629.

Abstract: Hydrated titanium oxide was prepared as a new adsorbent for the removal of orthophosphate in wastewaters. It was precipitated from titanium(IV) sulfate solution with sodium hydroxide and treated with sulfuric acid. From batchwise adsorption experiments the amount of phosphate adsorbed was larger at pH2 than at pH7. A linear relationship on a log-log graph paper was obtained by plotting the equilibrium concentrations of phosphate in the solutions and in the adsorbent, indicating that the adsorption obeys the Freundlich’s isotherm. The index and the coefficient of the equation were large enough for the material to adsord efficiently phosphate from solutions. When phosphate was adsorbed on hydrated titanium oxide, an equivalent amount of sulfate + hydroxide ions were liberated from the adsorbent, mainly sulfate at pH2 and hydroxide at pH5, suggesting that these ions on the surface of the adsorbent were exchanged with dihydrogenphosphate ions in the solutions. From columnwise experiments, it was observed that, at the end of adsorption, the amount of phosphate adsorbed was about 20 times larger at pH2 than at pH7.

When 0.05 mmol.dm-3 phosphate solution of pH7, containing 0.6 mmol.dm-3 calcium ions and a sufficient amount of hydrogencarbonate (1 mmol.dm-3), was passed through a column packed with 3 g hydrated titanium oxide, about 90% of phosphate was adsorbed from a very large volume of influent. This suggests the possibility of the semipermanent removal of phosphate by a limited amount of the adsorbent. In the case where concentration of phosphate was 1 mmol.dm-3, about 80% of this ions could be semipermanently removed. For the removal of phosphate for a long time, intermittent backwashing should be made to maintain the uniform flow of wastewater.

? Takeda, K., Sano, T. and Kawakami, Y. (1996), Evaluation of amount of framework iron(III) ions of ZSM-5 type ferrisilicate by water vapor adsorption. *Nippon Kagaku Kaishi*, **8**, 680-686.

Abstract: The solid-state Al-27 MAS NMR is taken to be the best technique to quantify the amount of framework aluminums of zeolite. However, it is very difficult to evaluate accurately the amount of framework metals of metalosilicate because the solid-state MAS NMR is not necessarily effective for all metals in the metalosilicates. It is desirable to develop a new method for quantification of the framework metals. In this paper, we investigated an evaluation of the amount of framework iron(III) ions of ZSM-5 type ferrisilicate by water vapor adsorption. Adsorption isotherms of water vapor were measured on the H-ferrisilicates with various SiO2/Fe2O3 ratios. From the analysis of the adsorption isotherms by the D-R method it was found that the micropore volume W-0 (H2O) accessible to water molecules increases linearly with an increase in the framework iron(III) ions and that the number of water molecules associated with one framework iron(III) ion is on average 5.5. This indicates that water molecules are able to be used to determine the amount of framework iron(III) ions in the H-ferrisilicate structure, Next, based on the above result, the amounts of framework iron(III) ions in H-ferrisilicates treated in air at 873 similar to 1073 K was estimated. It was found that the rate of the removal of iron(III) ions from the ferrisilicate framework by thermal treatment is apparently second order depending on the amount of framework iron(III) ions in the H-ferrisilicate structure.

Keywords: H-Faujasites, Molecule, Probe

? Haga, F., Nakajima, T., Yamashita, K. and Mishima, S. (1997), Effect of particle size on steam reforming of ethanol over alumina-supported cobalt catalyst. *Nippon Kagaku Kaishi*, **11**, 758-762.

Abstract: The relation between particle size and catalytic properties of alumina-supported cobalt catalysts were investigated for steam reforming of ethanol, C2H5OH+H2O-->2CO+4H2, in order to make effective use of ethanol solution produced by fermentation of biomass. The catalysts prepared from various Go-sources were examined for their performances in steady-state reaction, temperature-programmed reaction (TPR) and temperature-programmed desorption (TPD) at atmospheric pressure by use of a conventional flow reactor. The selectivity of the catalysts for the steam reforming of ethanol were determined as follows: Co(Carbonyl, CVD method) > Co(Chloride) > Co (Carbonyl) > Co(Acetate) > Co (Nitrate). The mean crystallite size of Co species on alumina varies depending on Go-sources and forms the reverse line to the selectivity, except for Co (Chloride). The peak of CO, (mainly carbon dioxide) in the TPD spectrum, measured in the presence of water vapor, of ethanol adsorbed on the Co(Nitrate) catalyst shifts clearly to a higher temperature range with decreasing the crystallite size. This fact indicates that the selectivity for the steam reforming increases with the dispersion degree of the metal on alumina. The effect of the crystallite size on the catalytic properties is related to the strength of adsorption of COx and the catalytic activity for methanation of CO.

Keywords: Oxide Catalyst, Acetone, Hydrogenation, Conversion

? Sasaki, A. and Kimura, Y. (1997), Studies on functionalization of polymers by reactive processing. Part 5. Preparation of polythiourea-immobilized active charcoal and its utilization for selective adsorption of mercury(II) ion. *Nippon Kagaku Kaishi*, (12), 880-886.

Full Text: 1997\Nip Kag Kai1997, 880.pdf

Abstract: Several polyamines were reacted with carbon disulfide in water in the presence of palm-shell active charcoal. The reaction proceeded readily after the adsorption of the reactants on the charcoal to form polythiourea. The resultant polythiourea was firmly immobilized on the surface of the charcoal. The polythiourea-immobilized charcoals showed superior adsorption ability for mercury(II) ion. The highest adsorption was obtained for the polythiourea formed from polyethylenimine with molecular weight of 1800 and for which the immobilization ratio relative to charcoal was 11.8 wt%. The increased immobilization higher than this value caused decreases in surface area and adsorption ability. It was supposed that a thin layer of the polythiourea was formed on the charcoal in the former case. The polythioura-immobilized charcoal was packed in a glass-tube, and for which an aqueous solution of 10 ppm of mercury(II) ion was eluted at a velocity of LV=5. The mercury(II) ion concentration in the eluted solution rose above the upper limit value permitted by law (5 ppb) after 10 h. The total adsorption of mercury(II) ion was 0.6 mol per 1 liter of the polythiourea-immobilized charcoal. The polythiourea-immobilized charcoal prepared by this method should practically be used as adsorbent of mercury(II) ion.

Keywords: Adsorbent, Adsorption, Adsorption Ability, Carbon, Charcoal, Immobilization, Palm Shell, Polyethylenimine, Polymers, Preparation, Surface Area, Water, Weight

Shimizu, Y., Kawaguchi, M., Kubota, Y. and Higashimura, T. (2000), Adsorption of metal ions and acid dyes on Brewer’s refuse and its crosslinked products. *Nippon Kagaku Kaishi*, **1**, 37-44.

Full Text: [N\Nip Kag Kai2000, 37.pdf](N/Nip%20Kag%20Kai2000,%2037.pdf)

Abstract: To use brewer’s refuse as adsorbent adsorption of metal ions and acid dyes on them and their reaction products with 1,3,5-triacryloylhexahydro-1,3, 5-triazine(TAF) were examined. The refuse samples used in the present study are protein rich fraction(Pr) and cellulosics rich fraction (Hr) obtained by sifting brewer’s refuse. Adsorptive experiments were conducted by a batchwise method at 303 K. Pr adsorbed more metal ions such as Cr6+, Ni2+, Co2+, especially Fe3+, Hg2+ and Cu2+ than Hr. But both refuses hardly adsorbed Ca2+. Also Pr adsorbed more acid dyes, especially more hydrophorbic C. I. Acid Red 88 than C. I. Acid Orange7-than Hr at pH 5. By rosslinking Pr and Hr using TAF adsorption of acid dyes increased markedly, but adsorption of metal ions decreased. Therefore Pr can be used as adsorbent for acid dyes and metal ions as it is. Moreover the crosslinked products are excellent adsorbents for acid dyes.

Keywords: Bagasse Pith

Takahashi, M., Yamashita, Y. and Kosaka, S. (2000), Sorption and separation of metallic ions by a macromolecular resin impregnated with 2-ethylhexyl hydrogen-2-ethylhexylphosphonate. *Nippon Kagaku Kaishi*, **5**, 341-346.

Full Text: [N\Nip Kag Kai2000, 341.pdf](N/Nip%20Kag%20Kai2000,%20341.pdf)

Abstract: Studies have been conducted on the sorption equilibria of Zn(II), Mn(II), Cd(II), Cu(II), Co(II) and Sm(III) from aqueous media at low acidities by a macromolecular resin impregnated with 2-ethylhexyl hydrogen-2-ethylhexylphosphonate (2-ethylhexyl phosphonic acid mono-2-ethylhexyl ester, EHPNA, HR). Sorption equilibria of these metallic ions(Mn+) on the macromolecular resin impregnated with EHPNA(EHPNA-impregnated sorbent) can be expressed by a simple ion exchange reaction which is different from solvent extraction with EHPNA.



The equilibrium constants Kex of Zn(II), Mn(II), Cd(II), Cu(II), Co(II) and Sm(III) were found to be 6.25×10-3, 4.0×10-5, 4.0×10-5, 3.1×10-5, 2.2×10-6kg-sor dm-3 and 7.69×10-3(kg-sor)2 dm-6, respectively.

The separation factors defined by the ratios of the equilibrium constant of Zn(II)/ Cu(II), Zn(II)/ Mn(II) and Sm(III)/ Co(II) were 202, 156 and 3495, respectively.

The mutual separation from the binary metal solutions of Zn(II)/ Cu(II), Zn(II)/ Mn(II) and Sm(III)/ Co(II) using the EHPNA-impregnated sorbent has also been studied in a column operation. It was found that the selective separation is attained satisfactorily by use of the sorbent.

? Minamisawa, H., Arai, N., Tatehaba, Y. and Okutani, T. (2000), Determination of traces of gold(III) in water by metal furnace atomic-absorption spectrophotometry after adsorption of gold(III) on the chitin. *Nippon Kagaku Kaishi*, **7**, 512-517.

Full Text: Nip Kag Kai2000, 512

Abstract: The natural polymer ‘chitin’ has the property of being an anion-exchanger in an acidic medium, because the acetylamino groups of chitin are protonated in an acidic medium. The property of chitin was applied to the preconcentration and determination of sub ppb level of Au(III) by adsorption to the chitin as their anionic complex with metal furnace atomic absorption spectrophotometry. Au(III) reacts with anion such as halogenide ion, cyanide ion to form the anionic complex. The adsorption isotherm of Au(III) as their anionic complex on the chitin was known to be fitted by Freundlich equation. The adsorption quantity of Au(III) as their anionic complex becomes larger in order of the complex, chloro anionic complex, bromo anionic complex, iodo anionic complex, cyano anionic complex. Especially, Au(III) was quantitatively collected as its chloro anionic complex on chitin over the range of pH 2.0 to 4.0. The chitin which adsorbed the Au(III) was separated from the sample solution with a membrane filter and dispersed in pure water. The resulting suspension was introduced directly into the tungsten metal furnace atomizer. The detection limit for Au(III) was 0.05 µg/500cm3 (S/N greater than or equal to 3). The proposed method was applied to the determination of trace amounts of Au(III) in several water samples.

Yamaoka, Y., Fuse, H., Murakami, K., Carmona, M.L., Oclarit, J. and Ootani, T. (2000), Use of sponge as an adsorbent of Cd, Cu, Ni, Co ions in water. *Nippon Kagaku Kaishi*, **9**, 651-656.

Full Text: [N\Nip Kag Kai2000, 651.pdf](N/Nip%20Kag%20Kai2000,%20651.pdf)

Abstract: Three strains (Haliclona permolis, Halichlona sp. white and Halichondria japonica) of sponge collected from Akinada in Seto Inland Sea were tested for their ability to collect metal ions. A 50 mL solution containing Cd, Co, Cu and Ni was mixed with 100 mg of the sponge under stirring for 30 min. The concentrations of metal ions in the solution were determined with an atomic absorption spectrometer. Haliclona permolis tested was found to collect larger amounts of Cd, Cu, Ni and Co than Halichlona sp. white. The adsorption order of metals by sponge (boiling water-treated) was Cd > Cu, Ni > Co.

Shimizu, Y., Ohashi, K. and Higashimura, T. (2000), Adsorption of metal ions and dyes on brewer’s refuse and its chemically modified products. *Nippon Kagaku Kaishi*, **11**, 803-810.

Full Text: [N\Nip Kag Kai2000, 803.pdf](N/Nip%20Kag%20Kai2000,%20803.pdf)

Abstract: To use brewer’s refuse as adsorbent adsorption of metal ions and dyes on it and its chemically modified products were examined. The refuse samples used in the present study are protein rich fraction(Pr) and cellulosics rich fraction(Hr) obtained by sifting brewer’s refuse. Adsorption experiments were conducted by a batchwise method.

The ability of Hr to adsorb acid dye increased by chemical modification, especially did remarkably by diethylaminoethylation. The degree of increase greatly exceeded that by crosslinking reported in previous paper. The adsorption ability of Pr for metal ions and acid dyes decreased sharply when it was treated with alkali. However, the adsorption ability of Pr for metal ions and a basic dye could be greatly raised by treating with hydrochloric acid.

Takahashi, M., Ikeda, T. and Sasagawa, T. (2000), Rates of Sm(III) adsorption by a macromolecular sorbent impregnated with 2-ethylhexyl hydrogen-2-ethylhexylphosphonate. *Nippon Kagaku Kaishi*, **12**, 885-889.

Full Text: [N\Nip Kag Kai2000, 885.pdf](N/Nip%20Kag%20Kai2000,%20885.pdf)

Abstract: Studies were conducted on the adsorption rates of samarium by a macromolecular sorbent impregnated with 2-ethylhexyl hydrogen-2-ethylhexylphosphonate (2-ethylhexyl phosphonic acid mono-2-ethylhexyl ester, EHPNA, HR) using a stirred transfer cell.

The initial adsorption rate of samarium N0 decreased as hydrogen ion concentration [H+] increases at [H+] > 0.1mol m-3, and the hydrogen ion concentration dependence of adsorption rate becomes nearly zero at [H+] ≤ 0.1mol m-3. The initial adsorption rate of samarium increased with increasing EHPNA content in the sorbent [], and decreased with increasing samarium concentration [Sm]0T.

The inner particle capacity coefficient ksav calculated from overall capacity coefficient Ksav and outer particle capacity coefficient kFav were proportional to the 2nd power of EHPNA content in the sorbent, and were proportional inversely to the 2nd power of samarium concentration and to the 1st power of hydrogen ion concentration at [H+] ≤ 4 mol m-3.

The ratio of mass transport resistance of samarium 1/ksav against the overall mass transport resistance 1/Ksav lowered remarkably with increasing pH and EHPNA content in the sorbent.

Kato, N., Arai, M., Sakai, Y., Mitamura, J. and Takahashi, F. (2001), Adsorption of Orange II to goat hair. *Nippon Kagaku Kaishi*, **1**, 11-17.

Full Text: [N\Nip Kag Kai2001, 11.pdf](N/Nip%20Kag%20Kai2001,%2011.pdf)

Abstract: On the adsorption of acid dye, Orange II, to goat hair, the effects of benzyl alcohol, glycine and hydroxy carboxylic acid in the medium of dye were studied quantitatively under Various conditions of pH and temperature.

In the case of no benzyl alcohol, DeltaS’s were negative and DeltaH’s were in the region-25--100 kJ mol-1. These results suggested that the dye might bind to the protein of goat hair with hydrogen bonds or ionic bonds. The DeltaH’s shift more negative in the cases using glycolic acid and lactic acid than in the case using phosphoric acid. In the case of glycine, the goat hair adsorbed more dye in the lower pH medium, in which H3N+-CH2-COOH presented more than H3N+-CH2-COO-. Addition of benzyl alcohol with glycolic acid in the medium of dye made both DeltaH and DeltaS positive. Penetration of benzyl alcohol into the goat hair enlarged the surface area for the adsorption of dye. Thereby, the velocity and the amount of adsorption sites increased as compared with the case of no benzyl alcohol. On the other hand, the equilibrium constant decreased due to blocking the bond formation of dye to goat hair. Penetration of benzyl alcohol into the goat hair made difficult to speculate our results by a simple mechanism on the adsorption of dye according to Langmuir adsorption isotherm.

Minamisawa, M., Nakajima, S., Mitsue, Y., Miyazawa, K., Ueno, K., Hatori, A., Miyajima, S., Hoshino, M., Yoshida, S. and Takai, N. (2002), Removal of copper(II) and cadmium(II) in water by use of roasted coffee beans. *Nippon Kagaku Kaishi*, **3**, 459-461.

Full Text: [N\Nip Kag Kai2002, 459.pdf](N/Nip%20Kag%20Kai2002,%20459.pdf)

Abstract: Adsorption behavior of heavy metals on arabica and robusta roasted coffee beans treated in 5 roasting degrees was investigated. The coffee beans residue after extraction with hot water were suspended in aqueous solutions (pH = ca.6.6) containg Cu(II) or Cd(II) and the amount of heavy metal remaining in the solution was determined on an atomic absorption spectrophotometer. Adsorption ratios of Cu(II) were 60.5 and 79.6% for the light and French roasted coffee beans of Indonesia robusta employed as adsorbent, respectively. However, when the roasted coffee beans were washed with distilled water and then air-dried prior adsorption experiments, the adsorption ratios of Cu were 92.2 and 92.6%, respectively and that of Cd was 95.6 and 97.0%. Thus, the heavy metals were almost removed from aqueous solution by use of the roasted coffee beans with washing and drying treatments.

Keywords: Tungsten Metal Furnace, Chitosan, Adsorption

# Title: Nippon Nogeikagaku Kaishi-Journal of the Japan Society for Bioscience Biotechnology and Agrochemistry

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Subject Categories:

: Impact Factor

? Ashida, Y., Saito, Y., Kawato, A. and Imayasu, S. (1992), Physical and chemical-properties of dietary fiber prepared from rice bran. *Nippon Nogeikagaku Kaishi-Journal of the Japan Society for Bioscience Biotechnology and Agrochemistry*, **66** (8), 1233-1240.

Abstract: Rice dietary fiber was prepared from defatted rice bran by treatment with protease, and its physical and chemical properties were investigated. Its water adsorption capacity, oil adsorption capacity, and settling volume in water was 10.89 g, 8.21 g, and 13.0 ml, respectively, per gram of fiber. The fibers adsorbed agricultural chemicals, malathion and fenitrothion. In these properties, rice fiber was superior to cellulose and fibers from corn bran and wheat bran.

Characteristics of the binding of minerals to neutral detergent fibers (NDF) from the three cereals investigated were studied. Calcium bound to each kind of NDF at about 2 mg per gram of NDF, but more iron (6.03 mg per gram of NDF) bound to the NDF of rice bran than to the other two NDFs tested. The iron bound to the NDF of rice bran was not readily released by conditions normally used in cooking, but it was released under simulated gastrointestinal conditions. The iron bound to rice fiber had no effect on the properties such as the water adsorption capacity of the fiber.

# Title: Nonlinear Dynamics, Psychology, and Life Sciences

Full Journal Title: Nonlinear Dynamics, Psychology, and Life Sciences

ISO Abbreviated Title:

JCR Abbreviated Title: Nonlinear Dynamics Psychol Life Sci

ISSN: 1090-0578

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Henrickson, L. (2004), Trends in complexity theories and computation in the social sciences. *Nonlinear Dynamics, Psychology, and Life Sciences*, **8** (2), 259-302.

Abstract: A modified bibliometric study and citation analysis of the use of complexity theories, encompassing chaos and complexity theory, and computational simulation in published literature was conducted. Articles published during 1971-1999 in four disciplines were examined: business, education, psychology and sociology. Overall, there was a marked pattern of increased use in the terms within the social sciences. There was a differentiated use of the terms between disciplines. A qualitative study on a subset from each discipline was generated to create a disciplinary profile of the quantitative and qualitative use of the terms in research activities, called a problem topology. Three research implications that arise from the differential adaptation of the theories and methods into the four social sciences are discussed.

Keywords: Adaptation, Analysis, Bibliometric, Bibliometric Study, Business, Chaos, Citation, Citation Analysis, Complexity, Computation, Education, Literature, Methods, Modified, Pattern, Psychology, Qualitative, Qualitative Study, Research, Sciences, Simulation, Social, Social Sciences, Sociology, Theory

? Katerndahl, D. (2011), Is research publication a catastrophic phenomenon among medical faculty? *Nonlinear Dynamics, Psychology, and Life Sciences*, **15** (2), 253-264.

Full Text: [2011\Non Dyn Psy Lif Sci15, 253.pdf](2011/Non%20Dyn%20Psy%20Lif%20Sci15,%20253.pdf)

Abstract: Studies seeking to predict publication rates among faculty have found contradictory results. The purpose of this study was to determine whether short-or long-term research publications among family medicine faculty were better accounted jar using cusp catastrophe modeling (CCM) rather than linear modeling. This secondary analysis of annual research publications used data collected from family medicine faculty in a university department. To predict the number of research publications, two service variables - national service and administrative responsibility - were used. There were three bifurcation variables: Scholarly Activity, Professional Status, and “proportion of studies as principal investigator”. Research publications at two and jive years were modeled using CCM as well as two linear models. Based upon the amount of variance explained, while linear models accounted for more variance in publications at 5-year intervals, CCM was superior at explaining publications for all three bifurcation variables at 2-year intervals. Entering all of the bifurcation variables into the models found that CCM explained more of the 2-year publication variance with Scholarly Activity and national service as significant predictors. In conclusion, short-term career planning needs to consider its irregular cusp behavior and to minimize the possible impact of bifurcation factors.

Keywords: Activity, Analysis, Behavior, Bibliometrics, Career, Catastrophe, Creativity, Cusp, Data, Faculty, Family, Family Medicine, Impact, Intervals, Long Term, Long-Term, Medicine, Modeling, Models, Needs, Nonlinear Dynamical Systems, Planning, Post-Tenure Productivity, Predictors, Productivity, Publication, Publications, Purpose, Rates, Research, Responsibility, Service, University

# Title: Nordic Journal of Psychiatry

Full Journal Title: [Nordic Journal of Psychiatry](http://weblinks1.epnet.com/authHjafDetail.asp?tb=1&_ua=bo+B%5F+db+pbhjnh+bt+ID++BB9+9615&_ug=sid+89E6E8AB%2D2D96%2D4D3D%2D8940%2D5EA257DCECD0%40sessionmgr2+dbs+pbh+4DED&_us=hd+True+sm+ES+4DBA&_uso=st%5B0+%2DID++BB9+tg%5B0+%2D+db%5B0+%2Dpbh+op%5B0+%2D+hd+Fa)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Miettunen, J., Nieminen, P. and Isohanni, M. (2002), Statistical methodology in general psychiatric journals. *Nordic Journal of Psychiatry*, **56** (3), 223-228.

Full Text: [N\Nor J Psy56, 223.pdf](N/Nor%20J%20Psy56,%20223.pdf)

Abstract: Development of psychiatric research methods requires systematic review of their status. This study describes the frequency with which various statistical research designs and methods are reported in general psychiatric journals. All original research articles in four psychiatric journals in 1996 were reviewed: *The American Journal of Psychiatry* (AJP), *The Archives of General Psychiatry* (AGP), *The British Journal of Psychiatry* (BJP) and the *Nordic Journal of Psychiatry* (NJP). Evaluation included 448 regular articles, which reported original research findings based on systematic collection and statistical analysis of research data. Aspects measured were research design, statistical methodology, description of procedures and presentation of results. Percentage frequencies of reported statistical procedures were compared between the journals. The policy of determining statistical significance was still the most generally used method of conducting research. Compared to earlier reviews, readers of psychiatric reports in 1996 more frequently encountered computer-dependent multivariate techniques. There were differences in the utilization and reporting of statistical procedures among the journals. The authors of psychiatric journals might apply these results in designing their psychiatric research to present intelligible and compact analysis combined with a high quality presentation technique, thus being in line with the policy and presentation of the leading psychiatric journals.

Keywords: Articles, Journals, Research, Methodology, Statistics

? Koskinen, J., Isohanni, M., Paajala, H., Jaaskelainen, E., Nieminen, P., Koponen, H., Tienari, P. and Miettunen, J. (2008), How to use bibliometric methods in evaluation of scientific research? An example from Finnish schizophrenia research. *Nordic Journal of Psychiatry*, **62** (2), 136-143.

Full Text: [2008\Nor J Psy62, 136.pdf](2008/Nor%20J%20Psy62,%20136.pdf)

Abstract: We present bibliometric methods that can be utilized in evaluation processes of scientific work. In this paper, we present some practical clues using Finnish schizophrenia research as an example and comparing the research output of different institutions. Bibliometric data and indicators including publication counts, impact factors and received citations were used as tools for evaluating research performance in Finnish schizophrenia research. The articles and citations were searched from the Web of Science database. We used schizophrenia as a keyword and defined address Finland, and limited years to 1996-2005. When we analysed Finnish schizophrenia research, altogether 265 articles met our criteria. There were differences in impact factors and received citations between institutions. The number of annually published Finnish schizophrenia articles has tripled since the mid-1990s. International co-operation was common (43%). Bibliometric methods revealed differences between institutions, indicating that the methods can be applied in research evaluation. The coverage of databases as well as the precision of their search engines can be seen as limitations. Bibliometric methods offer a practical and impartial way to estimate publication profiles of researchers and research groups. According to our experience, these methods can be used as an evaluation instrument in research together with other methods, such as expert opinions and panels.

Keywords: Bibliometric, Bibliometric Methods, Bibliometrics, Bipolar Disorder, Citations, Cooperation, Coverage, Criteria, Data, Database, Databases, Evaluation, Experience, Finland, Impact, Impact Factors, Indicators, Information Science, Institutions, Methods, Opinions, Performance, Precision, Profiles, Psychiatry, Publication, Publication Counts, Publications, Research, Research Evaluation, Research Performance, Schizophrenia, Scientific Research, Visibility, Web of Science, Work

? Makinen, J., Miettunen, J., Isohanni, M. and Koponen, H. (2008), Negative symptoms in schizophrenia: A review. *Nordic Journal of Psychiatry*, **62** (5), 334-341.

Full Text: 2008\Nor J Psy62, 334.pdf

Abstract: Negative symptoms refer to the weakening or lack of normal thoughts, emotions or behaviour in schizophrenia patients. Their prevalence in first-episode psychosis is high, 50-90%, and 20-40% of schizophrenia patients have persisting negative symptoms. Severe negative symptoms during the early stages of treatment predict poor prognosis. The aim of the study was to review the current literature on the negative symptoms of schizophrenia. In June 2007, the following databases were searched: Web of Science, PUBMED, PsycINFO, MEDLINE (Ovid) and Scopus. The search included articles written in English and no time limit was determined. The studies were manually screened by one of the authors according to the title and abstract. About one in three schizophrenia patients suffer from significant negative symptoms. In these patients, negative symptoms constitute a key element of overall symptoms, weakening their ability to cope with everyday activities, affecting their quality of life and their ability to manage without significant outside help. About one in three schizophrenia patients suffer from significant negative symptoms. Attention should be focused on negative symptoms during the early phase of treatment, because they cause significant impairment to patients’ quality of life. So far, no treatment appears to substantially improve negative symptoms narrowly defined. However, according to clinical experience, when treating negative symptoms, the best effect is achieved by optimizing the dose of medication and by complementing it with psychosocial therapies.

Keywords: 1st Episode, Activities, Antipsychotics, Attention, Authors, Databases, Deficit Syndrome, Disease, Emotions, Follow-Up, Literature, Medication, Negative Symptoms, Nondeficit Schizophrenia, Normal, Persistence, Prevalence, Prognosis, Psychosis, Psychosocial, Pubmed, Quality of Life, Review, Schizophrenia, Science, Scopus, Structural Abnormalities, Symptomatology, Symptoms, Syndrome Scale, Treatment, Web of Science

? Lohonen, J., Isohanni, M., Nieminen, P. and Miettunen, J. (2010), Coverage of the bibliographic databases in mental health research. *Nordic Journal of Psychiatry*, **64** (3), 181-188.

Full Text: 2010\Nor J Psy64, 181.pdf

Abstract: Background: Electronic bibliographic databases are important tools when searching for medical information. The selected databases have an important effect on the potential results achieved. Studies about comparison of databases provide useful information to help determine which databases or set of databases are useful for a particular topic. Aims: The aim of this study is to examine the coverage and overlap of three commonly used databases in mental health research. Methods: We performed systematic database searches on four topics (ADHD prevalence, schizotypal personality, brain MRI studies in schizophrenia, recovery in schizophrenia) in three databases (PUBMED, Web of Science and PsycINFO). We also studied the effect of publication year and language on database coverage. Results: PUBMED was the most comprehensive database in ADHD (85% coverage of total results of the three databases) and MRI studies (71%), whereas PsycINFO was most effective in recovery (62%) and schizotypal personality (72%). The most comprehensive combination of two databases found 77-94% of the articles on the different topics. Publication year and language affected the coverage in some cases. Conclusions: When choosing databases, the extent of coverage and topic should be taken into account, as there is no single database that covers all information needs. In the case of interdisciplinary topics, the Web of Science or PsycINFO should be considered; PsycINFO should be included especially on topics related to psychology. The use of several relevant bibliographic databases, including others than those used here, is recommended.</.

Keywords: Articles, Bibliographic, Bibliographic Databases, Brain, Comparison of Databases, Coverage, Databases, Embase, Information, Information Search, Literature Searches, Medical, Medline, Mental Health, Methods, MRI, Overlap, Prevalence, Publication, Pubmed, Rehabilitation, Research, Schizophrenia, Science, Scopus, Strategies, Systematic, Systematic Reviews, Topics, Web of Science

# Title: Nordic Pulp & Paper Research Journal

Full Journal Title: Nordic Pulp & Paper Research Journal

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Ribe, E., Lindblad, M.S., Dahlman, O. and Theliander, H. (2010), Xylan sorption kinetics at industrial conditions Part 1. Experimental results. *Nordic Pulp & Paper Research Journal*, **25** (2), 138-149.

Full Text: [2010\Nor Pul Pap Res J25, 138.pdf](2010/Nor%20Pul%20Pap%20Res%20J25,%20138.pdf)

Abstract: The sorption kinetics for birch black liquor xylan onto unbleached softwood kraft fibers at industrial relevant process conditions was investigated. The impact of process conditions on total sorption and rate was studied. It was found that an unbleached fiber can increase its weight up to 40% by sorption of xylan if process conditions are favorable and sufficient xylan is present in the liquor. A decrease in pH, an increase in temperature and an increase in ionic strength enhances both the initial sorption rate and the maximum sorption, as expected from the literature. Moreover, an increased xylan charge from 5 to 10 g/l increased sorption by about 20-30% on average. At the highest temperature tested some deviations from the expected results were obtained, which indicates that more than one mechanism affect sorption. Analysis of the surface carbohydrate composition suggests that xylan is preferably sorbed on the fiber surfaces. This is especially obvious at higher sorption temperatures. SEM pictographs of the cellulose fibers indicate that xylan sorbs as single xylan chains at 87 and 127 degrees C. In contrast, at 167 degrees C globular structures are observed on the fibers, which probably is clue to precipitation of globular xylan aggregates from the liquor.

Keywords: Hemicelluloses, Xylan, Yield, Sorption, Kinetics, Process Conditions, Softwood Kraft Pulp, Cellulose Fibres, Birch Xylan, Hemicelluloses, Adsorption, Surface, Glucuronoxylan, Arabinoxylan, Strength, Cooking

# Title: Nordisk Medicin

Full Journal Title: Nordisk Medicin

ISO Abbreviated Title:

JCR Abbreviated Title: Nord Med

ISSN: 0029-1420

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Rabow, L. and Rabow, I. (1998), Disk surgery--neurosurgery, orthopedic surgery or both? *Nordisk Medicin*, **113** (5), 157-158.

Abstract: Bibliometric methods have been used to study the distribution of research literature on disc surgery between neurological and orthopaedic departments globally and within each of the Nordic countries. Worldwide, the total number of indexed papers was found to be almost twice as great for neurosurgical as for orthopedic institutions. Though figures for the Nordic countries were lower, they manifested the same trend, except those for Sweden where orthopaedic surgeons appear to do more research than neurosurgeons in this field. Moreover, it was found that a greater proportion of neurosurgeons than orthopaedic surgeons had published papers in journals outside their own field (29 vs 9 per cent respectively), and that 14 per cent of the neurosurgical reports had been published in orthopedic journals, but none of the orthopedic reports had been published in neurosurgical journals. Finally, scrutiny of the reference literature cited in randomly selected samples of papers from neurosurgical and orthopedic departments showed 22 per cent of the references in neurosurgical papers to be to orthopaedic journals or textbooks, but only 4 per cent of those in orthopedic papers to be to neurosurgical texts. The possible implications of these findings are discussed in the article, as are the methodological sources of error.

Keywords: Distribution, Error, Field, Institutions, Journals, Literature, Methods, Neurological, Papers, Research, Sources, Surgery, Sweden, Textbooks, Trend

# Title: Nordisk Psykologi

Full Journal Title: Nordisk Psykologi

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Hjorland, B. (1981), Bibliometric analysis in psychology. *Nordisk Psykologi*, **33**, 176-190.

# Title: North Korean Review

Full Journal Title: [North Korean Review](http://www.mcfarlandpub.com/nkrback.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Kim, S.H. (2010), *North Korean Review* and Social Science Citation Index. *North Korean Review*, **6** (1), 3-5.

Full Text: Nor Kor Rev6, 3.pdf

Abstract: On October 12, 2009, Thomson Reuters announced the selection of North Korean Review (NKR) for inclusion in the prestigious Social Science Citation Index (SSCI), only four years after its 2005 inaugural issue. Thus, it is very worthwhile to contribute and subscribe to this cutting edge journal. Some of the papers published in the most recent issues are those presented at the joint conferences about North Korea for NKR by the Hanns Seidel Foundation, Seoul National University, and the Korea-America Economic Association.e.

Keywords: Citation, Journal, Korea, Review, Science, Science Citation Index, Social Science Citation Index, SSCI, Thomson Reuters, University

# Title: Notatki Ornitologiczne

Full Journal Title: Notatki Ornitologiczne

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Kopij, G. (2004), Status of ornithological studies in Poland and in the world on the threshold of the 21st century: A bibliometric analysis. *Notatki Ornitologiczne*, **45** (2), 109-114.

Abstract: Based on the Wildlife & Ecology Studies Worldwide, a bibliometric analysis of the ornithological literature for the years 1971-2000 devoted to birds breeding in Poland has been conducted. Number of publications for selected avian genera is given in Table 5.

Keywords: Analysis, Avian, Bibliometric, Bibliometric Analysis, Birds, Literature, Publications, Threshold, World

# Title: Notes

Full Journal Title: [Notes](http://www.jstor.org/loi/notes?group=1980-1989+%28Second+Series+Vols.+36-46%29)

ISO Abbreviated Title: Notes

JCR Abbreviated Title: Notes

ISSN: 0027-4380

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Keller, M.A. and Lawrence, C.A. (1980), Music literature indexes in review: RILM Abstracts (On-Line) and the Arts and Humanities Citation, Music Therapy, Music Psychology, and Recording Industry Indexes. *Notes*, **36** (3), 575-600.

Full Text: [1960-80\Notes36, 575.pdf](1960-80/Notes36,%20575.pdf)

? Keller, M.A. and Lawrence, C.A. (1980), Response to letter from Arts and Humanities Citation Index. *Notes*, **37** (2), 455-456.

Full Text: [1960-80\Notes37, 455.pdf](1960-80/Notes37,%20455.pdf)

# Title: Notes and Queries

Full Journal Title: Notes and Queries

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0029-3970

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Griffin, C.O. (1993), MED and OED definitions of bane: Errors in placement of towneley manuscript quotation. *Notes and Queries*, **40** (4), 451.

Full Text: [1993\Not Que40, 451.pdf](1993/Not%20Que40,%20451.pdf)

? Guy, J.M. (2005), Oscar Wilde’s ‘self-plagiarism’: Some new manuscript evidence. *Notes and Queries*, **52** (4), 485-488.

Full Text: [2005\Not Que52, 485.pdf](2005/Not%20Que52,%20485.pdf)

Keywords: Self-Plagiarism

# Title: Notes and Records of the Royal Society

Full Journal Title: [Notes and Records of the Royal Society](http://rsnr.royalsocietypublishing.org/content/by/year)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Wardhaugh, B. (2009), Mathematics in English printed books, 1473-1800: A bibliometric analysis. *Notes and Records of the Royal Society*, **63** (4), 325-338.

Full Text: [2009\Not Rec Roy Soc63, 325.pdf](2009/Not%20Rec%20Roy%20Soc63,%20325.pdf)

Abstract: This essay represents a first attempt to make sense of the mass of early modern English publications that deal with or refer to mathematics, using a bibliometric approach made possible by the new electronic databases: Early English books online and Eighteenth-century collections online. I present statistical information about references to mathematics in this corpus of books, perform some statistical analysis of the trends that the data show, comment on the methodological problems raised, and assess what these results do and do not tell us about early modern English discussion of mathematics.

Keywords: Bibliometrics, Books, ESTC, Mathematics, Short-Title Catalog, STC

# Title: Notes and Records of the Royal Society of London

Full Journal Title: Notes and Records of the Royal Society of London

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Corden, J. (2002), ‘Web of Science History’ project (Royal Society, database). *Notes and Records of the Royal Society of London*, **56** (3), 383-388.

Full Text: [2002\Not Rec Roy Soc Lon56, 383.pdf](2002/Not%20Rec%20Roy%20Soc%20Lon56,%20383.pdf)

Abstract: In 2001 the Heritage Lottery Fund awarded pound 43 000 to the ‘Web of Science History’ project, which was put together by a consortium specializing in science and technology, in which The Royal Society was the lead bidder. The project was completed in March 2002. This exciting project provides, for the first time, a unified, standardized, guide to some of the most important scientific archives in the UK: 27 453 pages of existing paper catalogues from 310 collections held by the partner institutions, such as the catalogue of the papers of Dorothy Hodgkin, Nobel laureate for science (Chemistry, 1964), have been converted into electronic format and are available on the ‘Access to Archives’ central database, part of the new English virtual catalogue established and hosted by the Public Record Office at Kew.

Keywords: Chemistry, Heritage, History, Lead, Papers, Science, Science and Technology, UK, Web of Science

# Title: Notes and Review Papers

Full Journal Title: Notes and Review Papers

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Sohn, D.K., Lee, J.N., Kang, S.W. and Ahn, B.T. (1996), Low-temperature crystallization of amorphous Si films by metal adsorption and diffusion, *Notes and Review Papers*. **35** (2B), 1005-1009.

Abstract: We developed a new process for low-temperature crystallization of amorphous Si films, by adsorbing metal ions on the films. Amorphous Si films were deposited by low-pressure chemical vapor deposition, spin-coated by metalsolutions and subsequently annealed in Ar atmosphere. The amorphous Si films coated with Cuand Au from 1000 ppm solutions almost completely crystallized at 530°C after 20 h. The fractal size of the Cu-adsorbed Si films was 30-50 µm at 530°C within 10 h. The application of Ag, Zn, Fe, Cr and Al solutions did not enhance crystallization of amorphous Si films. The enhancement of low-temperature crystallization by Cuand Au adsorption was deduced from the electronegativity, eutectic temperature and diffusion length. Secondary ion mass spectroscopy analysis indicated that the adsorbed Cuinduced crystallization of amorphous Si films. The field-effect mobility of polycrystalline silicon thin-film transistors fabricated using the annealed Si films with Cuadsorption was 6-10 cm2/V.s before hydrogen passivation.

? Miyamura, T., Yoshida, O., Endo, K., Ishikawa, A. and Kitaori, N. (1998), Effect of surface treatments on adsorption and tribology of thediamond-like-carbon layer for metal-evaporated tape, *Notes and Review Papers*. **37** (11), 6153-6156.

Abstract: Metal-evaporated (ME) tape presents greater problems for smooth tracking and has poor durability than metal-particulate (MP) tape; a diamond-like-carbon (DLC) layer and a lubricant layer were used to cover the magnetic layer to overcome these problems. The surface state of the DLC protective layer must be controlled to enable the adsorption of fluorine of the lubricant. We investigated the surface state of the DLC protective layer using three types of surface treatments-aqua dipping, N-2 plasma treatment, and a combination of the two-to study the change in lubricant adsorption. We found that N-2 plasma treatment provided the most favorable surface for the realizaton of optimal ME tape properties.

# Title: Nova Biotechnologica

Full Journal Title: [Nova Biotechnologica](http://fpv.ucm.sk/katedry/biotechnolog/WEB_KBt_AJ/journal_nova_biotechnologica_eng.html)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Vrtoch, L’. and Augustín, J. (2009), Linear and non-linear regression analysis for the biosorption kinetics of Methylene blue. *Nova Biotechnologica*, **9** (2), 199-204.

Full Text: [2009\Nov Bio9, 199.pdf](2009/Nov%20Bio9,%20199.pdf)

Abstract: The nonviable biomass of Rhizopus sp. R-18, Penicillium candidum and Penicillium chrysogenum was studied for biosorption of methylene blue (MB). The sorption of MB was studied be performing batch kinetic experiments. Kinetic measurements showed that sorption of MB reached equilibrium in 4 hours. The batch sorption models, based on a pseudo-first, pseudo-second and pseudo-nth order were applied to predict the rate constant of sorption and the equilibrium capacity. The linear and nonlinear least-square methods were used to obtain the kinetic parameters. The best-fit model was identified using statistic analysis. The results showed that both linear and nonlinear form of pseudo- second order expression could be used to fit the experimental data but nonlinear method may be a better way to obtain the desired parameters. As well the pseudo n-th order kinetic model was successfully applied to the kinetic data. The order (n) of adsorption reaction was found for all employed biosorbents: for Rhizopus sp. R-18 it had value 3.1, P. candidum 3.0 and P. chrysogenum 3.8.

Keywords: Biosorption, Kinetics, Methylene Blue, Regression Analysis, Fungi

# Title: Nuclear Engineering International

Full Journal Title: Nuclear Engineering International

ISO Abbreviated Title: Nucl. Eng. Int.

JCR Abbreviated Title: Nucl Eng Int

ISSN: 0029-5507

Issues/Year: 12

Journal Country/Territory: England

Language: English

Publisher: Reed Business Information Ltd

Publisher Address: Quadrant House The Quadrant, Sutton, Surrey, England SM2 5AS

Subject Categories:

Nuclear Science & Technology: Impact Factor

? Hetzler, F. and Faurholdt, B. (1991), Meeting new standards with the studsvik incinerator. *Nuclear Engineering International*, **36** (443), 58.

# Title: Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms

Full Journal Title: [Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5315&_auth=y&_acct=C000053193&_version=1&_urlVersion=0&_userid=1495547&md5=e879354534478a33783d682cba759abf)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0168-583X

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Watterson, J.I.W. (1988), Elemental analysis by IBA and NAA — A critical comparison. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, **35** (3-4), 370-377.

Full Text: [1988\Nuc Ins Met Phy Res Sec B35, 370.pdf](1988/Nuc%20Ins%20Met%20Phy%20Res%20Sec%20B35,%20370.pdf)

Abstract: In this review neutron activation analysis (NAA) and ion beam analysis (IBA) have been compared in the context of the entire field of analytical science using the discipline of scientometrics, as developed by Braun and Lyon. This perspective on the relative achievements of the two methods is modified by considering and comparing their particular attributes and characteristics, particularly in relation to their differing degree of maturity. This assessment shows that NAA, as the more mature method, is the most widely applied nuclear technique, but the special capabilities of IBA give it the ability to provide information about surface composition and elemental distribution that is unique, while it is still relatively immature and it is not yet possible to define its ultimate role with any confidence.

? Yadav, N.N., Maheswaran, S., Shutthanandan, V., Thevuthasan, S., Ngo, H.H. and Vigneswaran, S. (2006), Quantification of arsenic in activated carbon using particle induced X-ray emission. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, **251** (1), 191-196.

Full Text: [2006\Nuc Ins Met Phy Res Sec B251, 191.pdf](2006/Nuc%20Ins%20Met%20Phy%20Res%20Sec%20B251,%20191.pdf)

Abstract: To date, the trace elemental analysis of solids with inhomogencous internal structure has been limited, particularly in the case of adsorbents. High-energy ion beam based particle induced X-ray emission (PIXE) is an ideal analytical too] suitable for simultaneous quantification of trace elements with high accuracy. In this study, PIXE was used to quantify arsenic in the adsorbents, granular activated carbon (GAC) and powder activated carbon (PAC). Pelletized and unmodified GAC and PAC samples were analyzed along with powder samples deposited on thin teflon filters. These sample preparation methods resulted in samples of various thicknesses and densities. PIXE measurements taken from these samples were compared to results from neutron activation analysis (NAA) and atomic absorption spectroscopy (AAS). There is a good agreement between the values from the NAA and pelletized PIXE measurements and some AAS measurements. (c) 2006 Elsevier B.V. All rights reserved.

Keywords: PIXE, Activated Carbon, NAA, AAS, Pelletization, PIXE, Samples

? Espinoza-Quinoñes, F.R., Rizzutto, M.A., Added, N., Tabacniks, M.H., Módenes, A.N., Palácio, S.M., Silva, E.A., Rossi, F.L., Martin, N. and Szymanski, N. (2009), PIXE analysis of chromium phytoaccumulation by the aquatic macrophytes Eicchornia crassipes. *Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms*, **267** (7), 1153-1157.

Full Text: [2009\Nuc Ins Met Phy Res Sec B-Bea Int Mat Ato267, 1153.pdf](2009/Nuc%20Ins%20Met%20Phy%20Res%20Sec%20B-Bea%20Int%20Mat%20Ato267,%201153.pdf)

Abstract: The uptake of hexavalent chromium in free living floating aquatic macrophytes Eicchornia crassipes cultivated in non-toxic chromium-doped hydroponic solutions is presented. A Cr-uptake bioaccumulation experiment was carried out using healthy macrophytes grown in a temperature controlled greenhouse. Six samples of nutrient media and plants were collected during the 23 day experiment. Roots and leaves were acid digested with the addition of an internal Gallium standard, for thin film sample preparation and quantitative Cr analysis by PIXE method. The Cr6+ mass uptake by the macrophytes reached up to 70% of the initial concentration, comparable to former results and literature data. The Cr-uptake data were described using a non-structural first order kinetic model. Due to low cost and high removal efficiency, living aquatic macrophytes E. crassipes are a viable biosorbent in an artificial wetland of a water effluent treatment plant. (c) 2009 Elsevier B.V. All rights reserved.

Keywords: Aquatic Macrophytes, Bioaccumulation, Biosorption, Cadmium, Chromium, Heavy-Metals, Hydroponic Medium, Ions, Kinetic Model, Pixe Technique, Plants, Removal, Samples, Scale, Uptake, Waste-Water Treatment

# Title: Nuclear Physics B

Full Journal Title: Nuclear Physics B

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Notes: highly cited

? Shifman, M.A., Vainshtein, A.I. and Zakharov, V.I. (1979), QCD and resonance physics - Theoretical foundations. *Nuclear Physics B*, **147** (5), 385-447.

Full Text: [1960-80\Nuc Phy B147, 385.pdf](1960-80/Nuc%20Phy%20B147,%20385.pdf)

Abstract: A systematic study is made of the non-perturbative effects in quantum chromodynamics. The basic object is the two-point functions of various currents. At large Euclidean momenta q the non-perturbative contributions induce a series in (μ2/q2) where μ is some typical hadronic mass. The terms of this series are shown to be of two distinct types. The first few of them are connected with vacuum fluctuations of large size, and can be consistently accounted for within the Wilson operator expansion. On the other hand, in high orders small-size fluctuations show up and the high-order terms do not reduce (generally speaking) to the vacuum-to-vacuum matrix elements of local operators. This signals the breakdown of the operator expansion. The corresponding critical dimension is found. We propose a Borel improvement of the power series. On one hand, it makes the two-point functions less sensitive to high-order terms, and on the other hand, it transforms the standard dispersion representation into a certain integral representation with exponential weight functions. As a result we obtain a set of the sum rules for the observable spectral densities which correlate the resonance properties to a few vacuum-to-vacuum matrix elements. As the last bid to specify the sum rules we estimate the matrix elements involved and elaborate several techniques for this purpose.

Notes: highly cited

? Shifman, M.A., Vainshtein, A.I. and Zakharov, V.I. (1979), QCD and resonance physics - Applications. *Nuclear Physics B*, **147** (5), 448-518.

Full Text: [1960-80\Nuc Phy B147, 448.pdf](1960-80/Nuc%20Phy%20B147,%20448.pdf)

Abstract: Resonance properties are investigated within the QCD-based approach to resonance physics developed earlier. We extend first the dispersion charmonium theory to include power terms due to the non-perturbative effects of QCD. As a byproduct, an estimate for the gluonic vacuum expectation value, 0|GμνaGμνa|0, emerges. The main emphasis is made on the analysis of the , ω, , K\* mesons. Predictions are formulated for integrals of the type ∫ Im Π e−s/M2 ds where Im Π is aan appropriate spectral density. It is shown that there exist such M2 that the integrals are dominated by a single resonance, on one hand, and are calculable in a reliable way, on the other. As a result we are able to calculate the resonance coupling constants and masses. The typical accuracy achieved is about 10%. The power terms considered explain both the π--A1 mass splittings and the observed pattern of the SU(3) symmetry breaking in the vector nonet. We discuss, also, the relation between our approach and more traditional ones. A few original remarks concerning the MIT bag model, instanton calculus, etc. are included.

Notes: highly cited

? Shifman, M.A., Vainshtein, A.I. and Zakharov, V.I. (1979), QCD and resonance physics: The ρ-ω mixing. *Nuclear Physics B*, **147** (5), 519-534.

Full Text: [1960-80\Nuc Phy B147, 519.pdf](1960-80/Nuc%20Phy%20B147,%20519.pdf)

Abstract: The QCD-based approach to the resonance physics proposed earlier is extended to cover the -ω mixing problem. We consider a two-point function relevant to the problem taking account of non-perturbative contributions. It is shown that virtual photon exchanges alone cannot explain the observed value of the mixing parameter. The phenomenon gets a natural explanation if one assumes a large isotopic symmetry violation in the mechanical quark masses, (md − mu)/(md + mu) 0.3. This number is close to that resulting from the well-known pseudoscalar meson analysis. Unlike the latter, however, our result does not assume an exact SU(3)flavor symmetry in vacuum-to-vacuum matrix elements.

Notes: highly cited

? Belavin, A.A., Polyakov, A.M. and Zamolodchikov, A.B. (1984), Infinite conformal symmetry in two-dimensional quantum-field theory. *Nuclear Physics B*, **241** (2), 333-380.

Full Text: [1984\Nuc Phy B241, 333.pdf](1984/Nuc%20Phy%20B241,%20333.pdf)

Abstract: We present an investigation of the massless, two-dimensional, interacting field theories Their basic property is their invanance under an lnfimte-dlmenslonal group of conformal (analytic) transformations It is shown that the local fields forlmng the operator algebra can be classified according to the irreducible representations of Vtrasoro algebra, and that the correlation functions are bmlt up of the “conformal blocks” which are completely determmed by the conformal mvanance Exactly solvable conformal theones associated with the degenerate representations are analyzed In these theories the anomalous dimensions are known exactly and the correlation functions satisfy the systems of hnear differential equations.

# Title: Nuclear Safety

? Murphy, G.A. (1994), Electrical transient following the Los Angeles earthquake on January 17, 1994. *Nuclear Safety*, **35** (1), 153-157.

# Title: Nuclear Technology

Full Journal Title: Nuclear Technology

ISO Abbreviated Title: Nucl. Technol.

JCR Abbreviated Title: Nucl Technol

ISSN: 0029-5450

Issues/Year: 12

Journal Country/Territory: United States

Language: English

Publisher: Amer Nuclear Society

Publisher Address: 555 N Kensington Avenue, LA Grange PK, IL 60525

Subject Categories:

Nuclear Science & Technology: Impact Factor

? Brown, E.V., Gray, L.W. and Tedder, D.W. (1990), An incinerator ash dissolution model for the system: Plutonium oxide, nitric and hydrofluoric acids. *Nuclear Technology*, **89** (3), 328-340.

# Title: Nucleic Acids Research

Full Journal Title: [Nucleic Acids Research](http://nar.oxfordjournals.org/)

ISO Abbreviated Title: Nucleic Acids Res.

JCR Abbreviated Title: Nucleic Acids Res

ISSN: 0305-1048

Issues/Year: 24

Journal Country/Territory: English

Language: England

Publisher: Oxford Univ Press

Publisher Address: Great Clarendon St, Oxford OX2 6DP, England

Subject Categories:

Biochemistry & Molecular Biology: Impact Factor 7.260, 2/261

Emmert, D.B., Stoehr, P.J., Stoesser, G. and Cameron, G.N. (1994), The European-Bioinformatics-Institute (EBI) Databases. *Nucleic Acids Research*, **22** (17), 3445-3449.

Full Text: [N\Nuc Aci Res22, 3445.pdf](N/Nuc%20Aci%20Res22,%203445.pdf)

Abstract: This paper describes the databases and services of the European Bioinformatics Institute (EBI). In collaboration with DDBJ and GenBank/NCBI, the EBI maintains and distributes the EMBL Nucleotide Sequence Database, Europe’s primary nucleotide sequence data resource. The EBI also maintains and distributes the SWISS-PROT Protein Sequence Database, in collaboration with Amos Bairoch of the University of Geneva. Over thirty additional specialist molecular biology databases, as well as software and documentation of interestto molecular biologists, are also available. The EBI network services include database searching, entry retrieval, and sequence similarity searching facilities.

Keywords: Data-Bank, RNA Sequences, Compilation, DNA, Proteins, Library, Genbank, Program, Update, File

Notes: The most cited 18032 times 08/04/06

? Thompson, J.D., Higgins, D.G. and Gibson, T.J. (1994), CLUSTAL W: Improving the sensitivity of progressive multiple sequence alignment through sequence weighting, position-specific gap penalties and weight matrix choice. *Nucleic Acids Research*, **22** (22), 4673-4680.

Full Text: [1994\Nuc Aci Res22, 4673.pdf](1994/Nuc%20Aci%20Res22,%204673.pdf)

Abstract: The sensitivity of the commonly used progressive multiple sequence alignment method has been greatly improved for the alignment of divergent protein sequences, Firstly, individual weights are assigned to each sequence in a partial alignment in order to down-weight near-duplicate sequences and up-weight the most divergent ones. Secondly, amino acid substitution matrices are varied at different alignment stages according to the divergence of the sequences to be aligned. Thirdly, residue-specific gap penalties and locally reduced gap penalties in hydrophilic regions encourage new gaps in potential loop regions rather than regular secondary structure. Fourthly, positions in early alignments where gaps have been opened receive locally reduced gap penalties to encourage the opening up of new gap at these positions. These modifications are incorporated into a new program, CLUSTAL W which is freely available.

Keywords: Secondary Structure, Phylogenetic Trees, Crystal-Structure, SH3 Domain, Microcomputer, Strategy, Features, Search, Space

? Lawrence, C.J., Schaeffer, M.L., Seigfried, T.E., Campbell, D.A. and Harper, L.C. (2007), MaizeGDB’s new data types, resources and activities. *Nucleic Acids Research*, **35**), D895-D900.

Abstract: MaizeGDB is the Maize Genetics and Genomics Database. Available at MaizeGDB are diverse data that support maize research including maps, gene product information, loci and their various alleles, phenotypes (both naturally occurring and as a result of directed mutagenesis), stocks, sequences, molecular markers, references and contact information for maize researchers worldwide. Also available through MaizeGDB are various community support service bulletin boards including the Editorial Board’s list of high-impact papers, information about the Annual Maize Genetics Conference and the Jobs board where employment opportunities are posted. Reported here are data updates, improvements to interfaces and changes to standard operating procedures that have been made during the past 2 years. MaizeGDB is freely available and can be accessed online at http://www.maizegdb.org.

Keywords: Genomics, Loci, Maize, Maps, Plants, References, Research, Standard

# Title: Nuovo Cimento

Full Journal Title: Nuovo Cimento

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mior, A. (1899), Hydrogen and platinum. *Nuovo Cimento*, **9**, 67-76.

Abstract: Platinum goes on absorbing hydrogen up to about 8.4 times its volume, the process taking, say, eight months at ordinary temperatures, but being accelerated by warming the metal. When it has taken up this maximum, warming the metal will not induce it to take up any more.

Keywords: Hydrogen, Metal, Platinum

Notes: highly cited

? Lee, T.D. and Yang, C.N. (1956), Charge conjugation, a new quantum number-g, and selection rules concerning a nucleon-antinucleon system. *Nuovo Cimento*, **3** (4), 749-753.

# Title: Nuovo Cimento Della Societa Italiana di Fisica C-Geophysics and Space Physics

Full Journal Title: Nuovo Cimento Della Societa Italiana di Fisica C-Geophysics and Space Physics

ISO Abbreviated Title: Nuovo Cimento Soc. Ital. Fis. C-Geophys. Space Phys.

JCR Abbreviated Title: Nuovo Cimento C

ISSN: 0390-5551

Issues/Year: 6

Journal Country/Territory: Italy

Language: Multi-Language

Publisher: Editrice Compositori Bologna

Publisher Address: Via Stalingrado 97/2, I-40128 Bologna, Italy

Subject Categories:

Astronomy & Astrophysics: Impact Factor

Geochemistry & Geophysics: Impact Factor 0.221, 41/45 (2000)

? Woith, H., Milkereit, C., Maiwald, U. and Pekdeger, A. (1999), Physico-chemical behaviour of underground waters after the October 1, 1995 Dinar earthquake, SW Turkey. *Nuovo Cimento Della Societa Italiana di Fisica C-Geophysics and Space Physics*, **22** (3-4), 387-391.

Abstract: On the evening of October 1, 1995, a MS = 6.1 earthquake destroyed the city of Dinar, SW Turkey. Within 48 hours after the main shock, a team of the German Earthquake Task Force arrived in the area to investigate possible earthquake-related changes in the physico-chemical composition of shallow and deep groundwaters. A mapping was pet-formed to characterise different groundwater types and a continuously monitoring station was installed within the geothermal field of Afyon. Repeated measurements, performed 1, 6, 12 and 18 months after the event, reveal post-seismic changes in water discharge, water temperature, and conductivity. We will focus on the changes of spring water discharge observed in the vicinity of the epicentre. In the first month after the earthquake the groundwater discharge increased at springs located within the down-thrown block, whereas a slight decrease was observed at sites on the hanging wall.

# Title: Nurse Author and Editor

Full Journal Title: Nurse Author and Editor

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Kirchhoff, K.T. (1999), Ensuring accurate references. *Nurse Author and Editor*, 5, 1-3.

# Title: Nurse Education Today

Full Journal Title: [Nurse Education Today](http://sdos.ejournal.ascc.net/cgi-bin/sciserv.pl?collection=journals&journal=02606917)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Dornik, E., Vidmar, G. and Žumer, M. (2005), Nursing education in Slovenia and its impact on nurses publishing in their professional journal. *Nurse Education Today*, 25 (3), 197-203.

Full Text: [N\Nur Edu Tod25, 19.pdf](N/Nur%20Edu%20Tod25,%2019.pdf)

Abstract: The paper describes development of nursing education in Slovenia (from Associate Degree to Diploma level, with BSN programme of brief duration) and discusses its impact on structure and contents of the Journal of the Slovenian Nursing Association (JSNA). Extensive bibliometric analysis was performed on all scientific and technical papers published in the JSNA between 1976 and 2001. Statistical analyses were carried out to study characteristics and inter-relations of authorship, article type, cited references and subject classification. A positive impact of improved and extended education of nurses on quantity and quality of their publications was confirmed. Nevertheless, further steps in terms of education and research are needed fully to establish nursing as an independent profession in Slovenia, and there is still much room for improving the standard of the articles in the JSNA.

Keywords: Bibliometric, Bibliometric Analysis, Bibliometrics, Development, Journal, Nursing Education, Periodicals, Publications, Research, Slovenia

? Crookes, P.A., Reis, S.L. and Jones, S.C. (2010), The development of a ranking tool for refereed journals in which nursing and midwifery researchers publish their work. *Nurse Education Today*, **30** (5), 420-427.

Full Text: [2010\Nur Edu Tod30, 420.pdf](2010/Nur%20Edu%20Tod30,%20420.pdf)

Abstract: Publication in quality journals has long been a yardstick for measuring academic performance, although there is a divergence of opinions as to how to define and measure “journal quality”. For some time the primary tools for assessing journal quality have been the ISI journal Citation Reports and the Journal Impact Factors (JIFs), although it has been argued that these are less appropriate for practical disciplines such as nursing midwifery. In order to accurately reflect the nature of nursing and midwifery as a discipline, given the inherent flaws of using just one indicator of journal quality to assess performance overall, this project was designed to develop a tool which combined both objective and subjective methods to produce a ranking system which is specifically relevant to the disciplines of nursing and midwifery. This project succeeded in developing the Journal Evaluation Tool (JET), through extensive consultations with experts in the fields of nursing and midwifery. This tool may overcome some problems associated with the sole use of the journal impact factor, and may be utilised as an alternative measure of journal quality. The new tool was tested using a sample of 52 responding journals; and has now been disseminated to nursing and midwifery bodies in Australia and New Zealand, along with instructions for its use and recommendations for future research. (C) 2009 Elsevier Ltd. All rights reserved.

Keywords: Bibliometrics, Business, Citation Analysis, Impact Factors, Information Science, Management, Quality, Research, Research Measurement, Research Personnel

? Ball, E., McLoughlin, M. and Darvill, A. (2011), Plethora or paucity: A systematic search and bibliometric study of the application and design of qualitative methods in nursing research 2008-2010. *Nurse Education Today*, **31** (3), 299-303.

Full Text: [2011\Nur Edu Tod31, 299.pdf](2011/Nur%20Edu%20Tod31,%20299.pdf)

Abstract: Qualitative methodology has increased in application and acceptability in all research disciplines. In nursing, it is appropriate that a plethora of qualitative methods can be found as nurses pose real-world questions to clinical, cultural and ethical issues of patient care (Johnson, 2007: Long and Johnson, 2007), yet the methods nurses readily use in pursuit of answers remains under intense scrutiny. One of the problems with qualitative methodology for nursing research is its place in the hierarchy of evidence (HOE); another is its comparison to the positivist constructs of what constitutes good research and the measurement of qualitative research against this. In order to position and strengthen its evidence base, nursing may well seek to distance itself from a qualitative perspective and utilise methods at the top of the HOE; yet given the relation of qualitative methods to nursing this would constrain rather than broaden the profession in search of answers and an evidence base. The comparison between qualitative and quantitative can be both mutually exclusive and rhetorical, by shifting the comparison this study takes a more reflexive position and critically appraises qualitative methods against the standards set by qualitative researchers. By comparing the design and application of qualitative methods in nursing over a two year period, the study examined how qualitative stands up to independent rather than comparative scrutiny. For the methods, a four-step mixed methods approach newly constructed by the first author was used to define the scope of the research question and develop inclusion criteria. 2. Synthesis tables were constructed to organise data, 3. Bibliometrics configured data. 4. Studies selected for inclusion in the review were critically appraised using a critical interpretive synthesis (Dixon-Woods et al., 2006). The paper outlines the research process as well as findings. Results showed of the 240 papers analysed, 27% used ad hoc or no references to qualitative; methodological terms such as thematic analysis or constant comparative methods were used inconsistently; qualitative was a catch-all panacea rather than a methodology with well-argued terms or contextual definition. (c) 2010 Elsevier Ltd. All rights reserved.

Keywords: Acceptability, Analysis, Application, Approach, Bibliometric, Bibliometric Study, Bibliometrics, Care, Clinical, Comparison, Constructed, Criteria, Cultural, Data, Design, Ethical, Ethical Issues, Evidence, First, Measurement, Methodology, Methods, New Four Step Methodological Approach, Nurses, Nursing, Papers, Patient Care, Profession, Qualitative, Qualitative Methods, Qualitative Methods And Analysis, Qualitative Research, References, Research, Review, Rights, Scope, SI, Standards, Synthesis

# Title: Nursing Ethics

Full Journal Title: [Nursing Ethics](http://nej.sagepub.com/archive/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Tschudin, V. (2006), How nursing ethics as a subject changes: An analysis of the first 11 years of publication of the journal *Nursing Ethics*. *Nursing Ethics*, **13** (1), 65-85.

Full Text: [2006\Nur Eth13, 65.pdf](2006/Nur%20Eth13,%2065.pdf)

Abstract: By analysing the first, second, 10th and 11th years of publication (i.e. volumes 1, 2, 10, 11) of Nursing Ethics, I will show the significant visible trends in the articles and draw some conclusions. The trends are visible at various levels: from simple analysis of an issue, or a comment on a situation in the early years, to in-depth philosophical and research studies; and from short statements to much longer articles. The ethical approaches used go from either none or unquestioned assumptions to several approaches used in any one study. This corresponds to the general postmodern trend in society. The interpretation made of these trends is of a kind of protest at nurses and nursing being devalued. Although this is expressed negatively, the positive message conveyed is that nurses are now taking their professional life into their own hands, vigorously and more daringly than a decade ago.

Keywords: Analysis, Assumptions, Changes, Ethical, Ethics, First, General, Life, Nurses, Nursing, Nursing Ethics, Publication, Research, Society, Trend, Trends

? Broome, M., Dougherty, M.C., Freda, M.C., Kearney, M.H. and Baggs, J.G. (2010), Ethical concerns of nursing reviewers: An international survey. *Nursing Ethics*, **17** (6), 741-748.

Full Text: [2010\Nur Eth17, 741.pdf](2010/Nur%20Eth17,%20741.pdf)

Abstract: Editors of scientific literature rely heavily on peer reviewers to evaluate the integrity of research conduct and validity of findings in manuscript submissions. The purpose of this study was to describe the ethical concerns of reviewers of nursing journals. This descriptive cross-sectional study was an anonymous online survey. The findings reported here were part of a larger investigation of experiences of reviewers. Fifty-two editors of nursing journals (six outside the USA) agreed to invite their review panels to participate. A 69-item forced-choice and open-ended survey developed by the authors based on the literature was pilot tested with 18 reviewers before being entered into SurveyMonkey (TM). A total of 1675 reviewers responded with useable surveys. Six questions elicited responses about ethical issues, such as conflict of interest, protection of human research participants, plagiarism, duplicate publication, misrepresentation of data and ‘other’. The reviewers indicated whether they had experienced such a concern and notified the editor, and how satisfied they were with the outcome. They provided specific examples. Approximately 20% of the reviewers had experienced various ethical dilemmas. Although the majority reported their concerns to the editor, not all did so, and not all were satisfied with the outcomes. The most commonly reported concern perceived was inadequate protection of human participants. The least common was plagiarism, but this was most often reported to the editor and least often led to a satisfactory outcome. Qualitative responses at the end of the survey indicate this lack of satisfaction was most commonly related to feedback provided on resolution by the editor. The findings from this study suggest several areas that editors should note, including follow up with reviewers when they identify ethical concerns about a manuscript.

Keywords: Authors, Conflict Of Interest, Duplicate Publication, Ethical Concerns, Feedback, Journals, Literature, Nursing Journals, Online Survey, Outcomes, Peer Reviewers, Peer Reviewers, Plagiarism, Publication, Research, Review, Survey

# Title: Nursing & Health Sciences

Full Journal Title: Nursing & Health Sciences

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Smith, D.R. and Hazelton, M. (2008), Bibliometrics, citation indexing, and the journals of nursing. *Nursing & Health Sciences*, **10** (4), 260-265.

Full Text: [2008\Nur Hea Sci10, 260.pdf](2008/Nur%20Hea%20Sci10,%20260.pdf)

Abstract: Bibliometric research has risen in popularity during recent years and an increasing number of investigations now have examined the nursing literature. Our article provides a comprehensive overview of citation-based research in the nursing profession, as well as a discussion of bibliometrics, journal impact factors, and international publishing trends. The debate on evidence-based practice and its potential influence and relevance for nursing scholars is also covered. Although journal performance indicators are, no doubt, important for the contemporary nursing academic, it is the core research skills and attributes that nursing scholars, academics, and educators will need to consider more carefully in future if the next generation of professional nurse researchers is to truly flourish.

Keywords: Allied Health, Bibliometric, Bibliometrics, Citation, Citation Indexing, Core, Education, Epistemic Origins, Evolution, Impact, Impact Factors, Impact Factors, Indexing, Indicators, Journal Impact, Journal Impact Factors, Journals, Literature, Models, Nurses, Nursing Literature, Nursing Research, Performance Indicators, Professional, Publishing, Research, Rethinking, Science, Trends

? Smith, D.R. and Hazelton, M. (2011), Bibliometric awareness in nursing scholarship: Can we afford to ignore it any longer? *Nursing & Health Sciences*, **13** (4), 384-387.

Full Text: [2011\Nur Hea Sci13, 384.pdf](2011/Nur%20Hea%20Sci13,%20384.pdf)

Abstract: In contemporary nursing academia, it is unthinkable that topics such as research methods, evidence-based practice, and the translation of research into practice would be omitted from nursing curricula at any level. What is surprising, however, is that despite a broad educational emphasis on teaching research, the rising importance of bibliometrics appears to have been largely neglected. If nursing scholarship and nursing scholars are to prosper in the highly competitive field of modern health research, a sophisticated understanding of citation-based methods is clearly required. Armed with this knowledge, one can more successfully argue why scarce research funding, that might otherwise be channeled elsewhere, ought to be assigned to nursing researchers. We hereby urge readers to reflect on the extent to which bibliometrics is covered within formal nursing curricula at their college or university. It is no longer a case of if a graduate nurse will need this skill set for their future professional development, but when.

Keywords: Awareness, Bibliometric, Bibliometrics, Citation Analysis, Citation Analysis, Core Journals, Development, Evidence-Based Practice, Factor Trends, Funding, Graduate, Health, Journal Impact Factors, Knowledge, Nursing, Nursing Scholarship, Occupational-Health, Practice, Professional, Publication, Research, Researchers, Scholarship, Set, Teaching, Topics, Translation, University, Urge

# Title: Nurse Pract

(Nurse. Pract.)

? Keen, M.F. and Bujalski, L. (1992), The diagnosis and treatment of cholera. *Nurse Pract*, **17** (12), 53-56.

Abstract: Cholera is a diarrheal disease that results from colonization of the small intestine by the *Vibrio cholerae* organism. The disease is spread primarily by means of fecal contamination of drinking water and may begin with the sudden onset of profuse, watery diarrhea. Vomiting, rapid dehydration, acidosis, muscular cramps and circulatory collapse are other prominent features of severe cholera. Diagnosis is confirmed by identification of the organism in a stool specimen. Treatment requires immediate replacement of the massive fluid loss before diagnostic studies are ordered. Clinicians should suspect cholera in any case of massive, shock-producing diarrhea, especially if the patient has traveled to a cholera-affected country. This article presents epidemiology and public-health measures, pathophysiology, diagnosis, clinical signs and symptoms, and treatment modalities for adults and children infected with the *V. cholerae* organism.

# Title: Nursing Informatics: An International Overview for Nursing in a Technological ERA

Full Journal Title: Nursing Informatics: An International Overview for Nursing in a Technological ERA

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? D’Auria, J.P. (1994), A bibliometric analysis of published maternal and child health nursing research from 1976 to 1990. Fifth IMIA International Conference on Nursing Use of Computers and Information Science, June 17-22, 1994, San Antonio, Texas, USA, *Nursing Informatics: An International Overview for Nursing in a Technological ERA*, 471-475.

? D’Auria, J.P. (1994), An author co-citation analysis of published maternal and child health nursing research from 1986-1990. Fifth IMIA International Conference on Nursing Use of Computers and Information Science, June 17-22, 1994, San Antonio, Texas, USA, *Nursing Informatics: An International Overview for Nursing in a Technological ERA*, 757.

# Title: Nursing Inquiry

Full Journal Title: [Nursing Inquiry](http://www.blackwell-synergy.com/loi/nin), [Nursing Inquiry](http://weblinks1.epnet.com/authHjafDetail.asp?tb=1&_ua=bo+B%5F+db+nxhjnh+bt+ID++82C+6FD5&_ug=sid+BB126B7E%2DAC87%2D44A6%2D8519%2DB7BC8DAB3A56%40sessionmgr2+dbs+nxh+388D&_us=hd+True+sm+ES+4DBA&_uso=st%5B0+%2DID++82C+tg%5B0+%2D+db%5B0+%2Dnxh+op%5B0+%2D+hd+Fa)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

Rafferty, A.M. and Traynor, M. (2002), Sustainable funding for nursing research in higher education. *Nursing Inquiry*, **9** (4), 219-220.

Full Text: [N\Nur Inq9, 219.pdf](N/Nur%20Inq9,%20219.pdf)

# Title: Nursing Outlook

Full Journal Title: [Nursing Outlook](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=6975&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=a35deefea919f8f8712af471a2f9d054)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Naylor, M.D. and Buhler-Wilkerson, K. (1999), Creating community-based care for the new millennium. *Nursing Outlook*, **47** (3), 120-127.

Full Text: [1999\Nur Out47, 120.pdf](1999/Nur%20Out47,%20120.pdf)

Abstract: The University of Pennsylvania School of Nursing has established a community-based practice based on a model of socially responsible care and designed to meet the complex care needs of frail elders.

Keywords: Health

? Polit, D.F. and Northam, S. (2011), Impact factors in nursing journals. *Nursing Outlook*, **59** (1), 18-28.

Full Text: [2011\Nur Out59, 18.pdf](2011/Nur%20Out59,%2018.pdf)

Abstract: Journal impact factors (IFs), a measure of citation frequency, are published annually in Journal Citation Reports (JCR). Journal IFs, although controversial because of the uses to which they have been put in academic arenas, remain a metric about which nurses should be informed. This paper discusses key issues in the controversy, explains how IFs are computed, and presents historical and 2009 IF data for nursing journals. The number of nursing journals indexed in JCR has grown from 35 in 2004 to 74 in 2009. The journals currently indexed are diverse in terms of focus (practice vs research), specialty areas, and country of publication. The median IF score for nursing journals (0.91 in 2009) is similar to that for several other health care categories. Given the controversies surrounding IFs, it may be useful for nurses to play a more active role in furthering the debate by undertaking research relating to IFs, including studies of how they affect nurses’ scholarly pursuits and publication decisions. Cite this article: Pat, D. F., & Northam, S. (2011, FEBRUARY). Impact factors in nursing journals. Nursing Outlook, 59(1), 18-28. doi:10.1016/j.outlook.2010.11.001.

Keywords: Association, Bibliometrics, Care, Citation, Citation Frequency, Citation Rate, Communication, Country, Data, Fate, Health, Health Care, Impact, Impact Factor, Impact Factors, Journal, Journal Citation Reports, Journal Impact, Journals, Manuscripts, Measure, Nurses, Nursing, Nursing Journal, Nursing Journals, Practice, Professional Issues, Publication, Publishing, Quality, Research, Role, Scholarship, Specialty, Trials

# Title: Nursing Research

Full Journal Title: [Nursing Research](http://www.nursingresearchonline.com/pt/re/nnr/home.htm;jsessionid=CiYOYB5MPEvM5iA8HemUHX4ZzbZue9VNdFpUXukwcKoucU6J0Gp1!1142682874!-949856032!9001!-1)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0029-6562

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Taylor, M.K. (1998), The practical effects of errors in reference lists in Nursing Research Journals. *Nursing Research*, **47** (5), 300-303.

Full Text: 1998\Nur Res47, 300.pdf

Abstract: Background: Previous studies have noted the prevalence of errors in journal reference lists, including nursing journals, but an in-depth study of nursing research journals has not been reported.

Objectives: The purpose of this study was to determine the number and types of errors in nursing research journal reference lists.

Method: A stratified random sample of 262 references from three nursing research journals was obtained. References were compared with the actual articles, books, and chapters cited, or with photocopies obtained via interlibrary loan. Error rates were calculated.

Results: The overall error rate was 45.8%, 38.3% of all references contained at least one major error, and 13.8% of all references contained at least one minor error.

Conclusions: The overall rate of reference errors falls within the range exhibited by recent studies of the medical and dental literature but exceeds the rates found in studies of nursing journals and veterinary medicine journals. Researchers need to consider the number and types of errors involved when using reference lists in their research.

? Estabrooks, C.A., Winther, C. and Derksen, L. (2004), A bibliometric analysis of the research utilization literature in nursing. *Nursing Research*, **53** (5), 293-303.

Full Text: [2004\Nur Res53, 293.pdf](2004/Nur%20Res53,%20293.pdf)

Abstract: Background: Research utilization is the use of research to guide clinical practice. However, little is known about the characteristics of the research utilization literature in nursing, including the development and organization of this field of study. This article addresses the knowledge gap in this field of study by bibliometrically analyzing the research utilization literature in nursing.

Objective: To map research utilization as a field of study in nursing using bibliometric methods, and to identify the structure of this scientific community, including the current network of researchers.

Method: A search of electronic and hard copy databases resulted in bibliographic data for 630 articles on research utilization in nursing published between 1972 and 2001. Bibliometric techniques used included a statistical analysis of publication counts, co-word analysis, and co-citation analysis.

Results: The analyses showed a trend of increased productivity since the early 1990s. Most publications were authored by a single author, with no tendency toward increased collaboration over time. Most references cited in the articles were nursing references, indicating that there is very little flow into nursing from other fields. Only 4% of the references cited were actual research articles about research utilization, consistent with applied fields in which clinicians most commonly cite other clinicians. The 630 articles were published in a total of 194 different journals, with the Journal of Advanced Nursing identified as a key journal in the field.

Conclusions: According to the analysis, tremendous growth has occurred in the field of research utilization. However, the limited amount of collaborative research and the repeated citation of a few references indicate that the field is underdeveloped. The research utilization field would benefit from more substantive conceptual and empirical work, and more collaboration among emerging scholars.

Keywords: Bibliometrics, Nursing Research, Research Utilization, Communication, Collaboration, Knowledge, Model, Care

? Habermann, B., Broome, M., Pryor, E.R. and Ziner, K.W. (2010), Research coordinators’ experiences with scientific misconduct and research integrity. *Nursing Research*, **59** (1), 51-57.

Full Text: [2010\Nur Res59, 51.pdf](2010/Nur%20Res59,%2051.pdf)

Abstract: Background. Most reports of scientific misconduct have been focused on principal investigators and other scientists (e.g., biostatisticians) involved in the research enterprise. However, by virtue of their position, research coordinators are often closest to the research field where much of misconduct occurs. Objective: The purpose of this study was to describe rei search coordinators’ experiences with scientific misconduct in their clinical environment. Design: The descriptive design was embedded in a larger cross-sectional national survey. A total of 266 respondents, predominately registered nurses, who answered “yes” to having firsthand knowledge of scientific misconduct in the past year, provided open-ended question responses. Methods: Content analysis was conducted by the research team, ensuring agreement of core categories and sub-categories of misconduct. Findings: Research coordinators most commonly learned about misconduct via firsthand witness of the event, with the principal investigator being the person most commonly identified as the responsible party. Five major categories of misconduct were identified: protocol violations, consent violations, fabrication, falsification, and financial conflict of interest. In 70% of cases, the misconduct was reported. In most instances where misconduct was reported, some action was taken. However, in approximately 14% of cases, no action or investigation ensued; in 6.5% of cases, the coordinator was fired or he or she resigned. Conclusions: This study demonstrates the need to expand definitions of scientific misconduct beyond fabrication, falsification, and plagiarism to include other practices, The importance of the ethical climate in the institution in ensuring a safe environment to report and an environment where evidence is reviewed cannot be overlooked.

Keywords: Clinical-Trials, Conflict of Interest, Content Analysis, Definitions, Environment, Institutional Climate, Misconduct, Plagiarism, Research, Research Coordinators, Scientific Misconduct, Survey

# Title: Nursing Science Quarterly

Full Journal Title: [Nursing Science Quarterly](http://nsq.sagepub.com/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Parse, R.R. (1996), Hear ye, hear ye, novice and seasoned authors! *Nursing Science Quarterly*, **9** (1), 1.

# Title: Nutricion Hospitalaria

Full Journal Title: Nutrición Hospitalaria

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0212-1611

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Culebras-Fernandez, J., de Lorenzo, A.G., Wanden-Nerghe, C., Castiel, L.D. and Sanz-Valero, J. (2008), Careful! Your bibliographic references may be examined. *Nutrición Hospitalaria*, **23** (2), 85-88.

Full Text: [2008\Nut Hos23, 85.pdf](2008/Nut%20Hos23,%2085.pdf)

Abstract: Reference to previous work represents a conceptual association of recognized scientific ideas that are beneficial for the citing author. I.e., a reference is an express recognition of an intellectual compromise towards a previous source of information. After all, advancement of science is supported by previous research. At present, the way to know and to measure the importance of a published item comes through its posterior citations, circumstance that obliges scientific journals to con trot the pertinence and relevance of the cited work. Therefore, when submitting a manuscript for consideration to a scientific journal, it must be beard in mind that the included references will be examined.

Keywords: (Type of Publication), Access to Information, Association, Bibliometric Indicator, Bibliometrics, Citations, Information, Journal, Journal Articles, Journals, Relevance, Research, Science, Scientific Journals, Source, Work

? Gonzalez-Sagrado, M., Roman, D.A.D.L., Conde-Vicente, R., Izaola, O., Aller, R. and Perez-Castrillon, J.L. (2008), Evaluation of two methods for correcting the impact factor using the investigation done at the “Del Rio Hortega” University Hospital (1999-2004) as the data source. *Nutrición Hospitalaria*, **23** (2), 111-118.

Full Text: [2008\Nut Hos23, 111.pdf](2008/Nut%20Hos23,%20111.pdf)

Abstract: Background and objective: To adjust the Impact Factor (IF) provided by the Institute for Scientific Information (ISI) is necessary for improving bibliometric analysis among the various areas of knowledge. Our objective was to evaluate two parameters (the maximum and the median value of each subject area) for IF adjustment using the original (not corrected) IF as the reference method in a tertiary hospital biomedical investigation model. Material and method: We retrieved articles from Hospital Universitario “Del Rio Hortega” from Valladolid (Spain) for the period 1999-2004 as data source. We have describe the characteristics of the followed IF distributions: IF Corrected by the Maximum value (IFCORMAX), IF Corrected by the Median value (IFCORMED) and IF without adjustments (IF). Besides, we have analyzed both the inter-annual and the inter-subject differences obtained by the three methods. Results: The three analyzed IF series shown not normal distributions that are positively skewed. The IF adjusted by the median showed the highest coefficient of variation (CV = 357.3%). The IF adjusted by the Maximum value increased the “weight” of journals with the highest not corrected IF for each subject category. Inter-annual differences were similarly estimated by the three methods. The IF adjusted by the median increased the inter-subject difference from 7.3% to 12.4%. Conclusions: Our results suggests that IF adjusted by the maximum value of each discipline is the best method to correct the ISI-IF values, because journals with the high IF are always rewarded, while IF adjusted by the median infra-estimated most of them.

Keywords: Analysis, Association, Bibliometric, Bibliometric Analysis, Bibliometrics, Biomedical, Biomedicine, Characteristics, Data, Health-Sciences, Hospital, Impact, Impact Factor, Indicators, Institute for Scientific Information, Investigation, ISI, Journals, Knowledge, Methods, Model, Normal, Quality, Science-Citation-Index, Source, Spain, Spanish Scientific Production, University Hospital, Value

? Castera, V.T., Sanz-Valero, J., Juan-Quilis, V., Wanden-Berghe, C., Culebras, J.M. and Mateos, A.G.D.Y. (2008), Bibliometric study of the journal *Nutrición Hospitalaria* for the period 2001-2005: Part 1, analysis of the scientific production. *Nutrición Hospitalaria*, **23** (5), 469-476.

Full Text: [2008\Nut Hos23, 469.pdf](2008/Nut%20Hos23,%20469.pdf)

Abstract: Objective: To assess the scientific activity and information production of the journal Nutricion Hospitalaria, for the period 2001-2005 by means of a Bibliometric study. Method: Cross-sectional descriptive study of the results obtained from the analysis of the articles published in the journal Nutricion Hospitalaria. The data were obtained by consulting the electronic version through the Web. In those cases in which there was a link breakdown, and thus, the inability to have access to the electronic document the printed version was consulted. All the documental possibilities were taken into account with the exception of communications to congresses. Results: A total of 345 articles were published, 187 (54.20%) being original articles. The geographical distribution of the first author was Spanish in 287 articles (83.19%) and Latin American in 27 (7.83%). Most of the articles are from health care centers (172 articles (49,86%)), and the cooperation index being 4.15. Madrid is the most productive province, for both the absolute and adjusted frequencies. The median number of references per article is 18, the mean being 23.52 (95% CI 20.93 - 26.10). The predominant language was Spanish, with 308 articles (89.28%). Conclusion: Nutricion Hospitalaria may be considered as a reference journal regarding information and scientific communication on Nutrition for both the Spanish and Latin American communities. The bibliometric parameters studied compare with those verified for theremaining top of the list Spanish scientific journals on health sciences.

Keywords: Access, Access To Information, Activity, American, Analysis, Bibliometric, Bibliometric Indicators, Bibliometry, Care, Cases, Communication, Communications, Communities, Cooperation, Data, Distribution, First, Health, Health Care, Health Sciences, Index, Information, Journal, Journal Article [Type of Publication], Journals, Language, Latin American, Nutrition, Nutrition Sciences, Production, Reference, References, Sciences, Scientific Communication, Scientific Journals, Scientific Production, Spanish, Spanish Scientific Journals, Version

? Castera, V.T., Valero, J.S., Juan-Quilis, V., Wanden-Berghe, C., Culebras, J.M. and Mateos, A.G.D.Y. (2008), Bibliometric study of the journal *Nutrición Hospitalaria* for the period 2001-2005: Part 2, Consumption analysis; the bibliographic references. *Nutrición Hospitalaria*, **23** (6), 541-546.

Full Text: [2008\Nut Hos23, 541.pdf](2008/Nut%20Hos23,%20541.pdf)

Abstract: Objective: To describe and assess the consumption of the information consulted and cited in the articles published in the journal Nutricion Hospitalaria for the period 2001-2005 by means of bibliometric analysis. Method: Cross-sectional descriptive analysis of the results obtained from the analysis of the lists of bibliographic references of the articles published at Nutricion Hospitalaria. We studied the most cited journals, the signatures index, the type of document referred, the publication language, the distribution of geographical origin, and obsolescence and readiness index. We took into account all types of documents with the exception of Communications to Congresses. Results: 345 articles were published at Nutr Hosp, containing 8,113 bibliographic references, with a median of 18, a maximum of 136 and minimum of 0 BR per article. The mean (rate of publications per published article during the specified period) is 23.52 (95% IC 20.93-26.10) and the mean at 5% is 20.66 per article. The 25(th) and 75(th) percentiles are 6 and 32, respectively, the inter-quartile interval being 26 BR per document. The semi-period of Burton and Kebler is 7 years and the Price Index is 38.18%. Conclusion: The bibliographic references, the consumption of information, of the articles published at Nutricion Hospitalaria present parameters similar to other journals on health science. However, good data on obsolescence are observed, which reveal the good validity of most of the references studied.

Keywords: Access To Information, Analysis, Articles, Bibliographic Databases, Bibliometric, Bibliometric Analysis, Bibliometric Indicators, Bibliometrics, Citation, Consumption, Data, Distribution, Health, Index, Information, Interval, Journal, Journals, Language, Minimum, Nutritional Sciences, Obsolescence, Origin, Percentiles, Publication, Publications, References, Science, The Good, Validity

? Culebras, J.M. and de Lorenzo, A.G. (2009), The impact factor of *Nutrición Hospitalaria* is 1.096. *Nutrición Hospitalaria*, **24** (4), 378-383.

Full Text: [2009\Nut Hos24, 378.pdf](2009/Nut%20Hos24,%20378.pdf)

Abstract: The editors of Nutricion Hospitalaria (Nutr Hosp) analyze the journal from its foundation in 1979 to the present time, on occasion of the first publication of its impact factor by Journal Citation Reports (JCR). The actions taken along this thirty year period are described, including its incorporation to multiple web databases, the Open Access policy of the journal, its progressive internationality, and the bibliometric analysis made in 1999. A figure with the journal citation trends is included. Nutr Hosp, included in the “Nutrition & Dietetics” group of JCR, is in the position 42/59, i.e. in the third quartile. Among the Spanish journals included in JCR, Nutr Hosp is located in the 14/37 position. A few considerations are made related to the economical aspects of the journal, the number of articles received so far, the articles expected in the future, the rejection rate and the language (Spanish or English) in which Nutr Hosp should be published.

Keywords: Bibliometric Analysis, Citation, Databases, Impact, Impact Factor, Journals, Period 2001-2005, Policy, Scientific Journals, Trends

? Ortiz-Moncada, R., Gonzalez-Zapata, L., Ruiz-Cantero, M.T. and Clemente-Gomez, V. (2011), Priority issues, study designs and geographical distribution in nutrition journals. *Nutrición Hospitalaria*, **26** (4), 784-791.

Full Text: 2011\Nut Hos26, 784.pdf

Abstract: Introduction: The increased number of articles published in nutrition is a reflection of the relevance to scientific community. The characteristics and quality of nutritional studies deter mine whether readers can obtain valid conclusions from them, as well as their usefulness for evidence-based strategic policies. Objective: To determine the characteristics of papers published in nutrition journals. Method: Descriptive study design. We reviewed 330 original papers published between January-June 2007. From: American Journal of Clinical Nutrition (AJCN), Journal of Nutrition, European Journal Nutrition, European Journal of Clinical Nutrition and Public Health Nutrition. We classified them according to the subjects studied; risk factors, study design and country of origin. Results: Almost half the papers studied healthy people (53.3%). The most frequent illness was obesity (13.9%). Food consumption is the most frequent risk factor (63.3%). Social factors appear exclusively only in 3.6% of the papers. Clinical trials were the most common analytical design (31.8%), mainly in the AJCN (45.6%). Cross-sectional studies were the most frequent type of observational design (37.9%). Teen countries produced over half of the papers (51.3%). The US publishes the highest number of papers (20.6%), whilst developing countries make only scarce contributions to scientific literature on nutrition. Conclusions: Most of the papers had inferential power. They generally studied both healthy and sick subjects, coinciding with the aims of international scientific policies. However, the topics covered reflect a clear bias, prioritizing problems pertaining to developed countries. Social determinants of health should also be considered, along with behavioral and biological risk factors. (Mar Hosp. 2011;26:784-791) DOI:10.3305/nh.2011.26.4.5060.

Keywords: Bias, Bibliometric Analysis, Determinants, Developing Countries, Epidemiologic Studies, Geographic, Journal, Journals, Literature, Locations, Medicine, Nutritional Science, Obesity, Papers, Policies, Public Health, Publications, Research Priorities, Research Productivity, Risk Factors, Trends, US

# Title: Nutrition

Full Journal Title: [Nutrition](http://www.sciencedirect.com/science/journal/08999007)

ISO Abbreviated Title: Nutrition

JCR Abbreviated Title: Nutrition

ISSN: 0899-9007

Issues/Year: 12

Journal Country/Territory: United States

Language: English

Publisher: Elsevier Science Inc

Publisher Address: 655 Avenue of the Americas, New York, NY 10010

Subject Categories:

Nutrition & Dietetics: Impact Factor

? Ali, O. (1995), Iodine deficiency disorders: A public health challenge in developing countries. *Nutrition*, **11** (5), 517-520.

Full Text: Nutrition11, 517.pdf

Abstract: Iodine as a trace element is an essential nutrient for human growth and development. Its potential impact on manpower development in third world countries are of special concern, primarily due to iodine deficiency disorders (IDD) such as goiter, hypothyroidism, and cretinism. IDD of mild to moderate severity are still found in Malaysia. The prevalence ranges from almost zero in many developed urban areas to more than 90% in some rural parts of Malaysia, especially in Sabah and Sarawak. The endemias were associated with low urinary excretion of iodine among the population, indicating poor iodine intake and low iodine content in the environment. Water and salt iodination strategies are being planned to eradicate the disease by the year 2000.

? Herselman, M., Esau, N., Kruger, J.M., Labadarios, D. and Moosa, M.R. (2010), Relationship between serum protein and mortality in adults on long-term hemodialysis: Exhaustive review and meta-analysis. *Nutrition*, **26** (1), 10-32.

Full Text: [2010\Nutrition26, 10.pdf](2010/Nutrition26,%2010.pdf)

Abstract: The aim of this exhaustive review and meta-analysis was to explore the relation among serum protein, inflammatory markers, and all-cause and cardiovascular mortalities in adult patients on maintenance hemodialysis. We searched the Medline, Science Citation Index, Academic Search Premier, Cochrane Library, and Embase electronic data bases. Data extraction and quality assessment were done independently by two reviewers and results were pooled using the random effects model. Cochran’s Q was used to identify heterogeneity and a funnel plot was used for assessment of publication bias. A meta-analysis was performed on 38 studies (265 330 patients) reporting on serum proteins, inflammatory markers, and mortality. A significant inverse relation was found between serum albumin and all-cause (hazard ratio [HR] 0.7038, 95% confidence interval [CI] 0.6367–0.7781) and cardiovascular (HR 0.8726, 95% CI 0.7909–0.9628) mortalities, with a significantly stronger relation with all-cause mortality (P = 0.0014). Pooled results for C-reactive protein showed a weak but significant direct relation with all-cause mortality (HR 1.0322, 95% CI 1.0151–1.0496), but there was not a significant relation between C-reactive protein and cardiovascular mortality (HR 1.0172, 95% CI 0.9726–1.0639). A high degree of heterogeneity was identified among studies especially in the case of all-cause mortality. An asymmetrical funnel plot for serum albumin is suggestive of publication bias. From the meta-analysis it is concluded that serum albumin showed a significant inverse relation with all-cause and cardiovascular mortalities but the relation between prealbumin and all-cause mortality was not significant. C-reactive protein showed a significant direct relation with all-cause mortality but not with cardiovascular mortality. The potential adverse effects of malnutrition and infections in relation to mortality highlight the need for continued treatment of infections and correction of malnutrition in patients on dialysis.

Keywords: Albumin, All-Cause Mortality, Assessment, Bias, Body-Mass Index, C-Reactive Protein, C-Reactive Protein, Citation, Elsevier, Glycation End-Products, Hemodialysis, Heterogeneity, Independent Risk-Factor, Intradialytic Parenteral-Nutrition, Low-Density-Lipoprotein, Medline, Meta-Analysis, Model, Mortality, Performance Measures Project, Prealbumin, Publication, Publication Bias, Quality-of-Life, Review, Science, Science Citation Index, Stage Renal-Disease, Treatment

# Title: Nutrition and Cancer-An International Journal

Full Journal Title: Nutrition and Cancer-An International Journal

ISO Abbreviated Title: Nutr. Cancer

JCR Abbreviated Title: Nutr Cancer

ISSN: 0163-5581

Issues/Year: 9

Journal Country/Territory: United States

Language: English

Publisher: Lawrence Erlbaum Assoc Inc

Publisher Address: 10 Industrial Ave, Mahwah, NJ 07430-2262

Subject Categories:

Oncology Nutrition & Dietetics: Impact Factor 2.164, /(2002)

? Messina, M.J., Persky, V., Setchell, K.D.R. and Barnes, S. (1994), Soy intake and cancer risk: A review of the in-vitro and in-vivo data. *Nutrition and Cancer-An International Journal*, **21** (2), 113-131.

Full Text: [N\Nut Can Int J21, 113.pdf](N/Nut%20Can%20Int%20J21,%20113.pdf)

Abstract: International variations in cancer rates have been attributed, at least in part, to differences in dietary intake. Recently, it has been suggested that consumption of soyfoods may contribute to the relatively low rates of breast, colon, and prostate cancers in countries such as China and Japan, Soybeans contain a number of anticarcinogens, and a recent National Cancer Institute workshop recommended that the role of soyfoods in cancer prevention be investigated. In this review, the hypothesis that soy intake reduces cancer risk is considered by examining relevant in vitro, animal, and epidemiological data.

Soybeans are a unique dietary source of the isoflavone genistein, which possesses weak estrogenic activity and has been shown to act in animal models as an antiestrogen. Genistein is also a specific inhibitor of protein tyrosine kinases, it also inhibits DNA topoisomerases and other critical enzymes involved in signal transduction. In vitro, genistein suppresses the growth of a wide range of cancer cells, with IC50 values ranging from 5 to 40 μM (1-10 μg/ml).

Of the 26 animal studies of experimental carcinogenesis in which diets containing soy or soybean isoflavones were employed, 17 (65%) reported protective effects. No studies reported soy intake increased tumor development. The epidemiological data are also inconsistent, although consumption of nonfermented soy products, such as soymilk and tofu, tended to be either protective or not associated with cancer risk, however, no consistent pattern was evident with the fermented soy products, such as mise. Protective effects were observed for both hormone- and nonhormone-related cancers. While a definitive statement that soy reduces cancer risk cannot be made at this time, there is sufficient evidence of a protective effect to warrant continued investigation.

Keywords: Protein-Tyrosine Kinases, Growth-Factor Receptor, Mouse Erythroleukemia-Cells, Rat Mammary-Tumors, Stomach-Cancer, Breast-Cancer, Experimental Carcinogenesis, Invitro Differentiation, Alcohol-Consumption, Estrogen-Receptors

? Carter, J.W., Lancaster, H., Hardman, W.E. and Cameron, I.L. (1997), Zinc deprivation promotes progression of 1,2-dimethylhydrazine-induced colon tumors but reduces malignant invasion in mice. *Nutrition and Cancer-An International Journal*, **27** (3), 217-221.

Full Text: [N\Nut Can Int J27, 217.pdf](N/Nut%20Can%20Int%20J27,%20217.pdf)

Abstract: The aim of this study was to characterize colon tumor development and invasiveness associated with dietary zinc deprivation. Colon carcinogenesis was initiated by eight weekly subcutaneous injections of 1,2-dimethylhydrazine (DMH) at 12 mg DMH base/kg body wt in groups of mice maintained on diets containing 30 µg/kg dietary zinc (zinc adequate, ZA) or 3 µg/kg dietary zinc (zinc deprived, ZD). All mice were killed 24 weeks after the last injection of DMH. Mean zinc concentration in the liver was significantly lower in the ZD group than in the ZA group. The total number of grossly detectable colon tumors was the same in both dietary groups. However, histopathological study of each tumor revealed significantly more adenomatous polyps (AP) and invasive adenocarcinomas (CA) in the ZA group, whereas the ZD group had significantly more noninvasive carcinomas in situ (CIS). It appears that zinc deprivation stimulated progression of AP to noninvasive CIS but retarded the progression of noninvasive CIS to invasive CA. Immunohistochemistry of tumors from ZA and ZD mice indicated increased amounts of type IV collagenase in epithelial tumor cells and in stromal cells adjacent to tumor tissue regardless of the amount of dietary zinc consumed. It is suggested that zinc deprivation may limit function of zinc-requiring enzymes such as superoxide dismutase and type IV collagenase, resulting in enhanced progression of AP to noninvasive CIS and retardation of invasion of CIS to become CA, respectively.

Keywords: Breast-Cancer, Rhesus-Monkeys, Stromal Cells, Expression, Gelatinase, Collagenase

? Vucenik, I., Yang, G. and Shamsuddin, A.M. (1997), Comparison of pure inositol hexaphosphate and high-bran diet in the prevention of DMBA-induced rat mammary carcinogenesis. *Nutrition and Cancer-An International Journal*, **28** (1), 7-13.

Full Text: [N\Nut Can Int J28, 7.pdf](N/Nut%20Can%20Int%20J28,%207.pdf)

Abstract: Inositol hexaphosphate (IF), abundant in cereals and legumes, has been demonstrated to be a promising anticancer agent in different in vivo and in vitro models. Because IP6 is particularly abundant in the bran part of certain mature seeds such as wheat, we investigated whether a high-fiber bran diet containing high IF, shows a dose-response inhibition of 7,12-dimethylbenz[a]anthracene (DMBA)-induced rat mammary carcinogenesis. Starting at two weeks before DMBA intubation, rats were divided into five groups and fed AIN-76A diet only or AIN-76A diet containing 5%, 10%, or 20% Kelloggs’ All Bran, the fifth group received 0.4% IP6 given in drinking water an amount equivalent to the IP6 content in 20% bran. After carcinogen administration, the rats remained on these regimens for 29 weeks. Compared with the carcinogen control, at 29th week, tumor incidence was reduced by 16.7%, 14.6%, and 11.4% in rats fed 5%, 10%, and 20% bran, respectively (not statistically significant). However, mts given 0.4% IP6 in drinking water equivalent to that in 20% bran, had a 33.5% reduction in tumor incidence (p < 0.02) and 48.8% fewer tumors (p < 0.03). These data show that supplemental dietary fiber in the form of bran exhibited a very modest, statistically nonsignificant inhibitory effect, which was also not dose dependent. In contrast, animals given IP6 showed significant reduction in tumor number, incidence, and multiplicity Thus IP6, an active substance responsible for cereal’s beneficial anticancer effect, is clearly more effective than 20% bran in the diet. In practical terms, intake of IP6 may be a more pragmatic approach than gorging enormous quantities of fiber for cancer prophylaxis.

Keywords: Breast-Cancer, Wheat Bran, Fiber, Absorption, Zinc, Inhibition, Mortality, Excretion, Nutrition, Phytate

? Davanzo, B., Lavecchia, C., Braga, C., Franceschi, S., Negri, E. and Parpinel, M. (1997), Nutrient intake according to education, smoking, and alcohol in Italian women. *Nutrition and Cancer-An International Journal*, **28** (1), 46-51.

Full Text: [N\Nut Can Int J28, 46.pdf](N/Nut%20Can%20Int%20J28,%2046.pdf)

Abstract: The control group of a hospital-based case-control study on breast cancer was used to assess the relationships between education, smoking habits, alcohol consumption, and intake of selected macro-and micronutrients in Italian women. The study subjects were 2,588 women admitted to a network of hospitals in various Italian regions for nonneoplastic, acute diseases unrelated to long-term changes in the diet. Although relatively few differences were observed, less educated subjects consumed more linoleic acid and polyunsaturated fats than did more educated women. Smoking habits were associated with the largest differences in selected antioxidant vitamins. Significant differences were observed for β-carotene and vitamin C intake, with an 11% higher intake of β-carotene and a 12% higher intake of vitamin C in ex-smokers than in current smokers. Heavier alcohol drinkers tended to consume more retinol and iron but less β-carotene than did moderate or nondrinkers. Thus the differences in macro-and micronutrient intake were generally moderate across categories of education, smoking, and alcohol consumption in this data set of Italian women. Nonetheless, they confirm the importance of allowing for these variables in analyzing the relationship between nutritional factors and disease risk.

Keywords: Smokers, Diet, Nonsmokers, Health, Habits, Food

? Morse, M.A., Kresty, L.A., Steele, V.E., Kelloff, G.J., Boone, C.W., Balentine, D.A., Harbowy, M.E. and Stoner, G.D. (1997), Effects of theaflavins on N-nitrosomethylbenzylamine-induced esophageal tumorigenesis. *Nutrition and Cancer-An International Journal*, **29** (1), 7-12.

Full Text: [N\Nut Can Int J29, 7.pdf](N/Nut%20Can%20Int%20J29,%207.pdf)

Abstract: The purpose of this experiment was to compare the inhibitory effects of the polyphenol fraction of black tea, theaflavins (TF), the polyphenol fraction of green tea, and (-)-epigallocatechin-3-gallate (EGCG) in the rat esophageal tumor model. The tea fractions were administered in the drinking water at concentrations of 360 and 1, 200 ppm for two weeks before administration of the esophageal carcinogen N-nitrosomethylbenzylamine (NMBA). NMBA was administered subcutaneously in 10% dimethyl sulfoxide three times weekly for five weeks. Additional groups of rats received only vehicle and plain drinking water or vehicle and drinking water containing 1,200 ppm of each tea fraction. Twenty-five weeks after NMBA administration began, the experiment was terminated and esophagi were excised and scored for tumors. Rats that were not dosed with NMBA had no tumors. Rats treated with NMBA only had an esophageal tumor incidence of 100% and a multiplicity of 3.3±0.4 tumors/rat. The proportion of rats developing tumors was not significantly reduced by any of the four tea fractions at the concentrations tested. However, the 1,200 ppm concentrations of each tea fraction in the drinking water produced some reduction in esophageal tumor multiplicity, although only TF significantly reduced tumor multiplicity compared with rats treated with NMBA only. The rates of esophageal tumor formation were significantly reduced at 360 and 1,200 ppm by TF and EGCG.

Keywords: Phenethyl Isothiocyanate, DNA Methylation, Ellagic Acid, Black Tea, Rats, Cancer, Consumption, Inhibition, Chemoprevention, Green

? Lian, F.R., Bhuiyan, M., Li, Y.W., Wall, N., Kraut, M. and Sarkar, F.H. (1998), Genistein-induced G(2)-M arrest, p21(WAF1) upregulation, and apoptosis in a non-small-cell lung cancer cell line. *Nutrition and Cancer-An International Journal*, **31** (3), 184-191.

Full Text: [N\Nut Can Int J31, 184.pdf](N/Nut%20Can%20Int%20J31,%20184.pdf)

Abstract: Lung cancer is the leading cause of cancer-related death in the world, with increasing incidence in many developed countries. Epidemiological data suggest that consumption of soy products (the isoflavone genistein) may be associated with a decreased risk of breast and prostate cancer, however, such studies are not available for lung cancer. We investigated cell growth inhibition, modulation in gene expression, and induction of apoptosis by genistein in H460 non-small lung cancer cells. Genistein inhibited H460 cell growth in a dose-dependent manner. Flow-cytometric analysis showed that 30 μM genistein arrested cell cycle progression at the G(2)-M phase. 4,6-Diamidino-2-phenylindole staining, flow-cytometric analysis, and DNA laddering were used to investigate apoptotic cell death, and the results show that 30 μM genistein can cause typical DNA laddering, a hallmark for apoptosis. In addition, flow cytometry and 4,6-diamidino-2-phenylindole staining showed induction of apoptosis by genistein. Our investigation also demonstrated the modulation of p21(WAF1) by Western blot analysis of cell lysates obtained from cultured cells treated with 30 and 50 μM genistein for 24, 48, and 72 hours. Simultaneously, immunocytochemical staining was conducted for the expression of p21(WAF1) protein. Our results showed that genistein can upregulate p21(WAF1) expression in genistein-treated cells. From these results, we conclude that genistein may act as an anticancer agent, and further studies may prove its efficacy in non-small lung cancer cells. Thus the biological effects of genistein may, indeed, be due to the modulation of cell growth, cell death, and cell cycle regulatory molecules.

Keywords: Topoisomerase-II, Tyrosine Kinase, Leukemia-Cells, Protein, Inhibitor, DNA, Differentiation, Carcinoma, Induction, Cycle

? Chen, X.W. and Anderson, J.J.B. (2001), Isoflavones inhibit proliferation of ovarian cancer cells in vitro via an estrogen receptor-dependent pathway. *Nutrition and Cancer-An International Journal*, **41** (1-2), 165-171.

Full Text: [N\Nut Can Int J41, 165.pdf](N/Nut%20Can%20Int%20J41,%20165.pdf)

Abstract: Incidence rates of ovarian cancer remain lowest in Asian nations, which consume diets rich in soy products, whereas they remain among the highest in the United States and other Western nations, which consume low amounts of soy foods. The hypothesis of this study is that soy-derived isoflavones inhibit the proliferation of ovarian cancer cells in vitro by regulating cytokine synthesis. Cell proliferation was evaluated by bromodeoxyuridine and 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay. DNA synthesis of Caov-3 and NIH: OVCAR-3, two ovarian cancer cell lines, was significantly inhibited by genistein or daidzein at dietarily relevant concentrations (10-8-10-10 M). Also, the number of viable cells was significantly lower (45-75%) in all isoflavone-treated groups than in the control group (P < 0.01). The addition of ICI-182780, an estrogen antagonist, blocked these inhibitory effects. In addition, interleukin-6 synthesis by these two cell lines was inhibited by genistein or daidzein, production was decreased by similar to 20% compared with the control group (P < 0.05). In contrast, transforming growth factor-beta(1), production in ovarian cancer cells incubated with genistein or daidzein was significantly greater, i.e., by similar to 30%, than in the control group (P < 0.05). Addition of ICI-182780 also neutralized the effects of isoflavones on the production of these two cytokines by ovarian cancer cells. In summary, genistein and daidzein independently modify cytokine production and reduce ovarian cancer cell proliferation via, at least in part, an estrogen receptor-dependent pathway.

Keywords: Endothelial Growth-Factor, Necrosis-Factor-Alpha, Breast-Cancer, Oral-Contraceptives, Phyto-Estrogens, Ascitic Fluid, In-Vitro, Genistein, Beta, Interleukin-6

? Jiang, L., Yang, K.H., Tian, J.H., Guan, Q.L., Yao, N., Cao, N., Mi, D.H., Wu, J., Ma, B. and Yang, S.H. (2010), Efficacy of antioxidant vitamins and selenium supplement in prostate cancer prevention: A meta-analysis of randomized controlled trials. *Nutrition and Cancer-An International Journal*, **62** (6), 719-727.

Full Text: [2010\Nut Can Int J62, 719.pdf](2010/Nut%20Can%20Int%20J62,%20719.pdf)

Abstract: Several studies have evaluated the possible association between antioxidants vitamins or selenium supplement and the risk of prostate cancer, but the evidence is still inconsistent. We systematically searched PubMed, EMBASE, the Cochrane Library, Science Citation Index Expanded, Chinese biomedicine literature database, and bibliographies of retrieved articles up to January 2009. We included 9 randomized controlled trials with 165,056 participants; methodological quality of included trials was generally high. Meta-analysis showed that no significant effects of supplementation with -carotene (RR 0.97, 95% CI 0.90-1.05) (3 trials), vitamin C (RR 0.98, 95% CI 0.91-1.06) (2 trials), vitamin E (RR 0.96, 95% CI 0.85-1.08) (5 trials), and selenium (RR 0.78, 95% CI 0.41-1.48) (2 trials) versus placebo on prostate cancer incidence. The mortality of prostate cancer did not differ significantly by supplement of -carotene (RR 1.19, 95% CI 0.87 -1.65) (1 trial), vitamin C (RR 1.45, 95%CI 0.92-2.29) (1 trial), vitamin E (RR 0.85, 95%CI 0.58-1.24) (2 trials), and selenium (RR 2.98, 95% CI 0.12-73.16) (1 trial). Our findings indicate that antioxidant vitamins and selenium supplement did not reduce the incidence and mortality of prostate cancer, these data provide no support for the use of these supplements for the prevention of prostate cancer.

Keywords: Alpha-Tocopherol, Antioxidant, Antioxidants, Apoptosis, Association, Beta-Carotene, Bibliographies, Biomedicine, Cancer, Carotene, Chinese, Citation, Cohort, Data, Database, Disease, Evidence, Health, Incidence, Literature, Long-Term Supplementation, Men, Meta-Analysis, Mortality, Placebo, Prevention, Prostate Cancer, Pubmed, Quality, Quality Of, Randomized, Randomized Controlled Trials, Risk, Science, Science Citation Index, Selenium, Support, Trial, Vitamin C, Vitamin E

? Zheng, J.S., Yang, B., Huang, T., Yu, Y.H., Yang, J. and Li, D. (2011), Green tea and black tea consumption and prostate cancer risk: An exploratory meta-analysis of observational studies. *Nutrition and Cancer-An International Journal*, **63** (5), 663-672.

Full Text: [2011\Nut Can-Int J63, 663.pdf](2011/Nut%20Can-Int%20J63,%20663.pdf)

Abstract: Observational studies on tea consumption and prostate cancer (PCa) risk are still inconsistent. The authors conducted a meta-analysis to investigate the association between green tea and black tea consumption with PCa risk. Thirteen studies providing data on green tea or black tea consumption were identified by searching PubMed and ISI Web of Science databases and secondary referencing qualified for inclusion. A random-effects model was used to calculate the summary odds ratios (OR) and their corresponding 95% confidence intervals (CIs). For green tea, the summary OR of PCa indicated a borderline significant association in Asian populations for highest green tea consumption vs. non/lowest (OR = 0.62; 95% CI: 0.38-1.01); and the pooled estimate reached statistically significant level for case-control studies (OR = 0.43; 95% CI: 0.25-0.73), but not for prospective cohort studies (OR = 1.00; 95% CI: 0.66-1.53). For black tea, no statistically significant association was observed for the highest vs. non/lowest black tea consumption (OR = 0.99; 95% CI: 0.82-1.20). In conclusion, this meta-analysis supported that green tea but not black tea may have a protective effect on PCa, especially in Asian populations. Further research regarding green tea consumption across different regions apart from Asia is needed.

Keywords: Asia, Authors, Beverage, Cancer, Carcinogenesis, Case-Control, Case-Control Studies, Catechins, Chemoprevention, Cohort Studies, Confidence Intervals, Databases, Diet, Dose-Response Data, Inhibition, ISI, ISI Web of Science, Japanese Men, Meta Analysis, Meta-Analysis, Model, Polyphenols, Prostate, Prostate Cancer, Pubmed, Research, Risk, Science, Trend Estimation, Web of Science

# Title: Nutrition in Clinical Practice

Full Journal Title: Nutrition in Clinical Practice

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

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Language:

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Publisher Address:

Subject Categories:

Impact Factor

? Kolasa, K.M. and Rickett, K. (2010), Barriers to providing nutrition counseling cited by physicians: A survey of primary care practitioners. *Nutrition in Clinical Practice*, **25** (5), 502-509.

Full Text: [2010\Nut Cli Pra25, 502.pdf](2010/Nut%20Cli%20Pra25,%20502.pdf)

Abstract: In a 1995 pivotal study, Kushner described the attitudes, practice behaviors, and barriers to the delivery of nutrition counseling by primary care physicians. This article recognized nutrition and dietary counseling as key components in the delivery of preventive services by primary care physicians. Kushner called for a multifaceted approach to change physicians’ counseling practices. The prevailing belief today is that little has changed. Healthy People 2010 and the U.S. Preventive Task Force identify the need for physicians to address nutrition with patients. The 2010 objective was to increase to 75% the proportion of office visits that included ordering or providing diet counseling for patients with a diagnosis of cardiovascular disease, diabetes, or hypertension. At the midcourse review, the proportion actually declined from 42% to 40%. Primary care physicians continue to believe that providing nutrition counseling is within their realm of responsibility. Yet the gap remains between the proportion of patients who physicians believe would benefit from nutrition counseling and those who receive it from their primary care physician or are referred to dietitians and other healthcare professionals. The barriers cited in recent years continue to be those listed by Kushner: lack of time and compensation and, to a lesser extent, lack of knowledge and resources. The 2010 Surgeon General’s Vision for a Healthy and Fit Nation and First Lady Obama’s “Let’s Move Campaign” spotlight the need for counseling adults and children on diet and physical activity. (Nutr Clin Pract. 2010; 25:502-509).

Keywords: Children, Clinical Nutrition, Continuing Medical-Education, Curriculum, Diagnosis, Diet, Dietetics, Excellence, Exercise, Family Physicians, National-Dairy-Council, Nutrition Therapy, Obesity, Physicians, Family, Primary, Recommendations, Review

# Title: Nutrition and Health

(Nutr. Health)

Full Journal Title: Nutrition and Health

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Subject Categories:

Impact Factor

? Ojofeitimi, E.O., Olaogun, A.A., Osokoya, A.A. and Owolabi, S.P. (1999), Infant feeding practices in a deprived environment: A concern for early introduction of water and glucose D water to neonates. *Nutrition and Health*, **13** (1), 11-21.

Abstract: The main objective of this study was to inquire from lactating mothers whether they were fully or partially practising exclusive breastfeeding in the first six months postnatally. Time of initiation of breast and complementary feedings, types of feeds and reasons for giving other feeds to infants apart from breast milk were also examined. The data were collected by structured pretested questionnaire. of the 200 nursing mothers interviewed, 103 (51.5%) and 77 (38.5%) reported to have given water and glucose D water to neonates respectively within the first week of life. Sieved cornpap was the popular weaning diet. Time of introducing complementary feeding to infants, and nursing mothers’ educational levels, were highly significantly related (P = 0.005). Surprisingly, none of the nursing mothers listed infant formula as one of the complementary feeds. It is concluded that there is a strong need to correct this unnecessary practice of giving water and glucose D water to neonates to prevent thirst and Jaundice respectively. The correction should commence with health workers and then the nursing mothers.

# Title: Nutrition Metabolism and Cardiovascular Diseases

Full Journal Title: Nutrition Metabolism and Cardiovascular Diseases

ISO Abbreviated Title:

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Subject Categories:

Impact Factor

? Guo, Z., Liu, X.M., Zhang, Q.X., Shen, Z., Tian, F.W., Zhang, H., Sun, Z.H., Zhang, H.P. and Chen, W. (2011), Influence of consumption of probiotics on the plasma lipid profile: A meta-analysis of randomised controlled trials. *Nutrition Metabolism and Cardiovascular Diseases*, **21** (11), 844-850.

Abstract: Aims: Human clinical studies have yielded mixed results on the effects of consumption of probiotics on the plasma lipid profile. We conducted a meta-analysis of randomised controlled trials that evaluated the effects of probiotics consumption on blood lipids. Data Synthesis: A systematic literature search of Embase, Web of Science, PubMed and Cochrane Controlled Trials Registry was conducted for studies that investigated the efficacy of probiotics on the plasma lipid profile of subjects. With the help of Review Manager 4.2, data from 13 trials, which included 485 participants with high, borderline high and normal cholesterol levels, were examined. The pooled mean net change in total cholesterol for those treated with probiotics compared to controls was -6.40 mg dl(-1) (95% confidence interval (CI), -9.93 to -2.87), mean net change in low-density lipoprotein (LDL) cholesterol was -4.90 mg dl(-1) (95% CI, -7.91 to -1.90), mean net change in high-density lipoprotein (HDL) cholesterol was -0.11 mg dl(-1) (95% CI, -1.90-1.69) and mean net change in triglycerides was -3.95 mg dl(-1) (95% CI, -10.32-2.42). Conclusion: These results indicate that a diet rich in probiotics decreases total cholesterol and LDL cholesterol concentration in plasma for participants with high, borderline high and normal cholesterol levels. (C) 2011 Elsevier B.V. All rights reserved.

Keywords: Bifidobacterium-Longum, Blood, Blood-Lipids, Cholesterol, Cochrane, Conventional Yogurt, Diet, Efficacy, Fermented Milk Product, HDL, HDL Cholesterol, Heart-Disease, Human, Hypercholesterolemia, Lactobacillus-Acidophilus, LDL, LDL Cholesterol, Lipid, Lipids, Lipoprotein, Literature, Meta Analysis, Meta-Analysis, Normal, Plasma, Probiotics, Profile, Pubmed, Review, Risk-Factors, Science, Serum-Cholesterol, Synthesis, Systematic, Total Cholesterol, Triglycerides, Web of Science, Women

# Title: Nutrition Metabolism and Cardiovascular Diseases

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? Guo, Z., Liu, X.M., Zhang, Q.X., Shen, Z., Tian, F.W., Zhang, H., Sun, Z.H., Zhang, H.P. and Chen, W. (2011), Influence of consumption of probiotics on the plasma lipid profile: A meta-analysis of randomised controlled trials. *Nutrition Metabolism and Cardiovascular Diseases*, **21** (11), 844-850.

Full Text: [2011\Nut Met Car Dis21, 844.pdf](2011/Nut%20Met%20Car%20Dis21,%20844.pdf)

Abstract: Aims: Human clinical studies have yielded mixed results on the effects of consumption of probiotics on the plasma lipid profile. We conducted a meta-analysis of randomised controlled trials that evaluated the effects of probiotics consumption on blood lipids. Data Synthesis: A systematic literature search of Embase, Web of Science, PubMed and Cochrane Controlled Trials Registry was conducted for studies that investigated the efficacy of probiotics on the plasma lipid profile of subjects. With the help of Review Manager 4.2, data from 13 trials, which included 485 participants with high, borderline high and normal cholesterol levels, were examined. The pooled mean net change in total cholesterol for those treated with probiotics compared to controls was -6.40 mg dl(-1) (95% confidence interval (CI), -9.93 to -2.87), mean net change in low-density lipoprotein (LDL) cholesterol was -4.90 mg dl(-1) (95% CI, -7.91 to -1.90), mean net change in high-density lipoprotein (HDL) cholesterol was -0.11 mg dl(-1) (95% CI, -1.90-1.69) and mean net change in triglycerides was -3.95 mg dl(-1) (95% CI, -10.32-2.42). Conclusion: These results indicate that a diet rich in probiotics decreases total cholesterol and LDL cholesterol concentration in plasma for participants with high, borderline high and normal cholesterol levels. (C) 2011 Elsevier B.V. All rights reserved.

Keywords: Bifidobacterium-Longum, Blood, Blood-Lipids, Cholesterol, Cochrane, Conventional Yogurt, Diet, Efficacy, Fermented Milk Product, HDL, HDL Cholesterol, Heart-Disease, Human, Hypercholesterolemia, Lactobacillus-Acidophilus, LDL, LDL Cholesterol, Lipid, Lipids, Lipoprotein, Literature, Meta Analysis, Meta-Analysis, Normal, Plasma, Probiotics, Profile, Pubmed, Review, Risk-Factors, Science, Serum-Cholesterol, Synthesis, Systematic, Total Cholesterol, Triglycerides, Web of Science, Women

# Title: Nutrition Research Reviews

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Impact Factor

? Ishihara, L. and Brayne, C. (2005), A systematic review of nutritional risk factors of Parkinson’s disease. *Nutrition Research Reviews*, **18** (2), 259-282.

Abstract: A wide variety of nutritional exposures have been proposed as possible risk factors for Parkinson’s disease (PD) with plausible biological hypotheses. Many studies have explored these hypotheses, but as yet no comprehensive systematic review of the literature has been available. MEDLINE, EMBASE, and WEB of SCIENCE databases were searched for existing systematic reviews or meta-analyses of nutrition and PD, and one meta-analysis of coffee drinking and one meta-analysis of antioxidants were identified. The databases were searched for primary research articles, and articles without robust methodology were excluded by specified criteria. Seven cohort studies and thirty-three case-control (CC) studies are included in the present systematic review. The majority of studies did not find significant associations between nutritional factors and PD. Coffee drinking and alcohol intake were the only exposures with a relatively large number of studies, and meta-analyses of each supported inverse associations with PD. Factors that were reported by at least one CC study to have significantly increased consumption among cases compared with controls were: vegetables, lutein, xanthophylls, xanthins, carbohydrates, monosaccharides, junk food, refined sugar, lactose, animal fat, total fat, nuts and seeds, tea, Fe, and total energy. Factors consumed significantly less often among cases were: fish, egg, potatoes, bread, alcohol, coffee, tea, niacin, pantothenic acid, folate and pyridoxine. In three cohort studies, two reported borderline decreased relative risks and one a significant increased risk with vitamin C intake. One cohort reported an inverse association between caffeine intake and PD. Three cohorts reported significant positive association in men between dairy products and PD.

Keywords: Alcohol, Alcohol-Consumption, Antioxidant Risk, Caffeine, Case-Control, Cigarette-Smoking, Coffee Consumption, Cohort Studies, Databases, Dietary Antioxidants, Disease, Embase, Environmental-Factors, Factors, Food-Frequency Questionnaire, Literature, Medline, Meta-Analysis, Methodology, Neurodegenerative Disorders, Nutrition, Nuts, Of-Science, Oxidative Stress, Parkinson’S Disease, Primary, Research, Review, Risk, Risk Factors, Science, Systematic, Systematic Review, Systematic Reviews, Uric-Acid, Vegetables, Vitamin-E, Web, Web-of-Science

# Title: Nutrition Reviews

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Publisher: Int Life Sciences Inst

Publisher Address: 810 East 10th St Subscription Office, Lawrence, KS 66044

Subject Categories:

Nutrition & Dietetics: Impact Factor 2.013, 15/50 (2002)

? Munro, I.C., Harwood, M., Hlywka, J.J., Stephen, A.M., Doull, J., Flamm, W.G. and Adlercreutz, H. (2003), Soy isoflavones: A safety review. *Nutrition Reviews*, **61** (1), 1-33.

Abstract: Soy isoflavones have been a component of the diet of certain populations for centuries. The consumption of soy generally has been considered beneficial, with a potentially protective effect against a number of chronic diseases, because of their estrogenic activity, however, negative effects of isoflavones have been postulated. This review examines the literature associated with the safety of soy isoflavones, including dietary soy isoflavone exposure data of populations with high soy intakes, human studies in which soy protein or isoflavones were provided, and toxicologic studies investigating the potential genotoxicity, carcinogenicity, and reproductive and developmental toxicity of soy isoflavones. Whereas results in some studies are limited or conflicting, when viewed in its entirety, the current literature supports the safety of isoflavones as typically consumed in diets based on soy or containing soy products.

Keywords: Soy Isoflavones, Phytoestrogens, Safety, Dietary Intake, Toxicity, Low-Density-Lipoprotein, Breast-Cancer Cells, Chromatography-Mass-Spectrometry, Premenopausal Japanese Women, Cardiovascular Risk-Factors, Sexually Dimorphic Nucleus, High-Performance Liquid, Bone-Mineral Density, Sprague-Dawley Rats, Postmenopausal Women

? Messina, M.J. (2003), Emerging evidence on the role of soy in reducing prostate cancer risk. *Nutrition Reviews*, **61** (4), 117-131.

Abstract: Soyfoods are a unique dietary source of isoflavones, which have both hormonal and non-hormonal effects relevant to prostate cancer prevention. In vitro, the. main soybean isoflavone, genistein, inhibits prostate cancer cell growth, in animals, most but not all studies show isoflavone-rich soy protein and isolated isoflavones inhibit prostate tumor development. Currently, although only limited epidemiologic data indicate soy intake reduces prostate cancer risk, results from a pilot intervention trial suggest isoflavones may be beneficial to prostate cancer patients. For several reasons, men concerned about their prostate health may consider incorporating, soy into their diet. (C) 2003 International Life Sciences Institute.

Keywords: Soy, Isoflavones, Genistein, Prostate, Cancer, Review, Estrogen-Receptor-Beta, Focal Adhesion Kinase, Lobund-Wistar Rats, In-Vitro, Isoflavone Supplementation, Product Intake, United-States, Japanese Men, Healthy-Men, Milk Intake

? Milte, C.M., Sinn, N. and Howe, P.R.C. (2009), Polyunsaturated fatty acid status in attention deficit hyperactivity disorder, depression, and Alzheimer’s disease: Towards an omega-3 index for mental health? *Nutrition Reviews*, **67** (10), 573-590.

Abstract: Interest in the role of polyunsaturated fatty acids (PUFAs), particularly long-chain (LC) omega-3 (n-3) PUFAs, in mental health is increasing. This review investigates whether n-3 PUFA levels are abnormal in people with three prevalent mental health problems - attention deficit hyperactivity disorder, depression, and dementia. Data sources included PUBMED, Web of Science, and bibliographies of papers published in English that describe PUFA levels in the circulation of individuals who have these mental health conditions. Although abnormal blood PUFA levels were reported in a number of studies, weighted comparisons of PUFA status showed no significant differences overall between people with mental health problems and controls. Whether those with low n-3 PUFA status are likely to be more responsive to n-3 PUFA supplementation is not yet resolved. Further studies assessing PUFA levels and mental status with greater uniformity are required in order to clarify the relationship between LC n-3 PUFA status and mental health.

Keywords: Alzheimer’s Disease, Attention, Attention Deficit Hyperactivity Disorder, Blood, Blood-Cell Membranes, Coronary Syndrome Patients, Dementia, Depression, Developmental Coordination Disorder, Disease, Disorder, Double-Blind, Health Conditions, Major Depression, Mental Health, Mild Cognitive Impairment, Omega-3-Fatty-Acid Docosahexaenoic Acid, Papers, Placebo-Controlled Trial, Polyunsaturated Fatty Acids, Postmortem Orbitofrontal Cortex, Pubmed, Randomized Controlled-Trial, Review, Science, Web of Science

# Title: Obesity

Full Journal Title: Obesity

ISO Abbreviated Title: Obesity

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Impact Factor

? Winzenberg, T., Shaw, K., Fryer, J. and Jones, G. (2007), Calcium supplements in healthy children do not affect weight gain, height, or body composition. *Obesity*, **15** (7), 1789-1798.

Abstract: Objective: Calcium intake is a potential factor influencing weight gain and may reduce body weight, but the evidence for this in children is conflicting. The aim of this study was to use data from randomized controlled trials to determine whether calcium supplementation in healthy children affects weight or body composition. Research Methods and Procedures: This study is a systematic review. We identified potential studies by searching the following electronic bibliographic databases: CENTRAL, MEDLINE, EMBASE, CINAHL, AMED, MANTIS, ISI Web of Science, Food Science and Technology Abstracts, and Human Nutrition up until April 1, 2005 and hand-searched relevant conference abstracts. Studies were included if they were placebo-controlled randomized controlled trials of calcium supplementation, with at least 3 months of supplementation, in healthy children and with outcome measures including weight. Meta-analyses were performed using fixed effects models and weighted mean differences for weight and height and standardized mean differences (SMDs) for body composition measures. Results: There were no statistically significant effects of calcium supplementation on weight [+0.14 kg; 95% confidence interval (CI), -0.28, +0.57 kg], height (+0.22 cm; 95% CI, -0.30, +0.74 cm), body fat (SMD, +0.04; 95% CI, -0.08, +0.15), or lean mass (SMD, +0.14; 95% CI, -0.03, +0.31). Discussion: There is no evidence to support the use of calcium supplementation as a public health intervention to reduce weight gain or body fat in healthy children. Although our results do not rule out an effect of dietary supplementation with dairy products on weight gain or body composition, there is little evidence to support this hypothesis.

Keywords: Adolescent Girls, Bibliographic, Bibliographic Databases, Body Composition, Body Weight, Bone-Mineral Density, Calcium, Children, Clinical Trials, Clinical-Trials, Dairy Intake, Databases, Dietary Calcium, Double-Blind, Embase, Human, Intervention, ISI, Medline, Methods, Outcome, Physical-Activity, Placebo-Controlled Trial, Prepubertal Girls, Public Health, Randomized Controlled Trials, Research, Review, Science, Systematic, Systematic Review, Systematic Reviews, Web of Science, Weight Gain

? Oreopoulos, A., Padwal, R., Norris, C.M., Mullen, J.C., Pretorius, V. and Kalantar-Zadeh, K. (2008), Effect of obesity on short- and long-term mortality postcoronary revascularization: A meta-analysis. *Obesity*, **16** (2), 442-450.

Abstract: Objective: Overweight and obesity are often assumed to be risk factors for postprocedural mortality in patients with coronary artery disease (CAD). However, recent studies have described an “obesity paradox”-a neutral or beneficial association between obesity and mortality postcoronary revascularization. We reviewed the effect of overweight and obesity systematically on short- and long-term all-cause mortality post-coronary artery bypass grafting (CABG) and post-percutaneous coronary intervention (PCI). Methods: We searched the Cochrane Central Register of Controlled Trials, MEDLINE, EMBASE, Scopus, and Web of Science to identify cohort, case control, and randomized controlled studies evaluating the effect of obesity on in-hospital/short-term (within 30 days) and long-term (up to 5 years) mortality. Full-text, published articles reporting all-cause mortality between individuals with and without elevated BMI were included. Two reviewers independently assessed studies for inclusion and performed data extraction. Results: Twenty-two cohort publications were identified, reporting results in ten post-PCI and twelve post-CABG populations. Compared to individuals with non-elevated BMI levels, obese patients undergoing PCI had lower short- (odds ratio (OR) 0.63; 95% confidence interval (CI) 0.54-0.73) and long-term mortality (OR 0.65; 95% CI 0.51-0.83). Post-CABG, obese patients had lower short-term (OR 0.63; 95% CI 0.56-0.71) and similar long-term (OR 0.88; 95% CI 0.60-1.29) mortality risk compared to normal weight individuals. Results were similar in overweight patients for both procedures. Conclusions: Compared to non-obese individuals, overweight and obese patients have similar or lower short- and long-term mortality rates postcoronary revascularization. Further research is needed to confirm the validity of these findings and delineate potential underlying mechanisms.

Keywords: Artery-Bypass-Surgery, BMI, Body-Mass Index, Cardiac-Surgery, Case-Control, Chronic Heart-Failure, Cochrane, Control, Controlled Studies, Coronary Artery Disease, Disease, Embase, Extreme Obesity, Graft-Surgery, Impact, Intervention, Medline, Meta-Analysis, Methods, Mortality, Normal, Obesity, Outcomes, Overweight, PCI, Percutaneous Coronary Intervention, Publications, Ratio, Research, Risk, Risk Factors, Risk-Factors, Science, Scopus, Validity, Web of Science

# Title: Obesity Research

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Endocrinology & Metabolism: Impact Factor 3.409, 25/88 (2003)

Nutrition & Dietetics: Impact Factor 3.409, 4/53 (2003)

Sokar-Todd, H.B. and Sharma, A.M. (2004), Obesity research in Canada: Literature overview of the last 3 decades. *Obesity Research*, **12** (1), 1547-1553.

Full Text: [2004\Obe Res12, 1547.pdf](2004/Obe%20Res12,%201547.pdf)

Abstract: OBJECTIVE: To identify research published on obesity in Canada, to explore the range of areas studied, and to identify gaps and areas that merit future research attention. RESEARCH METHODS and PROCEDURES: MEDLINE and International Pharmaceutical Abstracts databases were searched from 1970 onwards. Original articles were identified and categorized by areas of interest. RESULTS: A total of 1186 relevant articles were identified: 17, 136, 687, and 346 articles during the 1970s, 1980s, 1990s, and 2000 to 2003, respectively. Of the articles, 816 were considered original studies and accepted for this analysis. Twelve research areas were identified: basic science involving animal experiments (29%), human experiments (16%), populations surveys (14%), obesity-related comorbidities (13%), diagnostic/surgical issues (11%), nonpharmacological approaches (7%), drug-related issues (4%), anthropometrics (2%), impact of weight loss (2%), cost/healthcare use (1%), attitudes/perceptions (0.9%), and models/procedures (0.5%). Two-thirds of all research was conducted in Quebec (34%) and Ontario (33%). DISCUSSION: Given the multifactorial nature of obesity, Canadian obesity research covers a broad range of areas with a predominance of basic science but lesser emphasis on community and primary care studies. Furthermore, there was a paucity of research on either clinical management of medical conditions in obese patients or clinical aspects that go beyond weight loss. Thus, although Canada appears well represented in basic research, more attention to exploration of clinical issues and healthcare delivery for obese patients appears warranted.

? Sonnenberg, G.E., Krakower, G.R. and Kissebah, A.H. (2004), A novel pathway to the manifestations of metabolic syndrome. *Obesity Research*, **12** (2), 180-186.

Full Text: [2004\Obe Res12, 180.pdf](2004/Obe%20Res12,%20180.pdf)

Abstract: Pathways leading from obesity to the manifestations of metabolic syndrome involve a number of metabolic risk factors, as well as adipokines, mediators of inflammatory response, thrombogenic and thrombolytic parameters, and vascular endothelial reactivity. Increased adipose tissue mass contributes to augmented secretion of proinflammatory adipokines, particularly tumor necrosis factor-alpha (TNFalpha), along with diminished secretion of the ‘protective’ adiponectin. In our view, TNFalpha and adiponectin are antagonistic in stimulating nuclear transcription factor-kappaB (NF-kappaB) activation. Through this activation, TNFa induces oxidative stress, which exacerbates pathological processes leading to oxidized low-density lipoprotein and dyslipidemia, glucose intolerance, insulin resistance, hypertension, endothelial dysfunction, and atherogenesis. NF-kappaB activation further stimulates the formation of additional inflammatory cytokines, along with adhesion molecules which promote endothelial dysfunction. Elevated free fatty acid, glucose, and insulin levels enhance this NF-kappaB activation and further downstream modulate specific clinical manifestations of metabolic syndrome.

Keywords: Adiponectin, TNF Alpha, Nf-Kappa B, Oxidative Stress, Tumor-Necrosis-Factor, C-Reactive Protein, Intercellular-Adhesion Molecule-1, Coronary-Artery-Disease, Kappa-B Activation, Dependent Diabetes-Mellitus, Complement-Related Protein, High-Density-Lipoprotein, Body-Fat Distribution, Insulin-Resistance

# Title: Obesity Reviews

Full Journal Title: [Obesity Reviews](http://www.blackwell-synergy.com/loi/obr)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

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? Liou, T.H., Pi-Sunyer, F.X. and Ho, Y.S. (2006), Bibliometric evaluation of obesity research in category of nutrition and dietetics. *Obesity Reviews*, **7** (S2), 286.

Full Text: [2006\Obe Rev7, 286.pdf](2006/Obe%20Rev7,%20286.pdf)

? Conroy, S., Ellis, R., Murray, C. and Chaw-Kant, J. (2007), An integrative review of Canadian childhood obesity prevention programmes. *Obesity Reviews*, **8** (1), 61-67.

Full Text: 2007\Obe Rev8, 61.pdf

Abstract: To examine successful Canadian nursing and health promotion intervention programmes for childhood obesity prevention during gestation and infancy, an integrative review was performed of the literature from 1980 to September 2005. The following databases were used: PUBMED; Cochrane Database of Systematic Reviews; Cochrane Controlled Trials Register; Database of Abstracts of Reviews of Effects; ACP journal Club; MEDLINE; EMBASE; CINAHL; Web of Science; Scopus; Sociological Abstracts; Sport Discus; PsycInfo; ERIC and HealthStar. MeSH headings included: infancy (0-24 months), gestation, gestational diabetes, nutrition, prenatal care, pregnancy, health education, pregnancy outcome, dietary services with limits of Canadian, term birth. of 2028 articles found, six Canadian childhood obesity prevention programmes implemented during gestation and/or infancy were found; three addressed gestational diabetes with five targeting low-income Canadian urban and/or Aboriginal populations. No intervention programmes specifically aimed to prevent childhood obesity during gestation or infancy. This paucity suggests that such a programme would be innovative and much needed in an effort to stem the alarming increase in obesity in children adults. Any attempts either to develop new approaches or to replicate interventions used with obese adults or even older children need careful evaluation and pilot testing prior to sustained use within the perinatal period.

? Cope, M.B., Erdman, J.W. and Allison, D.B. (2008), The potential role of soyfoods in weight and adiposity reduction: An evidence-based review. *Obesity Reviews*, **9** (3), 219-235.

Full Text: 2008\Obe Rev9, 219.pdf

Abstract: Evidence concerning the relationship between soyfoods and weight loss was reviewed. Detailed searches of PUBMED and Web of Science were performed to identify and evaluate evidence for or against four propositions related to soyfoods and weight loss (Data from in vitro, animal, epidemiologic, and clinical studies were evaluated and summarized). (1) Certain soyfoods will improve weight and/or fat loss when fed at isolcaloric levels (similar calories given across experimental conditions, but not necessarily at a level to maintain current body weight); generally supportive evidence in animal studies, but there is no compelling support in human studies. (2) Certain soyfoods will improve weight and fat loss when included as part of a diet by affecting caloric intake; limited supportive evidence in animal and human studies. (3) Certain soyfoods will prevent/improve risk factors related to glucoregulatory function and cardiovascular health during weight loss; some evidence supporting this proposition, but additional evidence is needed before conclusions can be made. (4) Certain soyfoods will minimize the loss of bone mass during weight loss; no data available pertinent to this proposition. Limitations in existing data make it difficult to reach conclusions regarding these four propositions. Overall, the current data suggest that soyfoods are as good as other protein sources for promoting weight loss and there is a suggestive body of evidence that soyfoods may confer additional benefits, but results must be carefully interpreted and additional evidence is needed before making firm conclusions concerning soyfoods and weight loss.

Keywords: Adiposity, Body Weight, Bone, Bone Loss, C-Reactive Protein, Cardiovascular, Cardiovascular Health, Diabetic Fatty Rats, Diet, Food-Intake, Gene-Expression, Genetically-Obese Mice, Human, Obesity, Plasma-Lipids, Postmenopausal Women, Pubmed, Review, Risk, Risk Factors, Science, Soy Protein Isolate, Soybean Beta-Conglycinin, Soyfoods, Web of Science, Weight Loss

? Lemmens, V.E.P.P., Oenema, A., Klepp, K.I., Henriksen, H.B. and Brug, J. (2008), A systematic review of the evidence regarding efficacy of obesity prevention interventions among adults. *Obesity Reviews*, **9** (5), 446-455.

Full Text: 2008\Obe Rev9, 446.pdf

Abstract: In the past, interventions aimed at reducing obesity have mainly targeted at weight loss treatment in obese adults, with limited long-term effects. With the increasing number of people being obese and being at risk for obesity, there has been a shift in focus towards prevention of obesity. We conducted a systematic review of the peer-reviewed literature on the efficacy of obesity prevention interventions in adults in order to identify effective interventions and intervention elements. PUBMED, OVID, and Web of Science databases were searched from January 1996 to June 2006. Interventions aimed at primary prevention of weight gain among adults achieved by focusing on dietary intake, physical activity or the combination of both were included. The outcome measure had to be difference in change in body mass index or body weight between the intervention and the control groups. Nine studies were included, five long-term studies (at least 1 year) and four short-term (3 months to 1 year). Seven studies evaluated an intervention that focused on a combination of diet and physical activity to prevent weight gain, one on diet only and one on physical activity only. One dietary intervention (long-term), and three combined dietary and physical activity interventions (one long-term and two short-term) produced significantly positive results at end of follow-up. The two long-term, effective interventions consisted of intensive and long-term intervention implementation, including groups sessions designed to promote behavioural changes. The current evidence of efficacy of obesity prevention interventions is based on a very small number of studies. Some studies showed a positive impact on body mass index or weight status, but there was too much heterogeneity in terms of study design, theoretical underpinning and target population to draw firm conclusions about which intervention approaches are more effective than others. More research is urgently needed to extend the body of evidence.

Keywords: Adults, Body Mass Index, Body Weight, Body-Mass-Index, Control, Control Groups, Databases, Diet, Effective Interventions, Efficacy, Epidemiology, Follow-Up, Global Nutrition Dynamics, Health, Impact, Intervention, Interventions, Literature, Obesity, Obesity Prevention, Outcome, Physical Activity, Physical-Activity, Pound, Prevention, Primary, Primary Prevention, Randomized Controlled-Trial, Research, Review, Risk, Science, Systematic, Systematic Review, Treatment, Web of Science, Weight Gain, Weight Loss, Weight-Gain, Women

? Trogdon, J.G., Finkelstein, E.A., Hylands, T., Dellea, P.S. and Kamal-Bahl, S.J. (2008), Indirect costs of obesity: A review of the current literature. *Obesity Reviews*, **9** (5), 489-500.

Full Text: 2008\Obe Rev9, 489.pdf

Abstract: This study reviews the recent literature on the relationship between obesity and indirect (non-medical) costs. MEDLINE and Web of Science searches were conducted to identify published studies from 1992 to present that report indirect costs by obesity status; 31 studies were included. The indirect costs were grouped into six categories: costs associated with absenteeism, disability, premature mortality, presenteeism, workers’ compensation, and total indirect costs. Compared with non-obese workers, obese workers miss more workdays due to illness, injury, or disability. Costs of premature mortality vary substantially across countries. The results for presenteeism and workers’ compensation were mixed. More research is needed to determine obesity’s causal role in increasing indirect costs, especially for workers’ compensation and presenteeism. Cohort and longitudinal study designs should be a priority.

Keywords: Absenteeism, Body-Mass Index, Chronic Diseases, Costs, Disability, Disability Pension, Economic Costs, Health-Risk Factors, Impact, Indirect Costs, Injury, Literature, Mortality, Obesity, Physical-Activity, Productivity, Research, Review, Science, Sick-Leave, United-States, Web of Science, Workers-Compensation

? Tang-Peronard, J.L. and Heitmann, B.L. (2008), Stigmatization of obese children and adolescents, the importance of gender. *Obesity Reviews*, **9** (6), 522-534.

Full Text: 2008\Obe Rev9, 522.pdf

Abstract: To review the literature on stigmatization of overweight girls and boys, with a specific attention to gender differences, a search was performed in the medical as well as the psychological literature. The following databases, MEDLINE, PsycINFO, EMBASE, Scopus, Web of Science and Cochrane as well as Google were used to retrieve information. Finally, chain references were sought. The search was concluded mid-2006. In total, 17 studies were identified. The results from the studies generally indicated that overweight girls seemed to experience a higher degree of stigmatization than overweight boys. The overweight girls were to a larger degree teased about their weight and relationally, verbally and physically bullied. In addition, they were more socially marginalized in respect to friendships and romantic relationships. Stigmatization of overweight children and adolescents indeed occurs, but is more prevalent in overweight girls than overweight boys. There is a need to conduct further studies that are specifically designed to evaluate gender differences in stigmatization of overweight children and adolescents, and for studies focusing on preventing this stigmatization.

Keywords: Adolescents, Attention, Body Build Stereotypes, Childhood Obesity, Children, Cochrane, Databases, Discrimination, Eating Behaviors, Embase, Gender, Information, Literature, Medical, Overweight, Overweight Children, Peer Victimization, Physical-Activity, Psychological, Psychological Consequences, Review, Science, Scopus, Self-Esteem, United-States, Web of Science, Weight Stigmatization, Young Adulthood

? Vioque, J., Ramos, J.M., Navarrete-Munoz, E.M. and Garcia-de-la-Hera, M. (2010), A bibliometric study of scientific literature on obesity research in PubMed (1988-2007). *Obesity Reviews*, **11** (8), 603-611.

Full Text: [2010\Obe Rev11, 603.pdf](2010/Obe%20Rev11,%20603.pdf)

Abstract: This article describes a bibliometric review of the publications on obesity research in PubMed over the last 20 years. We used Medline via the PubMed online service of the US National Library of Medicine from 1988 to 2007. The search strategy was: ([obesity] in MesH). A total of 58 325 references were retrieved, 25.5% in 1988-1997, and 74.5% in 1998-2007. The growth in the number of publications showed an exponential increase. The references were published in 3613 different journals, with 20 journals contributing 25% of obesity literature. The two journals contributing most were the International Journal of Obesity (5.1%), Obesity-Obesity Research (2.9%). North America and Europe were the most productive world areas with 44.1% and 37.9% of the literature, respectively. The US was the predominant country in number of publications, followed by the United Kingdom, Japan and Italy. The ranking of production changed when the number of publications was normalized by population, gross domestic product and obesity prevalence by countries. The great increase of publications on obesity during the period 19882007 was particularly evident in the second decade of the period which is concordant with the worldwide obesity epidemic. USA and Europe were leaders in the production of scientific articles on obesity.

Keywords: Agencies, Bibliometric, Bibliometry, Burden, Developing-Countries, Europe, Fields, Impact, Literature Review, Medicine, Obesity, Public-Health, Research, Services, Trends, US

? Vioque, J., Ramos, J.M., Navarrete-Muñoz, E.M. and Garcia-de-la-Hera, M. (2010), A bibliometric study of scientific literature on obesity research in PubMed (1988-2007). *Obesity Reviews*, **11** (8), 603-611.

Full Text: [2010\Obe Rev11, 603.pdf](2010/Obe%20Rev11,%20603.pdf)

Abstract: This article describes a bibliometric review of the publications on obesity research in PubMed over the last 20 years. We used Medline via the PubMed online service of the US National Library of Medicine from 1988 to 2007. The search strategy was: ([obesity] in MesH). A total of 58 325 references were retrieved, 25.5% in 1988-1997, and 74.5% in 1998-2007. The growth in the number of publications showed an exponential increase. The references were published in 3613 different journals, with 20 journals contributing 25% of obesity literature. The two journals contributing most were the International Journal of Obesity (5.1%), Obesity-Obesity Research (2.9%). North America and Europe were the most productive world areas with 44.1% and 37.9% of the literature, respectively. The US was the predominant country in number of publications, followed by the United Kingdom, Japan and Italy. The ranking of production changed when the number of publications was normalized by population, gross domestic product and obesity prevalence by countries. The great increase of publications on obesity during the period 1988-2007 was particularly evident in the second decade of the period which is concordant with the worldwide obesity epidemic. USA and Europe were leaders in the production of scientific articles on obesity.

Keywords: Agencies, Bibliometric, Bibliometry, Burden, Developing-Countries, Europe, Fields, Impact, Literature Review, Medicine, Obesity, Public-Health, Research, Services, Trends, US

? Monasta, L., Batty, G.D., Cattaneo, A., Lutje, V., Ronfani, L., van Lenthe, F.J. and Brug, J. (2010), Early-life determinants of overweight and obesity: A review of systematic reviews. *Obesity Reviews*, **11** (10), 695-708.

Full Text: 2010\Obe Rev11, 695.pdf

Abstract: P>The aim of this paper was to review the evidence for early-life (from conception to 5 years of age) determinants of obesity. The design is review of published systematic reviews. Data sources included MEDLINE, EMBASE, Web of Science, Cochrane Library, CINAHL, PsycINFO. Identification of 22 eligible reviews from a database of 12 021 independent publications. Quality of selected reviews assessed using the Assessment of Multiple Systematic Reviews score. Articles published after the reviews were used to confirm results. No review was classified as high quality, 11 as moderate and 11 as low. Factors associated with later overweight and obesity: maternal diabetes, maternal smoking, rapid infant growth, no or short breastfeeding, obesity in infancy, short sleep duration, < 30 min of daily physical activity, consumption of sugar-sweetened beverages. Other factors were identified as potentially relevant, although the size of their effect is difficult to estimate. Maternal smoking, breastfeeding, infant size and growth, short sleep duration and television viewing are supported by better-quality reviews. It is difficult to establish a causal association between possible determinants and obesity, and the relative importance of each determinant. Future research should focus on early-life interventions to confirm the role of protective and risk factors and to tackle the high burden obesity represents for present and future generations.

Keywords: Articles, Assessment, Body-Mass Index, Burden, Childhood Obesity, Children, Cochrane, Determinants, Diabetes, Factors, Interventions, Maternal, Maternal Smoking, Obesity, Offspring Birth-Weight, Overweight, Physical Activity, Physical-Activity, Preschool-Children, Publications, Quality, Randomized-Trial, Research, Review, Risk, Risk Factors, Risk-Factors, Science, Short-Sleep Duration, Smoking, Socioeconomic-Status, Systematic, Systematic Reviews, Web of Science

? de Moraes, A.C.F., Fadoni, R.P., Ricardi, L.M., Souza, T.C., Rosaneli, C.F., Nakashima, A.T.A. and Falcao, M.C. (2011), Prevalence of abdominal obesity in adolescents: A systematic review. *Obesity Reviews*, **12** (2), 69-77.

Full Text: 2010\Obe Rev12, 69.pdf

Abstract: The objectives of this study were to (i) review extant literature on the prevalence of abdominal obesity (AO) in adolescents of both sex (10-19 years old); (ii) analyse the cut-off points used for the diagnosis of AO and (iii) compare its prevalence between developed and developing countries. The search was carried out using online databases (MEDLINE, Web of Science, EMBASE, SPORTDiscus, SCIELO and BioMed Central), references cited by retrieved articles and by contact with the authors, considering articles published from the establishment of the databanks until 19 October 2009. Only original articles and those using waist circumference in the diagnosis were considered. Twenty-nine studies met the inclusion criteria. Fourteen of these studies were performed in developed countries. The prevalence of AO varied from 3.8% to 51.7% in adolescents from developing countries. The range of results was smaller among developed countries; with values from 8.7% to 33.2%. Eighteen different cut-off points were used. It was concluded the AO prevalence is high among adolescents, but is not clear what sex has a higher proportion and it is greater in adolescents from developing countries; however, there is no consensus in the literature about the criteria to be used.

Keywords: 3rd National-Health, Adolescents, Authors, Body-Mass-Index, Cross-Sectional Study, Databases, Developing Countries, Diagnosis, Embase, Hip-Ratio, Insulin-Resistance, Korean Adolescents, Literature, Medline, Metabolic Syndrome Phenotype, Nutrition-Examination-Survey, Obesity, Points, Prevalence, Review, Risk-Factors, Scielo, Science, Systematic, Systematic Review, Treatment-Panel-Iii, Waist Circumference, Waist-Circumference, Web of Science

? Giskes, K., van Lenthe, F., vendano-Pabon, M. and Brug, J. (2011), A systematic review of environmental factors and obesogenic dietary intakes among adults: Are we getting closer to understanding obesogenic environments? *Obesity Reviews*, **12** (501), e95-e106.

Full Text: 2011\Obe Rev12, e95.pdf

Abstract: P>This study examined whether physical, social, cultural and economical environmental factors are associated with obesogenic dietary behaviours and overweight/obesity among adults. Literature searches of databases (i.e. PUBMED, CSA Illumina, Web of Science, PsychInfo) identified studies examining environmental factors and the consumption of energy, fat, fibre, fruit, vegetables, sugar-sweetened drinks, meal patterns and weight status. Twenty-eight studies were in-scope, the majority (n = 16) were conducted in the USA. Weight status was consistently associated with the food environment; greater accessibility to supermarkets or less access to takeaway outlets were associated with a lower BMI or prevalence of overweight/obesity. However, obesogenic dietary behaviours did not mirror these associations; mixed associations were found between the environment and obesogenic dietary behaviours. Living in a socioeconomically-deprived area was the only environmental factor consistently associated with a number of obesogenic dietary behaviours. Associations between the environment and weight status are more consistent than that seen between the environment and dietary behaviours. The environment may play an important role in the development of overweight/obesity, however the dietary mechanisms that contribute to this remain unclear and the physical activity environment may also play an important role in weight gain, overweight and obesity.

Keywords: Adults, Bmi, Body-Mass Index, Databases, Development, Diet, Energy Density, Environment, Environmental, Health-Risk Behaviors, Local Food Environment, Multilevel Analysis, Neighborhood Deprivation, Obesity, Overweight, Physical Activity, Prevalence, Pubmed, Review, Science, Social, Socioeconomic-Status, Systematic, Systematic Review, Us Adults, Vegetable Consumption, Vegetables, Web of Science, Weight Gain, Weight Status, Weight Status

? Monasta, L., Batty, G.D., Macaluso, A., Ronfani, L., Lutje, V., Bavcar, A., van Lenthe, F.J., Brug, J. and Cattaneo, A. (2011), Interventions for the prevention of overweight and obesity in preschool children: A systematic review of randomized controlled trials. *Obesity Reviews*, **12** (501), e107-e118.

Full Text: 2011\Obe Rev12, e107.pdf

Abstract: P>The objective of this study was to analyse interventions for the prevention of overweight and obesity in children under 5 years of age. We carried out a systematic review focusing exclusively on randomized controlled trials (RCTs). Data sources include MEDLINE, Cochrane Library, EMBASE, CINHAL, PsychInfo and Web of Science. Data were extracted from seventeen articles describing seven RCTs identified through electronic search, screening of references in systematic reviews, own files and contact with authors. RCTs were assessed with the Jadad scale. Four trials were carried out in preschool settings, one with an exclusive educational component, two with an exclusive physical activity component and one with both. Two trials were family-based, with education and counselling for parents and children. The remaining trial was carried out in maternity hospitals, with a training intervention on breastfeeding. None of the interventions had an effect in preventing overweight and obesity. The failure to show an effect may be due to the choice of outcomes, the quality of the RCTs, the suboptimal implementation of the interventions, the lack of focus on social and environmental determinants. More rigorous research is needed on interventions and on social and environmental factors that could impact on lifestyle.

Keywords: Authors, Blood-Pressure, Children, Cholesterol, Cochrane, Determinants, Education, Embase, Environmental, Follow-Up, Health Jr., Hip-Hop, Hospitals, Impact, Intervention, Interventions, Minority Children, Obesity, Outcomes, Overweight, Parents, Physical Activity, Physical-Activity, Preschool Children, Prevention, Program, Promotion, Randomized Controlled Trials, Research, Review, Saturated Fat, Science, Screening, Social, Systematic, Systematic Review, Systematic Reviews, Training, Web of Science

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? Sanchez-Santos, R., Estevez, S., Tome, C., Gonzalez, S., Brox, A., Nicolas, R., Crego, R., Pinon, M., Masdevall, C. and Torres, A. (2012), Training programs influence in the learning curve of laparoscopic gastric bypass for morbid obesity: A systematic review. *Obesity Surgery*, **22** (1), 34-41.

Full Text: [2012\Obe Sur22, 34.pdf](2012/Obe%20Sur22,%2034.pdf)

Abstract: The makeup of a new surgical bariatric team may be associated with a higher number of postoperative complications due to the learning curve. The aim of this study was to evaluate the outcomes during the learning curve of laparoscopic gastric bypass (LGBP) depending on surgeons’ training. A systematic approach was used to review studies from the Pubmed, Embase (Ovid), Cancer Lit, Biomes Central via Scirus, Current Contens (ISI), and Web of Science (SCI) databases. Two reviewers independently screened all titles/abstracts and included/excluded studies based on full copies of manuscripts. The outcomes included were: specific training of the surgeon, postoperative complications (leaks, occlusion, hemorrhage, pneumonia, etc.), mortality, and surgical technique. One reviewer put data onto an Excel spreadsheet. Statistical analysis was performed with weighted linear regression. We identified 448 citations, of which 120 abstract and 50 full-text publications were reviewed. Fourteen papers were selected. Data from 1,848 patients were included. Eighteen different surgeons were analyzed during their learning curve (including the first author of this study). Surgeons were divided into two groups: (1) without formal laparoscopic bariatric training (13 surgeons) and (2) with formal laparoscopic bariatric training (five surgeons). Postoperative complications were more frequent in group 1: 18.1% (+/- 7.6) vs. 7.7% (+/- 1.96, p = 0.046); also, mortality was more frequent in group 1: 0.57% (+/- 0.87) vs. 0% (p = 0.05). An appropriated training in laparoscopic bariatric surgery contributes to a significant reduction in postoperative complications and mortality during the learning curve of LGBP.

Keywords: Acquisition, Analysis, Author, Bariatric Surgery, Bariatric Surgery, Biomes, Cancer, Citations, Complications, Databases, Early Outcomes, Experience, Gastric Bypass, Health-Care Use, Impact, Influence, Isi, Learning, Learning Curve, Linear Regression, Long-Term Mortality, Manuscripts, Metaanalysis, Mortality, Obesity, Outcomes, Papers, Patients, Pneumonia, Postoperative Complications, Publications, Reduction, Review, SCI, Science, Skills, Surgery, Surgical, Systematic, Systematic Review, Training, Training Programs, Web of Science, Web-of-Science

? Godoy, C.M.D., Caetano, A.L., Viana, K.R.S., de Godoy, E.P., Barbosa, A.L.C. and Ferraz, E.M. (2012), Food tolerance in patients submitted to gastric bypass: The importance of using an integrated and interdisciplinary approach. *Obesity Surgery*, **22** (1), 124-130.

Full Text: [2012\Obe Sur22, 124.pdf](2012/Obe%20Sur22,%20124.pdf)

Abstract: Under the restrictive component, patients undergoing gastric bypass may have food intolerance with or without complications. This study used quantitative, analytical, observational methodology with patients submitted to Roux-en-Y gastric bypass without the placement of a ring at Hospital Universitario do Rio Grande do Norte in the city of Natal, Brazil between July 2005 and August 2010. Out of 176 patients monitored after surgery by the interdisciplinary team, 47 took part in the study. Two questionnaires were applied to participants: one elaborated by Suter et al. and previously validated for assessment of food tolerance and another to characterize schooling and socioeconomic status. Evaluation of food tolerance considered patient satisfaction with eating, most accepted food types, and frequency of vomiting and/or regurgitation. After application of the first questionnaire, a score was generated, characterizing food intolerance. Of the 47 patients evaluated, 85.1% classified their degree of food satisfaction as good or excellent. Red meat was the most cited as being difficult to ingest (38.3%), representing a significant impact on overall tolerance level (P < 0.001); 48.9% of participants exhibited rare episodes of vomiting, which resulted in a mean food tolerance score of 23.02 (2.87 +/- SD). Moreover, socioeconomic status showed a significant correlation with tolerance level (P = 0.032). The degree of food tolerance observed in the study sample was better than that obtained in other investigations using similar methodology. The questionnaire proved to be useful in evaluating food quality and comparing postoperative results. Socioeconomic status was correlated with food tolerance level.

Keywords: Approach, Assessment, Bariatric Surgery, Bariatric Surgery, Brazil, Complications, Eating Behavior, Evaluation, Food, Food Tolerance, Frequency, Gastric Bypass, Hospital, Impact, Interdisciplinary, Meat, Methodology, Morbidly Obese-Patients, Nutritional Deficiencies, Observational, Patient Satisfaction, Patients, Quality, Quantitative, Questionnaire, Questionnaires, Socioeconomic, Socioeconomic Status, Surgery

# Title: Obstetrical & Gynecological Survey

Full Journal Title: Obstetrical & Gynecological Survey

ISO Abbreviated Title:

JCR Abbreviated Title:

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Issues/Year:

Journal Country

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Publisher Address:

Subject Categories:

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? Wechter, M.E., Wu, J.M., Marzano, D. and Haefner, H. (2009), Management of bartholin duct cysts and abscesses: A systematic review. *Obstetrical & Gynecological Survey*, **64** (6), 395-404.

Abstract: Objective. To review systematically the literature, published in English, on recurrence and healing after treatment of Bartholin duct cysts and abscesses. Data Sources. We searched PUBMED, EMBASE, CINAHL, LILACS, Web-of-science, the Cochrane database, and POPLINE from 1982 until May 2008. We searched the internet, hand-searched reference lists, and contacted experts and authors of relevant papers to detect all published and unpublished studies. Methods of Study Selection. We included any study with at least 10 participants, addressing either frequency of recurrence or healing time after treatment of Bartholin duct cyst or abscess. We followed MOOSE (meta-analysis of observational studies in epidemiology) guidelines. of 532 articles identified, 24 studies (5 controlled trials, 2 cohort studies, and 17 case series) met all inclusion criteria. Study size ranged between 14 and 200 patients. Tabulation, Integration, and Results. The interventions included: (1) Silver nitrate gland ablation, (2) cyst or abscess fenestration, ablation, or excision using carbon dioxide (CO,) laser, (3) marsupialization, (4) needle aspiration with or without alcohol sclerotherapy, (5) fistulization using a Word catheter, Foley catheter, or Jacobi ring, (6) gland excision, and (7) incision and drainage followed by primary suture closure. The reported frequency of recurrence varied from 0% to 38%. There was no recurrence after marsupialization in available studies. Recurrence after other treatments varied, and was most common after aspiration alone. Healing generally occurred in 2 weeks or less. Conclusion. There are multiple treatments for Bartholin duct cysts and abscesses. A review of the literature failed to identify a best treatment approach. Target Audience: Obstetricians & Gynecologists, Family Physicians Learning Objectives: After completion of this article, the reader should be able to identify seven different treatments for Bartholin duct cysts or abscesses, contrast treatment choice complications and recurrence risks for the different options for treatment of Bartholin duct cysts or abscesses, and point out the limited quality and quantity of data upon which to choose best practices.

Keywords: Alcohol, Aspiration, Authors, Carbon Dioxide, Carbon-Dioxide Laser, Case Series, Catheter, Co2-Laser, Cochrane, Cohort Studies, Embase, Epidemiology, Excision, Frequency, Gland Cyst, Guidelines, Integration, Interventions, Literature, Management, Marsupialization, Meta-Analysis, Methods, Nitrate, Observational, Observational Studies, Outpatient Management, Papers, Primary, Pubmed, Recurrence, Review, Silver-Nitrate, Sources, Systematic, Systematic Review, Treatment, Vaporization, Web of Science

? Basaran, A., Basaran, M. and Topatan, B. (2010), Combined vitamin C and E supplementation for the prevention of preeclampsia: A systematic review and meta-analysis. *Obstetrical & Gynecological Survey*, **65** (10), 653-667.

Abstract: Objective. To perform a systematic review and meta-analysis of the effectiveness of combined vitamin C and E (vitCE) supplementation for the prevention of preeclampsia. Data Sources. PUBMED, Web of Science, and Cochrane Central Register of Controlled Trials from inception through June 2010, and bibliographies of review articles and eligible studies. Methods of Study Selection. Fifteen eligible studies that evaluated vitCE supplementation for the prevention of preeclampsia were identified. On the basis of prespecified inclusion and exclusion criteria, 9 were included in the meta-analysis. All were randomized controlled trials. The reporting and methodologic quality of the included studies was assessed with the CONSORT checklist and the Jadad scale. Tabulation, Integration, and Results. The 9 included studies had moderate-to-high CONSORT and Jadad scores. The incidence of preeclampsia was 9.7% (949 of 9833) in the vitCE group and 9.5% (946 of 9842) in the placebo group. A random effects model was used for pooling and no difference was found in the relative risk (RR) of preeclampsia between the vitCE and placebo groups (RR: 0.98; 95% confidence interval [CI]: 0.87-1.10). The incidence of gestational hypertension was 22.6% (1915 of 8491) in the vitCE group and 20.3% (1728 of 8500) in the placebo group (RR: 1.11, 95% CI: 1.05-1.17). The incidence of placental abruption was 0.58% (43 of 7379) in the vitCE group and 0.87% (64 of 7361) in the placebo group (RR: 0.67, 95% CI: 0.46-0.98). No significant differences were observed for other maternal and neonatal outcomes. Conclusion. Combined VitCE supplementation does not decrease the risk of preeclampsia and should not be offered to gravidas for the prevention of preeclampsia or other pregnancy induced hypertensive disorders. Furthermore, combined supplementation with vitCE increased the risk of GH but decreased the risk of placental abruption. However, these latter associations may not be causal, especially since they were the product of multiple statistical comparisons, and the 95% CI around the point estimates almost included one. Learning Objectives: After completion of this educational activity, the obstetrician/gynecologist should be better able to assess the causes of preeclampsia and related conditions; evaluate and interpret the evidence regarding the use of combined vitamins C and E in prevention of preeclampsia and related conditions; and interpret and understand the effects of the supplementation of vitamins C and E for the prevention of preeclampsia or other pregnancy induced hypertensive disorders.

Keywords: Cochrane, Complications, Consort, Effectiveness, Health, High-Risk, Hypertension, Incidence, Induced, Integration, Meta-Analysis, Methods, Model, Outcomes, Oxidative Stress, Placebo-Controlled Trial, Plasma, Preeclampsia, Pregnancy, Pregnant-Women, Prevention, Randomized Controlled Trials, Randomized-Trial, Relative Risk, Review, Risk, Science, Sources, Statistical, Systematic, Systematic Review, Web of Science

? Hoedjes, M., Berks, D., Vogel, I., Franx, A., Visser, W., Duvekot, J.J., Habbema, J.D.F., Steegers, E.A.P. and Raat, H. (2010), Effect of postpartum lifestyle interventions on weight loss, smoking cessation, and prevention of smoking relapse: A systematic review. *Obstetrical & Gynecological Survey*, **65** (10), 631-652.

Abstract: Postpartum lifestyle interventions are recommended for women after pregnancies complicated by preeclampsia, intrauterine growth restriction, and/or gestational diabetes, since they are at increased cardiovascular risk. To identify potential intervention strategies to reduce this risk, a systematic review of the literature is presented on the effectiveness of postpartum lifestyle interventions aimed at weight loss, smoking cessation, and smoking relapse prevention. The main characteristics of these postpartum lifestyle interventions are briefly described. The PUBMED, EMBASE, Web of Science, PsychInfo, and Cinahl databases were searched for studies on the effects of postpartum lifestyle interventions on weight loss, and smoking cessation or prevention of smoking relapse, initiated for up to 1 year postpartum. No studies on the effectiveness of postpartum lifestyle interventions after the aforementioned specific pregnancy complications were found. However, 21 studies are included that describe existing postpartum lifestyle interventions, which were applied to unselected (on the basis of pregnancy complications) postpartum women. Six of 8 weight loss interventions, 4 of 5 smoking cessation interventions, and 4 of 8 smoking relapse prevention interventions were effective. Individually tailored counseling, group counseling sessions, and use of diaries or other correspondence materials were shown to be effective. Currently, postpartum lifestyle interventions tailored specifically for women who experienced the pregnancy complications are lacking. While awaiting their development, it seems reasonable to utilize existing lifestyle interventions shown to be effective in unselected postpartum women. Learning Objectives: After completion of this educational activity, the obstetrician/gynecologist should be better able to: counsel patients on how to apply existing postpartum lifestyle intervention strategies aimed at weight loss, smoking cessation, and smoking relapse prevention to lower future cardiovascular risk; and educate postpartum women who have experienced preeclampsia, intra-uterine growth restriction, and/or gestational diabetes about their increased cardiovascular risk later in life.

Keywords: Aerobic Exercise, Cardiovascular, Cardiovascular Risk, Cardiovascular-Disease, Cessation, Correspondence, Databases, Development, Diabetes, Effectiveness, Gestational Diabetes, Gestational Diabetes-Mellitus, Intervention, Interventions, Lactating Women, Lifestyle Intervention, Literature, Physical-Activity, Postpartum, Pregnancy, Pregnancy Complications, Prevention, Psychosocial Factors, Pubmed, Randomized Controlled-Trial, Retrospective Cohort, Review, Risk, Science, Severe Preeclampsia, Smoking, Systematic, Systematic Review, Web of Science, Weight Loss, Women

# Title: Obstetrics and Gynecology

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Obstetrics & Gynecology: Impact Factor 2.482, 6/52 (2002)

? Ettinger, B., Friedman, G.D., Bush, T. and Quesenberry, C.P. (1996), Reduced mortality associated with long-term postmenopausal estrogen therapy. *Obstetrics and Gynecology*, **87** (1), 6-12.

Full Text: [O\Obs Gyn87, 6.pdf](O/Obs%20Gyn87,%206.pdf)

Abstract: Objective: To compare all-cause and specific-cause mortality rates in women who had or had not used long-term postmenopausal estrogen replacement therapy (ERT).

Methods: We identified women who used long-term postmenopausal ERT and compared them with a sample of age-matched postmenopausal nonusers. Through linking of these subjects’ medical record numbers to various data bases, we examined survivorship and cause of death among estrogen users and nonusers. The risk of death in 232 postmenopausal women who began ERT within 3 years of menopause and used it for at least 5 years was compared with that of 222 age-matched postmenopausal nonusers. In the users, the mean length of estrogen use was 17.1 years.

Results: Statistically significant reductions in all-cause mortality were found in users compared with nonusers. For death from any cause, the age-adjusted relative risk (RR) and associated 95% confidence interval (CI) in estrogen users was 0.54 (0.38-0.76). The reduction in all-cause mortality was largely due to reductions in coronary heart disease (RR 0.40, CI 0.16-1.02) and other cardiovascular disease (RR 0.27, CI 0.10-0.71). Overall cancer mortality was similar in the two groups (RR 0.85, CI 0.46-1.58), although estrogen users had a higher risk of death from breast cancer (RR 1.89, CI 0.43-8.36) and lower risk of death from lung cancer (RR 0.22 CI 0.04-1.15).

Conclusion: Long-term ERT use is associated with lower all-cause mortality and confers this apparent protection primarily through reduction in cardiovascular disease.

Keywords: Hormone Replacement Therapy, Follow-Up, Women, Linkage, Cohort, Users

Sandberg, E.C. (1999), The Zavanelli maneuver: 12 years of recorded experience. *Obstetrics and Gynecology*, **93** (2), 312-317.

Full Text: [1999\Obs Gyn93, 312.pdf](1999/Obs%20Gyn93,%20312.pdf)

Abstract: Objective: To evaluate the applicability and safety of the Zavanelli maneuver (manual return to the vagina of the partially born but undeliverable fetus with subsequent extraction by cesarean).

Data Sources: MEDLINE computer database, Science Citation Index, and Index Medicus, 1985 through 1997 using the search terms Zavanelli maneuver, cephalic replacement, abdominal rescue, head entrapment, and shoulder dystocia.

Method of Study Selection: Efforts to return 103 partially born but undeliverable fetuses to the uterus have been reported in 30 publications since the first case was reported in 1985. All cases were accepted for review, successful or not.

Tabulation, Integration, and Results: Clinically relevant features were extracted from each case report. In 92 cases, fetuses presented by the vertex. Cephalic replacement was successful in 84 of those. In 11 cases, the fetus presented by the breech. Podalic replacement was successful in all of those. Seven women suffered tissue-disruptive trauma. There were no maternal deaths or fetal injuries ascribed to the maneuver.

Conclusion: The 92% overall success rate is remarkable for a new procedure, even more noteworthy, in most cases it was applied by operators with no experience with it, and for cephalic replacement, it was used only after conventional maneuvers had failed. Using it early in the treatment of obstructed partial vaginal delivery is recommended.

? Allaire, A.D., Moos, M.K. and Wells, S.R. (2000), Complementary and alternative medicine in pregnancy: A survey of North Carolina certified nurse-midwives. *Obstetrics and Gynecology*, **95** (1), 19-23.

Full Text: [O\Obs Gyn95, 19.pdf](O/Obs%20Gyn95,%2019.pdf)

Abstract: Objective: To determine the prevalence and types of complementary and alternative medicine therapies used by certified nurse-midwives in North Carolina.

Methods: Surveys were sent to all 120 licensed certified nurse-midwives in North Carolina requesting information concerning their recommendations for use of complementary and alternative medicine for their pregnant or postpartum patients.

Results: Eighty-two responses were received (68.3%). Seventy-seven (93.9%) reported recommending complementary and alternative medicine to their pregnant patients in the past year. Forty-seven (57.3%) reported recommending complementary and alternative medicine to more than 10% of patients. The percentage of nurse-midwives who recommended each type of complementary and alternative medicine was as follows: herbal therapy (73.2%), massage therapy (67.1%), chiropractic (57.3%), acupressure (52.4%), mind-body interventions (48.8%), aromatherapy (32.9%), homeopathy (30.5%), spiritual healing (23.2%), acupuncture (19.5%), and bioelectric or magnetic applications (14.6%). The 60 respondents who reported prescribing herbal therapies gave them for the following indications: nausea and vomiting, labor stimulation, perineal discomfort, lactation disorders, postpartum depression, preterm labor, postpartum hemorrhage, labor analgesia, and malpresentation.

Conclusion: Complementary and alternative medicine, especially herbal therapy, is commonly prescribed to pregnant women by nurse-midwives in North Carolina. (Obstet Gynecol 2000,95: 19-23, (C) 2000 by The American College of Obstetricians and Gynecologists.).

Keywords: United-States

Bush, T.L., Whiteman, M. and Flaws, J.A. (2001), Hormone replacement therapy and breast cancer: A qualitative review. *Obstetrics and Gynecology*, **98** (3), 498-508.

Full Text: [2001\Obs Gyn98, 498.pdf](2001/Obs%20Gyn98,%20498.pdf)

Abstract: OBJECTIVE: To assess whether recent epidemiologic evidence supports an association between use of estrogen replacement therapy or hormone replacement therapy and risk of breast cancer.

DATA SOURCES: The keywords ‘estrogen,’ ‘estrogen replacement therapy,’ or ‘hormone replacement therapy,’ and ‘breast cancer’ or ‘breast neoplasm,’ were used to search for articles published from 1975-2000 in MEDLINE and Dialogweb. Only articles published in peer-reviewed journals and containing original data were included in this review.

METHODS: Unadjusted or age-adjusted risk estimates for breast cancer among ever users of estrogen therapy compared with never users were abstracted from published articles or calculated using the data provided in the published reports.

TABULATION, INTEGRATION, and RESULTS: We found little consistency among studies that estimated the risk of breast cancer in hormone users compared with nonusers and in studies assessing the risk by duration of use. However, there was consistently a lower risk of death from breast cancer in hormone users compared with nonusers.

CONCLUSION: The evidence did not support the hypotheses that estrogen use increases the risk of breast cancer and that combined hormone therapy increases the risk more than estrogen only. Additional observational studies are unlikely to alter this conclusion. Although a small increase in breast cancer risk with hormone therapy or an increased risk with long duration of use (15 years or more) cannot be ruled out, the likelihood of this must be small, given the large number of studies conducted to date. (C) 2001 by the American College of Obstetricians and Gynecologists.

Keywords: Estrogen-Progestin-Replacement, Iowa Womens Health, Middle-Aged Women, Endometrial Cancer, Postmenopausal Women, Menopausal Estrogen, Exogenous Estrogens, United-States, Oral-Contraceptives, Reproductive Factors

? Dodson, W.C. (2003), A demographic analysis of the origin of papers published in obstetrics and gynecology. *Obstetrics and Gynecology*, **101** (5), 955-958.

Full Text: [2004\Obs Gyn101, 955.pdf](2004/Obs%20Gyn101,%20955.pdf)

Abstract: OBJECTIVE: To ascertain temporal trends in the number and share of papers originating from work sites in the ten districts of The American College of Obstetricians and Gynecologists (ACOG) and to identify demographic predictors of variance among the districts. METHODS: The work sites of the first authors of papers published in Obstetrics & Gynecology were determined for selected years since 1985 and sorted by ACOG district. Three related journals (Fertility and Sterility, Gynecologic Oncology, and the American Journal of Obstetrics and Gynecology) were similarly analyzed for the year 2000. Demographic variables, including numbers of AGOG Fellows, residencies, subspecialty fellowships, and medical schools, were analyzed with multivariable regression for the most predictive variables for number of papers among ACOG districts. RESULTS: The number and share of papers published in Obstetics & Gynecology written by authors working in ACOG districts have been declining steadily since 1985, in contrast to the number of papers arising from locations outside of ACOG districts. Analysis of demographic factors for number of papers from four specialty journals in the year 2000 revealed that the number of medical schools in the district (R-2 = 0.79) was the most predictive (P <.001). CONCLUSION: Efforts to identify and correct factors associated with a decline in the number of published papers should focus on conditions in medical schools. (C) 2003 by The American College of Obstetricians and Gynecologists.

Keywords: ACOG, American College of Obstetricians and Gynecologists, Analysis, First, Gynecology, Journals, Medical, Medical Schools, Methods, Obstetrics, Origin, P, Papers, Predictors, Regression, Specialty, Temporal, Trends, Work

? Golberg, D., Szilagyi, A. and Graves, L. (2007), Hyperemesis gravidarum and Helicobacter pylori infection: A systematic review. *Obstetrics and Gynecology*, **110** (3), 695-703.

Full Text: [2007\Obs Gyn110, 695.pdf](2007/Obs%20Gyn110,%20695.pdf)

Abstract: OBJECTIVE: To systematically review studies examining the relationship between hyperemesis gravidarum and Helicobacter pylori (H pylori) infection. DATA SOURCES: A 1966 to January 2007 search using MEDLINE/PUBMED, EMBASE, and Web of Science included MeSH terms: “Helicobacterpylori,” “Helicobacter infections,” “hyperemesis gravidarum,” and the text words “nausea,” “vomit,” “pregnancy,” and “Helicobacter.” References of selected papers were examined for additional relevant studies. METHODS of STUDY SELECTION: We evaluated studies investigating a relationship between hyperemesis gravidarum and H pylori infection. Studies were included in which the diagnosis of hyperemesis gravidarum was made at or before entry into the study, and H pylori diagnosis was made by serum antibody sample, gastric biopsy, saliva test, or stool sample. The search produced 169 titles; 22 were reviewed in further detail. TABULATION, INTEGRATION, AND RESULTS: Fourteen case-control studies met established criteria, involving 1,732 participants and controls tested for H pylori infection. Studies were evaluated according to patient demographics and study methodology (case definition, exclusion criteria, H pylori testing). An estimate of the odds ratios with 95% confidence intervals was calculated by using a random effects model for dichotomous variables with review article software. Ten studies showed a significant association between hyperemesis gravidarurn and H pylori infection. Odds ratios varied from 0.55 to 109.33; three results were less than 1.0. Tests for hetero-geneity applied to several subgroups were considerable with values above 75% for all groups. CONCLUSION: An association between hyperemesis graviclarum and H pylori infection is suggested by this systematic review. However, the considerable heterogeneity among studies highlights study limitations.

Keywords: Case-Control, Case-Control Studies, Confidence Intervals, Diagnosis, Embase, Epidemiology, Eradication, Gastrointestinal Symptoms, Helicobacter Pylori, Hyperemesis Gravidarum, Infection, Methodology, Model, Nonulcer Dyspepsia, Papers, Pregnancy, Prevalence, References, Review, Science, Selection, Seropositivity, Software, Systematic, Systematic Review, Tests, Transmission, Web of Science

? Grimes, D.A., Hou, M.Y., Lopez, L.M. and Nanda, K. (2008), Do clinical experts rely on the Cochrane library? *Obstetrics and Gynecology*, **111** (2), 420-422

Full Text: [2008\Obs Gyn111, 420.pdf](2008/Obs%20Gyn111,%20420.pdf)

Keywords: Clinical, Experts

? Shah, N.R., Jones, J.B., Aperi, J., Shemtov, R., Karne, A. and Borenstein, J. (2008), Selective serotonin reuptake inhibitors for premenstrual syndrome and premenstrual dysphoric disorder: A meta-analyslis. *Obstetrics and Gynecology*, **111** (5), 1175-1182.

Full Text: [2008\Obs Gyn111, 1175.pdf](2008/Obs%20Gyn111,%201175.pdf)

Abstract: OBJECTIVE: To systematically review evidence of the treatment benefits of selective serotonin reuptake inhibitors (SSRIs) for symptoms related to severe premenstrual syndrome (PMS) and premenstrual dysphoric disorder. DATA SOURCES: We conducted electronic database searches of MEDLINE, Web of Science, Cochrane Library, EMBASE, PsycINFO, and Cinahl through March 2007, and hand-searched reference lists and pertinent journals. METHODS of STUDY SELECTION: Studies included in the review were double-blind, randomized, controlled trials comparing an SSRI with placebo that reported a change in a validated score of premenstrual symptomatology. Studies had to report follow-up for any duration longer than one menstrual cycle among premenopausal women who met clinical diagnostic criteria for PMS or premenstrual dysphoric disorder. From 2,132 citations identified, we pooled results from 29 studies (in 19 citations) using random-effects meta-analyses and present results as odds ratios (ORs). TABULATION, INTEGRATION, AND RESULTS: Our meta-analysis, which included 2,964 women, demonstrates that SSRIs are effective for treating PMS and premenstrual dysphoric disorder (OR 0.40, 95% confidence interval [CI] 0.31-0.51). Intermittent dosing regimens were found to be less effective (OR 0.55, 95% CI 0.45-0.68) than continuous dosing regimens (OR 0.28, 95% CI 0.18-0.42). No SSRI was demonstrably better than another. The choice of outcome measurement instrument was associated with effect size estimates. The overall effect size is smaller than reported previously. CONCLUSION: Selective serotonin reuptake inhibitors were found to be effective in treating premenstrual symptoms, with continuous dosing regimens favored for effectiveness.

Keywords: Citations, Clinical-Trials, Cochrane, Disorder, Double-Blind, Effectiveness, Efficacy, Fluoxetine, Follow-Up, Intermittent, Journals, Measurement, Medline, Meta-Analysis, Metaanalyses, Outcome, Paroxetine, Phase Sertraline Treatment, Placebo, Randomized-Controlled-Trial, Review, Science, Selection, Selective Serotonin Reuptake Inhibitors, Serotonin, Symptoms, Treatment, Web of Science, Women

? Dokras, A., Clifton, S., Futterweit, W. and Wild, R. (2011), Increased risk for abnormal depression scores in women with polycystic ovary syndrome: A systematic review and meta-analysis. *Obstetrics and Gynecology*, **117** (1), 145-152.

Full Text: [2011\Obs Gyn117, 145.pdf](2011/Obs%20Gyn117,%20145.pdf)

Abstract: OBJECTIVE: Polycystic ovary syndrome (PCOS) and depression both have a high prevalence in reproductiveaged women. This study aimed to determine the prevalence of abnormal depression scores in women who meet currently recognized definitions of PCOS compared with women in a well-defined control group. DATA SOURCES: The search was performed in MEDLINE, EMBASE Classic plus EMBASE, PsycINFO, Current Contents-Clinical Medicine and Current Contents-Life Sciences and Web of Science. Cochrane software Review Manager 5.0.24 was used to construct forest plots comparing risk of abnormal depression scores in those in the PCOS and control groups. METHODS of STUDY SELECTION: Studies with well-defined criteria of women with PCOS and control groups of women without PCOS, with demographic information including age and body mass index (BMI), were included. of 752 screened articles, 17 met the selection criteria for systematic review and 10 studies were included in the meta-analysis. TABULATION, INTEGRATION, AND RESULTS: Data were abstracted independently by three reviewers. All studies were cross-sectional and most used the Rotterdam criteria for the diagnosis of PCOS (n = 10). The odds ratio (OR) for abnormal depression scores was 4.03 (95% confidence interval [CI] 2.96-5.5, P<.01) in women with PCOS (n = 522) compared with those in the control groups (n = 475). A subanalysis showed that the odds for abnormal depression scores was independent of BMI (OR 4.09, 95% CI 2.62-6.41). Several validated tools were used to screen for depression; the common tool used was the Beck Depression Inventory. CONCLUSION: The results of our study suggest the need to screen all women with PCOS for depression using validated screening tools. Women with PCOS are at an increased risk for abnormal depression scores independent of BMI. (Obstet Gynecol 2011;117:145-52) DOI: 10.1097/AOG.0b013e318202b0a4.

Keywords: Anxiety, Bmi, Body Mass Index, Cochrane, Control, Control Groups, Definitions, Depression, Diagnosis, Disease, Disorders, Embase, Information, Medline, Meta-Analysis, Myocardial-Infarction, Prevalence, Quality-of-Life, Ratio, Review, Risk, Science, Screening, Selection, Software, Systematic, Systematic Review, Web of Science, Women

? Hillman, S.C., Morris, R.K. and Kilby, M.D. (2011), Co-twin prognosis after single fetal death: A systematic review and meta-analysis. *Obstetrics and Gynecology*, **118** (4), 928-940.

Full Text: [2011\Obs Gyn118, 928.pdf](2011/Obs%20Gyn118,%20928.pdf)

Abstract: OBJECTIVE: To perform a systematic review and meta-analysis of the effects on the surviving twin of single fetal death comparing monochorionic to dichorionic twins to report the rates of co-twin death, preterm delivery, and neurologic morbidity in the surviving fetus. DATA SOURCES: MEDLINE (inception-December 2010), EMBASE (inception-December 2010), The Cochrane library (inception-December 2010), Web of Science (inception-December 2010), and British Nursing Index (inception-December 2010) were searched electronically. METHODS OF STUDY SELECTION: Selected studies had more than five cases of single fetal death with reports of co-twin death, neurologic morbidity, or both co-twin death and neurologic morbidity. They also must have defined the gestational age of single fetal death and chorionicity. TABULATION, INTEGRATION, AND RESULTS: The search yielded 1,386 citations. Full manuscripts were retrieved for 204 and 22 were included in the review and meta-analysis. Twenty manuscripts were used to calculate overall summary statistics for monochorionic and dichorionic twins showing rates of co-twin death after single fetal death (15% compared with 3%), rates of preterm delivery after single fetal death (68% compared with 54%), the rate of abnormal postnatal cranial imaging after single fetal death (34% compared with 16%), and the rate of neurodevelopmental impairment after single fetal death (26% compared with 2%). Odds ratios (ORs) were calculated from 16 manuscripts. There was no significant difference reported between preterm delivery of monochorionic or dichorionic twins (OR 1.1, 95% confidence interval [CI] 0.34-3.51, P=.9). After single fetal death, monochorionic twins had higher odds of an abnormal cranial imaging after delivery, this was not significant (OR 3.25, 95% CI 0.66-16.1, P=.12). After single fetal death, monochorionic twins were 4.81-times more likely to have neurodevelopmental morbidity (95% CI 1.39-16.6, P<.05). CONCLUSION: Monochorionic twins are at significantly increased odds of co-twin demise and neurodevelopmental morbidity after single fetal death. (Obstet Gynecol 2011;118:928-40) DOI: 10.1097/AOG.0b013e31822f129d.

Keywords: Antenatal Death, Chorionicity, Citations, Cochrane, Discordant Birth-Weight, Embase, Epidemiology, Fetal Death, Gestational Age, Imaging, Intrauterine Death, Management, Medline, Meta Analysis, Meta-Analysis, Morbidity, Multiple Pregnancies, Nursing, One Fetus, Postnatal, Prognosis, Review, Risk, Science, Selection, Statistics, Systematic, Systematic Review, Twin-Twin Transfusion, Twins, Web of Science

# Title: Occasional Papers of the Department of Life Sciences University of the West Indies

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? Hayes, F.E., Ramjohn, C.L. and Jones, N. (2002), The ffrench connection: Contributions of Richard ffrench to Trinidad and Tobago ornithology. *Occasional Papers of the Department of Life Sciences University of the West Indies*, **11**, 4-10

Abstract: Richard ffrench resided in Trinidad and Tobago from 1958-1985, and has continued to be actively involved in the country’s ornithology. During 1961-2000, Richard published 96 books, chapters, articles or notes, almost exclusively on the birds of Trinidad and Tobago. Two editions of A Guide to the Birds of Trinidad and Tobago (1973 and 1991) comprise his major ornithological contributions, which account for 60% of his citations in the Science Citation Index. His 63 technical publications, which included 1267 pages, on Trinidad and Tobago ornithology comprised 26% of all publications and 37% of all pages published on the country’s ornithology during this period. Other major contributions include his initiation of the annual Christmas Bird Count in Trinidad and the formation of the Trinidad and Tobago Rare Bird Committee.

Keywords: Birds, Citation, Citations, Initiation, Publications, Science, Science Citation Index

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Enterline, P.E., Day, R. and Marsh, G.M. (1995), Cancers related to exposure to arsenic at a copper smelter. *Occupational and Environmental Medicine*, **52** (1), 28-32.

Full Text: [1995\Occ Env Med52, 28.pdf](1995/Occ%20Env%20Med52,%2028.pdf)

Abstract: Objective--This is an update of an earlier study on the relation between exposure to arsenic in air and deaths from respiratory cancer. The purpose was to verify earlier findings of a supralinear dose response relation and to examine relations with other cancers, particularly those reported in studies on drinking water.

Methods--An earlier study of 2802 men who worked at a copper smelter for a year or more during the period 1940-64 and who were followed up for deaths during the period 1941-76 was updated until 1986. Estimates of exposure for the period 1977-1984 were added.

Results and Conclusions--The additional follow up confirms the earlier finding that at low doses the increments in death rates for respiratory cancer for a given increment in dose are greater than at high doses. The additional follow up also shows significant increases in cancer of the large intestine and bone, and SMRs > 150 for cancer of the buccal cavity and pharynx, rectal cancer, and kidney cancer. There was a positive relation between exposure to arsenic in air and kidney and bone cancer, but none for the other cancers, except respiratory.

Keywords: Arsenic, Cancer, Dose-Response, Lung-Cancer, Respiratory Cancer, Dose-Response, Workers, Mortality, Smoking

Kumagai, S. and Matsunaga, I. (1995), Physiologically based pharmacokinetic model for acetone. *Occupational and Environmental Medicine*, **52** (5), 344-352.

Full Text: [1995\Occ Env Med52, 344.pdf](1995/Occ%20Env%20Med52,%20344.pdf)

Abstract: Objective--This study aimed to develop a physiologically based pharmacokinetic model for acetone and to predict the kinetic behaviour of acetone in the human body with that model.

Methods--The model consists of eight tissue groups in which acetone can be distributed: the mucous layer of the inhaled air tract, the mucous layer of the exhaled air tract, a compartment for gas exchange (alveolus of the lung), a group of blood vessel rich tissues including the brain and heart, a group of tissues including muscles and skin that have low perfusion rates, a group of fatty tissues, an organ for metabolism (liver), and a compartment for urinary excretion (kidney). A mucous layer in the model is only the outermost layer of the mucus lining the wall of the air tract during inhalation and exhalation. To check the relevance of the model, the simulated results were compared with the experimental data. Next, simulation was conducted by changing the volume of the mucous layer and the respiratory rate to clarify the effect of these variables. Finally, simulation of an occupational situation was performed.

Results--With an appropriate value for the volume of mucous layer, the simulated acetone concentrations in arterial blood, end exhaled air, urine, and fatty tissue were found to agree well with the experimental data. The volume of mucous layer and rate of respiration were critical for the appropriate simulation. The simulated occupational situation fitted the observed regression line in field studies quite well. The simulation also enabled predictions to be made about the characteristic kinetics for water soluble solvents.

Conclusion--The model is useful for understanding and explaining the kinetics of acetone.

Rahman, M. and Axelson, O. (1995), Diabetes mellitus and arsenic exposure: A second look at case-control data from a Swedish copper smelter. *Occupational and Environmental Medicine*, **52** (11), 773-774.

Full Text: [1995\Occ Env Med52, 773.pdf](1995/Occ%20Env%20Med52,%20773.pdf)

Abstract: Objectives-To find out whether a newly found association between diabetes mellitus and arsenic in drinking water in Taiwan could be reproduced in copper smelters with arsenic exposure.

Methods-Extended analysis of a previous case-control study from 1978 was based on death records and objective exposure information from the company. The final analysis included only those employed at the smelter. Cases were 12 people with diabetes mellitus on the death certificate and those for whom there was clinical information on this disease. Controls were 31 people without cancer, cardiovascular and cerebrovascular disease as these disease categories had been associated with arsenic exposure in the original study and elsewhere.

Results-The odds ratios found for diabetes mellitus with increasing arsenic exposure categories were (reference level = 1), 2.0, 4.2, and 7.0, but the 95% confidence intervals included unity. Unstratified test for trend was weakly significant, P = 0.03.

Conclusions-Although based on small numbers, the findings provide some support for the suggestion that arsenic exposure could sometimes play a part in the development of diabetes mellitus.

Keywords: Cardiovascular Disease, Hygiene Standard, Occupational Exposure

? Takahashi, K., Hoshuyama, T., Ikegami, K., Itoh, T., Higashi, T. and Okubo, T. (1996), A bibliometric study of the trend in articles related to epidemiology published in occupational health journals. *Occupational and Environmental Medicine*, **53** (7), 433-438.

Full Text: [1996\Occ Env Med53, 433.pdf](1996/Occ%20Env%20Med53,%20433.pdf)

Abstract: Objectives-To study the role assumed by epidemiology in occupational health literature and characterise its change over the years.

Methods-A bibliometric study was conducted with a MEDLINE search to evaluate 9024 articles published in eight representative occupational health journals for the period 1980-93. Articles related to epidemiology were found by descriptors indexed in the articles and their numbers and proportions among all published articles was tabulated for the study period.

Results-The proportion of source items indexed by epidemiology as a descriptor increased over threefold from 7.9% (42/534) in 1980 to over 25% after 1990. Epidemiology was indexed most frequently as a subheading associated with other descriptors-for example, occupational diseases-epidemiology. Cohort studies had the largest increase in the descriptors that indicated epidemiological type of studies during the period studied.

Conclusion-Epidemiology is assuming increasing importance in occupational health literature. This was shown quantitatively and qualitatively by the use of descriptors in the MEDLINE database.

Keywords: Epidemiology, Bibliometrics, Occupational Health, MEDLINE, Clinical Research, Classification, MEDLINE

Thomas, H.F., Winter, P.D. and Donaldson, L.J. (1996), Cancer mortality among local authority pest control officers in England and Wales. *Occupational and Environmental Medicine*, **53** (11), 787-790.

Full Text: [1996\Occ Env Med53, 787.pdf](1996/Occ%20Env%20Med53,%20787.pdf)

Abstract: OBJECTIVE: To examine cancer mortality by tumour site among local authority pest control officers.

METHODS: Prospective mortality study, and follow up to the end of 1994, of 1485 male pest control officers aged between 17 and 69 and employed in 296 local authorities in England and Wales for at least six months between January 1980 and April 1984. Observed numbers of deaths were compared with those expected on the basis of the rates for relevant calendar year, cause, sex, and age specific groups for England and Wales.

RESULTS: 200 deaths occurred during the follow up period of which 65 were certified as due to malignant neoplasms. No tumour type showed significantly more deaths than expected. Total all cause, lung cancer, and respiratory disease mortality were significantly lower than expected.

CONCLUSIONS: 15 year follow up of a group of men handling a wide range of pesticides did not show any significant risk of cancer. This may be partially explained by the healthy worker effect and also the limited power of the study to detect significant increases in the less common tumours. Further long term follow up of this cohort will continue. Chemical control of pests that can cause human disease and can contaminate food and water has been, and will continue to be, a major public health measure. It is important to ensure that the health of those applying pesticides is not at excess risk. Negative results are important.

? Sizaret, A. and Kauffmann, F. (1997), A bibliometric study of the trend in articles related to epidemiology published in occupational health journals. *Occupational and Environmental Medicine*, **54** (5), 357.

Full Text: [1997\Occ Env Med54, 357.pdf](1997/Occ%20Env%20Med54,%20357.pdf)

Keywords: Bibliometric, Bibliometric Study, Epidemiology, Health, Journals, Occupational, Occupational Health, Trend

? Takahashi, K., Hoshuyama, T., Itoh, T., Higashi, T., Okubo, T. and Ikogami, K. (1997), A bibliometric study of the trend in articles related to epidemiology published in occupational health journals - Reply. *Occupational and Environmental Medicine*, **54** (5), 357-358.

Full Text: [1997\Occ Env Med54, 357.pdf](1997/Occ%20Env%20Med54,%20357.pdf)

Brugha, R., Heptonstall, J., Farrington, P., Andren, S., Perry, K. and Parry, J. (1998), Risk of hepatitis A infection in sewage workers. *Occupational and Environmental Medicine*, **55** (8), 567-569.

Full Text: [1998\Occ Env Med55, 567.pdf](1998/Occ%20Env%20Med55,%20567.pdf)

Abstract: OBJECTIVE: To evaluate the risk of hepatitis A virus (HAV) infection among sewage workers from occupational exposure to raw sewage.

METHODS: An analytical cross sectional study of 241 company employees with possible occupational exposure to sewage in a large water and sewerage company was carried out. Previous exposure to hepatitis A virus infection was assessed, as were its associations with possible risk factors.

RESULTS: Frequent occupational exposure to raw sewage was a significant risk factor for HAV infection, independently of other known risk factors (odds ratio 3.73, 95% confidence interval 1.48 to 9.37). of 50 employees who reported occupational exposure to raw sewage most of the time, 30 (60%) had had HAV infection.

CONCLUSION: Employees who are likely to be at risk of frequent exposure should have their immunity ensured. The salivary assay for IgG anti-HAV used in the study was highly specific and would be suitable for prevaccination testing of older employees, who are more likely to be immune.

Nieuwenhuijsen, M.J., Toledano, M.B., Eaton, N.E., Fawell, J. and Elliott, P. (2000), Chlorination disinfection byproducts in water and their association with adverse reproductive outcomes: A review. *Occupational and Environmental Medicine*, **57** (2), 73-85.

Full Text: [O\Occ Env Med57, 73.pdf](O/Occ%20Env%20Med57,%2073.pdf)

Abstract: OBJECTIVES and METHODS: Chlorination has been the major disinfectant process for domestic drinking water for many years. Concern about the potential health effects of the byproducts of chlorination has prompted the investigation of the possible association between exposure to these byproducts and incidence of human cancer, and more recently, with adverse reproductive outcomes. This paper evaluates both the toxicological and epidemiological data involving chlorination disinfection byproducts (DBPs) and adverse reproductive outcomes, and makes recommendations for future research.

RESULTS and CONCLUSIONS: Relatively few toxicological and epidemiological studies have been carried out examining the effects of DBPs on reproductive health outcomes. The main outcomes of interest so far have been low birth weight, preterm delivery, spontaneous abortions, stillbirth, and birth defects--in particular central nervous system, major cardiac defects, oral cleft, and respiratory, and neural tube defects. Various toxicological and epidemiological studies point towards an association between trihalomethanes (THMs), one of the main DBPs and marker for total DBP load, and (low) birth weight, although the evidence is not conclusive. Administered doses in toxicological studies have been high and even though epidemiological studies have mostly shown excess risks, these were often not significant and the assessment of exposure was often limited. Some studies have shown associations for DBPs and other outcomes such as spontaneous abortions, stillbirth and birth defects, and although the evidence for these associations is weaker it is gaining weight. There is no evidence for an association between THMs and preterm delivery. The main limitation of most studies so far has been the relatively crude methodology, in particular for assessment of exposure.

RECOMMENDATIONS: Large, well designed epidemiological studies focusing on well defined end points taking into account relevant confounders and with particular emphasis on exposure characterisation are ideally needed to confirm or refute these preliminary findings. In practice, these studies may be impracticable, partly due to the cost involved, but this is an issue that can be put right--for example, by use of subsets of the population in the design of exposure models. The studies should also reflect differences of culture and water treatment in different parts of the world. To identify the specific components that may be of aetiological concern and hence to fit the most appropriate exposure model with which to investigate human exposure to chlorinated DBPs, further detailed toxicological assessments of the mixture of byproducts commonly found in drinking water are also needed.

Elliott, P., Arnold, R., Cockings, S., Eaton, N., Jarup, L., Jones, J., Quinn, M., Rosato, M. and Thornton, I., Toledano, M., Tristan, E. and Wakefield, J. (2000), Risk of mortality, cancer incidence, and stroke in a population potentially exposed to cadmium. *Occupational and Environmental Medicine*, **57** (2), 94-97.

Full Text: [2000\Occ Env Med57, 94.pdf](2000/Occ%20Env%20Med57,%2094.pdf)

Abstract: OBJECTIVES-To follow up mortality and cancer incidence in a cohort potentially exposed to cadmium and to perform a geographical (ecological) analysis to further assess the health effects of potential exposure to cadmium.

METHODS-The English village of Shipham has very high concentrations of cadmium in the soil. A previous cohort study of residents of Shipham in 1939 showed overall mortality below that expected, but a 40% excess of mortality from stroke. This study extends the follow ups of the cohort for mortality to 1997, and includes an analysis of cancer incidence from 1971 to 1992, and a geographical study of mortality and cancer incidence. Standardised mortality and incidence ratios (SMRs and SIRs) were estimated with regional reference rates, Comparisons were made with the nearby village of Hutton. Results-All cause cohort mortality was lower than expected in both villages, although there was excess cancer incidence in both Shipham (SIR 167, 95% confidence interval (95% CI) 106 to 250) and Hutton (SIR 167, 95% CI 105 to 253). There was an excess of mortality from hypertension, cerebrovascular disease, and nephritis and nephrosis, of borderline significance, in Shipham (SMR 128, 95% CI 99 to 162). In the geographical study, all cause mortality in Shipham was also lower than expected (SMR 84, 95% CI 71 to 100). There was an excess in genitourinary cancers in both Shipham (SIR 160, 95% CI 107 to 239) and Hutton (SIR 153, 95% CI 122 to 192). Conclusion-No clear evidence of health effects from possible exposure to cadmium in Shipham was found despite the extremely high concentrations of cadmium in the soil.

Keywords: Cadmium, Mortality, Cancer Incidence, Follow-Up, Prostatic-Cancer, Metal

Gehanno, J.F. and Thirion, B. (2000), How to select publications on occupational health: The usefulness of MEDLINE and the impact factor. *Occupational and Environmental Medicine*, **57** (10), 706-709.

Full Text: [2000\Occ Env Med57, 706.pdf](2000/Occ%20Env%20Med57,%20706.pdf)

Abstract: OBJECTIVES-Publications in the field of occupational health appear in various journals, including those of other medical specialties. This complicates the follow up of literature for specialists in this field. On the basis of MEDLINE and the impact factor, this diversity was assessed, and a cost effective method for selecting the most pertinent journals in the practice of occupational health was proposed.

METHODS-A MEDLINE search identified all the articles published in 1998 with occupational diseases or occupational exposures as the main topic. These articles were classified based on the journals in which they appeared. The journals were then compared according to their subject area, the number of articles that were published in the fields studied, and their impact factor.

RESULTS-The search retrieved 2247 articles, published in 577 different journals in 1998. Each journal published between one and 105 articles during this period (mean 3.89). However, only 1.4% of the journals accounted for more than 25% of the total articles published. More than half of the articles were published in journals dealing with general practice or medical specialties other than occupational health. Only 66% of retrieved journals had an impact factor, and more than 80% of the articles were published in journals with an impact factor <2.

CONCLUSION-Simply following up occupational health journals is not sufficient to meet the requirements of the occupational health professional. Moreover, the use of the impact factor cannot be considered as a reliable research tool to assess follow up. Two lists of eight and 38 journals were thus set up. They permit a literature coverage of 27% and 52% respectively in the specific fields studied, and this seems to be the optimal compromise between time and literature covered. Lastly, practical procedures are suggested to follow up literature and obtain abstracts from selected journals on the internet.

Keywords: Occupational Health, Bibliographic Databases, Impact Factor, MEDLINE

Nemery, B. (2001), What happens to the manuscripts that have not been accepted for publication in Occupational and Environmental Medicine? *Occupational and Environmental Medicine*, **58** (9), 604-607.

Full Text: [2001\Occ Env Med58, 604.pdf](2001/Occ%20Env%20Med58,%20604.pdf)

Abstract: OBJECTIVES-To evaluate the fate of manuscripts rejected by Occupational and Environmental Medicine (OEM).

METHODS-A MEDLINE search was conducted, up to March 2001, to find out whether and where articles submitted to OEM in 1995, 1996, and 1997, but not accepted for publication, were published. The articleswere matched by authors and title, sometimes using the abstractto help decide whether the published article was the one thathad been previously submitted to OEM.

RESULTS-Out of 405 manuscripts rejected (44% of those submitted), 218 articles (54%) were traced in 72 different journals, with morethan half being published in seven other major journals dealingwith occupational and environmental health (rather than in specialtyjournals). Most papers were published within 2 years of theirinitial submission to OEM. Only a small proportion (10%) werepublished in a journal with a higher impact factor than OEM (1.96in1999).

CONCLUSION-More than half the articles rejected by OEM found their way into the scientific literature covered by MEDLINE. This figureis comparable with the few available data from other journals.It would be interesting to know the fate of articles publishedby OEM before they were submitted to ourjournal.

Keywords: Journalology, Bibliometry, Impact Factor

? Hauser, R. and Calafat, A.M. (2005), Phthalates and human health. *Occupational and Environmental Medicine*, **62** (11), 806-818.

Full Text: [2005\Occ Env Med62, 806.pdf](2005/Occ%20Env%20Med62,%20806.pdf)

Abstract: The diesters of 1,2-benzenedicarboxylic acid (phthalic acid), commonly known as phthalates, are a group of man-made chemicals with a wide spectrum of industrial applications (fig 1, table 1). High molecular weight phthalates (for example, di(2-ethylhexyl) phthalate [DEHP], di-isononyl phthalate [DiNP], di-n-octyl phthalate [DnOP]), are primarily used as plasticizers in the manufacture of flexible vinyl which, in turn, is used in consumer products, flooring and wall coverings, food contact applications, and medical devices.(1-3) Manufacturers use low molecular weight phthalates (for example, diethyl phthalate [DEP] and dibutyl phthalate [DBP]) in personal-care products (for example, perfumes, lotions, cosmetics), as solvents and plasticizers for cellulose acetate, and in making lacquers, varnishes, and coatings, including those used to provide timed releases in some pharmaceuticals.(3-5) In this paper, we review the uses and metabolism of phthalates, and the studies on health effects of phthalates in human populations published between 1973 and June 2005. The references included in this review were searched using the Web of Science database which provides interactive citation and literature searching of the Institute for Scientific Information’s Science Citation Index Expanded. The database contains data from more than 5000 scientific journals and covers the period from 1980 to present. We also searched the bibliography cited in the selected references for additional relevant citations.

Keywords: Butyl Benzyl Phthalate, Citation, Citations, Endocrine-Disrupting Chemicals, Extracorporeal Membrane-Oxygenation, In-Utero Exposure, Journals, Literature, Literature Searching, Male Reproductive Development, Maternal Occupational-Exposure, Nursery-School Children, Rat Granulosa-Cells, Review, Solid-Phase Extraction, Tandem Mass-Spectrometry, Web of Science

? van den Berg, T.I.J., Elders, L.A.M., de Zwart, B.C.H. and Burdorf, A. (2009), The effects of work-related and individual factors on the Work Ability Index: A systematic review. *Occupational and Environmental Medicine*, **66** (4), 211-220.

Full Text: 2009\Occ Env Med66, 211.pdf

Abstract: This paper systematically reviews the scientific literature on the effects of individual and work-related factors on the Work Ability Index (WAI) Studies on work ability published from 1985 to 2006 were identified through a structured search in PUBMED, and Web of Science. Studies were included if the WAI was used as measure of work ability and if quantitative information was presented on determinants of work ability. In total, 20 studies were included with 14 cross-sectional studies and six longitudinal studies. Factors associated with poor work ability, as defined by WAI, were lack of leisure-time vigorous physical activity, poor musculoskeletal capacity, older age, obesity, high mental work demands, lack of autonomy, poor physical work environment, and high physical work load. The WAI is associated with individual characteristics, lifestyle, demands at work, and physical condition. This multifactorial nature of work ability should be taken into account in health promotion programmes aimed at maintaining and promoting the participation of the labour force and improvement of the performance at work.

Keywords: Aging Workers, Construction-Industry, Determinants, Different Age-Groups, Environment, Factors, Health Promotion, Health-Status, Home Care Workers, Information, Life-Style, Literature, Longitudinal Studies, Municipal Employees, Obesity, Office Workers, Perceived Work, Physical Activity, Physical-Fitness, Promotion, Pubmed, Quantitative, Review, Science, Systematic, Systematic Review, Web of Science

? Koppelaar, E., Knibbe, J.J., Miedema, H.S. and Burdorf, A. (2009), Determinants of implementation of primary preventive interventions on patient handling in healthcare: A systematic review. *Occupational and Environmental Medicine*, **66** (6), 353-360.

Full Text: 2009\Occ Env Med66, 353.pdf

Abstract: Objective: This systematic review aims (1) to identify barriers and facilitators during implementation of primary preventive interventions on patient handling in healthcare, and (2) to assess their influence on the effectiveness of these interventions. Methods: PUBMED and Web of Science were searched from January 1988 to July 2007. Study inclusion criteria included evaluation of a primary preventive intervention on patient handling, quantitative assessment of the effect of the intervention on physical load or musculoskeletal disorders or sick leave, and information on barriers or facilitators in the implementation of the intervention. 19 studies were included, comprising engineering (n= 10), personal (n= 6) and multiple interventions (n= 3). Barriers and facilitators were classified into individual and environmental categories of factors that hampered or enhanced the appropriate implementation of the intervention. Results: 16 individual and 45 environmental barriers and facilitators were identified. The most important environmental categories were “convenience and easy accessibility’’ (56%), “supportive management climate’’ (18%) and “patient-related factors’’ (11%). An important individual category was motivation (63%). None of the studies quantified their impact on effectiveness nor on compliance and adherence to the intervention. Conclusion: Various factors may influence the appropriate implementation of primary preventive interventions, but their impact on the effectiveness of the interventions was not evaluated. Since barriers in implementation are often acknowledged as the cause of the ineffectiveness of patient handling devices, there is a clear need to quantify the influence of these barriers on the effectiveness of primary preventive interventions in healthcare.

Keywords: Adherence, Assessment, Barriers, Compliance, Determinants, Effectiveness, Environmental, Evaluation, Facilitators, Home, Impact, Information, Injury Intervention, Intervention, Interventions, Lifts, Low-Back-Pain, Management, Methods, Motivation, Musculoskeletal Disorders, Nurses, Nursing Personnel, Primary, Project, Pubmed, Quantitative, Review, Science, Systematic, Systematic Review, Training-Program, Web of Science, Workplace

? Leclerc, A., Chastang, J.F., Kaniewski, N., Cyr, D., Ozguler, A. and Descatha, A. (2010), The bibliographic impact of epidemiological studies: What can be learnt from citations? *Occupational and Environmental Medicine*, **67** (3), 213-216.

Full Text: [2010\Occ Env Med67, 213.pdf](2010/Occ%20Env%20Med67,%20213.pdf)

Abstract: Objective To document one dimension of the impact of an epidemiological study through citations in scientific journals. Methods Two sets of articles from studies performed in France were considered. They presented original results on occupational risk factors for low back pain and upper limb disorders. Citations of these articles were retrieved through the Web of Science and Google Scholar, and selected according to several criteria. Most citations present in the Web of Science were also retrieved from Google Scholar, except for the most recent articles. In the Web of Science, after exclusion of self-citations and duplicates, the total number of citations was 109 from 23 different countries for the low back pain articles, with 96 citations from 18 countries for upper limb disorders. A relatively large number of the citations belonged to clinical journals outside the fields of occupational health, ergonomics and public health. Conclusion This study suggests that results dealing with occupational health disseminate into various fields of clinical research. However, this is only one dimension of the impact of a study.

Keywords: Associations, Carpal-Tunnel-Syndrome, Citations, Exposure, Google Scholar, Journals, Low-Back-Pain, Musculoskeletal Disorders, Prospective Cohort, Psychosocial Factors, Research, Risk-Factors, Scientific Journals, Self Citations, Self-Citations, Smoking, Web of Science, Work-Related Factors

# Title: Occupational Health and Industrial Medicine

Full Journal Title: [Occupational Health and Industrial Medicine](http://sdos.ejournal.ascc.net/cgi-bin/sciserv.pl?collection=journals&journal=00144398)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0962-7480

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

Takahashi, K., Hoshuyama, T. and Ikegami, K. (1997), A bibliometric study of the trend in articles related to epidemiology published in occupational health journals. *Occupational Health and Industrial Medicine*, **37** (4), 156.

Full Text: [O\Occ Hea Ind Med37, 156.pdf](O/Occ%20Hea%20Ind%20Med37,%20156.pdf)

Abstract: Objectives - To study the role assumed by epidemiology in occupational health literature and characterise its change over the years. Methods - A bibliometric study was conducted with a MEDLINE search to evaluate 9024 articles published in eight representative occupational health journals for the period 1980-93. Articles related to epidemiology were found by descriptors indexed in the articles and their numbers and proportions among all published articles was tabulated for the study period. Results - The proportion of source items indexed by epidemiology as a descriptor increased over threefold from 7.9% (42/534) in 1980 to over 25% after 1990. Epidemiology was indexed most frequently as a subheading associated with other descriptors-for example, occupational diseases-epidemiology. Cohort studies had the largest increase in the descriptors that indicated epidemiological type of studies during the period studied. Conclusion - Epidemiology is assuming increasing importance in occupational health literature. This was shown quantitatively and qualitatively by the use of descriptors in the MEDLINE database.

# Title: Occupational Medicine-Oxford

Full Journal Title: [Occupational Medicine-Oxford](http://occmed.oxfordjournals.org/archive/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0962-7480

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

Impact Factor

? Heron, R.J.L. (1999), Audit and ‘responsible care’ in the chemical industry. *Occupational Medicine-Oxford*, **49** (6), 407-410.

Abstract: Audit is an essential element of Health and Safety Management Systems. This paper examines the Chemical Industry Association’s ‘Responsible Care’ initiative and its role in encouraging continuous improvement in the management of safety, health and the environment, within the chemical industry. The case study from Zeneca describes how the principles of audit have been incorporated into their Safety, Health and Environmental Management practices.

Keywords: Audit, Chemical Industry, Responsible Care

Garfield, E. (1999), Refining the computation of topic based impact factors - some suggestions. *Occupational Medicine-Oxford*, **49** (8), 571.

Full Text: [O\Occ Med-Oxf49, 571.pdf](O/Occ%20Med-Oxf49,%20571.pdf)

? Takahashi, K., Aw, T.C. and Koh, D. (1999), Refining the computation of topic based impact factors - some suggestions - Reply. *Occupational Medicine-Oxford*, **49** (8), 571-572.

Full Text: [1999\Occ Med-Oxf49, 571-1.pdf](1999/Occ%20Med-Oxf49,%20571-1.pdf)

? Smith, D.R. (2008), Citation trends and citation classics at *Occupational Medicine*. *Occupational Medicine-Oxford*, **58** (2), 80-82.

Full Text: [2008\Occ Med-Oxf58, 80.pdf](2008/Occ%20Med-Oxf58,%2080.pdf)

Keywords: Citation, Citation Classics, Trends

? Granville, G. and Evandrou, M. (2010), Older men, work and health. *Occupational Medicine-Oxford*, **60** (3), 178-183.

Full Text: 2010\Occ Med-Oxf60, 178.pdf

Abstract: Methods The method used in the literature search was to review national and international research published in English since 1990 on the health and work of older men. Journal articles were the primary source. Databases used included Web of Science, CSA Illumina Social Sciences, CINAHL, MEDLINE and ANGINFO. Results The review of the evidence was structured in terms of key themes emerging from the literature into which issues of gender, ethnicity, age and socio-economic inequalities were cross cut. The current paper now focuses on two of those themes that have particular relevance to occupational medicine: work-caused and work-related ill-health, and secondly promoting workplace health. It begins by setting the scene with a profile of older men in the labour market. Conclusions Two key themes emerge from the review, which are of particular significance. One is the central role that work plays in the lives and identity of men and therefore the impact this has on their health, both in and out of work. Secondly, the occupational histories of men expose them to work-related and work-caused ill-health, which has consequences for life expectancy and chronic disease in old age. These findings have implications for future research, policy formulation and implementation, and for public health practice.

Keywords: Chronic Disease, Construction, Databases, Disease, Employment, Ethnicity, Gender, Health Promotion, Identity, Impact, Journal, Life, Literature, Medicine, Methods, Occupational, Occupational Medicine, Old Age, Older Men, Policy, Practice, Primary, Profile, Public Health, Research, Review, Science, Social Sciences, Web of Science, Women, Workplace Health

# Title: Ocean & Coastal Management

Full Journal Title: [Ocean & Coastal Management](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=6029&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=4e00abd1f4aa55ae4338ec233096c958)

ISO Abbreviated Title: Ocean Coastal Manage.

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Journal Country/Territory: England

Language: English

Publisher: Elsevier Sci Ltd

Publisher Address: The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, OXON, England

Subject Categories:

Oceanography Water Resources: Impact Factor

Eglington, A., Israel, R. and Vartanov, R. (1998), Towards sustainable development for the Murmansk region. *Ocean & Coastal Management*, **41** (2-3), 257-271.

Full Text: [O\Oce Coa Man41, 257.pdf](O/Oce%20Coa%20Man41,%20257.pdf)

Abstract: The Murmansk region is situated in northwest Russia and is bordered by the Barents Sea. Most of the region (an area of 145 000 sq km) lies beyond the Arctic circle. Historically, the region has been of great importance politically and economically to the Russian Federation, providing the country with its only all-weather northern port and serving as the home to the Northern fleet of the Russian Navy, and the Murmansk Shipping Company (the main shipping agent for commercial cargo along the Russian Northern Sea Route). The main economic activities of the Murmansk region are mining and metallurgy, fishing, shipping and forestry. In recent years, there has been increasing interest in the potential for oil and gas development in the Barents Sea which provides economic opportunities as well as environmental challenges for the Murmansk region. Despite the rich mineral resources and bioresources of this coastal region, Murmansk is suffering economically and is also facing severe environmental problems. It is officially recognized as the most environmentally devastated region of the Arctic. Key problems include air pollution, nuclear and other hazardous wastes, and resource depletion. Industries of the region are in need of investment for development and modernization. In order to protect the region’s natural resource base and fragile ecosystem, and improve socio-economic conditions, the United Nations Development Program (UNDP)-Capacity 21, in cooperation with the government of the Russian Federation, initiated the Murmansk Region-Barents Seu Sustainable Development Project. This project aims to strengthen the capacity of institutions in the region to effectively plan and implement environmentally sustainable economic development policies and programs. Phase 1 of the UNDP project resulted in development of a Sustainable Development Action Plan (SDAP) for the region which presents action strategies and specific recommendations to strengthen the economy and environment of the Murmansk region. In preparation of the SDAP and other project activities, multi-disciplinary and inter-sectoral Task Force teams addressed a broad range of topics including coastal zone management (CZM), radioactive waste handling, mining and metallurgy, energy, and public health. This article provides a brief overview of the Murmansk Region-Barents Sea Sustainable Development Project. It then focuses on the CZM component, discussing priority environment and economic development issues for ocean and coastal areas and looking at Integrated Coastal Zone Management as a framework for addressing some of the region’s needs. Specific recommendations for sustainable development of ocean and coastal areas are proposed (for fisheries, oil and gas development, shipping, waste management, etc.). The article concludes by summarizing the overall project achievements and highlighting priority programs identified by regional specialists as well as some factors influencing regional progress towards sustainable development. The Murmansk Region State Committee on Environmental Protection served as the National Executing Agency for the UNDP project. Project management and technical services were provided, under contract with UNDP, by Education Development Center, Inc. (EDC), an international NGO whose work focuses on human and organizational capacity building for sustainable development. Over 150 local and international experts collaborated on the project. Key institutions contributing to the coastal zone management component of the project were: Murmansk Marine Biological Institute (Kola Science Center), Murmansk State Committee on Environmental Protection (Marine Inspection), Knipovich Polar Research Institute of Marine Fisheries (PINRO), Urban Harbors Institute, University of Massachusetts, Boston, Fritjof Nansen Institute, Norway, and the Coastal Zone Management Centre of the Ministry of Transport, Public Works, and Water Management, The Netherlands. (C) 1998 Published by Elsevier Science Ltd. All rights reserved.

# Title: Oceanologica Acta

Full Journal Title: Oceanologica Acta

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Zahibo, N., Pelinovsky, E., Yalciner, A., Kurkin, A., Koselkov, A. and Zaitsev, A. (2003), The 1867 Virgin Island tsunami: Observations and modeling. *Oceanologica Acta*, **26** (5-6), 609-621.

Full Text: [O\Oce Act26, 609.pdf](O/Oce%20Act26,%20609.pdf)

Abstract: The 1867 Virgin Island tsunami was of a great effect for the Caribbean Islands. A maximal tsunami height of 10 m was recorded for two coastal locations (Deshayes and St. Rose) in Guadeloupe. The historical data of this event for the Caribbean Sea are discussed. The modeling of the 1867 tsunami is performed in the framework of the nonlinear shallow-water theory. The four different orientations of the tsunami source in the Anegada Passage are examined. The directivity of the tsunami wave in the Caribbean is investigated. The time histories of water surface fluctuations are calculated for several coastal locations on the coasts of the Caribbean Sea. Results of the numerical simulations are in reasonable agreement with data of observations.

# Title: Oecologia

Full Journal Title: [Oecologia](http://springerlink.metapress.com/app/home/journal.asp?wasp=cbflwvtvln3jca0vtrw6&referrer=parent&backto=searchpublicationsresults,1,1;)

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Subject Categories:

Ecology: Impact Factor

? Breuer, K. and Melzer, A. (1990), Heavy metal accumulation (lead cadmium) and ion exchange in three species of sphagnacese. I. Main principles of heavy metal accumulation in Sphagnacese. *Oecologia*, **82**, 461-467.

? Breuer, K. and Melzer, A. (1990), Heavy metal accumulation (lead cadmium) and ion exchange in three species of sphagnacese. II. Chemical Equilibrium of ion exchange and selectivity of single ions. *Oecologia*, **82**, 468-475.

Durand, L.Z. and Goldstein, G. (2001), Photosynthesis, photoinhibition, and nitrogen use efficiency in native and invasive tree ferns in Hawaii. *Oecologia*, **126** (3), 345-354.

Full Text: [O\Oecologia126, 345.pdf](O/Oecologia126,%20345.pdf)

Abstract: Photosynthetic gas exchange, chlorophyll fluorescence, nitrogen use efficiency, and related leaf traits of native Hawaiian tree ferns in the genus Cibotium were compared with those of the invasive Australian tree fern Sphaeropteris cooperi in an attempt to explain the higher growth rates of S. cooperi in Hawaii. Comparisons were made between mature sporophytes growing in the sun (gap or forest edge) and in shady understories at four sites at three different elevations. The invasive tree fern had 12-13 cm greater height increase per year and approximately 5 times larger total leaf surface area per plant compared to the native tree ferns. The maximum rates of photosynthesis of S. cooperi in the sun and shade were significantly higher than those of the native Cibotium spp (for example, 11.2 and 7.1 µmol m-2, s-1, and 5.8 and 3.6 µmol m-2, s-1, respectively for the invasive and natives at low elevation). The instantaneous photosynthetic nitrogen use efficiency of the invasive tree fern was significantly higher than that of the native tree ferns, but when integrated over the life span of the frond the differences were not significant. The fronds of the invasive tree fern species had a significantly shorter life span than the native tree ferns (approximately 6 months and 12 months, respectively), and significantly higher nitrogen content per unit leaf mass. The native tree ferns growing in both sun and shade exhibited greater photoinhibition than the invasive tree fern after being experimentally subjected to high light levels. The native tree ferns recovered only 78% of their dark-acclimated quantum yield (F-v/F-m), while the invasive tree fern recovered 90% and 86% of its dark-acclimated F-v/F-m when growing in sun and shade, respectively. Overall, the invasive tree ft nl appears to be more efficient at capturing and utilizing light than the native Cibotium species, particularly in high-light environments such as those associated with high levels of disturbance.

Keywords: Tree Ferns, Photoinhibition, Invasive Species, Photosynthesis, Hawaii, Water-Stress, Shade Tolerance, Leaf, Leaves, Plants, Assimilation, Allocation, Responses, Patterns, Growth

# Title: Oecologia Brasiliensis

Full Journal Title: Oecologia Brasiliensis

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Grelle, C.E., V, Pinto, M.P., Monteiro, J. and Figueiredo, M.S. (2009), Conservation biology in Brazil: A review of ten years. *Oecologia Brasiliensis*, **13** (3), 420-433.

Abstract: Conservation biology is a multidisciplinary field with several specialized journals. The present paper presents a list of all dealing with conservation biology in Brazil from eight different journals published in a period of ten years (1998-2007). The list includes the number of articles per periodical, the affiliation of each author, the most frequently discussed biological groups, biomes, and themes. A total of 386 articles were found, and 71% of which published in three journals: Conservation Biology, Biological Conservation, and Biodiversity and Conservation. A steep increase in the number of articles in the field over the last five years was perceived, mostly focusing on biological issues rather than socio-economical and political issues. The authors of 268 articles currently reside and work in Brazil. Most discussed biological groups were plants (105 articles), mammals (100 articles), and birds (75 articles), and the most dicussed biomes were the Atlantic and Amazon forests. Keywords: Amazon, Atlantic forest, biodiversity, scientometrics, fragmentation.

Keywords: Affiliation, Amazon, Authors, Biodiversity, Biological, Biology, Birds, Brazil, Conservation, Conservation Biology, Field, Forest, Forests, Fragmentation, Journals, Keywords, Mammals, Multidisciplinary, Periodical, Plants, Review, Scientometrics, Work

? Plaza Pinto, M. and Grelle, C.E., V. (2009), Reserve selection: Studies in South America and review of concepts. *Oecologia Brasiliensis*, **13** (3), 498-517.

Abstract: Reserve selection is a conservation biology subarea that lately deserves lots of attention and research, and it is a powerful approach to conserve species biodiversity. This is a scientometric study of papers (N = 24) applying reserve selection in South America published since 2000. Brazil was the most frequent focus of these studies (12 articles), and within Brazil, most studies focused on the Cerrado biome (8 articles). Most biological data employed for selecting areas were about birds, and no study used invertebrates’ data. The objectives of each study analyzed are briefly presented, most being: selecting priority areas for conservation, evaluating how the level of taxonomic resolution affects the selection of areas for conservation, verifying the efficacy of the existing reserves, comparing the performance of two different softwares, describing a specific software, assessing the performance of indicator groups, minimizing costs in the reserve selection process, using modeled geographical distributions of existent and hypothetic species, and evaluating the influence of the periphery of species’ distributions on the reserve networks solutions. Research in reserve selection is still recent and limited in South America. The number of publications in this field should increase in next years, considering the increasing global concern about nature conservation.

Keywords: Approach, Assessing, Biodiversity, Biological, Biology, Birds, Brazil, Conservation, Conservation Biology, Costs, Data, Efficacy, Field, Global, Indicator, Invertebrates, N, Nature Conservation, Networks, Papers, Performance, Publications, Recent, Research, Review, Scientometric, Software, Solutions, South America, Species

? Cassemiro, F.A. and Padial, A.A. (2008), The neutral theory of biodiversity and biogeography: theoretical aspects, impacts and prospects. *Oecologia Brasiliensis*, **12** (4), 706-719.

Abstract: In this paper, we explore the theoretical aspects of Hubbel’s Neutral Theory of Biodiversity and Biogeography (NTB), showing the results of a scientometric survey about the impact of this theory on the scientific community, its developments, critiques and perspectives. The NTB can contribute to developing null hypotheses and provides a strong conceptual and analytical tool in ecology, especially for the understanding of communities in which some clear spatially-structured mechanisms play an important role. The most provocative premise of NTB is that individuals from different species are ecologically equivalent. This poses a contrary view to the classical niche theory to explain the structure of biological communities, and refutes the theory of evolution by natural selection. The book in which Hubbell presented the NTB has had up to date a high impact over scientific literature. Hubbell’s book was cited by 1,128 scientific articles belonging to 239 scientific journals over 21 different subject categories. NTB impacted several scientific fields, but was debated mainly by ecologists and conservation biologists. Criticism against NTB is frequent, mainly direct at its main axiom, the ecological equivalence of the species. In spite of that and of the fact that NTB was refuted in many papers, there are papers giving support to its predictions, and presenting theoretical advances and new analytical tools. Even the opposers of the NTB consider it an easily testable elegant theory that was a major contribution to ecology.

Keywords: Advances, Biodiversity, Biogeography, Biological, Biological Communities, Community, Conservation, Developing, Ecology, Evolution, Impact, Impacts, Journals, Literature, Mechanisms, Natural, Niche, Papers, Predictions, Role, Scientific Journals, Scientific Literature, Scientometric, Species, Structure, Support, Survey, Theory, Understanding

# Title: Ohio Journal of Science

Full Journal Title: Ohio Journal of Science

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0030-0950

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Tseng, H.P. and Hung, Y.T. (1984), Batch activated-sludge treatment of phenol wastewaters. *Ohio Journal of Science*, **84** (2), 84.

# Title: Oikos

Full Journal Title: [Oikos](http://www.blackwell-synergy.com/servlet/useragent?func=showIssues&code=oik)

ISO Abbreviated Title: Oikos

JCR Abbreviated Title: Oikos

ISSN: 0030-1299

Issues/Year: 9

Journal Country/Territory: Denmark

Language: Multi-Language

Publisher: Munksgaard Int Publ Ltd

Publisher Address: 35 Norre Sogade, PO Box 2148, DK-1016 Copenhagen, Denmark

Subject Categories:

Ecology: Impact Factor

Notes: highly cited

Rühling, Å. and Tyler, G. (1970), Sorption and retention of heavy metals in the woodland moss Hylocomium splendens (Hedw.) Br. et Sch. *Oikos*, **21** (1), 92-97.

Full Text: [1960-80\Oikos21, 92.pdf](1960-80/Oikos21,%2092.pdf)

Abstract: The capacity of Hylocomium splendens to sorb heavy metal ions from dilute solutions was studied. The sorption and retention generally followed the order: Cu, Pb > Ni > Co > Zn, Mn. This order proved valid within a wide range of concentrations and independently whether the ions were supplied in pure or mixed solutions. The capacity of the moss tissues to sorb traces of Cu and Pb in the presence of comparatively large amounts of Ca, K, Mg, and Na was found to be very great. This makes it probable that these ions, supplied with the precipitation, are almost quantitatively sorbed by the moss carpets. A large share of Ni when present in precipitation, will also possibly be sorbed. A natural carpet of Hylocomium splendens showed a continuous uptake of Mn, Fe, and Ca from young to old tissues, whereas the increase in the concentrations of minor heavy metals was balanced by the dry matter decrease through de- composition. The developing and mature mor layer below the moss carpet had not enriched heavy metals above the concentrations of the old moss tissues.

Notes: highly cited

? Clymo, R.S., Turunen, J. and Tolonen, K. (1998), Carbon accumulation in peatland. *Oikos*, **81** (2), 368-388.

Full Text: [1998\Oikos81, 368.pdf](1998/Oikos81,%20368.pdf)

Abstract: (1) Models of pear accumulation are developed that include constant, linear and quadratic decay of dry mass remaining. Profiles of dry bulk density of 795 peatlands distributed over Finland are used to infer cumulative carbon for each site. These values and basal ages are themselves used to infer rates of growth and decay of the peat. (2) A method, ‘function parameter fitting’ (FPF), is devised to estimate parameter values in non-linear functions when there are uncertainties in both variables, as there are in cumulative carbon and age. Where the data are highly variable then results with FPF are substantially different from those used hitherto that assume uncertainty in only the dependent variable. (3) For five regions in Finland and in Boreal Canada the inferred rate of addition, p(\*) [M L-2 T-1], is related to degree-days above zero, and decay, a(\*) [T-1] is related logarithmically to mean annual temperature. The present day rate of accumulation of carbon in northern peatlands is about 5.6 Tmol yr(-1) or, as dry mass, 0.07 Gt yr(-1). (4) There are difficulties in the interpretation of LARCA (= LORCA = long term average rate of carbon accumulation). Understanding of peatland dynamics may result from the use of intrinsic models allowing decay: it is unlikely to emerge from the exotic models in common use.

Keywords: Raised Mire, Finland, Age

? Keating, K.A. and Quinn, J.F. (1998), Estimating species richness: the Michaelis-Menten model revisited. *Oikos*, **81** (2), 411-416.

Full Text: [1998\Oikos81, 411.pdf](1998/Oikos81,%20411.pdf)

Abstract: The Michaelis-Menten model has been widely used to estimate the richness (S) of species pools, but is largely untested. We tested whether (1) species accumulation curves follow the form predicted by the model, (2) the model gives unbiased estimates ((S) over cap and (B) over cap, respectively) of S and of the sample size, B, needed to detect S/2 species, and (3) performance is robust to community structure. Performance varied with community structure. For model communities with species-abundance distributions based on MacArthur’s broken-stick model with 100 or 1000 species, deviations from predicted accumulation curves were slight, and (S) over cap and (B) over cap were unbiased (P greater than or equal to 0.18). For broken-stick communities with 10 species, (S) over cap and (B) over cap overestimated S and B by an average of 17% and 63%, respectively (P < 0.001). For model communities with species-abundance distributions based on Tokeshi’s (1990) random-fraction model with 10, 100, or 1000 species, deviations from predicted accumulation curves were large; on average, (S) over cap underestimated S by 7-37% (P < 0.001), and (for S = 100 or 1000) (B) over cap underestimated B by 67-80% (P < 0.001). Vascular plant inventories (S = 42 to 99 species) also showed large deviations from predicted curves; on average, (S) over cap underestimated S by 35% (P < 0.001) and (B) over cap underestimated B by 72% (P < 0.001). Because most natural communities are better described by the random-fraction than the broken-stick model, we suggest the Michaelis-Menten model will typically yield poor estimates of S. Moreover, we argue that accepted criteria for evaluating estimators of S are inadequate.

Keywords: Abundance Patterns, Accumulation, Communities, Community, Community Structure, Criteria, Distributions, Diversity, Extrapolation, Inventories, Model, Natural, P, Performance, Plant, Richness, Robust, Size, Species, Species Pools, Species Richness, Structure, Yield

# Title: Oil and Chemical Pollution

(Oil Chem. Pollut.)

Viraraghavan, T. and Mathavan, G.N. (1988), Treatment of oil-in-water emulsions using peat. *Oil and Chemical Pollution*, **4**, 261-280.

# Title: Oil & Gas Journal

Full Journal Title: Oil & Gas Journal

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Tippee, B. (2011), Biofuels cited in outlook for food price gains. *Oil & Gas Journal,* **109** (10C), 31.

Full Text: 2011\Oil Gas J109, 31.pdf

# Title: Oil Gas-European Magazine

Full Journal Title: Oil Gas-European Magazine

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Hageluken, C. (1999), Recycling of spent noble metal catalysts with emphasis on pyrometallurgical processing. *Oil Gas-European Magazine*, **25** (3), 36-39.

Abstract: Precious metal catalysts for catalytic Naphta Reforming, Isomerization Hydrogenation and other chemical and petrochemical processes are valuable assets for oil refineries and chemical companies. At the end of the service life of a reactor load of catalyst, the efficient and reliable recovery of the precious metals contained in the catalyst is of paramount importance.

More than 150 years of technological advances at Degussa-Huls have resulted in refining methods for all kinds of precious metal containing materials which guarantee an optimum technical yield of the precious metals included. The refining of catalysts today is one of the important activities in the precious metals business unit. In the state-of-the-art precious metal refinery at Hanau in the centre of Germany a wide variety of processes for the recovery of all precious metals is offered. These processes include accurate preparation, sampling and analysis as well as both wet-chemical and pyrometallurgical recovery techniques. Special emphasis in this presentation is laid on the advantages of pyrometallurgical processes for certain kinds of catalysts.

To avoid any risks during transport, sampling and treatment of the spent catalyst, all parties involved in the recycling chain strictly have to follow the relevant safety regulations. Under its commitment to ‘Responsible Care’ standard procedures have been developed which include pre-shipment samples, safety data sheets/questionnaires and inspection of spent catalysts. These measures not only support a safe and environmentally sound catalyst recycling but also enable to determine the most suitable and economic recovery process-for the benefit of the customer.

# Title: OCL-Oleagineux Corps Gras Lipides

Full Journal Title: OCL-Oleagineux Corps Gras Lipides

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1258-8210

Issues/Year:

Journal Country/Territory:

Language:

Publisher: Springer

Publisher Address:

Subject Categories:

: Impact Factor

? Lemarie, J., de Looze, M.A. and Rivaud, D. (1996), Bibliometric study of protein optimization. *OCL-Oleagineux Corps Gras Lipides*, **3** (5), 346-352.

# Title: OCLC Systems & Services

Full Journal Title: [OCLC Systems & Services](http://www.emeraldinsight.com/Insight/viewContainer.do?containerType=Journal&containerId=11150)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1065-075X

Issues/Year:

Journal Country/Territory:

Language:

Publisher: Springer

Publisher Address:

Subject Categories:

: Impact Factor

? Wen, D., Yu, T.C. and Ho, Y.S. (2009), Bibliometric tools applied to analytical articles: The example of gene transfer-related research. *OCLC Systems & Services*, **25** (3), 186-199.

Full Text: [2009\OCLC Sys Ser25, 186.pdf](2009/OCLC%20Sys%20Ser25,%20186.pdf)

Abstract: Purpose – The objective of this study is to conduct a bibliometric indicator and to conduct an analysis of citations per publication of all horizontal gene transfer-related publications in the Science Citation Index (SCI). A systematic search was performed using the SCI for publications during the period 1991-2005.

Design/methodology/approach – The data were based on the online version of the Science Citation Index (SCI), Web of Science. Analyzed parameters included authorship, patterns of international collaboration, journal, language, document type, number of times cited, author, and KeyWords Plus.

Findings – The USA and Germany produced 57 percent of the total articles and 77 percent of the total times cited in three years after publication. In addition, a simulation model was applied to describe the relationship between the cumulative number of citations and the article life.

Originality/value – This is one of the first studies that uses analysis of citations per publication, defined as the ratio of the number of citations per publication in a certain period, to assess the impact relative to the entire field.

Keywords: Genetics, Publishing, Research Results, Serials

# Title: Okeanologiya

Full Journal Title: Okeanologiya

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0030-1574

Issues/Year:

Journal Country/Territory:

Language:

Publisher: Springer

Publisher Address:

Subject Categories:

: Impact Factor

? Khramushin, V.N. and Shevtchenko, G.V. (1994), A method of detailed coastal tsunami zoning related to Aniva Bay Coast. *Okeanologiya*, **34** (2), 218-223.

Abstract: The method of detailed estimation of tsunami risk of the coast based on combination of historical tsunami data analysis and numerical modeling was elaborated. Parameters of tsunami heights distribution function (which may be considered as sum of several distribution functions from different tsunami active zones) are estimated on the base of instrumental tsunami data at certain point. Amplitude coefficients for these functions for other points along the coast are estimated by numerical modeling of tsunami propagation in this region.

# Title: Omega

Full Journal Title: [Omega](http://sdos.ejournal.ascc.net/cgi-bin/sciserv.pl?collection=journals&journal=03050483), [Omega](http://www.sciencedirect.com/science/journal/03050483)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Eom, S.B. (1995), Decision support systems research: Reference disciplines and a cumulative tradition. *Omega*, **23** (5), 511-523.

Full Text: [O\Omega23, 511.pdf](O/Omega23,%20511.pdf)

Abstract: This study applies factor analysis of an author cocitation frequency matrix derived from a database file consisting of a total of 15, 030 *cited* reference records taken from 692 *citing* articles. Seven informal clusters of decision support systems (DSS) research subspecialties and reference disciplines were uncovered. Four of them represent DSS research subspecialties--foundations, group DSS, model/data management, and individual differences. Three other conceptual groupings define the reference disciplines of DSS--organizational science, multiple criteria decision making, and artificial intelligence. DSS is a very young academic field and is still growing. DSS has just entered the era of growth after 20 years of research. During the 1990s, DSS research will be further grounded in a diverse set of reference disciplines. Furthermore, DSS is in the active process of solidifying its domain and demarcating its reference disciplines. A DSS theory is imminent in the very near future in some area of DSS research such as model management.

Keywords: Decision Support Systems, Reference Disciplines, Bibliometrics, Bibliography, Cocitation Analysis

Eom, S.B. (1998), The intellectual development and structure of decision support systems (1991–1995). *Omega*, **26** (5), 639-657.

Full Text: [1998\Omega26, 639.pdf](1998/Omega26,%20639.pdf)

Abstract: This study extends an earlier benchmark study which examined the intellectual structure, major themes and reference disciplines of decision support systems (DSS) over the last two decades (1970–1990). Factor analysis of an author cocitation matrix over the period 1991 through 1995 extracted five major areas of DSS research (group DSS, model management, implementation, design and an unnamed factor) and three contributing disciplines (cognitive science, organizational science and multiple criteria decision making). The DSS area has undergone profound structural changes over the past five years (1991–1995) and made meaningful progress over the past two and a half decades. It is in the process of solidifying its domain and demarcating its reference disciplines. We have highlighted several notable trends and developments in the DSS research areas.

Keywords: Decision Support Systems, Intellectual Structure, Bibliometrics, Cocitation Analysis, Factor Analysis

Jones, M.J. (2000), Critically evaluating an applications vs theory framework for research quality. *Omega*, **27** (3), 397-401.

Full Text: [O\Omega27, 397.pdf](O/Omega27,%20397.pdf)

Abstract: Ormerod [Ormerod RJ. An observation on publication habits based on the analysis of MS/OR journals. Omega Int J Mgmt Sci 1997,25: 599–603.] contributes to an ongoing debate by pointing out that not only do US authors frequently publish in UK journals, but also that journal articles can be analysed on the basis of being `untested theory’ or `true applications’. Such a taxonomy might, Ormerod suggests, be an alternative method of evaluating `research quality’ to the established methods of peer review or citation analysis. This response critically evaluates this suggestion in terms of validity, reliability, practicability and exhaustiveness. Ormerod’s case is found not proven.

Keywords: Citation Indices, Peer Review, True Applications, Untested Theory

Donohue, J.M. and Fox, J.B. (2000), A multi-method evaluation of journals in the decision and management sciences by US academics. *Omega*, **28** (1), 17-36.

Full Text: [O\Omega28, 17.pdf](O/Omega28,%2017.pdf)

Abstract: Numerous studies published in the academic literature address the issue of journal quality. However, little has been done to evaluate the broad set of journals pertinent to academic research in the decision and management sciences. This study examines the quality of such journals from a US point of view using both survey- and citation-based measures of journal quality. The survey-based measure is the perceived quality ratings assigned by US academics in the management science field. The citation-based measure is the impact factor, an indication of how often the articles in a journal are cited. This study finds that perceived quality ratings of the journals are positively correlated with citation impact factors. Also, both of these quality measures are found to be positively correlated with journal circulation and negatively correlated with acceptance rate. Journal quality ratings appear to vary across reviewers with different research interest areas and reviewers seem to rate journals higher if they have published in them.

Keywords: Journal Quality, Citation Analysis, Business and Management Studies

? Holsapple, C.W. and Lee-Post, A. (2010), Behavior-based analysis of knowledge dissemination channels in operations management. *Omega*, **38** (3-4), 167-178.

Full Text: [2010\Omega38, 167.pdf](2010/Omega38,%20167.pdf)

Abstract: One essential requirement for the development and vitality of a discipline is a network of channels for knowledge dissemination. These channels, such as scholarly journals, furnish not only a means for knowledge sharing, but also for knowledge generation by the discipline’s community of researchers. In the field of operations management (OM), there have been several studies that have sought to rank journals relevant to OM research, using opinion surveys, citation analyses, and author affiliations. However, each of these methods has some limitations. This paper adopts a new approach for discerning journal publication patterns in the OM field. It is based on an examination of the actual publishing behaviors of all full-time, tenured OM researchers at a sizable set of leading research universities in the US. This behavior-based methodology provides three metrics that individually, and in tandem, give a basis for rating publication outlets for OM research in terms of their relative importance. The ratings can be used by scholars and administrators to assist in monitoring, disseminating, and evaluating OM research outlets.

Keywords: Bibliometrics, Knowledge Dissemination, Operations Management Journals, Operations Management Researchers

# Title: Omega-International Journal of Management Science

Full Journal Title: [Omega-International Journal of Management Science](http://sdos.ejournal.ascc.net/cgi-bin/sciserv.pl?collection=journals&journal=03050483)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Eom, S.B. (1995), Decision support systems research: Reference disciplines and a cumulative tradition. *Omega-International Journal of Management Science*, **23** (5), 511-523.

Full Text: [1995\Omega23, 511.pdf](1995/Omega23,%20511.pdf)

Abstract: This study applies factor analysis of an author cocitation frequency matrix derived from a database file consisting of a total of 15, 030 *cited* reference records taken from 692 *citing* articles. Seven informal clusters of decision support systems (DSS) research subspecialties and reference disciplines were uncovered. Four of them represent DSS research subspecialties--foundations, group DSS, model/data management, and individual differences. Three other conceptual groupings define the reference disciplines of DSS--organizational science, multiple criteria decision making, and artificial intelligence. DSS is a very young academic field and is still growing. DSS has just entered the era of growth after 20 years of research. During the 1990s, DSS research will be further grounded in a diverse set of reference disciplines. Furthermore, DSS is in the active process of solidifying its domain and demarcating its reference disciplines. A DSS theory is imminent in the very near future in some area of DSS research such as model management.

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Eom, S.B. (1998), The intellectual development and structure of decision support systems (1991–1995). *Omega-International Journal of Management Science*, **26** (5), 639-657.

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Keywords: Analysis, Changes, Cocitation, Criteria, Decision, Decision Making, Decision Support, Decision Support Systems, Decision-Making, Design, Development, DSS, Implementation, Intellectual Structure, Management, Matrix, Model, Multiple Criteria, Organizational, Research, Rights, Science, Structure, Support, Systems, Trends

Jones, M.J. (2000), Critically evaluating an applications vs theory framework for research quality. *Omega-International Journal of Management Science*, **27** (3), 397-401.

Full Text: [2000\Omega27, 397.pdf](2000/Omega27,%20397.pdf)

Abstract: Ormerod [Ormerod RJ. An observation on publication habits based on the analysis of MS/OR journals. Omega Int J Mgmt Sci 1997;25: 599–603.] contributes to an ongoing debate by pointing out that not only do US authors frequently publish in UK journals, but also that journal articles can be analysed on the basis of being ‘untested theory’ or ‘true applications’. Such a taxonomy might, Ormerod suggests, be an alternative method of evaluating ‘research quality’ to the established methods of peer review or citation analysis. This response critically evaluates this suggestion in terms of validity, reliability, practicability and exhaustiveness. Ormerod’s case is found not proven.

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? Holsapple, C.W. and Lee-Post, A. (2010), Behavior-based analysis of knowledge dissemination channels in operations management. *Omega-International Journal of Management Science*, **38** (3-4), 167-178.

Full Text: [2010\Omega38, 167.pdf](2010/Omega38,%20167.pdf)

Abstract: One essential requirement for the development and vitality of a discipline is a network of channels for knowledge dissemination. These channels, such as scholarly journals, furnish not only a means for knowledge sharing, but also for knowledge generation by the discipline’s community of researchers. In the Field of operations management (OM), there have been several studies that have sought to rank journals relevant to OM research, using opinion surveys, citation analyses, and author affiliations. However, each of these methods has some limitations. This paper adopts a new approach for discerning journal publication patterns in the OM field. It is based on an examination of the actual publishing behaviors of all full-time, tenured OM researchers at a sizable set of leading research universities in the US. This behavior-based methodology provides three metrics that individually, and in tandem, give a basis for rating publication outlets for OM research in terms of their relative importance. The ratings can be used by scholars and administrators to assist in monitoring, disseminating, and evaluating OM research outlets. (C) 2009 Elsevier Ltd. All rights reserved.

Keywords: Bibliometrics, Business Schools, Citation, Discipline, Field, Journal Evaluation, Journals, Knowledge Dissemination, Metrics, Model, Operations Management Journals, Operations Management Researchers, Professors, Publication, Publishing, Research, Research Quality, Supply Chain, System, Universities

? Meredith, J.R., Steward, M.D. and Lewis, B.R. (2011), Knowledge dissemination in operations management: Published perceptions versus academic reality. *Omega-International Journal of Management Science*, **39** (4), 435-446.

Full Text: [2011\Omega39, 435.pdf](2011/Omega39,%20435.pdf)

Abstract: The channels for knowledge generation and dissemination in the business disciplines are many: presenting research at conferences, writing books, distributing working papers, offering insights in society newsletters, giving invited talks, publishing studies in academic journals, and many other venues, including even blogs and perhaps Facebook”. But the most important venue is probably published research in “top-level” academic journals. In the discipline of Operations Management, many studies and lists have been published that attempt to determine which of these journals are supposedly the “top” according to either citation analyses, the opinion of recognized experts, author affiliations, bibliometric studies, and other approaches. These lists may then, in turn, be used in different degrees to evaluate research. However, what really counts is what the academic institutions actually use for guidance in evaluating faculty research. Based on a new source of ranking data from AACSB-accredited schools, we compare published journal-ranking studies against that of academe to determine the degree to which the studies reflect academic “reality”. We present rankings of OM journals based on this new source of data and on an aggregate of the stream of published studies, and evaluate their consistency. (C) 2010 Elsevier Ltd. All rights reserved.

Keywords: Analyses, Bibliometric, Bibliometric Studies, Business, Citation, Conferences, Consistency, Data, Decision, Experts, Faculty, Generation, Guidance, Institutions, Journal Perception, Journal Ranking, Journals, Knowledge, Knowledge-Generation, Management, OM Discipline, Operations Management, Papers, Publishing, Ranking, Rankings, Research, Rights, Society, Source, Stream

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Subject Categories:

Biochemistry & Molecular Biology

Oncology Cell Biology Genetics & Heredity: Impact Factor 6.490, 30/310 (2000)

? Ong, G., Sikora, K. and Gullick, W.J. (1991), Inactivation of the retinoblastoma gene does not lead to loss of TGF-β receptors or response to TGF-β in breast-cancer cell-lines. *Oncogene*, **6** (5), 761-763.

Li, J.J., Oberley, L.W., Stclair, D.K., Ridnour, L.A. and Oberley, T.D. (1995), Phenotypic changes induced in human breast-cancer cells by overexpression of manganese-containing superoxide dismutase. *Oncogene*, **10** (10), 1989-2000.

Abstract: Human manganese containing superoxide dismutase (MnSOD) cDNA was transfected into a human breast cancer cell line (MCF-7) inorder to examine the effect of increased functional MnSOD on the cellular phenotype. A MnSOD-overexpressing clone was compared to control vector-transfected cells and to wild type MCF-7 cells. Southern blotting indicated incorporation of MnSODcDNA into genomic DNA in the MnSOD overexpressing cell line. The MnSOD overexpressing cell line showed a 5.7-fold increase in MnSOD activity compared to wild type MCF-7 cells. Similar increases in MnSOD immunoreactive protein and mRNA levels were observed by Western and Northern blotting as well as using RT-PCR, The plating efficiency of cells grown in different concentrations of serum (1 to 20%) was decreased in the MnSOD overexpressing cell line. The fraction in soft agar culture was also after MnSOD cDNA transfection. When inoculated in nude mice, tumor growth was markedly inhibited in MnSOD overexpressing cells compared to wild type MCF-7 cells or plasmid control cells, These results support the hypothesis that increased MnSOD expression suppresses the malignant phenotype of human breast cancer cells and suggests that the MnSOD gene is a tumor suppressor gene in human breast cancer.

Keywords: Syrian-Hamster Tissues, Glutathione-Peroxidase, Antioxidant Enzymes, Immunohistochemical Localization, Kidney Development, Transfected Cells, Expression Vector, Transgenic Mice, Mammalian-Cells, Downs-Syndrome, Breast, Cancer, Mnsod, Transfection, Soft Agar, Nude Mice

Zhong, W.X., Oberley, L.W., Oberley, T.D. and St Clair, D.K. (1997), Suppression of the malignant phenotype of human glioma cells by overexpression of manganese superoxide dismutase. *Oncogene*, **14** (4), 481-490.

Abstract: Manganese superoxide dismutase (MnSOD) has been previously shown to suppress the malignant phenotype of human melanoma and breast cancer cells, To test the possible role of MnSOD in glioma malignancy, MnSOD was overexpressed in wild type human glioma U118 cells and subcloned U118-9 cells by transfection of human MnSOD cDNA, The MnSOD-transfected cell lines demonstrated expression of exogenous (plasmid) MnSOD mRNA, increase in MnSOD immunoreactive protein, and a three-to eightfold increase in MnSOD enzymatic activity, The MnSOD overexpressing cell lines became less malignant as demonstrated by requiring a higher serum concentration to grow in vitro and much slower tumor growth in nude mice than the parental and neo control cell lines, These findings further support the hypothesis that MnSOD may be a tumor suppressor gene in a aide variety of human tumors.

Keywords: Mnsod, Tumor Suppressor Gene, Gene Transfection, Glioma, Antioxidant Enzymes, Reactive Oxygen Species, Glutathione-Peroxidase-Activity, Antioxidant Enzymes, Expression Vector, Mammalian-Cells, Gene, Melanoma, Differentiation, Chromosome-6, Metastasis, Induction

Wang, H.C., Shao, N.S., Ding, Q.M., Cui, J.Q., Reddy, E.S.P. and Rao, V.N. (1997), BRCA1 proteins are transported to the nucleus in the absence of serum and splice variants BRCA1a, BRCA1b are tyrosine phosphoproteins that associate with E2F, cyclins and cyclin dependent kinases, *Oncogene*, **15** (2), 143-157.

Abstract: BRCA1, a familial breast and ovarian canter susceptibility gene encodes nuclear phosphoproteins that function as tumor suppressors in human breast cancer cells, Previously, we have shown that overexpression of a BRCA1 splice variant BRCA1a accelerates apoptosis in human breast cancer cells, In an attempt to determine whether the subcellular localization of BRCA1 is cell cycle regulated, we have studied the subcellular distribution of BRCA1 in asynchronous and growth arrested normal, breast and ovarian cancer cells using different BRCA1 antibodies by immunofluorescence and immunohistochemical staining, Upon serum starvation of NIH3T3, some breast and ovarian cancer cells, most of the BRCA1 protein redistributed to the nucleus revealing a new type of regulation that may modulate the activity of BRCA1 gene, We have also characterized two new variant BRCA1 proteins (BRCA1a/p110 and BRCA1b/p100) which are phosphoproteins containing phosphotyrosine, Immunofluorescence and Western blotting analysis indicate cytoplasmic and nuclear localization of BRCA1a and BRCA1b proteins. To elucidate the biological function of BRCA1, we created a bacterial fusion protein of glutathione-transferase (GST) and BRCA1 zinc finger domain and detected two cellular proteins with molecular weights of approximately 32 and 65 kD, one of which contains phosphotyrosine designated p32 and p65 BRCA1 interacting proteins (BIP) that specifically interact with BRCA1, Western blot analysis of BIP with cyclins/CDKs and E2F antisera indicated association with cdc2, cdk2, cdk4, cyclin B, cyclin D, cyclin A and E2F-4 but not with cdk3, cdk5, cdk6, E2F-1, E2F-2, E2F-3, E2F-5 and cyclin E, Furthermore, we have also demonstrated a direct interaction of in vitro translated BRCA1a and BRCA1b proteins with recombinant cyclin A, cyclin B1, cyclin D1, cdc2, cdk2 and E2F fusion proteins in vitro, Taken together these results seem to suggest that BRCA1 could be an important negative regulator of cell cycle that functions through interaction with E2F transcriptional factors and phosphorylation by cyclins/cdk complexes with the zinc ring finger functioning as a major protein-protein interaction domain, If the interactions we observe in vitro is also seen in vivo then it may be possible that lack or impaired binding of the disrupted BRCA1 proteins to E2F, cyclins/CDKs in patients with mutations in the zinc finger domain could deprive the cell of an important mechanism for braking cell proliferation leading to the development of breast and ovarian cancers.

Keywords: BRCA1A, BRCA1B, Zinc Finger, Cyclins, Cdks, E2F, Ovarian-Cancer Incidence, Retinoblastoma Protein, Transcription Factor, Breast-Cancer, Gene-Product, Expression, Localization, Sequence, Binding, Cell

# Title: Oncologia

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JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Wildermu, O. (1966), Management of cancer patient by radiation therapy with hyperbaric oxygen. *Oncologia*, **20** (1), 65-??.

# Title: Oncologia (Madrid)

Full Journal Title: Oncologia (Madrid)

ISO Abbreviated Title:

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Issues/Year:

Journal Country/Territory:

Language:

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Subject Categories:

: Impact Factor

? Padierna, C. and Fernandez-Rodriguez, C. (2001), [Quality of life assessment instruments in terminal cancer patients: A review (1988-2000)]. *Oncologia (Madrid)*, **24** (5), 19-20.

Abstract: Purpose: To identify and analyse quality of life measures that have been used in terminal cancer patients. Methods: Two database searches were performed using MEDLINE (1988-2000), PsycLIT (1988-2000) and CancerLit (1988-2000). Results: Data about articles that used quality of life instruments (28) are presented, and the six articles that describe quality of life measures and their psychometric properties are analysed in more detail. Conclusions: Relevant differences in quality of life assessment procedures were found. Each instrument (EFAT, HQLI, MVQOLI, RSCL, MQOL) fulfils some but not all of the psychometric properties of reliability, validity, responsiveness and appropriateness.

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Subject Categories:

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? Schraub, S. and Ben Ayed, F. (2010), Fraud in oncology. *Oncologie*, **12** (11-12), 675-681.

Full Text: [2010\Oncologie12, 675.pdf](2010/Oncologie12,%20675.pdf)

Abstract: Fraud means to cheat or falsify research data. Plagiarism is using another’s data without obtaining permission. Research misconduct is now defined as falsification, fabrication and plagiarism in performing or reporting research results. Discrepancy means a non intentional error in performing or reporting research results. In oncology, four major misconducts have been reported. Dr Poisson falsified data concerning patients included in NASBP trials. Dr Herrmann and Dr Brach manipulated graphics and tables in their publications. Dr Bezwoda did not present patients’ consent for trials enrolment and there were important protocol deviations in treatments given. Dr Sudbo fabricated data for 900 patients in an epidemiological study. In very special cases, limits between discrepancy and fraud can be hard especially if the basic data are no more available. Misconducts have deleterious effects on Sciences, upon lay public with lost of confidence and bring shame on institutions where the misconduct took place. Frequency of misconducts in oncology is unknown. In sciences, the prevalence range between 2 to 5%. Watchfull of coauthors and institutions is away to prevent fraud. Education of young scientist to avoid plagiarism or fraud is done in some institutions. Some countries have establish Office of Research Integrity (ORI) which task is to develop procedures and regulations related to the detection of misconduct and to investigate some misconducts. The development of whistle-blowers to find misconduct is encouraged by some institutions, but this policy can go back against whistleblowers which careers can be ruined. Scientist who behaves badly has not an abnormal personality. More often there are circumstances where scientists want more grants or a better position.

Keywords: Bezwoda, Breast-Cancer, Cancer, Coffee, Development, Education, Fraud, High-Dose Chemotherapy, Misconduct, Oral-Cancer, Plagiarism, Policy, Publications, Research, Research Misconduct, Risk, Scientific Misconduct, Trials

# Title: Oncologist

Full Journal Title: Oncologist

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JCR Abbreviated Title: Oncologist

ISSN:

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Journal Country/Territory:

Language:

Publisher: Springer

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Subject Categories:

: Impact Factor

? Jones, L.W., Liang, Y.Y., Pituskin, E.N., Battaglini, C.L., Scott, J.M., Hornsby, W.E. and Haykowsky, M. (2011), Effect of exercise training on peak oxygen consumption in patients with cancer: A meta-analysis. *Oncologist*, **16** (1), 112-120.

Abstract: Background. We conducted a meta-analysis to determine the effects of supervised exercise training on peak oxygen consumption (VO(2peak)) in adults with cancer. Methods. A literature review using Ovid MEDLINE (1950-2010), the Cochrane Central Register of Controlled Trials (1991-2010), AMED (1985-2010), EMBASE (1988-2010), PUBMED (1966-2010), Scopus (1950-2010), and Web of Science (1950-2010) was performed to identify randomized controlled trials examining the effects of supervised exercise training on measurement of VO(2peak) (via gas exchange analysis) in adults with cancer. Studies were selected using predetermined criteria, and two independent reviewers extracted data. Weighted mean differences (WMDs) were calculated using random effect models. Results. Six studies evaluated VO(2peak) involving a total of 571 adult cancer patients (exercise, n = 344; usual care control, n = 227). Pooled data indicated that exercise training was associated with a statistically significant increase in VO(2peak) (WMD, 2.90 ml.kg(-1).min(-1); 95% confidence interval [CI], 1.16-4.64); however, significant heterogeneity was evident in this estimate (I(2), 87%). Usual care (control) was associated with a significant decline in VO(2peak) from baseline to postintervention (WMD, -1.02 ml.kg(-1).min(-1); 95% CI, -1.46 to -0.58; I(2), 22%). Sensitivity analyses indicated superior improvements in VO(2peak) for studies conducted for a shorter duration (<4 months) and following the completion of adjuvant therapy (p-values < .001). Exercise training was not associated with a higher incidence of adverse events, although safety was not rigorously monitored or reported. Conclusions. Supervised exercise training is associated with significant improvements in VO(2peak) following a diagnosis of early-stage cancer, with minimal adverse events. The Oncologist 2011; 16: 112-120.

Keywords: Adjuvant Chemotherapy, Adjuvant Therapy, Adult, Adults, Aerobic Capacity, Aerobic Exercise, Aerobic Training, Analysis, Cancer, Cardiorespiratory Fitness, Cell Lung-Cancer, Cochrane, Control, Diagnosis, Exercise, Incidence, Literature, Literature Review, Measurement, Medline, Meta-Analysis, Methods, Operable Breast-Cancer, Oxygen Consumption, Peak Oxygen Consumption, Physical-Fitness, Pubmed, Quality-of-Life, Randomized Controlled Trials, Randomized Controlled-Trial, Resistance Training, Review, Risk Profile, Safety, Science, Scopus, Therapy, Training, Web of Science, Women

? Hui, D., Parsons, H.A., Damani, S., Fulton, S., Liu, J., Evans, A., De La Cruz, M. and Bruera, E. (2011), Quantity, design, and scope of the palliative oncology literature. *Oncologist*, **16** (5), 694-703.

Abstract: The current state of the palliative oncology literature is unclear. We examined and compared the quantity, research design, and research topics of palliative oncology publications in the first 6 months of 2004 with the first 6 months of 2009. We systematically searched MEDLINE, PsychInfo, EMBASE, ISI Web of Science, and CINAHL for original studies, review articles, and systematic reviews related to “palliative care” and “cancer” during the first 6 months of 2004 and 2009. Two physicians reviewed the literature independently and coded the study characteristics with high inter-rater reliability. We found a consistent decrease in the proportion of oncology studies related to palliative care between 2004 and 2009, despite an absolute increase in the total number of palliative oncology studies. Combining the two time periods, the most common original study designs were case report/series, cross-sectional studies, and qualitative studies. Randomized controlled trials comprised 6% of all original studies. The most common topics were physical symptoms, health services research, and psychosocial issues. Communication, decision making, spirituality, education, and research methodologies all represented < 5% of the literature. Comparing 2004 with 2009, we found an increase in the proportion of original studies among all palliative oncology publications but no significant difference in study design or research topic. We identified significant deficiencies in the quantity, design, and scope of the palliative oncology literature. Further effort and resources are necessary to improve the evidence base for this important field. The Oncologist 2011;16:694-703.

Keywords: Cancer, Care Literature, Communication, Decision Making, Decision-Making, Education, Embase, Health Services, Health Services Research, Hospice, ISI, Issues, Literature, Medline, Neoplasms, Oncology, Palliative Care, Physicians, Psychosocial, Publications, Quantity, Randomized Controlled Trials, Reliability, Research, Research Design, Research Topics, Review, Science, Search Filter, Spirituality, Symptom Control, Symptoms, Systematic, Systematic Reviews, Topics, Trials, Web of Science

# Title: Oncology

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JCR Abbreviated Title: Oncology

ISSN:

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Subject Categories:

: Impact Factor

? Su, X., Lacouture, M.E., Jia, Y.X. and Wu, S.H. (2009), Risk of high-grade skin rash in cancer patients treated with cetuximab: An antibody against epidermal growth factor receptor: Systemic review and meta-analysis. *Oncology*, **77** (2), 124-133.

Abstract: Background: Cetuximab, a chimeric antibody against epidermal growth factor receptor has emerged as an effective therapy for advanced colorectal cancer (CRC) and head-neck cancer. However, severe skin toxicity may limit its use. Its efficacy in the treatment of other cancers is also undergoing extensive investigation. We performed a systemic review and meta-analysis of published clinical trials to quantify the overall incidence and risk of severe skin rash. Methods: Databases MEDLINE (OVID 1998 to July 2008), Web of Science, and abstracts presented at the American Society of Clinical Oncology conferences from 2004 through July 2008 were searched to identify relevant studies. Eligible studies include phase II and III clinical trials in which patients were treated with a single agent, i.e. cetuximab at 400 mg/m(2) as initial dose followed by 250 mg/m(2) weekly. Incidence, relative risk (RR), and 95% confidence intervals (CI) were calculated using a fixed-effects or random-effects model based on the heterogeneity of included studies. Results: A total of 2,037 patients with a variety of solid tumors from 16 trials were included for analysis. The overall incidence of all-grade skin rash was 88.2% (95% CI: 84.8-91.0%), with 11.3% (95% CI: 8.8-14.3%) being high-grade (grade 3 or above). The overall incidence of all-grade acne-like skin rash was 81.6% (95% CI: 75.4-86.6%)with 6.5% (95% CI: 4.1-10.0%) being high-grade. Notably, patients with CRC exhibited a significantly higher incidence of high-grade skin rash (12.6%, 95% CI: 9.7-16.4%) than those with non-CRC (6.6%, 95% CI: 3.6-11.8%) with a risk ratio of 1.9 (95% CI: 1.0-3.6, p = 0.049). From randomized controlled studies, patients who received cetuximab had a significantly increased risk of developing high-grade skin rash in comparison with controls (RR 21.8, 95% CI: 6.9-68.8, p < 0.001). Conclusion: Cancer patients who received cetuximab have a substantial risk of developing high-grade skin rash. The risk may be particularly increased in patients with CRC. Further studies are strongly recommended for the prevention and treatment of high-grade skin rash. Copyright (C) 2009 S. Karger AG, Basel.

Keywords: 1st-Line Treatment, Analysis, Antibody, Cancer, Carcinoma, Cell Lung-Cancer, Cetuximab, Clinical Trials, Colorectal Cancer, Confidence Intervals, Controlled Studies, Copyright, Databases, Efficacy, Egfr Inhibitors, Epidermal Growth Factor Receptor, Incidence, Meta-Analysis, Metastatic Colorectal-Cancer, Methods, Model, Oncology, Panitumumab, Phase-Ii Trial, Plus Cetuximab, Prevention, Ratio, Relative Risk, Review, Risk, Science, Severe Infusion Reaction, Side Effect, Single-Agent, Skin Rash, Therapy, Toxicity, Treatment, Web of Science

? Hapani, S., Sher, A., Chu, D. and Wu, S.H. (2010), Increased risk of serious hemorrhage with bevacizumab in cancer patients: A meta-analysis. *Oncology*, **79** (1-2), 27-38.

Abstract: Background: The role of the widely-used angiogenesis inhibitor bevacizumab in the development of serious hemorrhage is not well defined in cancer patients. This study was conducted to determine the overall risk of hemorrhage with bevacizumab by a systematic review and meta-analysis of randomized controlled trials (RCT). Methods: Databases from PUBMED and the Web of Science from January 1966 to May 2009 and abstracts presented at the American Society of Clinical Oncology (ASCO) conferences from January 2000 to May 2009 were searched to identify relevant studies. Eligible studies included prospective RCTs in which bevacizumab was compared to controls concurrently with antineoplastic therapy. Summary incidence rates, relative risks (RR), and 95% confidence intervals (CI) were calculated employing fixed-or random-effects models. Results: A total of 12,617 patients with a variety of solid tumors from 20 RCTs were included for analysis. The incidence of all-grade hemorrhage was 30.4% (95% CI 21.5-40.9), with 3.5% (95% CI 2.2-5.7%) being high grade (grade 3-5). Overall, bevacizumab significantly increased the risk of bleeding with an RR of 2.48 (95% CI 1.93-3.18) when compared to the controls, with RRs of 3.02 (95% CI 2.42-3.78) and 2.01 (95% CI 1.43-2.83) at 5 and 2.5 mg/kg/week, respectively. Significantly increased risks for epistaxis or pulmonary hemorrhage were observed. In addition, bevacizumab significantly increased the risk of high-grade bleeding with an RR of 1.91 (95% CI 1.36-2.68). The risk of fatal bleeding was low (0.8%; 95% CI 0.4-1.7), and significantly elevated only in lung cancer (RR 5.02; 95% CI 1.52-16.66). Conclusion: Bevacizumab may significantly increase the risk of serious hemorrhage in cancer patients. Copyright (C) 2010 S. Karger AG, Basel.

Keywords: 1st-Line Therapy, Analysis, Angiogenesis, Angiogenesis, Bevacizumab, Breast-Cancer, Cancer, Cell Lung-Cancer, Confidence Intervals, Copyright, Databases, Development, Endothelial Growth-Factor, Hemorrhage, Incidence, Interferon-Alpha, Lung Cancer, Meta-Analysis, Metastatic Colorectal-Cancer, Methods, Oncology, Paclitaxel Plus Bevacizumab, Phase-Iii Trial, Pubmed, Randomized Controlled Trials, Randomized-Trial, Review, Risk, Science, Systematic, Systematic Review, Therapy, Web of Science

# Title: Oncology Nursing Forum

Full Journal Title: [Oncology Nursing Forum](http://ons.metapress.com/content/120390/?p=df67ef95138c4f6b89bb170190c0ea1e&pi=0)

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Subject Categories:

: Impact Factor

? Kitrungrote, L. and Cohen, M.Z. (2006), Quality of life of family caregivers of patients with cancer: A literature review. *Oncology Nursing Forum*, **33** (3), 625-632.

Full Text: 2006\Onc Nur For33, 625.pdf

Abstract: Purpose/Objectives: To systematically review literature regarding the quality of life (QOL) of family caregivers of patients with cancer and evaluate the instruments measuring family caregivers’ QOL. Data Sources: PUBMED, CINAHL (R), PsycINFO, ISI Web of Science (R), and EBSCO electronic databases; published literature. Data Synthesis: Overall, the QOL of family caregivers of patients with cancer varied. Influences related to family caregivers’ QOL were identified. Global and generic measures have been used because of the lack of specific instruments. Comparisons are complicated because several measures were used at different times along the illness trajectory with caregivers caring for people with various types and stages of cancer. Conclusions: A more explicit definition of QOL for family caregivers of patients with cancer and specific instruments suitable for different cultures are needed to enhance knowledge. Implications for Nursing: Maintaining the QOL of caregivers is important in their ability to provide the care required to keep family members with cancer in the community. Nurses must provide care to maintain caregivers’ QOL.

Keywords: Bone-Marrow-Transplantation, Breast-Cancer, Cancer, Care, Databases, Health, Impact, ISI, Knowledge, Literature, Literature Review, Nurses, Nursing, Partners, Prostate-Cancer, Psychological Distress, Pubmed, Quality, Quality of Life, Review, Review Literature, Science, Sources, Spouses, Trajectory, Web of Science, Women

? Vrabel, M. (2009), Bibliometrics and citation analysis: From the Science Citation Index to cybermetrics. *Oncology Nursing Forum*, **36** (6), 734-735.

Full Text: [2009\Onc Nur For36, 734.pdf](2009/Onc%20Nur%20For36,%20734.pdf)

Keywords: Bibliometrics

# Title: Onkologie

Full Journal Title: Onkologie

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ISSN: 0378-584X

Issues/Year: 6

Journal Country/Territory: Switzerland

Language: English

Publisher: Karger

Publisher Address: Allschwilerstrasse 10, CH-4009 Basel, Switzerland

Subject Categories:

Oncology: Impact Factor

? Holtkamp, W., Thiery, J., Rauschecker, H., Nagel, G.A. and Reis, H.E. (1990), Decrease of plasma zinc concentration in advanced breast-cancer. *Onkologie*, **13** (3), 207-209.

? Muthny, F.A. (1994), Assessment of life quality in oncology. *Onkologie*, **17** (5), 547-556.

Abstract: In the introduction the historical development and motives for dealing with quality of life (QL) in medicine are pointed out and common definitions are noted. Considerations concerning adequate dimensions and principles for the assessment of QL are discussed. General and specific QL-reducing factors in cancer diseases are reported. Selected QL instruments are introduced briefly, including Karnofsky index, Spitzer index, Life Satisfaction Inventory, LASA scales and Nottingham Health Profile. Fields of application, possible benefits and limitations of LQ research are demonstrated by examples from different research approaches, comparing different treatments, different diseases, and comparing ill and healthy people. Finally, a conclusion is given with respect to the overall contribution of LQ research for oncology, and some guidelines of adequate assessment are presented.

Keywords: Cell Lung-Cancer, Breast-Cancer, Health-Status, Index, Profile, Quality of Life, Rehabilitation

? Golder, W. (2000), Who controls the controllers? Ten statements on the so-called impact factor. *Onkologie*, **23** (1), 73-75.

Full Text: [2000\Onkologie23, 73.pdf](2000/Onkologie23,%2073.pdf)

Abstract: The impact factor has become a widely used tool for the evaluation of scientific research. It is calculated by dividing the number of citations by the source items published in the journal during the previous two years, Despite its popularity, the parameter should be handled with care due:to the many phenomena that influence citation rates. The correlation between the impact factor of a journal and the citation frequency of a single article is questionable. Author’s selection of references is subject to factors unrelated to quality. There is a tremendous bias towards English language journals compared to those publishing in other languages. The impact factor favours research areas that promote short-term studies, whereas a tendency to treat long-term clinical investigations as less important is simultaneously created.

Keywords: Citation, Citation Frequency, Citations, Evaluation, Impact, Impact Factor, Journals, Languages, Publishing, Quality, Research, Science, Scientific Research, Scientometrics, Source Journal, Tool

# Title: Online

Full Journal Title: Online

ISO Abbreviated Title: Online

JCR Abbreviated Title: Online

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Sprules, M.L. (1983), Online bibliometrics in an academic-library. *Online*, **7** (1), 25-34.

Keywords: Bibliometrics

# Title: Online Information

Full Journal Title: Online Information

ISO Abbreviated Title:

JCR Abbreviated Title:

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Publisher Address:

Subject Categories:

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? Sprules, M.L. (1983), Online bibliometrics in an academic-library. *Online*, **7** (1), 25-34.

Keywords: Bibliometrics

# Title: Online Information Review

Full Journal Title: [Online Information Review](http://www.emeraldinsight.com/Insight/viewContainer.do?containerType=JOURNAL&containerId=11339)

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JCR Abbrev. Title: Online Inform Rev

ISSN: 1468-4527

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Language: English

Journal Country United States

Publisher: Emerald Group Publishing Limited

Publisher Address: Howard House, Wagon Lane, Bingley BD16 1WA, W Yorkshire, England

Subject Categories:

Computer Science, Information Systems: Impact Factor 0.671, 58/92 (2007)

? Wormell, I. (2000), Research promoting the advanced use of electronic information sources: Bibliometric analysis of literature on the welfare state. *Online Information Review*, **24** (3), 257.

Full Text: Onl Inf Rev24, 257.pdf

Keywords: Analysis, Bibliometric, Bibliometric Analysis, Bibliometrics, Electronic Information, Literature, Research, Research Projects

? Su, X.N., Han, X.M. and Han, X.N. (2001), Developing the Chinese social science citation index. *Online Information Review*, **25** (6), 365-369.

Full Text: [2001\Onl Inf Rev25, 365.pdf](2001/Onl%20Inf%20Rev25,%20365.pdf)

Abstract: The Chinese Social Citation Index (CSSCI) covers over 500 scholarly Chinese journals in the humanities and social sciences. CSSCI provides an efficient tool for people to obtain information about Chinese social science research. Its CD-ROM disks have been manufactured and a Web site has been set up for people to search for information about it. In this article the authors introduce the goals, significance and functions of CSSCI and a detailed explanation of the data structure and the direction of data flow is provided.

Keywords: Indexes, Social Sciences, Internet, China

? Thelwall, M., Vaughan, L., Cothey, V., Li, X.M. and Smith, A.G. (2003), Which academic subjects have most online impact? A pilot study and a new classification process. *Online Information Review*, **27** (5), 333-343.

Full Text: [2003\Onl Inf Rev27, 333.pdf](2003/Onl%20Inf%20Rev27,%20333.pdf)

Abstract: The use of the Web by academic researchers is discipline-dependent and highly variable. It is increasingly central for sharing information, disseminating results and publicising research projects. This pilot study seeks to identify the subjects that have the most impact on the Web, and look for national differences in online subject visibility. The highest impact sites were from computing, but there were major national differences in the impact of engineering and technology sites. Another difference was that Taiwan had more high impact non-academic sites hosted by universities. As a pilot study, the classification process itself was also investigated and the problems of applying subject classification to academic Web sites discussed. The study draws out a number of issues in this regard, having no simple solutions and point to the need to interpret the results with caution.

Keywords: Bibliometrics, Classification, Impact, Links, Research, Scholarly Communication, Search Engine, Sites, Subject Cataloguing, Technology, Universities, Visibility, World-Wide-Web, Worldwide Web

Li, X. (2003), A review of the development and application of the Web impact factor. *Online Information Review*, **27** (6), 407-417.

Full Text: [O\Onl Inf Rev27, 407.pdf](O/Onl%20Inf%20Rev27,%20407.pdf)

Abstract: Since 1996, hyperlinks have been studied extensively by applying existing bibliometric methods. The Web impact factor (WIF), for example, is the online counterpart of the journal impact factor. This paper reviews how this link-based metric has been developed, enhanced and applied. Not only has the metric itself undergone improvement but also the relevant data collection techniques have been enhanced. WIFs have also been validated by significant correlations with traditional research measures. Bibliometric techniques have been further applied to the Web and patterns that might have otherwise been ignored have been found from hyperlinks. This paper concludes with some suggestions for future research.

Keywords: Internet, Worldwide Web, Journals, Bibliographic Systems

Jana, S. and Chatterjee, S. (2004), Quantifying Web-site visits using Web statistics: An extended cybermetrics study. *Online Information Review*, **28** (3), 191-199.

Full Text: [O\Onl Inf Rev28, 191.pdf](O/Onl%20Inf%20Rev28,%20191.pdf)

Abstract: The purpose of the present research is to evaluate the accessibility and lineament of a Web site through statistical analysis of the site log files using any available software, and to identify some effective measure of usage and do prediction of future usage using linear trend line approach. This Web tracking program also examined the geographic distribution of users and usage patterns of the Web pages, the peak usage times, etc. In analysing Web site traffic and to report on activity and volume of visitors, three most common measurements, hits, page views and user sessions, are used. After a thorough and periodic study of the reports of TERI’s Web page activity, it is found that TERI achieved a unique milestone of one million hits during the month of April 2002.

Keywords: Worldwide Web, User Studies, World-Wide-Web, Bibliometrics, Internet, Access

? Chen, K.H. (2004), The construction of the Taiwan Humanities Citation Index. *Online Information Review*, **28** (6), 410-419.

Full Text: [2004\Onl Inf Rev28, 410.pdf](2004/Onl%20Inf%20Rev28,%20410.pdf)

Abstract: The Taiwan Humanities Citation Index (THCI) is Taiwan’s effort to construct a search, research, and evaluation tool for research in the arts and humanities. This article describes the design, framework, features, and policies and rules of the THCI. Citation analysis has been regarded as a systematic way to investigate research developments and trends. Since the Arts & Humanities Citation Index (A&HCI) indexes mostly English journals, the THCI could become an auxiliary citation index of the A&HCI for Taiwanese researchers.

Keywords: Software Tools, Research, Taiwan

? Bade, D. (2007), Relevance ranking is not relevance ranking or, when the user is not the user, the search results are not search results. *Online Information Review*, **31** (6), 831-844.

Full Text: [2007\Onl Inf Rev31, 831.pdf](2007/Onl%20Inf%20Rev31,%20831.pdf)

Abstract: Purpose - The purpose of this paper is to examine the significance of the differences between the actual technical principles determining relevance ranking, and how relevance ranking is understood, described and evaluated by the developers of relevance ranking algorithms and librarians. Design/methodology/approach - The discussion uses descriptions by PLWeb Turbo and C2 of their relevance ranking products and a librarian’s description on her blog with the responses which it drew, contrasting these with relevancy as it is indicated in studies of the ISI citation record reported by White. Findings - The study finds that product descriptions and librarians consistently use the term “relevance ranking” to mean both the artificial relevance ranking by statistical methods using various surrogates assumed to reliably indicate relevance and the real relevance as determined by the searcher. The paper indicates the misunderstandings arising from this terminological confusion and its consequences in the context of the invalid user models and artificial searches which accompany discussions of “relevance ranking”. Research limitationslimplications - Evaluations of relevance ranking must be based on real users and real searches. Theorising relevance as a judgement about information rather than a property of information clarifies many issues. Practical implications - The design of search engines and OPACs will benefit from incorporating metadata that contain indications of user-determined relevance. Originality/value - The activity of subject analysis and indexing by human beings is presented as an activity identical in kind to the real searcher’s determination of relevance, a definite statement of relevancy arising from a real communication situation rather than a statistically indicated probability.

Keywords: Algorithms, Analysis, Citation, Citation Record, Classification, Combining Bibliometrics, Eye, Indexing, Information Operations, Information Retrieval, Information-Retrieval, ISI, Ranking, Research, Search Engines, Statistical Methods

? Jacsó, P. (2007), Software issues related to cited references. *Online Information Review*, **31** (6), 892-905.

Full Text: [2007\Onl Inf Rev31, 892.pdf](2007/Onl%20Inf%20Rev31,%20892.pdf)

Abstract: Purpose - The underlying software issue related to cited references is the capability of the software to identify the specific work cited by a reference, and associate it with the correct author and journal. This paper aims to investigate this issue and to discuss the latest editions of Web of Science (WoS) and Scopus. Design, methodology, approach - In this paper the strengths and weaknesses of the Distinct Author Set feature of WoS and the Author Details feature of Scopus are discussed. Findings - The paper reveals that these tools will have an increasingly important role in refining the process of disambiguating author (and journal) names in calculating their h-index. Originality, value - The paper provides useful information on software issues related to cited references and on the Distinct Author Set feature of WoS and the Author Details feature of Scopus.

Keywords: Computer Software, Feature, h Index, h-Index, Information, Information Retrieval, Journal, Reference Services, Scopus, Web of Science, Work

? Jacsó, P. (2008), The plausibility of computing the h-index of scholarly productivity and impact using reference-enhanced databases. *Online Information Review*, **32** (2), 266-283.

Full Text: [2008\Onl Inf Rev32, 266.pdf](2008/Onl%20Inf%20Rev32,%20266.pdf)

Abstract: Purpose - This paper aims to provide a general overview, to be followed by a series of papers focusing on the analysis of pros and cons of the three largest, cited-reference-enhanced, multidisciplinary databases (Google Scholar, Scopus, and Web of Science) for determining the h-index. Design, methodology, approach - The paper focuses on the analysis of pros and cons of the three largest, cited-reference-enhanced, multidisciplinary databases (Google Scholar, Scopus and Web of Science). Findings - The h-index, developed by Jorge E. Hirsch to quantify the scientific output of researchers, has immediately received well-deserved attention in academia. The theoretical part of his idea was widely embraced, and even enhanced, by several researchers. Many of them also recommended derivative metrics based on Hirsch’s idea to compensate for potential distortion factors, such as high self-citation rates. The practical aspects of determining the h-index also need scrutiny, because some content and software characteristics of reference-enhanced databases can strongly influence the h-index values. Originality, value - The paper focuses on the analysis of pros and cons of the three largest, cited-reference-enhanced, multidisciplinary databases.

Keywords: Analysis, Characteristics, Citation Counts, Databases, Game, General, h Index, h-Index, Hirsch, Hirsch Index, Impact, Indexing, Journals, Metrics, Multidisciplinary, Papers, Potential, Rates, Science, Scientific Output, Scientists, Scopus, Self-Citation, Web of Science

? Jacsó, P. (2009), Errors of omission and their implications for computing scientometric measures in evaluating the publishing productivity and impact of countries. *Online Information Review*, **33** (2), 376-385.

Full Text: [2009\Onl Inf Rev33, 376.pdf](2009/Onl%20Inf%20Rev33,%20376.pdf)

Abstract: Purpose - The purpose of the paper is to explore the extent of the absence of data elements that are critical from the perspective of scientometric evaluation of the scientific productivity and impact of countries in terms of the most common indicators - such as the number of publications, the number of citations and the impact factor (the ratio of citations received to papers published), and the effect these may have on the h-index of countries - in two of the most widely used citation-enhanced databases. Design/methodology/approach - The author uses the Scopus database and Thomson-Reuters’ (earlier known as ISI) three citation databases (Science, Social Sciences and Arts & Humanities), both as implemented on the Dialog Information Services (Thomson ISI databases) and on the Web of Knowledge platform, known as Web of Science (WoS). The databases were searched to discover how many records they have for each year, how many of those have cited references for each year, and what percentage of the records have other essential or often used data elements for bibliometric/scientometric evaluation. Findings - There is no difference between the databases in the presence of publication year data all of them include this element for all the records. The presence of the language field is comparable between the Thomson and Scopus databases, but it should be noted that a 2 per cent difference for mega-databases of such size is not entirely negligible. The rate of presence of the subject category field is better in Scopus, even though it has far fewer subject categories (27) than the Thomson databases (well over 200). The rate of absence of country identification is the most critical and disappointing. It is caused primarily by the fact that journals have not had consistent policies for including the country affiliation of the authors. The huge 34 percent omission rate of country identification in Scopus also hurts its impressive author identification feature. Unfortunately, the country information is not available in more than 12 million records. Originality/value - Irrespective of the reasons for the very high rate of omission of country names or codes, it should be realised and prominently mentioned in any scientometric country reports. The author has never seen this mentioned in published papers, nor in the manuscripts that he has peer reviewed. Many can live with the low omission rates of the language, document type and subject category elements, and many can just avoid using these filters. The two factors that define the level of distortion in the assessment and ranking of the research achievements of countries are the rate of cited reference enhanced records and the rate of presence of country affiliation data.

Keywords: Affiliation, Assessment, Authors, Citation, Citation Counts, Citations, Cons, Countries, Database, Databases, Databases, Evaluation, Field, Google-Scholar, h Index, h-Index, Hirsch-Index, Impact, Impact Factor, Indicators, Information Retrieval, ISI, Journals, Knowledge, Papers, Peer-Reviewed, Performance, Productivity, Productivity Rate, Pros, Publication, Publications, Publishing, Ranking, Research, Science, Scientific Productivity, Scopus, Thomson ISI, Web of Science, Web-of-Science

? Jacsó, P. (2009), Five-year impact factor data in the Journal Citation Reports. *Online Information Review*, **33** (3), 603-614.

Full Text: [2009\Onl Inf Rev33, 603.pdf](2009/Onl%20Inf%20Rev33,%20603.pdf)

Abstract: Purpose - The purpose of this paper is to examine the five-year journal impact factor (JIF) score of the Journal Citation Reports VCR). Design/methodology/approach - The paper looks at one of the important enhancements to the JCR, the new five-year journal impact factor (JIF) score. This element complements the traditional JIF scores and data. The new indicator addresses the criticism against the short citation window for evaluating the performance of nearly 8,000 scholarly and professional journals on a medium term. Findings - It may be feasible that some of the other proposals presented by the best scientometricians for improving the JIF and its alternatives will be implemented in various specialty editions of JCR. Particularly interesting would be the adding of scores computed through diachronous instead of or in addition to synchronous measurement; creating new indicators based on the level of uncitedness of articles in journals; and calculating percentile JIF, JIF point averages and/or JIFs based on article count, with or without self-citations. Originality/value - The five-year mid-term JIF complements very well the short-term two-year JIF for indicating the prestige, reputation and influence of the journals through the prism of the average productivity of journals and the citedness counts of articles published in the journals for a longer time span. As mentioned above, breaking down the various indicators by disciplinary and subdisciplinary categories, or even by the language and the country of publication of the journals (not the country affiliation of the authors) can provide further insight into the landscape of scholarly publishing.

Keywords: Citation, Impact, Impact Factor, Index, India, Indicators, Journal Impact, Journal Impact Factor, Journals, Libraries, Management, Performance, Reports, Science, Serials

? Jacsó, P. (2009), The h-index for countries in Web of Science and Scopus. *Online Information Review*, **33** (4), 831-837.

Full Text: [2009\Onl Inf Rev33, 831.pdf](2009/Onl%20Inf%20Rev33,%20831.pdf)

Abstract: Purpose - The purpose of this paper is to discuss the results of recent experiments in determining the h-index at the country level for the 10 Ibero-American countries of South America. Design/methodology/approach - The three citation index components (Science Citation Index, Social Science Citation Index, and Arts & Humanities Citation Index) of the Web of Science system of Thomson-Reuters and the Scopus database of Elsevier are used to gauge the comparability of the h-indexes reported by the two systems. Findings - The results show that in spite of the significant differences in the content of the two databases in terms of their source base and the extent of cited reference enhancement of records, the rank correlation of the ten countries based on the h-index values returned by Web of Science and Scopus is very high. Originality/value - For this sample, in spite of differences between WoS and Scopus in the number of papers from each country, the rank position of the countries by the h-index is almost the same. There is only a single rank position difference - Scopus rank Argentina second and Chile third, while the order is the reverse in WoS. This reconfirms the robustness of the h-index at the country level.

Keywords: Articles, Authors, Citation Impact, Cons, Databases, h Index, Information-Science, Institutions, Methodology, Pros, Publishing, Ranking, Researchers, South America

? Jacsó, P. (2009), Database source coverage: Hypes, vital signs and reality checks. *Online Information Review*, **33** (5), 997-1007.

Full Text: [2009\Onl Inf Rev33, 997.pdf](2009/Onl%20Inf%20Rev33,%20997.pdf)

Abstract: Purpose - The purpose of this paper is to show that the extent of journal coverage, size and retrospectivity are three of the most commonly advertised features of database content. However, these data by themselves rarely provide a good enough sense of the real breadth of database coverage. Design/methodology/approach - Some easy-to-calculate measures can provide vital signs of database coverage, which in turn may trigger in-depth analysis at the individual journal level. When similar vital signs are produced from comparable databases and database segments, as is done for Arts and Humanities (A&H) sources in Web of Science, Scopus, H.W. Wilson and CSA databases for this paper, the real dimensions of the source coverage can be much better understood. Findings - The decision to almost double the number of A&H journals reinforces the concept of enhancing the breadth of source coverage, obviously at the expense of depth of coverage. It is like those “If it is Tuesday, it must be Belgium” tours, where the emphasis is on beating the other tours by advertising more comprehensive coverage of European countries by “virtue” of visiting more countries in a single afternoon. Originality/value - For scientometric searches so called “known item” searches are made, and the more records that are missing from core journals, the more harm is done to the subjects of the search. In subject searches a few good finds may be fine, but in “known item” searches that is not good enough. Doubling the cited reference enhanced segment, and eliminating the gaps in, say, the 1975-2009 segment would have been much smarter policy for Scopus.

Keywords: Abstracting Services, Coverage, Databases, h-Index, Indexing Services, Journals, Overlap, Scopus, Serials, Web-of-Science

? Brown, R.J.C. (2009), A simple method for excluding self-citation from the *h*-index: The *b*-index. *Online Information Review*, **33** (6), 1129-1136.

Full Text: [2009\Onl Inf Rev33, 1129.pdf](2009/Onl%20Inf%20Rev33,%201129.pdf)

Abstract: Purpose - The purpose of this conceptual paper is to present a simple, novel method for excluding self-citation from h-index values - the b-index. Design/methodology/approach - The work described assumes that relative self-citation rate is constant across an author’s publications and that the citation profile of a set of papers follows a Zipfian distribution, and from this derives a simple mathematical expression for excluding self-citation from h-index values. Findings - It is shown that this new index is simply equal to the integer value of the author’s external citation rate (non-self-citations) to the power three quarters, multiplied by their h-index. This value, called the b-index, does not require an extensive analysis of the self-citation rates of individual papers to produce, and appropriately shows the biggest numerical decreases, as compared to the corresponding h-index, for very high self-citers. Practical implications - The method presented allows the user to assess quickly and simply the effects of self-citation on an author’s h-index. Originality/value - This paper provides a simple and novel method for excluding self-citation from the h-index and should be of interest to those interested in bibliometrics and databases of scientific literature.

Keywords: Bibliometrics, Citation, Distributions, h Index, h-Index, Peer-Review, Publications, Publications, Referencing, Scientific Literature, Self-Citation, Serials, Zipfs Law

? Jacso, P. (2009), Calculating the h-index and other bibliometric and scientometric indicators from Google Scholar with the Publish or Perish software. *Online Information Review*, **33** (6), 1189-1200.

Full Text: [2009\Onl Inf Rev33, 1189.pdf](2009/Onl%20Inf%20Rev33,%201189.pdf)

Abstract: Purpose - The purpose of this paper is to is to discuss the results of recent experiments in calculating the h-index and other bibliometric and scientometric indicators from Google Scholar with the Publish or Perish software. Design/methodology/approach - The paper discusses the Publish or Perish (POP) software and finds that is a swift and elegant tool to provide the essential output features that Google Scholar does not offer. Findings - It is found that POP allows the user to edit the result lists presented in a compact, efficient grid-format. It facilitates the identification and removal of duplicate entries by offering dynamic sorting of the set by eight metadata elements, un-checking items and instant recalculation of the indicators. Originality/value - Some changes are recommended to enhance this useful utility by allowing users to clean and edit the erroneous entries in the result set, and then back-load it to POP for the recalculation of the indicators. It is also suggested that the option to upload into POP the result lists produced in CSV format from Web of Science and Scopus (which have much more reliable and reproducible data than Google Scholar) should also be offered.

Keywords: Bibliometric, Cons, Databases, Google Scholar, h Index, h-Index, Impact, Internet, LIS, Output, Pros, Publishing, Removal, Researchers, Scientometric Indicators, Scopus, Software, Systems Software, Web of Science, Web-of-Science

? Jacsó, P. (2010), Metadata mega mess in Google Scholar. *Online Information Review*, **34** (1), 175-191.

Full Text: [2010\Onl Inf Rev34, 175.pdf](2010/Onl%20Inf%20Rev34,%20175.pdf)

Abstract: Purpose - Google Scholar (GS) has shed the beta label on the fifth anniversary of launching its service This paper aims to address this issue. Design/methodology/approach As good as GS is through its keyword search option to find information about tens of millions of documents, many of them in open access full text format, it is as had for metadata-based searching when, beyond keywords in the title, abstract, descriptor and/or full text, the searcher also has to use author name, journal tale and/or publication year in specifying the query This paper provides a review of recent developments in Google Scholar Findings GS is especially inappropriate for bibliometric searches, for evaluating the publishing performance and impact of researchers and journals Originality/value Even if the clean up of Google Scholar accelerates it should not be forgotten that those evaluations of individuals and journals that have been done based on Google Scholar in the past few years have grossly handicapped many authors and journals whose name was replaced by phantom entries.

Keywords: Abstract, Bibliometric, Google Scholar, Impact, Information Searches, Journal, Journals, Publication, Publishing, Researchers, Review, Text Retrieval

? Jacsó, P. (2010), Differences in the rank position of journals by Eigenfactor metrics and the five-year impact factor in the *Journal Citation Reports* and the Eigenfactor Project web site. *Online Information Review*, **34** (3), 496-508.

Full Text: [2010\Onl Inf Rev34, 496.pdf](2010/Onl%20Inf%20Rev34,%20496.pdf)

Abstract: Purpose - The traditional, annually issued Journal Citation Reports (JCR) have been enhanced since the 2007 edition by the Eigenfactor Scores (EFS), the Article Influence Scores (AIS) and the five-year Journal Impact Factor (JIF-5). This paper aims to focus on the issues. Design/methodology/approach - These scientometric indicators are also available from the Eigenfactor Project web site that uses data from the yearly updates of the JCR. Findings - Although supposedly identical data sources are used for computing the metrics, there are differences in the absolute scores reported, which in turn resulted in significant (more than ten rank positions) changes for several journals in the sample. Originality/value - The differences in the scores and rank positions by the three new scientometric indicators of 52 journals in the Information and Library Science category were analysed to determine the range of differences and the extent of changes in rank positions.

Keywords: Citation, Databases, Indicators, Information Science, Journals, Quality Indicators, Science, Serials

? Jacsó, P. (2010), Comparison of journal impact rankings in the SCImago Journal & Country Rank and the Journal Citation Reports databases. *Online Information Review*, **34** (4), 642-657.

Full Text: [2010\Onl Inf Rev34, 642.pdf](2010/Onl%20Inf%20Rev34,%20642.pdf)

Abstract: Purpose The purpose of this paper is to compare the journal impact rankings of the open access SCImago Journal & County Rank (SIR) database and the subscription-based Journal Citation Reports (ICR). Design/methodology/approach - The paper looks at the SIR database which offers essential scientometric information for more than 17,000 scholarly and professional journals based on data licensed from Elsevier’s Scopus database and compares this with the JCR database. Findings - The open access SIR database offers very informative new insights to complement those that have been provided by the JCR for more than three decades by the Institute for Scientific Information (ISI) and its successor, the Thomson (later Thomson-Reuters) company. Especially valuable are its features of weighting the citations received based on the prestige of the citing journals, the (partial) exclusion of journal self-citations, and the broader base of source journals. They provide new opportunities to analyse and understand their effects on the ranking of journals. Originality/value - The paper provides useful information on the open access SIR and JCR databases and their effects on the ranking of journals.

Keywords: Electronic Journals, User Studies, Open Systems, h-Index, Scopus, Indicators, Coverage, Web, Productivity, Eigenfactor, Science, Cons, Pros

? Jacso, P. (2010), Pragmatic issues in calculating and comparing the quantity and quality of research through rating and ranking of researchers based on peer reviews and bibliometric indicators from Web of Science, Scopus and Google Scholar. *Online Information Review*, **34** (6), 972-982.

Full Text: [2010\Onl Inf Rev34, 972.pdf](2010/Onl%20Inf%20Rev34,%20972.pdf)

Abstract: Purpose - The purpose of this paper is to analyse the findings of two recently published papers (Norris and Oppenheim, 2003; and Li et al., 2010). Design/methodology/approach The findings were analysed from the practitioner’s perspective about the procedures involved in calculating the indicator values and the ranks and ratings. This was done with the purpose of playing the devil’s advocate, contemplating the reservations and arguments of those who do not want to use metrics based on database searches. Findings One advantage of this project is that its results can be compared at least partially with the findings of the three earlier RAEs (although its grade classes have changed), as well as with some of the other ranking lists in library and information management areas. Originality/value Very importantly, the authors concluded that “it would be premature in the extreme to suggest that citation-based indicators could be used as a cost-effective alternative to expert judgments”. This is a strong, very realistic and fair statement. Even this recent project’s results are very valuable in spite of the problems mentioned.

Keywords: Alternative, Authors, Bibliometric, Bibliometric Indicators, Citation Counts, Cons, Cost-Effective, Database, h-Index, Impact, Indicator, Indicators, Information, Information-Science, Library, Lis Faculty, Management, Metrics, of-Science, Papers, Peer Review, Peer Reviews, Premature, Procedures, Pros, Purpose, Quality, Quality Indicators, Quality of, Ranking, Recent, Research, Research Assessment Exercise, Reviews, Science, Scopus, Web of Science

? Jacsó, P. (2011), The h-index, h-core citation rate and the bibliometric profile of the Scopus database. *Online Information Review*, **35** (3), 492-501.

Full Text: [2011\Onl Inf Rev35, 492.pdf](2011/Onl%20Inf%20Rev35,%20492.pdf)

Abstract: Purpose The h-index has been used to evaluate research productivity and impact (as manifested by the number of publications and the number of citations received) at many levels of aggregations for various targets. The purpose of this paper is to examine the bibliometric characteristics of the largest multidisciplinary databases that are the most widely used for measuring research productivity and impact. Design/methodology/approach - The paper presents preliminary findings about the Scopus database. It is to be complemented and contrasted by the bibliometric profile of the Web of Science (WoS) database. Findings - The test results showed that 18.7 million Scopus records had one or more cited references, representing 42 per cent of the entire database content. The ratio of cited reference enhanced records kept slightly increasing year by year from 1996 to 2009. Scopus classifies the journals and other serial sources into 27 broad subject areas by assigning its journals to 21 science disciplines, four social science disciplines, a single Arts and Humanities category, and/or a multidisciplinary category. The distribution of records among the broad subject areas can be searched in Scopus using the four-character codes of the subject areas. A journal or a single primary document may be assigned to more than one subject area. However, Scopus overdoes this, and it significantly distorts the h-index for the broad subject areas. The h-index of the pre-1996 subset of records for the 21,066,019 documents published before 1996 is 1,451, i.e. there are records for 1,451 documents in that subset that were cited more than 1,450 times. The total number of citations received by these 1,451 papers (i.e. the h-core, representing the number of items that contribute to the h-index) is 4,416,488, producing an average citation rate of 3,044 citations per item in the h-core of the pre-1996 subset of the entire Scopus database. For the subset providing records for 23,455,354 documents published after 1995, the h-index is 1,339, so the total number of citations must be at least 1,792,921. In reality the total number of citations received by these papers is 3,903,157, yielding a citation rate of 2,915 citations per document in the h-core. For the entire Scopus database of 44.5 million records the h-index is 1,757. Originality/value - Knowing the bibliometric features of databases, their own h-index and related metrics versus those of the alternative tools can be very useful for computing a variety of research performance indicators. However, we need to learn much more about our tools in our rush to metricise everything before we can rest assured that our gauges gauge correctly or at least with transparent limitations. Learning the bibliometric profile of the tools used to measure the research performance of researchers, departments, universities and journals can help in making better informed decisions, and discovering the limitations of the measuring tools.

Keywords: Bibliometric, Citation, Citations, Cons, Databases, Google Scholar, h Index, h-Index, Humanities, Impact, Indicators, Information-Science, Journal, Journals, Metrics, Papers, Performance Indicators, Primary, Productivity, Profile, Pros, Publications, Ratio, Research, Research Performance, Research Productivity, Research Work, Researchers, Science, Scientific-Research Output, Scopus, Serials, Social, Very Large Databases, Web of Science, Web-Of-Science, Wos

? Sotudeh, H. (2011), Concentration effect of citation to Iranian papers: Iran’s Matthew core journals. *Online Information Review*, **35** (3), 471-491.

Full Text: [2011\Onl Inf Rev35, 471.pdf](2011/Onl%20Inf%20Rev35,%20471.pdf)

Abstract: Purpose - The purpose of this study is to attempt to suggest an adjustment in Iran’s national publication strategy based on the country-specific Matthew core journals. It investigates Iran’s performance in its national journal set, and proposes a more prominent journal subset. Design/methodology/approach - A citation analysis method is applied to study Iran’s scientific performance in its national journal set. The data were extracted from the Science Citation Index at Web of Science and JCR and imported to SPSS for further refinement and analysis. Findings - The results showed that Iran experienced comparatively considerable citation loss. Surplus citations are concentrated in a small number of journals, presented as Iran’s positive Matthew core journals. The results also confirm a relatively poor publication strategy adopted by Iranian scientists and that a publication concentration does not necessarily enhance the chance of being widely cited. Research limitations/implications - These findings imply that Iran needs to watch more vigilantly the functioning of its science system. To improve its presence at the international level, Iran should re-orient its publication strategy towards a more prominent one. This may be the case for similar science systems, where the emphasis is given to quantity rather than quality. Originality/value - Country-specific Matthew core journals, with serious citation competition, can serve as an important criterion to monitor the functioning of science systems regarding publication strategy. This is the first empirical study to employ the concept to suggest improvements in a country’s publication strategy.

Keywords: Analysis, Citation, Citation Analysis, Citations, Competition, Countries, Impact, Index, Indicators, Iran, JCR, Journal, Journals, Matthew Core Journal, Matthew Effect, Papers, Publication, Publication Strategy, Research, Research Work, Science, Science Citation Index, Scientific Publications, Serials, Strategy, Web of Science

? Jacsó, P. (2011), Interpretations and misinterpretations of scientometric data in the report of the Royal Society about the scientific landscape in 2011. *Online Information Review*, **35** (4), 669-682.

Full Text: [2011\Onl Inf Rev35, 669.pdf](2011/Onl%20Inf%20Rev35,%20669.pdf)

Abstract: Purpose - This paper aims to discuss some caveats about the findings of Part 1 of the Royal Society’s report from the perspective of the choice and reliability of the source base, and the bibliometric and scientometric indicators. Design/methodology/approach - The paper argues that the Royal Society’s report gives too much emphasis to the growth rate of the publications of Chinese researchers when interpolating those data and forecasting that, within the decade and possibly as early as 2013, China will be ahead of even the USA in terms of the number of publications. Findings - In an era when the “publish or perish” slogan is replaced by the “get cited or perish” mantra, the report barely discusses how much China is behind the world average and especially the above countries in terms of the most important scientometric indicators that take into account the productivity/quantity aspect and the citedness of publications as a proxy for quality. Originality/value - The paper illustrates that there are much better measures for the assessment of research activity than the one-dimensional productivity numbers, such as the h-index or the uncitedness rate, and the citations/publication rate where China is far below and the USA is far above the world average scores, and uses some charts to paint a more realistic picture of the scientific landscape.

Keywords: Assessment, Bibliometric, China, China, Databases, Databases, Forecasting, Google Scholar, Growth, h Index, h-Index, Impact, Measurement, Productivity, Publication, Publications, Reliability, Reports, Research, Research Performance, Researchers, Science, Sciences, Scopus, Search Output, United Kingdom, USA

? Jacsó, P. (2011), The h-index, h-core citation rate and the bibliometric profile of the Web of Science database in three configurations. *Online Information Review*, **35** (5), 821-833.

Full Text: [2011\Onl Inf Rev35, 821.pdf](2011/Onl%20Inf%20Rev35,%20821.pdf)

Abstract: Purpose - The purpose of this paper is to discuss the new version of the Web of Science (WoS) software. Design/methodology/approach - This paper discusses the new version of the Web of Science (WoS) software. Findings - The new version of the Web of Science (WoS) software released in mid-2011 eliminated the 100,000-record limit in the search results. This, in turn, makes it possible to study the bibliometric profile of the entire WoS database (which consists of 50 million unique records), and/or any subset licensed by a library. In addition the maximum record set for the automatic production of the informative citation report was doubled from 5,000 to 10,000 records. These are important developments for getting a realistic picture of WoS, and gauging the most widely used gauge. It also helps in comparing WoS with the Scopus database using traceable and reproducible quantitative measures, including the h-index and its variants, the citation rate of the documents making up the h-core (the set of records that contribute to the h-index), and computing additional bibliometric indicators that can be used as proxies in evaluating the research performance of individuals, research groups, educational and research institutions as well as serial publications for the broadest subject areas and time span although with some limitations and reservations. Originality/value - This paper, which attempts to describe some of the bibliometric traits of WoS in three different configurations (in terms of the composition and time span of the components licensed), complements the one published in a previous issue of Online Information Review profiling the Scopus database.

Keywords: Automatic, Bibliometric, Bibliometric Indicators, Citation, Cons, Databases, Google Scholar, h Index, h-Index, Impact, Indicators, Information-Science, of-Science, Profile, Publications, Quantitative, Ranking, Research, Research Institutions, Research Performance, Researchers, Review, Science, Scientific-Research Output, Scopus, Software, Web of Science, WOS

# Title: Online Journal of Current Clinical Trials

Full Journal Title: Online Journal of Current Clinical Trials

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1059-2725

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Jadad, A.R. and McQuay, H.J. (1993), A high-yield strategy to identify randomized controlled trials for systematic reviews. *Online Journal of Current Clinical Trials*.

Abstract: Objective: To compare the sensitivity, precision, and the costs in time of searching by hand and by MEDLINE to identify randomized controlled trials (RCTs) for systematic reviews. Design: Nine anesthetic and pain journals were searched by both MEDLINE and by hand for the years 1970, 1980, and 1990, recording number of publications and time taken to identify randomized double-blind controlled trials in pain research. Results: Thirty-four volumes, containing 5583 full publications (24,417 pages) and 2889 abstracts and letters (1755 pages) were hand searched, 142 eligible (definite RCTs) full papers and 171 eligible abstracts and letters were identified. The MEDLINE search strategy yielded 274 reports of which 138 were eligible, 125 of these were full papers, 1 was a letter and 12 were abstracts. Two full papers which were identified by the MEDLINE search strategy were missed by hand search. The overall sensitivity of the MEDLINE search strategy for full papers was 87% ((125/144) times 100) with a precision of 52% ((125/242) times 100). This is the best combination of sensitivity and precision reported to date. Abstracts were mostly in supplement issues which were not indexed. Combining the MEDLINE search strategy with selective hand search of abstracts and letters gave a sensitivity of 94%. Conclusions: Hand search of entire journals remains the most accurate method for identification of the eligible reports, but it is the most time-consuming. The MEDLINE search was faster, but it failed to identify at least 13% of the indexed eligible reports. Ideally, both hand search and MEDLINE should be used. The combination of MEDLINE with hand search restricted to letters and abstracts might be an acceptable alternative for reviewers with insufficient funds to support a full hand search process.

# Title: Online Review

Full Journal Title: Online Review

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Hawkins, D.T. and Miller, B. (1977), Online data-base coverage of online information-retrieval literature. *Online Review*, **1** (1), 59-64.

? Hawkins, D.T. (1978), Bibliometrics of the online information-retrieval literature. *Online Review*, **2** (4), 345-351.

? Jokic, M. (1992), Information value of papers written in Slavonic languages in the MEDLINE database. *Online Review*, **16** (1), 17-27.

Abstract: A sample of 3746 papers has been obtained from 168 online retrospective searches of Medline. Each paper has been bibliometrically analysed by the following indicators: language in which it was written; existence of an English abstract; abstract type with respect to number of words; depth of indexing, and inclusion of the author’s address. Special emphasis has been put on scientific production in Slavonic countries and the information value of these papers in Medline. A comparative study has been made of works originally written in English.

Keywords: Countries, Indexing, Indicators, Medline, Papers, Scientific Production

# Title: Open It-Based Innovation: Moving Towards Cooperative It Transfer and Knowledge Diffusion

Full Journal Title: Open It-Based Innovation: Moving Towards Cooperative It Transfer and Knowledge Diffusion

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Larsen, T.J. and Levine, L. (2008), Citation patterns in MIS: An analysis of exemplar articles. *Open It-Based Innovation: Moving Towards Cooperative It Transfer and Knowledge Diffusion*, **287**, 23-38.

Abstract: The present research examines MIS exemplar articles, analyzing their citation patterns in MIS and other scientific fields. Using MIS Quarterly articles of the year and peer-nominated articles, we identified 36 exemplar MIS articles. 117 all, 421 journals contained articles that cited the exemplars. Our five findings are: (1) the HIS exemplars cover a wide range of themes, (2) the average life-time for an exemplar article (as expressed through the citations mode to the article) is 17 years , as compared with an 11 year expected life time for scientific journal articles, (3) the dominant life-cycle pattern for an an exemplar takes the form of a bell curve, (4) exemplar articles that were conceptual in nature are not cited any more frequently than articles treating contemporary, issues, and (5)conceptual contributions have a longer lifetime of citation activity than contemporary exemplars. Future research will in ore closely examine HIS and its reference disciplines, as is revealed through extensive citation analysis of the exemplars.

Keywords: Analysis, Artifact, Bibliometrics, Citation, Citation Analysis, Citation Patterns, Citations, Cocitation, Diffusion Of Research, Diversity, Documents, Et-Al, Evolution, Exemplar Articles, Identity Crisis, Journal Articles, Journals, Management-Information-Systems, MIS, MIS Research Agenda, Reference Discipline, Reference Disciplines, Research, Scientific Journal, Scientometrics

# Title: 3rd Open Conference on Information Science in Canada on Organizational Patterns in Information Science in Canada

Full Journal Title: 3rd Open Conference on Information Science in Canada on Organizational Patterns in Information Science in Canada

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Rogers, H. (1975), CAN/SDI and the social scientist. *3rd Open Conference on Information Science in Canada on Organizational Patterns in Information Science in Canada*, 117-121.

Abstract: An SDI service for the social sciences started at the National Library with a subscription to MARC II. Since the Social Sciences Citation Index has been added, the number of subscribers to the service have increased steadily. The uphill grind of ‘selling’ such a service to social scientists is described. The addition of on-line searches has helped to further this automated service.

Keywords: Sciences, SDI, Service, Social, Social Sciences

# Title: The Open Textile Journal

Full Journal Title: [The Open Textile Journal](http://www.benthamscience.com/open/totextilej/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

# Title: Opening Information Horizons

Full Journal Title: Opening Information Horizons

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Mann, G.S., Mimno, D. and McCallum, A. (2006), Bibliometric impact measures leveraging topic analysis. *Opening Information Horizons*, 65-74.

Abstract: Measurements of the impact and history of research literature provide a useful complement to scientific digital library collections. Bibliometric indicators have been extensively studied, mostly in the context of journals. However, journal-based metrics poorly capture topical distinctions in fast-moving fields, and are increasingly problematic with the rise of open-access publishing. Recent developments in latent topic models have produced promising results for automatic sub-field discovery. The fine-grained, faceted topics produced by such models provide a clearer view of the topical divisions of a body of research literature and the interactions between those divisions. We demonstrate the usefulness of topic models in measuring impact by applying a new phrase-based topic discovery model to a collection of 300,000 Computer Science publications, collected by the Rexa automatic citation indexing system.

Keywords: Analysis, Bibliometric, Bibliometric Indicators, Citation, Citation Indexing, History, Impact, Indexing, Indicators, Journals, Literature, Metrics, Open Access, Publications, Publishing, Research, Science, Sub-Field, System, Usefulness

# Title: Operative Dentistry

Full Journal Title: Operative Dentistry

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0361-7734

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Nuckles, D.B., Pope, N.N. and Adams, J.D. (1993), A survey of the accuracy of references in 10 dental journals. *Operative Dentistry*, **18** (1), 28-32.

Abstract: Several studies have evaluated the accuracy of bibliographic citations in the medical literature. The purpose of this study was to evaluate the accuracy of 300 reference citations in 10 dental journals. Thirty references were randomly selected from the January 1991 issue of 10 dental journals, for a total of 300 reference citations. Almost all of the citations were verified from the original source, a few were identified from other library sources. Only two references were unable to be identified, and they were both from foreign journals. This survey found 78% (n = 234) of the citations verified (n = 298) to be correct

# Title: Ophthalmic and Physiological Optics

Full Journal Title: Ophthalmic and Physiological Optics

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Bartlett, H. and Eperjesi, F. (2004), An ideal ocular nutritional supplement? *Ophthalmic and Physiological Optics*, **24** (4), 339-349.

Abstract: The role of nutritional supplementation in prevention of onset or progression of ocular disease is of interest to health care professionals and patients. The aim of this review is to identify those antioxidants most appropriate for inclusion in an ideal ocular nutritional supplement, suitable for those with a family history of glaucoma, cataract, or age-related macular disease, or lifestyle factors predisposing onset of these conditions, such as smoking, poor nutritional status, or high levels of sunlight exposure. It would also be suitable for those with early stages of age-related ocular disease. Literature searches were carried out on Web of Science and PUBMED for articles relating to the use of nutrients in ocular disease. Those highlighted for possible inclusion were vitamins A, B, C and E, carotenoids beta-carotene, lutein, and zeaxanthin, minerals selenium and zinc, and the herb, Ginkgo biloba. Conflicting evidence is presented for vitamins A and E in prevention of ocular disease; these vitamins have roles in the production of rhodopsin and prevention of lipid peroxidation respectively. B vitamins have been linked with a reduced risk of cataract and studies have provided evidence supporting a protective role of vitamin C in cataract prevention. Beta-carotene is active in the prevention of free radical formation, but has been linked with an increased risk of lung cancer in smokers. Improvements in visual function in patients with age-related macular disease have been noted with lutein and zeaxanthin supplementation. Selenium has been linked with a reduced risk of cataract and activates the antioxidant enzyme glutathione peroxidase, protecting cell membranes from oxidative damage while zinc, although an essential component of antioxidant enzymes, has been highlighted for risk of adverse effects. As well as reducing platelet aggregation and increasing vasodilation, Gingko biloba has been linked with improvements in pre-existing field damage in some patients with normal tension glaucoma. We advocate that vitamins C and E, and lutein/zeaxanthin should be included in our theoretically ideal ocular nutritional supplement.

Keywords: Adverse Effects, Age-Related Eye Disease, Age-Related Maculopathy, Beaver Dam Eye, Blue-Mountains-Eye, Bone-Mineral Density, Cancer, Carotenoids, Disease, Exposure, Ginkgo Biloba, Ginkgo-Biloba Extract, Health Care, Herb, High-Dose Supplementation, History, Human Macular Pigment, Interest, Lipid, Literature, Lung Cancer, Lutein, Normal, Opacities Case-Control, Prevention, Pubmed, Randomized Controlled Trial, Review, Risk, Science, Smoking, Vitamin C, Vitamin E, Vitamin-E Supplementation, Web of Science, Zeaxanthin

# Title: Ophthalmologe

Full Journal Title: [Ophthalmologe](http://www.springerlink.com/content/100481/?p=98d9233f1e1842c58d98873da26c5d6b&pi=0); [Ophthalmologe](http://www.springerlink.com/content/100481/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Lindner, U.K. and Oehm, V. (1997), The magic of the impact factor - exposure of a phenomenon. *Ophthalmologe*, **94** (4), 261-262.

Full Text: Ophthalmologe94, 261.pdf

Keywords: Exposure, Impact, Impact Factor

? Wolfram, C. (2008), Ophthalmologic publications from Germany. *Ophthalmologe*, **105** (12), 1115-1120.

Full Text: [2008\Ophthalmologe105, 1115.pdf](2008/Ophthalmologe105,%201115.pdf)

Abstract: Background. The German contribution to the worldwide publication activity in ophthalmology had not yet been explored properly. Methods. A quantitative bibliometric analysis of ophthalmologic publications for the years 1993-2007 was performed using the online database of the Institute for Scientific Information (ISI). The analysis used eight selected search words as well as publication activities of 45 journals in the ISI category “ophthalmology.” Results. The analysis according to search words revealed a proportion of 9.9% for ophthalmologic publications from Germany and a proportion of 8.9% according to journal-specific publication activities. The contribution of publications from Germany in English-language journals was 5.9%. Approximately two-thirds of the German publications were written in English and one-third in German. Germany ranked second behind the United States in absolute publication numbers but was behind other Anglo-Saxon and Scandinavian countries when the numbers were adjusted for population size. Conclusion. German ophthalmologic publications have reached an appreciable level in the international literature.

Keywords: Bibliometric Analysis, Blindness, Ditch Impact Factors, Germany, ISI, Journals, Online Database, Ophthalmologic Publications, Ophthalmologic Research, Productivity, Publications, Research Productivity

# Title: Ophthalmology

Full Journal Title: [Ophthalmology](http://www.sciencedirect.com/science/journal/01616420)

ISO Abbreviated Title: Ophthalmology

JCR Abbreviated Title: Ophthalmology

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Lansingh, V.C. and Carter, M.J. (2009), Does open access in ophthalmology affect how articles are subsequently cited in research? *Ophthalmology*, **116** (8), 1425-1431.

Full Text: [2009\Ophthalmology116, 1425.pdf](2009/Ophthalmology116,%201425.pdf)

Abstract: Objective: To determine whether the concept of open access affects how articles are cited in the field of ophthalmology. Design: Type of meta-analysis. Participants: Examination of 480 articles in ophthalmology in the experimental protocol and 415 articles in the control protocol. Methods: Four subject areas were chosen to search the ophthalmology literature in the PubMed database using the terms “cataract,” “diabetic retinopathy,” “glaucoma,” and “refractive errors.” Searching started in December of 2003 and worked back in time to the beginning of the year. The number of subsequent citations for equal numbers of both open access and closed access (by subscription) articles was quantified using the Scopus database and Google search engine. Number of authors, article type, country/region in which the article was published, language, and funding data were also collected for each article. A control protocol was also carried out to ascertain that the sampling method was not systematically biased by matching 6 ophthalmology journals (3 open access, 3 closed access) using their impact factors, and employing the same search methodology to sample open access and closed access articles. Main Outcome Measures: Number of citations. Results: The total number of citations was significantly higher for open access articles compared to closed access articles for Scopus (mean 15.2 versus 11.5, P < .0005, Mann-Whitney U = 20029, and Google (mean 6.4 versus 4.0, P < .0005, Mann-Whitney U = 21281). However, univariate general linear model (GLM) analysis showed that access was not a significant factor that explained the citation data. Author number, country/region of publication, subject area, language, and funding were the variables that had the most effect and were statistically significant. Control protocol results showed no significant difference between open and closed access articles in regard to number of citations found by Scopus: open access: mean 17.8; SD (standard deviation) = 23.70; closed access: mean = 19.1; SD = 20.31; Mann-Whitney test, P = 0.730, Mann-Whitney U = 20584. Conclusions: Unlike other fields of science, open access thus far has not affected how ophthalmology articles are cited in the literature. Financial Disclosure(s): The authors have no proprietary or commercial interest in any materials discussed in this article. Ophthalmology 2009; 116:1425-1431 (C) 2009 by the American Academy of Ophthalmology.

Keywords: Association, Authors, Citation, Citation Advantage, Citations, Impact, Journal Impact Factor, Journals, Literature, Meta-Analysis, Methodology, Model, Open Access, Publication, Pubmed, Research, Scopus

? McGimpsey, S.J., Woodside, J.V., Cardweli, C., Cahill, M. and Chakravarthy, U. (2009), Homocysteine, methylenetetrahydrofolate reductase C677T polymorphism, and risk of retinal vein occlusion: A meta-analysis. *Ophthalmology*, **116** (9), 1778-1787.

Full Text: 2009\Ophthalmology116, 1778.pdf

Abstract: Objective: To assess the role of plasma total homocysteine (tHcy) concentrations and homozygosity for the thermolabile variant of the methylenetetrahydrofolate reductase (MTHFR) C677T gene as risk factors for retinal vascular occlusive disease. Design: Retinal vein occlusion (RVO) is an important cause of vision loss. Early meta-analyses showed that tHcy was associated with an increased risk of RVO, but a significant number of new studies have been published. Participants and/or Controls: RVO patients and controls. Methods: Data sources included MEDLINE, Web of Science, and PUBMED searches and searching reference lists of relevant articles and reviews. Reviewers searched the databases, selected the studies, and then extracted data. Results were pooled quantitatively using meta-analytic methods. Main Outcome Measures: tHcy concentrations and MTHFR genotype. Results: There were 25 case-control studies for tHcy (1533 cases and 1708 controls) and 18 case-control studies for MTHFR (1082 cases and 4706 controls). The mean tHcy was on average 2.8 mu mol/L (95% confidence interval [Cl], 1.8-3.7) greater in the RVO cases compared with controls, but there was evidence of between-study heterogeneity (P<0.001, I(2) = 93%). There was funnel plot asymmetry suggesting publication bias. There was no evidence of association between homozygosity for the MTHFR C677T genotype and RVO (odds ratio [OR] 1.20; 95% Cl, 0.84-1.71), but again marked heterogeneity (P = 0.004, I(2) = 53%) was observed. Conclusions: There was some evidence that elevated tHcy was associated with RVO, but not homozygosity for the MTHFR C677T genotype. Both analyses should be interpreted cautiously because of marked heterogeneity between the study estimates and possible effect of publication bias on the tHcy findings. Financial Disclosure(s): The author(s) have no proprietary or commercial interest in any materials discussed in this article. Ophthalmology 2009;116:1778-1787 (C) 2009 by the American Academy of Ophthalmology.

Keywords: Antioxidant Vitamins, Bias, Cardiovascular-Disease, Case-Control, Case-Control Studies, Chinese Population, Databases, Disease, Genetic Polymorphisms, Hypercoagulable States, Interest, Ischemic Optic Neuropathy, Medline, Meta Analysis, Meta-Analysis, Methods, Methylene Tetrahydrofolate Reductase, Mthfr, Plasma, Plasma Homocysteine, Polymorphism, Publication, Publication Bias, Pubmed, Ratio, Risk, Risk Factors, Science, Thermolabile Mthfr Genotype, Web of Science

? Bullock, J.D., Sebald-Kinder, S. and Warwar, R.E. (2011), The Science Citation Index. *Ophthalmology*, **118** (4), 784.

Full Text: [2011\Ophthalmology118, 784.pdf](2011/Ophthalmology118,%20784.pdf)

Keywords: Citation, Science, Science Citation Index

# Title: Optometry and Vision Science

Full Journal Title: Optometry and Vision Science

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Efron, N., Brennan, N.A. and Nichols, J.J. (2012), Citation analysis of the contact lens field. *Optometry and Vision Science*, **89** (1), 70-79.

Full Text: [2012\Opt Vis Sci89, 70.pdf](2012/Opt%20Vis%20Sci89,%2070.pdf)

Abstract: Purpose. To identify, analyze, and celebrate the most highly cited articles relating to contact lenses and the leading authors, journals, institutions, and countries associated with these publications. Methods. To capture all contact lens articles published since 1900, a search equation targeting specific contact lens-related terms in the titles of articles was derived and entered into “Web of Science.” A rank order list of the 1000 most highly cited articles was assembled, each having received at least eight citations. The most prominent articles, authors, journals, institutions, and countries were identified from this list by simple counts. Results. The most highly cited article relating to contact lenses (although cited exclusively in the physical sciences literature) is that of Phillip and Schmidt (J Non Cryst Solids 1984; 63: 288-92), reporting the application of the sol-gel process for the fabrication of rigid contact lenses. Eight of the top 10 articles ranked according to average number of citations/year relate to contact lens-associated microbial keratitis. Of the top eight authors, six have spent all, or a substantial proportion, of their academic careers in Australia and seven have worked in optometric research environments. Optometry and Vision Science is the leading journal. The top-ranked institution is The University of New South Wales, Sydney, Australia. The United States is the most prominent publishing country in the field, and Australia ranks highest when the numbers of highly cited articles are considered per head of population. Conclusions. This work provides a unique snapshot of significant articles relating to contact lenses. (Optom Vis Sci 2012; 89: 70-79).

Keywords: Articles, Australia, Authors, Citation, Citation Analysis, Citations, Contact Lenses, Cornea, Countries, Daily-Wear, Field, Highly Cited Articles, Highly-Cited, Index, Institutions, Journal, Journals, Literature, Methods, Microbial Keratitis, Ophthalmology, Outbreak, Process, Publications, Publishing, Research, Science, Sciences, Ulcerative Keratitis, United States, University, Users

# Title: Oral Diseases

Full Journal Title: [Oral Diseases](http://www3.interscience.wiley.com/journal/118545009/home)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Sarasquete, M.E., Gonzalez, M., Miguel, J.F.S. and Garcia-Sanz, R. (2009), Bisphosphonate-related osteonecrosis: Genetic and acquired risk factors. *Oral Diseases*, **15** (6), 382-387.

Full Text: [2009\Ora Dis15, 382.pdf](2009/Ora%20Dis15,%20382.pdf)

Abstract: The objectives of this study were to review epidemiological, clinical and biological aspects associated with the development of bisphosphonate-related osteonecrosis of the jaw (BRONJ) in multiple myeloma (MM) patients, with special emphasis on the genetic aspects. A detailed review of previously described risk factors as well as recent genetic findings mostly comprises this work. The most recent meeting abstracts and relevant articles published in journals covered by the Science Citation Index and Medline are also examined. The review pays special attention to the genetic component of BRONJ. A total of 15 series and 14 guidelines or revisions were selected to fit the aims of the review. Gene variability was reviewed in depth to give a clinical illustration on the genetic aspects of BRONJ. Crude prevalence and 5-year cumulative incidence were considered as the most important end points for predictive purposes. Several acquired factors were recognized as predictors for BRONJ in MM, especially intravenous bisphosphonates, dental trauma and advanced age. Among genetic factors, polymorphisms on CYP2C8 gene arise as a promising risk factor. Bisphosphonate-related osteonecrosis of the jaw can be predicted with a conjunction of genetic and environmental risk factors.

Keywords: Bisphosphonates, Bone-Disease, Cancer-Chemotherapy, Citation, DichloroMethylene Bisphosphonate, Double-Blind, Genetic Risk Factors, GTP-Binding Proteins, Jaw, Journals, Medline, Multiple-Myeloma Patients, Osteonecrosis of the Jaw, Pamidronate, Review, Risk Factor, Risk Factors, Science, Science Citation Index, Skeletal Complications, Zoledronic Acid

? Riordain, R.N. and McCreary, C. (2010), The use of quality of life measures in oral medicine: A review of the literature. *Oral Diseases*, **16** (5), 419-430.

Full Text: 2010\Ora Dis16, 419.pdf

Abstract: OBJECTIVES: To explore the use of patient reported quality of life measures in oral medicine, to highlight the importance of use of these measures in oral medicine practice and to provide guidance for the selection of such measures in the future. METHODS: A detailed literature review was undertaken to investigate the use of quality of life measures in oral medicine. The databases searched were MEDLINE (through PUBMED), EMBASE, CINDHL, Web of Science Citation Index and the Cochrane Database of Systematic Reviews and randomised controlled trials. RESULTS: The initial literature search yielded a total of 5310 citations; however, only 63 of these fulfilled the inclusion criteria. Twenty-two articles were regarding oral mucosa! conditions, 14 related to orofacial pain disorders and 27 were regarding salivary gland-related conditions. CONCLUSIONS: The evaluation of quality of life in oral medicine has a broad applicability, providing information in treatment-based studies and population-based studies. A predominance of generic and oral health specific quality of life measures are being used to a limited extent in oral medicine practice. A scarcity of reports of the development, validation or use of disease specific measures is evident. Oral Diseases (2010) 16, 419-430.

Keywords: Behcets-Disease, Centered Outcome Measures, Citation, Citations, Cochrane, Cognitive-Behavioral Therapy, Controlled-Trial, Database, Databases, Development, Disease, Diseases, Embase, Evaluation, Information, Lichen-Planus, Literature, Literature Review, Medicine, Medline, Mucosal Disease, Neck-Cancer, Oral Medicine, Pain, Practice, Primary Sjogrens-Syndrome, Pubmed, Quality of Life, Recurrent Aphthous Stomatitis, Review, Science, Science Citation Index, Systematic, Temporomandibular Disorder Pain, Validation, Web of Science

? Riordain, R.N. and McCreary, C. (2010), The use of quality of life measures in oral medicine: A review of the literature. *Oral Diseases*, **16** (5), 419-430.

Full Text: [2010\Ora Dis16, 419.pdf](2010/Ora%20Dis16,%20419.pdf)

Abstract: OBJECTIVES: To explore the use of patient reported quality of life measures in oral medicine, to highlight the importance of use of these measures in oral medicine practice and to provide guidance for the selection of such measures in the future. METHODS: A detailed literature review was undertaken to investigate the use of quality of life measures in oral medicine. The databases searched were MEDLINE (through PubMed), EMBASE, CINDHL, Web of Science Citation Index and the Cochrane Database of Systematic Reviews and randomised controlled trials. RESULTS: The initial literature search yielded a total of 5310 citations; however, only 63 of these fulfilled the inclusion criteria. Twenty-two articles were regarding oral mucosa! conditions, 14 related to orofacial pain disorders and 27 were regarding salivary gland-related conditions. CONCLUSIONS: The evaluation of quality of life in oral medicine has a broad applicability, providing information in treatment-based studies and population-based studies. A predominance of generic and oral health specific quality of life measures are being used to a limited extent in oral medicine practice. A scarcity of reports of the development, validation or use of disease specific measures is evident. Oral Diseases (2010) 16, 419-430.

Keywords: Articles, Behcets-Disease, Centered Outcome Measures, Citation, Citations, Cognitive-Behavioral Therapy, Controlled-Trial, Criteria, Database, Databases, Development, Evaluation, Health, Lichen-Planus, Literature, Literature Review, Medicine, Medline, Mucosal Disease, Neck-Cancer, Oral Medicine, Orofacial Pain, Pain, Primary Sjogrens-Syndrome, Pubmed, Quality of Life, Randomised Controlled Trials, Recurrent Aphthous Stomatitis, Review, Science, Science Citation Index, Selection, Temporomandibular Disorder Pain, Validation, Web of Science

# Title: Oral Health & Preventive Dentistry

Full Journal Title: Oral Health & Preventive Dentistry

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Kantovitz, K.R., Pascon, F.M., Nobre-dos-Santos, M. and Puppin-Rontani, R.M. (2010), Review of the effects of infiltrants and sealers on non-cavitated enamel lesions. *Oral Health & Preventive Dentistry*, **8** (3), 295-305.

Abstract: Purpose: The aim of the present study was to perform a review of the effects of infiltrants and sealers on the inhibition of enamel demineralisation. Materials and Methods: The authors searched the Cochrane Library, EMBASE, PUBMED and Web of Science (151) for papers published between January 1970 and September 2008. The main search terms were ‘artificial caries’ or ‘caries treatment’ or ‘caries-like lesion’ or ‘white spot lesion’ or ‘enamel demineralisation’ or ‘natural caries’ and ‘enamel’ and ‘sealant’ or ‘resin infiltration’. The inclusion criteria were studies that produced artificial non-cavitated enamel lesions before the application of sealant in in vivo or in vitro studies. Studies excluded were those that had not produced artificial non-cavitated enamel lesions before the application of sealant; had evaluated the inhibition of enamel demineralisation around restorations, sealant and orthodontic bracket/bands; had not evaluated the inhibition of enamel demineralisation after the sealant application; and had not applied sealant materials. Selected papers were given scores, from A to C, according to predetermined criteria. Results: Eighteen studies were identified and included in the project critical appraisal. Two papers were classified as Grade A, nine as Grade B and seven as Grade C. Conclusions: It can be concluded that while fissure sealing acts as a diffusion barrier on the top of the lesion surface, the infiltration technique creates a barrier inside the lesion by replacing the mineral lost with a low-viscosity light-curing resin.

Keywords: 2-Year Clinical-Performance, Approximal Caries, Artificial Caries, Artificial Caries, Authors, Caries-Like Lesions, Carious Lesions, Chemically Polymerized Pit, Cochrane, Critical Appraisal, Diffusion, Enamel, Fissure Sealant, Glass-Ionomer, In Vivo, In-Vitro, Light Curing Resins, Methods, Non-Cavitated Lesion, Papers, Pubmed, Review, Science, Sealant, Treatment, Web of Science

# Title: Oral Oncology

Full Journal Title: Oral Oncology

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Goldenberg, D. (2002), Mate: A risk factor for oral and oropharyngeal cancer. *Oral Oncology*, **38** (7), 646-649.

Abstract: Mate is a tea-like beverage consumed mainly in Argentina, Uruguay, Paraguay, southern Brazil and to a lesser degree in other areas of the world such as Germany, Syria, Lebanon and Northern Israel. It is brewed from the dried leaves and stemlets of the perennial tree Ilex paraguarensis (“yerba mate”) a species that belongs to the Aquifoliaceae family. Mate consumption has been associated with an increased rate of oral and oropharyngeal cancers. The purpose of this study is to review the literature and discuss the role of Mate consumption in the development of oral and oropharyngeal cancer and the potential carcinogenic mechanisms. A review of the relevant literature linking Mat consumption with oral and oropharyngeal cancer and the carcinogenicity of Mat was performed. The search was performed using MEDLINE, library catalogues, OCLC first search and ISI web of science databases. Case control studies on Mate drinking populations and, in vivo and in vitro studies on the carcinogenicity of Mate were reviewed. The populations reviewed in many of these studies also used alcohol and tobacco products confounding the influence of Mate as an independent risk factor. There is evidence in the literature that Mate consumption is in itself carcinogenic and plays a role in the development of cancers of the oral cavity and oropharynx. Although the exact mechanism of carcinogenesis is still unknown, available information suggests that Mate drinking should be considered one of the risk factors for oral and oropharyngeal cancer. (C) 2002 Elsevier Science Ltd. All rights reserved.

Keywords: Alcohol, Brazil, Cancer, Carcinogenesis, Confounding, Control, Databases, Development, Drinking, Esophageal Cancer, Germany, Head And Neck Cancer, Hot, Ilex Paraguariensis, In Vivo, Information, ISI, Literature, Mate, Mechanism, Oral, Oropharyngeal, Oropharyngeal Cancer, Review, Risk, Risk Factor, Risk Factors, Science, Southern Brazil, Tobacco, Uruguay, Web of Science, Yerbe Mate

# Title: Oral Surgery Oral Medicine Oral Pathology Oral Radiology and Endodontics

Full Journal Title: [Oral Surgery Oral Medicine Oral Pathology Oral Radiology and Endodontics](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=20185&_auth=y&_acct=C000053193&_version=1&_urlVersion=0&_userid=1495547&md5=65e633a6cad15fb0aa99000aa0b13b84)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 1079-2104

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

Haug, R.H. (1989), Computed-Tomography of Pistachio Nut Shell. *Oral Surgery Oral Medicine Oral Pathology Oral Radiology and Endodontics*, **68** (4), 493.

Full Text: [1989\Ora Sur Ora Med Ora Pat Ora Rad End68, 493.pdf](1989/Ora%20Sur%20Ora%20Med%20Ora%20Pat%20Ora%20Rad%20End68,%20493.pdf)

# Title: Organic Geochemistry

Full Journal Title: [Organic Geochemistry](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=5848&_auth=y&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=cdac121e90ec8b747ff2b8cf7a5eaef3)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Pang, L.S.K., Vassallo, A.M. and Wilson, M.A. (1990), Chemistry of Alkali Extraction of Brown Coals. 1. Kinetics, Characterization and Implications to Coalification. *Organic Geochemistry*, **16** (4-6), 853-864.

Abstract: Three Australian brown coals have been separated into humin and humic acid fractions and studied by high resolution solid state C-13 NMR spectroscopy and Fourier transform IR spectroscopy. The aromatic rings of the humic acids are highly substituted showing that extensive cross linking must have occurred during formation from wood lignin and tannin. However, the humins contain more aliphatic carbon and hydrogen than the corresponding humic acids. This shows that little cross linking has occurred with other components of the brown coal such as resins, waxes cutin and algal detritus, and cross linking has not rendered the aromatics alkali insoluble. The kinetics of extraction are complex and not simple first order. This is reflected in the chemical composition of the humic acid which is extraction temperature dependent. We also observed that there is a conversion of aromatic carbon to aliphatic carbon and gas during extraction, probably by alkaline oxidation, resulting in ring opening. A range of suitable model compounds have been studied to confirm this finding. Such a mechanism may account for the modification of lignin in oxidising environments such as those occurring in the initial stages of coalification (lignite or brown coal formation) and in soils.

Keywords: Alkali Extraction, Australian Coals, Brown Coals, Coalification, Earth, Extraction, Fractions, Humic Acids, Kinetics, Lignin, Lithotypes, NMR, Nuclear Magnetic-Resonance, Organic-Matter, Oxidation, Structural Investigations, Wood

? Helfrich, C.T. and Hower, J.C. (1991), Palynologic and Petrographic variation in the pond creek coal bed, pike county, Kentucky. *Organic Geochemistry*, **17** (2), 153-159.

Abstract: Recent studies of the petrology and ash geochemistry of the Pond Creek coal bed (Middle Pennsylvanian Breathitt Formation) in Pike and Martin Countries, Kentucky, have defined vertical and lateral trends that are related to the development of the northeast-trending Belfry anticline contemporaneous with the deposition of the Pond Creek peat. To the northwest of the anticline the coal bed has a high-CaCO3 middle zone and a high Fe2O3-high sulfur upper zone. To the east of the anticline, particularly in the Lick Creek and Jamboree 71/2 quadrangles, the coal bed exhibits a distinctive petrographic zonation. In the latter area, the usual megascopic sequence is a basal durain followed by a bright clarian-durain/dull clarain-bright clarain-bone-bright clarain-durain sequence.

The palynology of the Pond Creek coal bed was investigated in six sets of bench/lithotype samples from the Lick Creek and Jamboree 71/2 quadrangles. The low-vitrinite basal durain (zone 1), has a palynomorph assemblage which reflects the importance of tree ferns and herbaceous lycopods. The easternmost site has a bright clarain below the durain. The latter lithotype has a fair diversity of palynormph groups and also has the highest percentage of arborescent lycopod forms of any bench below the bone (zone 5). The bright zone 2 above the durain has the grestest maceral group range and the greatest floral diversity of any of the lithotypes. The zone 3 dull lithotype has increased amounts of herbaceous lycopods and decreased amounts of arborescent lycopods, sphenopsids and tree ferns. The zone 4 bright lithotypes are generally over 80% vitrinite and, in general, exhibit a dominance of arborescent lycopods although sphenopsid, tree fern and small fern forms exhibit varying importance. The high-ash bone (zone 5), has 71.6-77.0% vitrinite. This lithotype is marked by a dominance of herbaceous lycopods at the expense of arborescent lycopods and sphenopsids. The zone 6 bright clarain is marked by an increase in arborescent lycopods and a large decrease in herbaceous lycopods. The low-vitrinite terminal durain has an assemblage with high percentages of herbaceous lycopods and low percentages of arborescent lycopods as well as increase in tree fern spores over zone 6.

In general, the petrology and palynology trends are predictable. Dull lithotypes have abundant herbaceous lycopod representation and bright lithotypes have abundant arborescent lycopod representation. The greatest deviation from this simple pattern is within the zone 4 bright lithotypes, where diverse palynomorph assemblages occur among the high-vitrinite benches. Overall, the greatest floral diversity appears to have occurred near the base of the coal bed.

Keywords: Kentucky, Pond Creek Coal, Coal Petrology, Palynology, Depositional Environments, Eastern Kentucky

# Title: Organization Science

Full Journal Title: [Organization Science](http://orgsci.journal.informs.org/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

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Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Volberda, H.W., Foss, N.J. and Lyles, M.A. (2010), Absorbing the concept of absorptive capacity: How to realize its potential in the organization field. *Organization Science*, **21** (4), 931-951.

Full Text: [2010\Org Sci21, 931.pdf](2010/Org%20Sci21,%20931.pdf)

Abstract: The purpose of this perspective paper is to advance understanding of absorptive capacity, its underlying dimensions, its multilevel antecedents, its impact on firm performance, and the contextual factors that affect absorptive capacity. Twenty years after the Cohen and Levinthal 1990 paper, the field is characterized by a wide array of theoretical perspectives and a wealth of empirical evidence. In this paper, we first review these underlying theories and empirical studies of absorptive capacity. Given the size and diversity of the absorptive capacity literature, we subsequently map the existing terrain of research through a bibliometric analysis. The resulting bibliometric cartography shows the major discrepancies in the organization field, namely that (1) most attention so far has been focused on the tangible outcomes of absorptive capacity; (2) organizational design and individual level antecedents have been relatively neglected in the absorptive capacity literature; and (3) the emergence of absorptive capacity from the actions and interactions of individual, organizational, and interorganizational antecedents remains unclear. Building on the bibliometric analysis, we develop an integrative model that identifies the multilevel antecedents, process dimensions, and outcomes of absorptive capacity as well as the contextual factors that affect absorptive capacity. We argue that realizing the potential of the absorptive capacity concept requires more research that shows how “micro-antecedents” and “macro-antecedents” influence future outcomes such as competitive advantage, innovation, and firm performance. In particular, we identify conceptual gaps that may guide future research to fully exploit the absorptive capacity concept in the organization field and to explore future fruitful extensions of the concept.

Keywords: Absorptive Capacity, Combinative Capabilities, Dominant Logic, Dynamic Capabilities, Empirical-Test, Fortune Favors, International-Joint-Ventures, Knowledge Management, Knowledge Transfer, Microfoundations of Absorptive Capacity, Multiple Analytical Levels, Organizational Capabilities, Research, Research-and-Development, Strategic Renewal, Technology-Transfer

# Title: Organization Studies

Full Journal Title: [Organization Studies](http://oss.sagepub.com/)

ISO Abbreviated Title:

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ISSN: 0170-8406

Issues/Year:

Journal Country/Territory:

Language:

Publisher: Springer-Verlag, New York

Publisher Address:

Subject Categories:

: Impact Factor

? Üsdiken, B. and Pasadeos, Y. (1995), Organizational analysis in North-America and Europe: A comparison of cocitation networks. *Organization Studies*, **16** (3), 503-526.

Full Text: [1995\Org Stu16, 503.pdf](1995/Org%20Stu16,%20503.pdf)

Abstract: Over the last decade, the field of organization studies has been characterized by a proliferation of divergent perspectives. Using bibliometric techniques, this paper examines the extent to which this state of differentiation may be associated with regional differences in scholarly orientation, specifically, between North America and Europe. The study is based on citation and co-citation analyses of articles published by North American authors in Administrative Science Quarterly and by European authors in Organization Studies in the three-year period from 1990 to 1992. Results do show that there is divergence in the perspectives that are currently dominant in Europe and North America, and, to some degree between Britain and elsewhere in Europe. The discussion section elaborates on the nature of the differences in orientation and speculates on factors that may have fostered and helped to maintain this divergence.

Keywords: Authors, Bibliometric, Bibliometric Techniques, Citation, Co-Citation, Cocitation Analysis, Comparative Organization Theory, Context, Europe, Field, Journals, Management, Methodology, Ranking, Science

? Anderson, M.H. (2006), How can we know what we think until we see what we said?: A citation and citation context analysis of Karl Weick’s the social psychology of organizing. *Organization Studies*, **27** (11), 1675-1692.

Full Text: [2006\Org Stu27, 1675.pdf](2006/Org%20Stu27,%201675.pdf)

Abstract: A substantial portion of Karl Weick’s influence on organization studies is based upon his classic book The Social Psychology of Organizing (abbreviated as Organizing). A citation analysis shows the magnitude of this influence compared to five other organization studies classics, and reveals that Organizing continues to be highly cited. A citation context analysis (i.e. content analysis) of all citations to Weick (1979) in three top organization studies journals (Academy of Management Review, Administrative Science Quarterly, and Organization Studies) shows that 12 concepts account for 67.6% of citations to Organizing, but that the book is cited for a remarkable diversity of additional content as well. Furthermore, a consideration of differences between the concepts cited in the US journals versus Organization Studies reveals several regional differences. Finally, very few citations are critical of Organizing or involve empirical tests. These results hold a variety of implications for future research.

Keywords: Administrative Science, Analysis, Citation, Citation Analysis, Citation Context Analysis, Citations, Communication, Content Analysis, Creative Productivity, Diversity, High-Reliability, Isomorphism, Journals, Karl Weick, Loosely Coupled Systems, Management Journals, Model, Organizational Analysis, Psychology, Regional, Regional Differences, Research, Sensemaking, Social, Social Psychology of Organizing, Tests, Theory Construction, US

# Title: OR Spektrum

Full Journal Title: OR Spektrum

ISO Abbreviated Title: OR Spektrum

JCR Abbreviated Title: OR Spektrum

ISSN: 0171-6468

Issues/Year:

Journal Country/Territory:

Language:

Publisher: Springer-Verlag, New York

Publisher Address:

Subject Categories:

: Impact Factor

? Freire, F., Thore, S. and Ferrao, P. (2001), Life cycle activity analysis: logistics and environmental policies for bottled water in Portugal. *OR Spektrum*, **23** (1), 159-182.

Abstract: An innovative mathematical programming decision support model Life Cycle Activity Analysis (LCAA) - is presented, integrating considerations of optimal allocations of resources and impacts upon the environment during the life cycle of products. LCAA is based on the classical formulation of activity analysis on the life cycle assessment framework. The concept of linear activities is extended to embrace mass and energy fluxes over the entire life cycle of products including their environmental impacts. Special attention is given to the presence of loops in the product chains, such as those occurring when materials/products are recovered (reused, recycled.). An application brought from the Portuguese bottled water industry is described. The model features alternative activities for production technologies and product recovery strategies and permits the joint consideration of monetary costs and environmental burdens. The results obtained under five scenarios, including distinct disposal strategies and environmental constraints, are discussed.

Keywords: Activity Analysis, Life Cycle, End-of-Life Strategies, Environmental Policy, Portuguese Bottled Water Market, Management

# Title: Organizational Research Methods

Full Journal Title: [Organizational Research Methods](http://orm.sagepub.com/archive/)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN: 0170-8406

Issues/Year:

Journal Country

Language:

Publisher: Springer-Verlag, New York

Publisher Address:

Subject Categories:

: Impact Factor

? Bedeian, A.G., Van Fleet, D.D. and Hyman, H.H. (2009), Scientific achievement and editorial board membership. *Organizational Research Methods*, **12** (2), 211-238.

Full Text: [2009\Org Res Met12, 211.pdf](2009/Org%20Res%20Met12,%20211.pdf)

Abstract: A cornerstone of the scientific ethos is that editorial board members should be selected based on their scholarly achievements, as demonstrated by publications in peer-reviewed journals and evidence that their work is of value to others in their disciplines. To discern if this reasoning is applied in practice, this study examined the scholarly records of the editorial boards of premier peer-reviewed journals sponsored by the leading professional associations in management and six related disciplines.

Keywords: Author Self-Citations, Bibiliometrics, Board, Boards, Disciplines, Ethos, Evidence, Index, Infometrics, Journals, Management, Multiple Authorship, Peer Reviewed Journals, Peer-Reviewed, Philosophy of Science, Practice, Professional, Publication, Publications, Quality, Reasoning, Records, Research Productivity, Science, Scientific Ethos, Scientometrics, Value, Work

? Bedeian, A.G., Van Fleet, D.D. and Hyman, H.H. (2009), “Circle the Wagons and Defend the Faith” slicing and dicing the data. *Organizational Research Methods*, **12** (2), 276-295.

Full Text: [2009\Org Res Met12, 276.pdf](2009/Org%20Res%20Met12,%20276.pdf)

Abstract: Commentators expressed contrasting views on the authors’ examination of scientific achievement and editorial board membership in the management discipline. In response, the authors address key points with which they disagree and hold fast to their admonitory conclusions, neither compromising nor retreating from the recounting of base facts. If the authors’ conclusions have prompted a measure of cognitive dissonance, they hope that any associated discomfort will lead to action on the part of all of the discipline’s journals and their sponsoring organizations.

Keywords: Achievement, Action, Authors, Bibliometrics, Board, Cognitive, Cognitive Dissonance, Editors, Examination, Field, Hope, Infometrics, Journals, Knowledge, Lead, Management, Measure, Organizations, Philosophy of Science, Quality, Science, Scientific Ethos, Scientometrics, Sponsoring

# Title: Oriental Journal of Chemistry

Full Journal Title: Oriental Journal of Chemistry

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Anuar, K., Joseph, G., Ahmard, F.B.H., Zulkarnain, Z., Hussein, Z.M. and Abdullah, H.A. (2002), Preparation and characterization of activated carbon from Resak wood (vatica hullettii): Supface area and porosity studies. *Oriental Journal of Chemistry*, **18** (1), ??-??.

Abstract: Activiated carbons from Resak wood were prepared by physical and chemical activation using CO2 and ZnCl2. A series of horizontal combustion at 500°C with various concentration of ZnCl2 were carried out. Data from surface area analysis of nitrogen adsorption at 77K showed that the surface area increase with the combustion temperature nd the amount of ZnCl2 impregnation. The value of the surface area was constant after 15% impregnation solution. The optimum surface area (832m2/g) was obtainedt with 15% ZnCl2 concentration of the impregnation solution. The study also showed increment in pore size from micro to a mixture of micro and meso propertional to the amount of ZnCl2.

Keywords: Activated Carbon, Carbonization, Activation, Surface Area and Porosity

# Title: Orl-Journal for Oto-Rhino-Laryngology and Its Related Specialties

Full Journal Title: Orl-Journal for Oto-Rhino-Laryngology and Its Related Specialties

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Feng, Y., Wang, B.Q. and Wen, S.X. (2011), Laser surgery versus radiotherapy for T1-T2N0 Glottic cancer: A meta-analysis. *Orl-Journal for Oto-Rhino-Laryngology and Its Related Specialties*, **73** (6), 336-342.

Full Text: [2011\Orl-J Oto-Rhi-Lar Its Rel Spe73, 336.pdf](2011/Orl-J%20Oto-Rhi-Lar%20Its%20Rel%20Spe73,%20336.pdf)

Abstract: Background: Laser surgery and radiotherapy are commonly used to treat glottic cancer. Objective of Review: To compare outcomes and cost of laser surgery versus radiotherapy for T1-T2N0 glottic cancer. Type of Review: Meta-analysis. Search Strategy: The Cochrane Central Register of Controlled Trials, Ovid MEDLINE (R) In-Process & Other Non-Indexed Citations, Embase, Web of Science (1990-2010) were searched electronically. Three Chinese journals in otolaryngology were searched manually. Evaluation Method: Retrieved studies were analyzed with Review Manager 5.0 software. Methodological and outcome heterogeneity was analyzed using the chi(2) test and the I(2) test. Homogeneous and heterogeneous data were analyzed using a fixed random effect model. Results: Eleven studies involving 1,135 patients were included in the analysis. The cure rate did not differ between patients receiving laser surgery versus radiotherapy. Results on voice preservation were inconclusive. The overall cost for laser surgery was lower. Conclusions: The quality of the reported clinical studies is limited. No level I data are available. Nonetheless, our analysis suggests that laser surgery and radiotherapy produce comparable outcomes. Copyright (C) 2011 S. Karger AG, Basel.

Keywords: Analysis, Cancer, Carbon-Dioxide Laser, Chinese Journals, Citations, Clinical-Experience, Cochrane, Copyright, Early Glottic Cancer, Endoscopic Management, Evaluation, External Radiotherapy, Journals, Laser Surgery, Medline, Meta Analysis, Meta-Analysis, Model, Outcome, Outcomes, Partial Laryngectomy, Patients, Quality, Quality-of-Life, Radiation-Therapy, Radiotherapy, Review, Science, Software, Squamous-Cell Carcinoma, Surgery, Vocal Cord Carcinoma, Voice, Voice Quality, Web of Science

# Title: Orthodontics & Craniofacial Research

Full Journal Title: Orthodontics & Craniofacial Research

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? von Bremen, J. and Ruf, S. (2011), Orthodontic and dentofacial orthopedic management of juvenile idiopathic arthritis: A systematic review of the literature. *Orthodontics & Craniofacial Research*, **14** (3), 107-115.

Abstract: Authors - von Bremen J, Ruf S To systematically review the literature published on orthodontic treatment principles in patients with juvenile idiopathic arthritis (JIA). Several electronic databases (PUBMED, Medpilot, Web of Science, and DIMDI) and orthodontic and rheumatologic literature were systematically searched for studies published until May 2010. The articles were rated by two independent reviewers and included after three selection steps (title-abstract-full text). Articles had to be studies performed on >= 5 patients with a disease onset before the age of 16. The selection process resulted in the inclusion of three publications on dentofacial orthopedics and six on combined surgical orthodontic therapy. The three studies on dentofacial orthopedics aimed to improve the mandibular retrusion by means of removable functional appliances (activator). Whereas these orthodontic approaches comprised relatively large and homogeneous patient samples (14, 22, and 72 subjects, aged 6-16), the surgical studies were basically case series with a large age span of the patients (5-12 subjects, aged 10-44). In these surgical treatment approaches, orthodontics was limited to pre-surgical leveling and post-surgical finishing, while the skeletal discrepancy was treated surgically by a variety of techniques (costochondral grafts, bilateral sagittal spilt osteotomy, Le Fort I, and genioplasty). The treatment goals of both approaches were improvement of esthetics and function and/or pain reduction, and both approaches showed satisfactory results. Because of the heterogeneity of the subject material and the low level of evidence of the papers, it is difficult to draw any conclusions on the orthodontic/dentofacial orthopedic management of JIA. It appears as if removable functional appliances may be beneficial in adolescent patients with JIA.

Keywords: Adolescent, Aged, Arthritis, Articles, Case Series, Children, Craniofacial Growth, Databases, Disease, Follow-Up, Functional, Functional Appliances, Involvement, Juvenile Idiopathic Arthritis, Literature, Management, Mandibular Growth, Occlusion, Onset, Orthodontic Treatment, Orthodontics, Pain, Papers, Publications, Pubmed, Review, Rheumatoid-Arthritis, Science, Surgical, Systematic, Systematic Review, Temporomandibular-Joint, Therapy, Treatment, Web of Science

# Title: Orthopade

Full Journal Title: Orthopade

ISO Abbreviated Title: Orthopade

JCR Abbreviated Title: Orthopade

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Steens, W., Loehr, J.F., von Foerster, G. and Katzer, A. (2006), Chronic cobalt poisoning in endoprosthetic replacement. *Orthopade*, **35** (8), 860-864.

Abstract: This article outlines symptoms and therapeutic options in chronic cobalt poisoning including a case report in which metallosis caused by a ceramic-metal articular pairing led to almost complete loss of sight and hearing after revision of a total hip prosthesis.

At primary revision the firmly incorporated stem was left in place. For a better offset only the head was exchanged from a ceramic to a metal model which articulated with a socket containing a ceramic inlay. Postoperatively, movement of the hip joint became increasingly uncomfortable and painful. After 2 years, the patient started complaining about increasing impairment of his eyesight followed by a gradual loss of hearing. In a second revision, examination of the explanted material showed almost complete deterioration of the metal femoral head and a partially fractured ceramic inlay with extensive contamination of the bone and surrounding soft tissue by metal debris. At the time of revision increasing concentrations of the alloy elements cobalt, chromium, and molybdenum were measured in the serum and liquor. The concentration of cobalt, in particular, was remarkably high. Treatment options in cases with chronic cobalt poisoning include chelation therapy with EDTA or BAL/DMPS.

Keywords: Cobalt, Poisoning, EDTA, BAL, DMPS, Optic Atrophy

# Title: Osteoarthritis and Cartilage

Full Journal Title: [Osteoarthritis and Cartilage](http://www.sciencedirect.com/science/journal/10634584)

ISO Abbreviated Title:

JCR Abbreviated Title:

ISSN:

Issues/Year:

Journal Country/Territory:

Language:

Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Zhang, W., Moskowitz, R.W., Nuki, G., Abramson, S., Altman, R.D., Arden, N., Bierma-Zeinstra, S., Brandt, K.D., Croft, P., Doherty, M., Dougados, M., Hochberg, M., Hunter, D.J., Kwoh, K., Lohmander, L.S. and Tugwell, P. (2007), OARSI recommendations for the management of hip and knee osteoarthritis, Part I: Critical appraisal of existing treatment guidelines and systematic review of current research evidence. *Osteoarthritis and Cartilage*, **15** (9), 981-1000.

Full Text: [2007\Ost Car15, 981.pdf](2007/Ost%20Car15,%20981.pdf)

Abstract: Purpose: As a prelude to developing updated, evidence-based, international consensus recommendations for the management of hip and knee osteoarthritis (OA), the Osteoarthritis Research Society International (OARS[) Treatment Guidelines Committee undertook a critical appraisal of published guidelines and a systematic review (SR) of more recent evidence for relevant therapies. Methods: Sixteen experts from four medical disciplines (primary care two, rheumatology 11, orthopaedics one and evidence-based medicine two), two continents and six countries (USA, UK, France, Netherlands, Sweden and Canada) formed the guidelines development team. Three additional experts were invited to take part in the critical appraisal of existing guidelines in languages other than English. MEDLINE, EMBASE, Science Citation Index, CINAHL, AMED, Cochrane Library, seven Guidelines Websites and Google were searched systematically to identify guidelines for the management of hip and/or knee OA. Guidelines which met the inclusion/exclusion criteria were assigned to four groups of four appraisers. The quality of the guidelines was assessed using the AGREE (Appraisal of Guidelines for Research and Evaluation) instrument and standardised percent scores (0-100%) for scope, stakeholder involvement, rigour, clarity, applicability and editorial independence, as well as overall quality, were calculated. Treatment modalities addressed and recommended by the guidelines were summarised. Agreement (%) was estimated and the best level of evidence to support each recommendation was extracted. Evidence for each treatment modality was updated from the date of the last SR in January 2002 to January 2006. The quality of evidence was evaluated using the Oxman and Guyatt, and Jadad scales for SRs and randomised controlled trials (RCTs), respectively. Where possible, effect size (ES), number needed to treat, relative risk (RR) or odds ratio and cost per quality-adjusted life year gained (OALY) were estimated. Results: Twenty-three of 1462 guidelines or consensus statements retrieved from the literature search met the inclusion/exclusion criteria. Six were predominantly based on expert opinion, five were primarily evidence based and 12 were based on both. Overall quality scores were 28%, 41% and 51% for opinion-based, evidence-based and hybrid guidelines, respectively (P= 0.001). Scores for aspects of quality varied from 18% for applicability to 67% for scope. Thirteen guidelines had been developed for specific care settings including five for primary care (e.g., Prodigy Guidance), three for rheumatology (e.g., European League against Rheumatism recommendations), three for physiotherapy (e.g., Dutch clinical practice guidelines for physical therapy) and two for orthopaedics (e.g., National Institutes of Health consensus guidelines), whereas 10 did not specify the target users (e.g., Ontario guidelines for optimal therapy). Whilst 14 guidelines did not separate hip and knee, eight were specific for knee but only one for hip. Fifty-one different treatment modalities were addressed by these guidelines, but only 20 were universally recommended. Evidence to support these modalities ranged from la (meta-analysis/SR of RCTs) to IV (expert opinion). The efficacy of some modalities of therapy was confirmed by the results of RCTs published between January 2002 and 2006. These included exercise (strengthening ES 0.32, 95% confidence interval (CI) 0.23, 0.42, aerobic ES 0.52, 95% Cl 0.34, 0.70 and water-based ES 0.25, 95% Cl 0.02, 0.47) and nonsteroidal anti -inflammatory drugs (NSAIDs) (ES 0.32, 95% Cl 0.24, 0.39). Examples of other treatment modalities where recent trials failed to confirm efficacy included ultrasound (ES 0.06, 95% Cl -0.39, 0.52), massage (ES 0.10, 95% Cl -0.23, 0.43) and heat/ice therapy (ES 0.69, 95% Cl -0.07, 1.45). The updated evidence on adverse effects also varied from treatment to treatment. For example, while the evidence for gastrointestinal (GI) toxicity of non-selective NSAIDs (FIR = 5.36, 95% Cl 1.79, 16.10) and for increased risk of myocardial infarction associated with rofecoxib (FIR = 2.24, 95% CI 1.24, 4.02) were reinforced, evidence for other potential drug related adverse events such as GI toxicity with acetaminophen or myocardial infarction with celecoxib remained inconclusive. Conclusion: Twenty-three guidelines have been developed for the treatment of hip and/or knee OA, based on opinion alone, research evidence or both. Twenty of 51 modalities of therapy are universally recommended by these guidelines. Although this suggests that a core set of recommendations for treatment exists, critical appraisal shows that the overall quality of existing guidelines is sub-optimal, and consensus recommendations are not always supported by the best available evidence. Guidelines of optimal quality are most likely to be achieved by combining research evidence with expert consensus and by paying due attention to issues such as editorial independence, stakeholder involvement and applicability. This review of existing guidelines provides support for the development of new guidelines cognisant of the limitations in existing guidelines. Recommendations should be revised regularly following SR of new research evidence as this becomes available. 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Keywords: Acetaminophen, Aerobic, Attention, Canada, Chondroitin Sulfate, Citation, Clinical-Practice Guidelines, Core, Criteria, Development, Double-Blind, Drug-Related, Effects, Elsevier, English, Evaluation, Evidence, Evidence-Based Medicine, Exercise, France, Groups, Hip and Knee Osteoarthritis, Independence, International, Literature, Lower-Limb Osteoarthritis, Management, Medical, Medicine, Medline, Netherlands, Nonsteroidal Antiinflammatory Drugs, Oarsi, Of-the-Literature, Older-Adults, Placebo-Controlled Trial, Primary, Randomised Controlled Trials, Randomized Controlled-Trial, Research, Review, Risk, Science, Science Citation Index, Self-Management, Support, Sweden, Systematic Review, Therapy, Toxicity, Treatment, Treatment Guidelines, UK, Ultrasound, USA

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Full Text: [2010\Ost Car18, 476.pdf](2010/Ost%20Car18,%20476.pdf)

Abstract: Objective: To update evidence for available therapies in the treatment of hip and knee osteoarthritis (OA) and to examine whether research evidence has changed from 31 January 2006 to 31 January 2009. Methods: A systematic literature search was undertaken using MEDLINE, EMBASE, CINAHL, AMED, Science Citation Index and the Cochrane Library. The quality of studies was assessed. Effect sizes (ESs) and numbers needed to treat were calculated for efficacy. Relative risks, hazard ratios (HRs) or odds ratios were estimated for side effects. Publication bias and heterogeneity were examined. Sensitivity analysis was undertaken to compare the evidence pooled in different years and different qualities. Cumulative meta-analysis was used to examine the stability of evidence. Results: Sixty-four systematic reviews. 266 randomised controlled trials (RCTs) and 21 new economic evaluations (EEs) were published between 2006 and 2009. Of 51 treatment modalities, new data on efficacy have been published for more than half (26/39, 67%) of those for which research evidence was available in 2006. Among non-pharmacological therapies, ES for pain relief was unchanged for self-management, education, exercise and acupuncture. However, with new evidence the ES for pain relief for weight reduction reached statistical significance, increasing from 0.13 [95% confidence interval (Cl) -0.12, 0.36] in 2006 to 0.20 (95% Cl 0.00, 0.39) in 2009. By contrast, the ES for electromagnetic therapy which was large in 2006 (ES = 0.77, 95% Cl 0.36, 1.17) was no longer significant (ES = 0.16, 95% Cl -0.08, 0.39). Among pharmacological therapies, the cumulative evidence for the benefits and harms of oral and topical non-steroidal anti-inflammatory drugs, diacerhein and intra-articular (IA) corticosteroid was not greatly changed. The ES for pain relief with acetaminophen diminished numerically, but not significantly, from 0.21 (0.02, 0.41) to 0.14 (0.05, 0.22) and was no longer significant when analysis was restricted to high quality trials (ES = 0.10, 95% Cl -0.0, 0.23). New evidence for increased risks of hospitalisation due to perforation, peptic ulceration and bleeding with acetaminophen >3 g/day have been published (HR = 1.20, 95% Cl 1.03, 1.40). ES for pain relief from IA hyaluronic acid, glucosamine sulphate, chondroitin sulphate and avocado soybean unsponifiables also diminished and there was greater heterogeneity of outcomes and more evidence of publication bias. Among surgical treatments further negative RCTs of lavage/debridement were published and the pooled results demonstrated that benefits from this modality of therapy were no greater than those obtained from placebo. Conclusion: Publication of a large amount of new research evidence has resulted in changes in the calculated risk-benefit ratio for some treatments for OA. Regular updating of research evidence can help to guide best clinical practice. (C) 2010 Osteoarthritis Research Society International. Published by Elsevier Ltd. All rights reserved.

Keywords: Acetaminophen, Bias, Chronic Noncancer Pain, Citation, Controlled Clinical-Trial, Cost-Effectiveness Analysis, Economic, Education, Elsevier, Heterogeneity, Hip and Knee Osteoarthritis, International, Intraarticular Hyaluronic-Acid, Literature, Medline, Meta-Analysis, New Evidence, Nonsteroidal Antiinflammatory Drugs, Oarsi, Of-the-Literature, Placebo, Placebo-Controlled Trial, Publication, Publication Bias, Randomized Controlled-Trials, Reduction, Research, Science, Science Citation Index, Topical Diclofenac Solution, Total Joint Replacement, Treatment, Treatment Guidelines

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Full Text: [2011\Ost Car19, 611.pdf](2011/Ost%20Car19,%20611.pdf)

Abstract: Objective: To evaluate the therapeutic trajectory of intra-articular hyaluronic acid (IAHA) vs placebo for knee osteoarthritis (OA). Design: Our data sources include MEDLINE, EMBASE, CINAHL, BIOSIS, Web of Science, Google Scholar, Cochrane database; hand searched reviews, manuscripts, and, supplements; author contacts for unpublished data. Randomized trials that reported effects of IAHA vs placebo on knee OA were selected based on inclusion criteria. We computed effect sizes for change from baseline at 4, 8, 12, 16, 20 and 24 weeks, using Bayesian random effects model. We performed multivariate analyses adjusting for correlation between time points. Meta-regressions were performed adjusting for potential confounders. Results: The 54 eligible trials included 7545 participants. The conduct and quality of these trials varied in number of aspects. The effect size (ES) favored IAHA by week 4 (0.31; 95% CI 0.17, 0.45), reaching peak at week 8 (0.46; 0.28, 0.65), and then trending downwards, with a residual detectable effect at week 24 (0.21; 0.10, 0.31). This therapeutic trajectory was consistent among the subset of high quality trials and on multivariate analysis adjusting for correlation between time points. Conclusions: Our meta-analysis highlights a therapeutic trajectory of IAHA for knee OA pain over 6 months post-intervention. With this additional perspective, we are able to infer that IAHA is efficacious by 4 weeks, reaches its peak effectiveness at 8 weeks and exerts a residual detectable at 24 weeks. On the other hand, the peak effect size (0.46; 0.28, 0.65), is greater than published effects from other OA analgesics [acetaminophen (ES = 0.13; 0.04, 0.22); NSAIDs (ES = 0.29; 0.22, 0.35); COX-2 inhibitors (ES = 0.44; 0.33, 0.55)]. An effect size above 0.20 is considered to be clinically relevant on an individual patient basis in chronic pain conditions such as knee OA. Thus, its properties could have utility for certain clinical situations, or in combination with other therapies. (C) 2011 Osteoarthritis Research Society International. Published by Elsevier Ltd. All rights reserved.

Keywords: Analysis, Author, Cochrane, Controlled Clinical-Trial, COX-2, Double-Blind, Effectiveness, Efficacy, Embase, Google Scholar, Hand, Hyaluronic Acid, Hylan, Intra-Articular, Knee, Meta-Analysis, Model, Multicenter Trial, Osteoarthritis, Pain, Placebo-Controlled Trial, Points, Randomized Controlled-Trials, Research, Safety, Science, Sodium Hyaluronate, Trajectory, Web of Science

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Subject Categories:

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Full Text: [2007\Ost Int18, 1177.pdf](2007/Ost%20Int18,%201177.pdf)

Abstract: The Osteoporosis Self-Assessment Tool (OST) is a simple test that may be of clinical value to rule-out low bone mineral density. We performed a systematic review to assess its performance in postmenopausal women. We included 36 studies. OST performed moderately in ruling-out femoral neck T-score <= - 2.5, but poorly in ruling-out lumbar spine T-score <= - 2.5. Methodological study quality was generally low. Introduction The Osteoporosis Self-Assessment Tool (OST) is a simple clinical decision rule based on age and weight that may be of clinical value to rule-out low bone mineral density (BMD). Our aim was to systematically assess the performance of OST in postmenopausal women. Methods We searched PUBMED, EMBASE, Web of Science, citation lists and conference proceedings for studies evaluating OST using dual X-ray absorptiometry (DXA) as reference test to measure BMD. We evaluated methodological quality using the QUADAS checklist. Our main outcome was the likelihood ratio of a negative OST result (LR-). Results OST performed moderately in ruling-out femoral neck T-score <= - 2.5 in whites, summary LR- (sLR-) 0.19 (95% CI, 0.17-0.21) and between-study heterogeneity was low (I-2= 7%). The corresponding performance in Asians was similar, sLR- 0.19 (0.14-0.28), but there was considerable heterogeneity (I-2= 64%). OST performed poorly in ruling-out lumbar spine T-score <= - 2.5 in whites and Asians, sLR- 0.43 (0.31-0.59) and 0.32 (0.28-0.38), respectively. The performance in ruling-out T-score <= - 2.0 in whites was poor regardless of region (sLR- >= 0.28). Methodological study quality was generally low. Conclusions The clinical usefulness of OST is uncertain. OST could be useful for ruling-out femoral neck T-score <= - 2.5, but confirmatory high-quality studies are needed.

Keywords: Bone, Bone Mineral Density, Case-Finding, Citation, Decision Rules, Densitometry, Diagnostic Test, Diagnostic-Test, Facilitate Selection, Fracture Risk, Meta-Analysis, Methods, Nonvertebral Fractures, Osteoporosis, Osteoporosis Self-Assessment Tool, Outcome, Performance, Pubmed, Ratio, Review, Risk-Assessment Tools, Science, Screening, Screening Tools, Spine, Systematic, Systematic Review, Validation, Web of Science, Women, X-Ray Absorptiometry

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Full Text: [2009\Ost Int20, 209.pdf](2009/Ost%20Int20,%20209.pdf)

Abstract: Bone health is generally not considered in patients who present with chronic back pain. Nonetheless, bone health and back pain share common genetic and environmental correlates suggesting a co-dependence. Evidence exists for a relationship between back pain and impaired bone health. Here we present the evidence, theoretic framework and clinical relevance. Bone health and back pain are important determinants of musculoskeletal health. Back pain experienced in youth is a risk factor for future back pain, while suboptimal bone health during development increases the risk of skeletal fragility in later life. Generally, bone health is not considered in patients with chronic back pain who do not demonstrate other well-recognised bone health risk factors or associated conditions. Nonetheless, evidence suggests that back pain and impaired bone health share common environmental and genetic correlates, indicating that bone health ought to be considered in the context of back pain in otherwise healthy individuals. This review describes the likely mechanisms explaining the relationship between back pain and impaired bone health, evidence concerning the relationship and suggestions for future research. A narrative literature search was conducted using CINAHL, MEDLINE, PUBMED and Web of Science electronic databases. A history of back pain is associated with decreased bone mineral density in adults, yet this tends to be site-specific. No studies were identified examining this association in youth, yet the negative effects of childhood skeletal trauma and obesity on bone and spinal health provide indirect evidence for an association. Further research is required to clarify the impact of back pain on bone health at different lifespan stages using prospective cohort designs.

Keywords: Adults, Back Pain, Behaviour, Bone, Bone Health, Bone Mineral Density, Correlates, Databases, Determinants, Development, Environmental, Follow-Up, Genetic, Genetic Influences, Genetics, History, Impact, Literature, Lumbar Disc Degeneration, Mineral Density, Modic Changes, Obesity, Pain, Perimenopausal Women, Physical-Activity, Population-Based Sample, Postmenopausal Women, Pubmed, Research, Review, Risk, Risk Factor, Risk Factors, Science, Trauma, Web of Science, X-Ray Absorptiometry, Youth

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Full Text: [2009\Ost Int20, 599.pdf](2009/Ost%20Int20,%20599.pdf)

Abstract: We performed a systematic review of studies comparing the Osteoporosis Self-Assessment Tool (OST) and other tests used to select women for bone mineral density (BMD) assessment. In comparative meta-analyses, we found that the accuracy of OST was similar to other tests that are based on information from the medical history. By contrast, assessment by quantitative ultrasonography at the heel was more accurate than OST in discriminating between women with high and low BMD. The methodological quality of the included studies was generally low. Numerous tests are suggested for triaging postmenopausal women for bone mineral density (BMD) assessment by dual-energy X-ray absorptiometry. Previous studies suggest that OST, based on age and weight only, may be as accurate as more complex triage tests. We systematically compare the accuracy of OST and alternative triage tests in postmenopausal women. We searched PubMed, Embase, Web of Science, citation lists, and conference proceedings. Our main measure of accuracy was the diagnostic odds ratio (DOR). We compared summary estimates of DOR (sDOR) for OST and alternative tests in pairwise meta-analyses by using the Moses-Littenberg approach. Summary estimates of DOR for OST and the clinical decision rules Simple Calculated Osteoporosis Risk Estimation (SCORE) and Osteoporosis Risk Assessment Instrument (ORAI) did not differ significantly in white women (relative sDOR: 0.57-1.17, all p a parts per thousand yenaEuro parts per thousand 0.11). By contrast, sDOR was higher for Stiffness Index assessed by calcaneal quantitative ultrasonography than for OST (relative sDOR: 1.9, p = 0.005). Studies were few in Asian and black women. Methodological quality, assessed with the Quality Assessment of Diagnostic Accuracy Studies (QUADAS) checklist, was generally low. In white women, the accuracy of OST and alternative clinical decision rules was similar, whereas Stiffness Index was more accurate than OST. Low study quality renders transferability to clinical settings uncertain.

Keywords: Accuracy, Assessment, Bone Mineral Density, Citation, Clinical Indexes, Decision Rules, Diagnostic-Accuracy, Elderly Women, Fracture Risk, Hip Fracture, History, Meta-Analysis, Nonvertebral Fractures, Osteoporosis Self-Assessment Tool, Quality, Quantitative Ultrasound, Review, Science, Screening Tools, Systematic Review, Triage Test, Web of Science, X-Ray Absorptiometry

# Title: Otolaryngology-Head and Neck Surgery

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Abstract: In this study we have assessed zinc status and zinc-dependent cell-mediated immune functions (interleukin-2 production by mononuclear cells, natural killer cell lytic activity, and interleukin-1 β production by mononuclear cells) in adult patients with squamous cell carcinoma of the upper aerodigestive tract at diagnosis and before any therapy was instituted. Inasmuch as significant interactions between zinc, copper, and iron exist, we also assayed the plasma copper level, serum iron level, and total iron-binding capacity in ourpatients, We recruited 30 cancer subjects and 21 control subjects. On the basis of cellular zinc criteria, we diagnosed a mild deficiency of zinc in 53% of cancer subjects, The plasmazinc level was not decreased in our subjects. A univariate analysis was applied by use of one-way analysis of variance comparing study variables among the three study groups (controls and zinc-deficient and zinc-sufficient cancer patients) and Tukey’s multiple comparison test, and we showed that interleukin-2 production and natural killer lytic activitywere decreased in zinc-deficient cancer patients. Interleukin-1β production (ELISA assay) was increased in both zinc-deficient and zinc-sufficient groups, Plasma copper level was not different, but the iron utilization was decreased in both groups of cancer subjects, We conclude that zinc deficiency andzinc-dependent immunologic dysfunctions are present in more than half of the patients with head and neck cancer in the Detroit area.

Keywords: Cellular-Immunity, Deficiency, Interleukins, Carcinoma, Indicator, Disease

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Full Text: [O\Oto-Hea Nec Sur124, 1.pdf](O/Oto-Hea%20Nec%20Sur124,%201.pdf)

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Full Text: [2005\Oto-Hea Nec Sur132, 295.pdf](2005/Oto-Hea%20Nec%20Sur132,%20295.pdf)

Abstract: OBJECTIVES: To evaluate the distribution and scope of papers published in the world in otolaryngology (ORL) journals and to compare the impact of this research among different countries. METHODS: Papers published in the 29 ORL journals screened by the Institute for Scientific Information (ISI, Philadelphia, PA, USA) in the 6-year period 1995-2000 were considered. The journal impact factor (IF), the source country population, and gross domestic product (GDP) were recorded. All key words, both those assigned by the authors and those attributed by ISI, were identified and their frequency was calculated using a special-purpose program. RESULTS: The total number of papers in the ORL literature during the period 1995-2000 increased from 2036 to 3705. A percentage varying between 47.7% (1995) and 36.1% (2000) was published by EU authors whereas the USA accounted for a percentage varying between 28.1% (1995) and 38.8% (2000). In 2000, the leading countries were the USA, the EU, Japan, Canada, and Australia. In Europe the UK (28.5% of papers), Germany (26.2%), Italy (7.2%), Sweden (5.8 %), France (5.5%), and the Netherlands (4.9%) showed a very good performance trend. In the same year, the mean IF of EU papers was 0.8 in comparison with 1.1 for Australia and the USA and 0.9 for the world. In 1997, 1341 key words attributed by the authors and 696 attributed by ISI appeared in the ORL literature. Less than a tenth of them were cited more than twice. The leading key words were ‘cancer’ for disease and ‘surgery’ for treatment. CONCLUSIONS: Bibilometric findings are useful to follow research trends. Our data show high scientific production of relatively small countries. Dispersion of key words should be avoided and journal editors should promote their standardization.

Keywords: Australia, Bibliometric, EU, European-Union, Geography, Gross Domestic Product, Impact Factor, Institute for Scientific Information, ISI, Journal, Journal Impact, Journals, Population, Publication, Research, Scientific Production

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Full Text: [2007\Oto-Hea Nec Sur136, 525.pdf](2007/Oto-Hea%20Nec%20Sur136,%20525.pdf)

Abstract: OBJECTIVE: To identify, summarize, and evaluate patient-reported outcome questionnaires for use in head and neck cancer surgery with the view to making recommendations for future research. DATA SOURCES: A systematic review of the English-language literature, with the use of head-and-neck-surgery-specific keywords, was performed in the following databases: MEDLINE, Embase, HAPI, CINAHL, Science/Social Sciences Citation Index, and PsycINFO from 1966 to March 2006. DATA EXTRACTION and STUDY SELECTION: All English-language instruments identified as patient-reported outcome questionnaires that measure quality of life and/or satisfaction that had undergone development and validation in a head and neck cancer surgery population were included. DATA SYNTHESIS: Twelve patient-reported outcome questionnaires fulfilled our inclusion criteria. Of these, four were developed from expert opinion alone or did not have a published development process and seven questionnaires lacked formal item reduction. Only three questionnaires (EORTC Head and Neck Module, University of Michigan Head and Neck Quality-of-life Questionnaire, and Head and Neck Cancer Inventory) fulfilled guidelines for instrument development and evaluation as outlined by the Medical Outcomes Trust. CONCLUSIONS: Rigorous instrument development is important for creating valid, reliable, and responsive disease-specific questionnaires. As a direction for future instrument development, an increased focus on qualitative research to ensure patient input may help to better conceptualize and operationalize the variables most relevant to head and neck cancer surgery patients. In addition, the use of alternative methods of psychometric data analysis, such as Rasch, may improve the value of health measurement in clinical practice for individual patients. (C) 2007 American Academy of Otolaryngology-Head and Neck Surgery Foundation. All rights reserved.

Keywords: Alternative, Analysis, Cancer, Clinical, Clinical Practice, Criteria, Data, Data Analysis, Databases, Development, Eortc, Evaluation, Expert Opinion, Extraction, Guidelines, Head and Neck Cancer, Health, Life, Literature, Measure, Measurement, Methods, Michigan, Neck, Outcome, Outcome Measures, Patient-Reported Outcome, Patients, Population, Practice, PsycINFO, Qualitative, Qualitative Research, Quality, Quality of, Quality of Life, Questionnaires, Recommendations, Reduction, Research, Review, Rights, Satisfaction, Selection, Surgery, Systematic Review, Validation, Value

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Full Text: 2008\Oto-Hea Nec Sur138, 557.pdf

Abstract: OBJECTIVE: To evaluate the effectiveness of interventions for treating functional dysphonia or preventing voice disorders in adults. DATA SOURCES: We searched MEDLINE (1950 to 2006), EMBASE (1974 to 2006), CENTRAL (Issue 2 2006), CINAHL (1983 to 2006), PsychINFO (1967 to 2006), Science Citation Index (1986 to 2006), and the Occupational Health databases OSH-ROM (February 2006). REVIEW METHODS: Systematic review and meta-analysis of randomized controlled trials. Included studies evaluated the effectiveness of interventions for 1) treating functional/nonorganic dysphonia or 2) preventing voice disorders. We identified six randomized controlled trials about treatment and two about prevention. Two authors independently extracted data and assessed trial quality. RESULTS: A combination of direct and indirect voice therapy, compared with no intervention, improves self-reported (standardized mean difference -1.07; 95% CI -1.94 to -0.19), observer-rated (weighted mean difference [WMD] - 13.00; 95% CI - 17.92 to -8.08), and instrumentally assessed vocal functioning (WMD -1.20; 95% CI -2.37 to -0.03) in adults with functional dysphonia. Effects are reported to remain for at least 14 weeks. Effects are similar in patients and in teachers and student teachers screened for voice problems. We found two studies that did not show voice training, compared with no intervention, to have a preventive effective in improving self-reported vocal functioning. Assessment of publication bias showed that the real effect sizes are probably smaller. CONCLUSION: Comprehensive voice therapy is effective in improving vocal performance in adults with functional dysphonia. There is no evidence of effectiveness of voice training in preventing voice disorders. (c) 2008 American Academy of Otolaryngology-Head and Neck Surgery Foundation. All rights reserved.

Keywords: Bias, Citation, Clinical-Trial, Databases, Effectiveness, Efficacy, Intervention, Medline, Meta-Analysis, Publication, Publication Bias, Randomized Controlled Trials, Review, Science, Science Citation Index, Search Strategy, Surgery, Systematic Review, Teachers, Therapy, Training, Treatment

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Full Text: 2008\Oto-Hea Nec Sur139, 759.pdf

Abstract: OBJECTIVES: To determine whether bodily pain is increased in patients with chronic rhinosinusitis (CRS) and if bodily pain improves following endoscopic sinus surgery (ESS). METHODS: All studies reporting results of more than 10 adult patients analyzing the response of bodily pain to ESS were retrieved by searching MEDLINE, EMBASE, Web of Science, Cochrane databases, and additional web-based sources (from January 1, 1980, to May 1, 2008); by examining bibliographies of retrieved articles; and by contacting investigators in the field. RESULTS: of 279 ESS symptom outcome studies, only studies measuring results using the 36-Item Short Form Health Survey (SF-36) quality-of-life survey instrument measured bodily pain. Eleven observational ESS studies (1019 patients) reported mean preoperative SF-36 bodily pain scores at 0.89 SD below general population norms (24% more severe bodily pain than general population norms) and significantly below norms for a population 25 years older. Using a repeated-measures design, nine of 11 studies noted significant improvement in SF-36 bodily pain domain scores following ESS, with a moderate-sized combined effect of 0.55 (95% confidence interval, 0.45-0.64; I(2) = 44%) using the fixed-effects model. This pooled effect corresponded to a mean improvement of 11.8 U on the SF-36 bodily pain domain scale. CONCLUSIONS: Bodily pain is increased in patients with CRS awaiting ESS, exceeding the normative bodily pain scores of a general normative population 25 years older. Using within-subject comparisons, a clinically and statistically significant improvement in bodily pain is noted after ESS, an improvement similar to that previously described for fatigue. (C) 2008 American Academy of Otolaryngology-Head and Neck Surgery Foundation. All rights reserved.

Keywords: Adult, Association, Chronic Rhinosinusitis, Chronic-Fatigue, Cochrane, Databases, Embase, Endoscopic, Fatigue, Fibromyalgia Syndrome, Health, Impact, Medline, Metaanalysis, Model, Observational, Outcome, Outcomes, Pain, Quality of Life, Quality-of-Life, Review, Rhinitis, Rhinosinusitis, Science, Sf-36, Sinus, Surgery, Survey, Symptoms, Systematic, Systematic Review, Web of Science

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Full Text: 2009\Oto-Hea Nec Sur140, 633.pdf

Abstract: BACKGROUND: Although multiple studies have demonstrated that symptoms of chronic rhinosinusitis (CRS) improve after endoscopic sinus surgery (ESS), a systematic large-scale evaluation of specific symptom response has not been performed OBJECTIVE: To analyze the relative effectiveness of surgery in the improvement of individual CRS symptoms STUDY DESIGN: A literature search of MEDLINE, EMBASE, Web of Science, Cochrane databases, and other Web-based sources from January 1, 1980 through June 1, 2008 was performed. Studies of 20 or more adult patients with CRS that used symptom severity scores to analyze at least 3 major CRS criteria (facial pressure, nasal obstruction, postnasal discharge, and hyposmia) or 2 major CRS criteria plus headache were included. SUBJECTS AND METHODS: Inclusion criteria were met by 21 of 289 ESS studies reviewed. Meta-analysis was conducted for each symptom separately with the standardized difference between the preoperative and postoperative severity scores as the effect size (ES). RESULTS: A total of 2070 patients with CRS were studies a mean of 13.9 months after ESS. All symptoms demonstrated improvement compared with their respective preoperative severity scores by an overall ES of 1.19 (95% confidence interval. 0.96 to 1.41; I(2) = 81.7%) using the random- effects model. Nasal obstruction (ES. 1.73) improved the most, with facial pain (ES, 1.13) and postnasal discharge (ES. 1.19) demonstrating moderate improvements Hyposmia (ES. 0.97) and headache (ES. 0.98) improved the least. CONCLUSION: The relative improvements in major CRS symptoms and headache after surgery are similar, with the exception of nasal obstruction, which improves most. (C) 2009 American Academy of Otolaryngology-Head and Neck Surgery Foundation. All rights reserved.

Keywords: Adult, Asthma, Chronic Rhinosinusitis, Cochrane, Databases, Design, Effectiveness, Embase, Endoscopic, Evaluation, Literature, Management, Medline, Meta Analysis, Meta-Analysis, Model, Nasal Polyposis, Objective Assessment, Outcomes, Pain, Pressure, Review, Rhinosinusitis, Science, Sinus, Surgery, Symptoms, Systematic, Systematic Review, Web of Science

? Rosenfeld, R.M. (2010), Partners. *Otolaryngology-Head and Neck Surgery*, **142** (1), 1-2.

Full Text: [2010\Oto-Hea Nec Sur142, 1.pdf](2010/Oto-Hea%20Nec%20Sur142,%201.pdf)

? Aarts, M.C.J., Rovers, M.M., Grau, C., Grolman, W. and van der Heijden, G.J.M. (2011), Salvage laryngectomy after primary radiotherapy: What are prognostic factors for the development of pharyngocutaneous fistulae? *Otolaryngology-Head and Neck Surgery*, **144** (1), 5-9.

Full Text: 2011\Oto-Hea Nec Sur144, 5.pdf

Abstract: In this evidence based case report we addressed the clinical question: which factors predict the occurrence of a pharyngocutaneous fistula after total laryngectomy in patients that already were treated with radiotherapy for a squamous cell carcinoma of the larynx? We searched for relevant synonyms for the domain, being patients earlier treated with radiotherapy for a squamous cell carcinoma of the larynx and having a recurrence for which a salvage total laryngectomy is necessary, with the outcome being the development of a post-operative pharyngocutaneous fistula. We searched for relevant publications in Embase, Pubmed and Web of Science using search terms in title and abstract fields. The search yielded 1764 records, of which three were relevant and valid for our clinical question. Our results show that the absolute risk of a pharyngocutaneous fistula after total laryngectomy in patients earlier treated with radiotherapy for a squamous cell carcinoma of the larynx mainly depends on characteristics and site of the primary tumor. In patients who have a primary glottic laryngeal T1 or T2 tumor the absolute risk of developing a fistula is 11% (95% CI 6; 15%), whereas the risk of developing a fistula in patients with a T3 or T4 extra laryngeal tumor is 35% (95% CI 25; 46%). Other patient and surgical characteristics can however not be ruled out as important prognostic factors since many of them have to date not been studied, e. g. diabetes mellitus, alcohol consumption, smoking, suture materials and surgical technique used.

Keywords: Alcohol, Alcohol Consumption, Carcinoma, Development, Diabetes, Diabetes Mellitus, Factors, Fistula, Head, Laryngectomy, Neck-Cancer, Outcome, Patients, Pharyngocutaneous Fistula, Postoperative Complications, Primary, Prognostic Factors, Publications, Radiotherapy, Recurrence, Risk, Salvage Surgery, Science, Smoking, Surgery, Surgical, Web of Science

? Aarts, M.C.J., Rovers, M.M., van der Heijden, G.J.M. and Grolman, W. (2011), The value of a mandibular repositioning appliance for the treatment of nonapneic snoring. *Otolaryngology-Head and Neck Surgery*, **144** (2), 170-173.

Full Text: 2011\Oto-Hea Nec Sur144, 170.pdf

Abstract: In this evidence-based case report, the authors addressed the following clinical question: What is the effect of a mandibular repositioning appliance (MRA) in patients with nonapneic snoring on the snoring loudness, partners’ sleep disturbance, and quality of life? The authors retrieved relevant publications from Embase, PubMed, Cinahl, CENTRAL, and Web of Science. They used title and abstract field searches with relevant synonyms for the domain, patients with nonapneic snoring, and for the determinant, MRA. The search yielded 499 records. After selection based on relevance and validity, 2 articles remained for answering the authors’ clinical question. The authors pooled the data for the level of snoring. MRA as compared to placebo resulted in a reduction of snoring loudness in 38% of patients with nonapneic snoring and in an improvement of sleep disturbance in 54% of the partners. No effect on quality of life and daytime sleepiness of partners was found. Furthermore, evidence for sustained long-term effects and complete recovery is lacking.

Keywords: Advancement Device, Authors, Management, Mandibular Repositioning Appliance, Nonapneic Snoring, Patients, Publications, Pubmed, Quality of Life, Randomized Controlled-Trial, Recovery, Science, Splint, Validity, Web of Science

? Smith, A., Buchinsky, F.J. and Post, J.C. (2011), Eradicating chronic ear, nose, and throat infections: A systematically conducted literature Review of Advances in Biofilm Treatment. *Otolaryngology-Head and Neck Surgery*, **144** (3), 338-347.

Full Text: 2011\Oto-Hea Nec Sur144, 338.pdf

Abstract: Objective. Bacteria can grow as individual, planktonic organisms or as complex biofilm communities that are more resistant to treatment. This review was designed to systematically search to identify recent laboratory studies on eradication of biofilms in otolaryngologic infections to highlight promising advances in biofilm treatment. Data Sources. A systematic electronic literature search of Medline/PubMed, CINHAL, and Web of Science was conducted for articles describing the treatment of biofilm infections in ear, nose, and throat (ENT) diseases through March 2010. English-language articles and articles with an English abstract that focused on biofilm treatment were considered for review. Review Methods. Each included article was reviewed by one of the authors for study design, treatment intervention, and outcome. Data from in vitro and animal studies were considered separately from human studies. Results. A total of 30 articles were identified for this review, including 5 studies that included a human treatment component. In general, antibiotics were relatively ineffective for eradicating biofilm infections. Markedly higher antibiotic dosages were required to reduce biofilm presence compared with doses that were effective in eradicating planktonic bacteria. Mupirocin irrigation, gentian violet, and thiamphenicol glycinate acetylcysteine effectively eradicated biofilms. Physical disruption, surfactants, and probiotics were also shown to be beneficial in both nonhuman and human studies. Conclusion. Eradicating ENT biofilms is difficult when treating single-organism or mixed flora biofilms. Antibiotic therapy is often ineffective against biofilms, and clinical treatment may need to focus on nonantibiotic therapies that reduce, disrupt, or eradicate ENT biofilms.

Keywords: Antibiotic, Antibiotics, Authors, Bacteria, Biofilm, Chronic Rhinosinusitis, Dairy-Products, Design, ENT, Haemophilus-Influenzae, Human, In-Vitro, Intervention, Literature, Literature Review, Methods, N-Acetylcysteine, Otitis, Outcome, Probiotic Bacteria, Probiotics, Pseudomonas-Aeruginosa, Review, Rhinitis, Science, Silicone-Rubber, Sinusitis, Sources, Staphylococcus-Aureus, Systematic, Therapy, Tonsil, Treatment, Voice, Voice Prosthetic Biofilms, Web of Science

? Labadie, R.F. and Fitzpatrick, J.M. (2011), Can otolaryngology compete with larger fields regarding impact factor? Is percentile-based impact factor a solution? *Otolaryngology-Head and Neck Surgery*, **145** (1), 15-17.

Full Text: 2011\Oto-Hea Nec Sur145, 15.pdf

Abstract: Impact factor (IF) consists of reporting the number of references an average article in a given journal receives over a 2-year period. Despite several valid criticisms, IF has become an important component of academic advancement. The authors sought to investigate the possible relationship between size of specialty field and IF. The top 10 journals of 13 specialty fields were selected based on IF as reported by Journal Citations Reports on the Web of Science. Specialty field population was obtained from the American Board of Medical Specialties. A highly positive correlation (r = 0.9) was noted with smaller fields (eg, otolaryngology) having lower IFs. To overcome this population bias, a percentile-based impact factor (PIF) may be used where the top journal within a field is given 100%, the worst 0%, and all other journals’ IFs are proportionately scaled in between the 2 extremes. PIF acts to “level the playing field,” allowing between-specialty field comparisons.

Keywords: Authors, Bias, Citations, Documentation, Impact, Impact Factor, Journal, Journals, Science, Surgical Specialty Fields, Web of Science

? Lange, P., Fishman, J.M., Elliott, M.J., De Coppi, P. and Birchall, M.A. (2011), What can regenerative medicine offer for infants with Laryngotracheal agenesis? *Otolaryngology-Head and Neck Surgery*, **145** (4), 544-550.

Full Text: 2011\Oto-Hea Nec Sur145, 544.pdf

Abstract: Background. Laryngotracheal agenesis is a rare congenital disorder but has devastating consequences. Recent achievements in regenerative medicine have opened up new vistas in therapeutic strategies for these infants. Objective. To provide a state-of-the-art review concerning recent achievements in tissue engineering as applied to fetal airway reconstruction and to discuss the use of autologous human amniotic stem cells to prepare organs in advance for babies with laryngotracheal agenesis. Data Sources and Review Methods. A structured search of the current literature (up to and including June 2011). The authors searched PubMed, EMBASE, CINAHL, Web of Science, BIOSIS Previews, Cambridge Scientific Abstracts, ICTRP, and additional sources for published and unpublished trials. Results. Over the past 15 years, progress has been made in advancing the boundaries of regenerative medicine from the laboratory to the clinical setting through translational research. Most experience has been gained with adult stem cells and synthetic materials or decellularized scaffolds. The optimal cell source for fetal tissue engineering remains to be determined, but a combination of decellularized scaffolds and amniotic fluid stem cells holds great promise for fetal tissue engineering. Conclusions and Implications for Practice. Current treatment strategies for laryngotracheal agenesis are suboptimal, and fetal tissue engineering offers an alternative to conventional treatments. Use of human amniotic fluid stem cells for preparing autologous tissue-engineered organ constructs prenatally is an attractive concept. Although this approach is still in its experimental stages, further preclinical and clinical studies are encouraged to define its exact role in the pediatric laryngological setting.

Keywords: Adult, Airway, Airway Malformations, Airway-Obstruction Syndrome, Amniotic Fluid Stem Cells, Amniotic-Fluid, Authors, Collagen Scaffold, Congenital Diaphragmatic-Hernia, Disorder, Embase, Epithelial-Cells, Experimental, Fetal, Human, In-Vitro, Infants, Laryngotracheal Agenesis, Literature, Medicine, Mesenchymal Stem-Cells, Methods, Pediatric, Perinatal Management, Practice, Preclinical Regulatory Validation, Pubmed, Regenerative Medicine, Research, Review, Science, Sources, State of the Art, Tissue Engineering, Tissue-Engineered Trachea, Translational, Treatment, Web of Science

# Title: Otology & Neurotology

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Publisher:

Publisher Address:

Subject Categories:

: Impact Factor

? Sinnathuray, A.R., Raut, V., Awa, A., Magee, A. and Toner, J.G. (2003), A review of cochlear implantation in mitochondrial sensorineural hearing loss. *Otology & Neurotology*, **24** (3), 418-426.

Abstract: Objective: Mitochondrial sensorineural hearing loss (SNHL) may be nonsyndromic (occurring in isolation), associated with the A1555G mutation in the MTRNR1 gene. Mitochondrial SNHL may also be syndromic, associated with the A3243G point mutation in the MTTL1 gene. In syndromic cases-mitochondrial encephalopathy, lactic acidosis, and strokelike episodes (MELAS), maternally inherited diabetes and deafness, Kearns-Sayre syndrome, and chronic progressive external ophthalmoplegia-the SNHL compounds already existing disabilities. The genetic basis for mitochondrial SNHL and postulated sites of pathologic changes are discussed. Data Sources: Sources used were relevant clinical and basic science publications. Study Selection: A search of the entire databases of MEDLINE and Web of Science, using various subject headings and free-text terms, was used to identify patients with mitochondrial disease having cochlear implants. Data Extraction: The data from publications were critically reviewed and tabulated to assess implantation outcomes. Data Synthesis: The data were not amenable to formal meta-analysis or valid data summarization, other than descriptive statistics. Conclusions: There is an increasing awareness of the prevalence of mitochondrial SNHL and its progressive nature. High-risk candidates warrant genetic testing and family screening. Correlating the data for mitochondrial SNHL as a treatable entity is important, and the authors present an overview of these patients successfully rehabilitated by cochlear implantation.

Keywords: Aminoglycoside, Antibiotics, Audiological Findings, Authors, Awareness, Cochlear Implantation, Databases, Diabetes, Diabetes-Mellitus, Disease, Dna, Extraction, Genetic, Genetic Testing, Implants, Kearns-Sayre Syndrome, Kearns-Sayre-Syndrome, Lactic-Acidosis, Melas Syndrome, Melas Syndrome, Meta-Analysis, Midd Syndrome, Mitochondrial, Outcomes, Overview, Point Mutation, Prevalence, Profoundly Deaf Patient, Publications, Review, Science, Screening, Sensorineural Deafness, Sources, Statistics, Stroke-Like Episodes, Transfer Rna(Leu(Uur)) Gene, Transfer Rnaleu(Uur) Gene, Web of Science

? Doyle, K.J., Bauch, T., Battista, T., Beatty, T., Hughes, G.B., Mason, J., Maw, J. and Musiek, T.L. (2004), Intratympanic steroid treatment: A review. *Otology & Neurotology*, **25** (6), 1034-1039.

Abstract: Objective: To review published literature regarding the use of intratympanic steroids in the treatment of Meniere’s disease and sudden sensorineural hearing loss and to make recommendations regarding their use based on the literature review. Data Sources: Literature review from 1996 to 2003, PUBMED, MEDLINE Plus, and Web of Science. Study Selection: Retrospective case series and uncontrolled prospective cohort studies were the only types of studies available for review. Conclusion: On the basis of the available literature, a weak recommendation is made to use intratympanic steroid treatment of sudden hearing loss if oral steroid therapy fails or is contraindicated. The available studies regarding intratympanic steroid treatment of Meniere’s disease and tinnitus are inadequate to answer the question of the efficacy of this treatment for these conditions. Higher quality studies are needed.

Keywords: Case Series, Cohort Studies, Dexamethasone, Disease, Double-Blind, Efficacy, Inner-Ear, Intratympanic, Literature, Literature Review, Meniere’S Disease, Menieres-Disease, Oral, Perfusion, Pharmacokinetics, Pubmed, Review, Science, Sensorineural Hearing Loss, Sensorineural Hearing-Loss, Sources, Steroid, Therapy, Treatment, Web of Science

? Van Rompaey, V., Claes, G., Potvin, J., Wouters, K. and Van de Heyning, P.H. (2011), Systematic review of the literature on nitinol prostheses in surgery for otosclerosis: Assessment of the adequacy of statistical power. *Otology & Neurotology*, **32** (3), 357-366.

Abstract: Objective: To perform a systematic review of observational studies reporting hearing outcome in primary stapes surgery where a heat-crimping prosthesis was used. Data Sources: MEDLINE, Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials, TRIP database, Clinical Trials Registry, ISI Web of Knowledge, and Web of Science. The search was performed on January 1, 2010, including articles published ahead of print. No language restrictions. Study Selection: Inclusion criteria for qualitative synthesis were a population of otosclerosis patients, intervention being primary stapes surgery with a nickel titanium alloy (Nitinol) heat-crimping prosthesis, and hearing outcome. Inclusion criteria for quantitative analysis: Application of audiometry guidelines of the American Academy of Otolaryngology-Head and Neck Surgery Committee on Hearing and Equilibrium for evaluation of conductive hearing loss. Data Extraction: Strategy and reporting based on Cochrane, Quality of Reporting of Meta-analyses, and Meta-analysis of Observational Studies in Epidemiology statements. A bias assessment tool was developed according to Cochrane guidelines. Data Synthesis: A quantitative synthesis was performed, but because of the heterogeneity in postoperative follow-up periods and outcome measures reported, we were not able to pool these data. A sample size analysis was performed to indicate the sample needed to demonstrate a statistically significant difference in hearing outcome between both interventions. Hearing outcome superiority of the Nitinol heat-crimping prosthesis over manually crimping prosthesis types was not demonstrated. Conclusion: Superiority could probably not be demonstrated because of insufficient sample size. Research addressing technical improvements in stapes surgery should agree on a base sample size able to detect the smallest difference that is clinically important or accept the null hypothesis. With data gathered in the Common Otology Database as basis, a sample size of at least 413 patients is needed in both the intervention and the control group. Other clinical outcome measures also should be explored.

Keywords: Analysis, Assessment, Bias, Cochrane, Conductive Hearing Loss, Control, Crimping Prosthesis, Database, Efficacy, Epidemiology, Equilibrium, Evaluation, Extraction, Follow-Up, Guidelines, Hearing, Intervention, Interventions, ISI, Knowledge, Laser Stapedotomy, Limitations, Literature, Memory Stapes Prosthesis, Meta Analysis, Meta-Analysis, Nickel-Titanium Piston, Nitinol, Observational, Observational Studies, Otosclerosis, Outcome, Primary, Quality, Quantitative, Research, Review, Science, Smart Piston, Sources, Stapedectomy, Stapes Surgery, Staples Piston, Surgery, Systematic, Systematic Review, Web of Knowledge, Web of Science

? Jindal, M., Riskalla, A., Jiang, D., Connor, S. and O’Connor, A.F. (2011), A systematic review of diffusion-weighted magnetic resonance imaging in the assessment of postoperative cholesteatoma. *Otology & Neurotology*, **32** (8), 1243-1249.

Full Text: 2011\Oto Neu32, 1243.pdf

Abstract: Objective: A systematic review to determine whether the diffusion-weighted (DW) magnetic resonance imaging scan can reliably detect residual or recurrent cholesteatoma after mastoid surgery. Design: A systematic review. Data Sources: Databases including EMBASE, MEDLINE, CINAHL, Web of Science, and Cochrane Review were searched for studies published without language restriction from the start of the databases. Additional studies were identified from cited references. Selection Criteria: Initial search identified 402 publications, of which 16 studies met the inclusion criteria for the systematic review. The DW imaging (DWI) scan was used to detect residual or recurrent cholesteatoma and subsequent second-look surgery was performed to correlate the findings. Review Methods: Studies were assessed for their selection of patients for radiologic investigations, imaging parameters, and subsequent surgery. Outcome measures included sensitivity, specificity, positive and negative predictive values of the DWI, and the incidence and size of residual or recurrent cholesteatoma. Results: Two different modalities of DWI sequences have been described. Eight studies with 225 patients analyzed echo-planar imaging (EPI) and 8 studies with 207 patients described the “non-EPI” scanning techniques. Non-EPI parameters are more reliable in identifying residual or recurrent cholesteatoma with sensitivity, specificity, and positive and negative predictive values of 91%, 96%, 97%, and 85%, respectively. Conclusion: The available evidence suggests that non-EPI such as half-Fourier acquisition single-shot turbo spin echo sequences are more reliable in identifying residual or recurrent cholesteatoma. This is a promising radiologic investigation; however, we think further studies are required with more patients and long-term results to establish its place as an alternative to a second-stage surgery after canal wall up surgery.

Keywords: Assessment, Canal Wall, Cholesteatoma, Cochrane, Computed-Tomography, Databases, Diffusion Magnetic Resonance Imaging, Embase, Epi, Imaging, Incidence, Magnetic, Magnetic Resonance Imaging, Mastoid Surgery, Mastoidectomy, Medline, Methods, Middle-Ear Cholesteatoma, MR, Patients, Publications, Recurrent Cholesteatoma, Residual Cholesteatoma, Review, Science, Sensitivity, Single-Shot, Sources, Specificity, Surgery, Systematic, Systematic Review, Turbo Spin-Echo, Tympanoplasty, Wall-up Tympanoplasty, Web of Science

# Title: Outlook on Agriculture

Full Journal Title: Outlook on Agriculture

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: Impact Factor

? Bezuidenhout, C.N. and Baier, T.J.A. (2011), An evaluation of the literature on integrated sugarcane production systems: A scientometrical approach. *Outlook on Agriculture*, **40** (1), 79-88.

Full Text: 2011\Out Agr40, 79.pdf

Abstract: Logistically, the sugarcane supply and processing chain up to the raw sugar stage is driven by biophysical push factors rather than market-related pull factors. Sugarcane systems do not align fully with lean and agile supply chain thinking. This paper synthesizes a range of issues governing the sugarcane supply and processing chain. This synthesis was achieved through scientometrical analyses of a worldwide collection of publications. The aim was to develop a conceptual sugarcane supply chain framework and to evaluate research trends, knowledge gaps and limitations. Key system properties were identified from the literature and co-word analyses were carried out. Several exploratory exercises were executed on the co-occurrence matrix using the PAJEK software. The literature generally focuses on material handling issues in isolation from other factors, such as collaboration, information sharing and innovation. Impacts of harvesting on downstream processes remain a pertinent research topic. Also, emerging alternative products impose new complexities on the supply chain. Conflicting grower miller relationships still suppress collaboration in most parts of the world. Mathematical modelling is a popular technique to produce innovative system improvements. Models, however, tend towards finding long-term solutions and lack the development of operational short-term applications. Production risk is an area that needs more focus. Researchers need to consider the supply chain more holistically, not only with respect to different dimensions in the chain (such as profitability, innovation, information and collaboration), but also within the local commercial socioeconomic regime.

Keywords: Co-Word Analysis, Collaboration, Continuous Improvement, Development, Guitang Group, Industrial Symbiosis, Information, Innovation, Literature, Management, Mill, Publications, Research, Researchers, Simulation-Model, Sugarcane, Supply Chain, Supply-Chain, Transport, Value Chain

# Title: Oxford Review of Education

Full Journal Title: [Oxford Review of Education](http://www.informaworld.com/smpp/title~db=all~content=t713440173)

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Subject Categories:

: Impact Factor

? Oancea, A. and Bridges, D. (2009), Philosophy of education in the UK: The historical and contemporary tradition. *Oxford Review of Education*, **35** (5), 553-568.

Full Text: Oxf Rev Edu35, 553.pdf

Abstract: Questions of a philosophical nature are central to every significant debate in the field of educational theory, policy, practice and research. Of all disciplines, philosophy is perhaps the one in which analysis, argumentation and critique are given most central, systematic and comprehensive attention. In addition, philosophy is connected with practice and policy through nurturing democratic conversation about education, and supporting practical deliberation at all levels and on all aspects of educational practice. In the UK, although systematically excluded from initial teacher education and much reduced in masters level programmes under the current funding regimes, the discipline has maintained considerable vitality and international reputation. Using data from the RAE and PESGB, supplemented with bibliometric data, we note that the important contributions from philosophy of education to education and education research do not, however, always reflect a thriving infrastructure. We conclude with a brief discussion of a number of key relationships which the philosophy of education community needs to develop further: with teacher education, educational research, ‘mainstream’ philosophy and educational policy communities.

Keywords: Environment, Research

# Title: Ozone-Science & Engineering

Full Journal Title: [Ozone-Science & Engineering](http://www.ingentaconnect.com/content/tandf/bose;jsessionid=6f4872qs0biai.henrietta)

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Environmental Sciences: Impact Factor 1.085, 42/126 (1999), Impact Factor 0.523, 86/127 (2000); Impact Factor 0.495, 125/140 (2005)

Notes: highly cited

? Glaze, W.H., Kang, J.W. and Chapin, D.H. (1987), The chemistry of water-treatment processes involving ozone, hydrogen-peroxide and ultraviolet-radiation. *Ozone-Science & Engineering*, **9** (4), 335-352.

Full Text: 1987\Ozo-Sci Eng9, 335.pdf

Abstract: Advanced oxidation processes are defined as those which involve the generation of hydroxyl radicals in sufficient quantity to affect water purification. The theoretical and (practical yield of OH from O3 at high pH, 03/H202, O3/UV and H2O2/UV systems is reviewed. New data is presented which illustrates the importance of direct photolysis in the O3/UV process, the effect of the H202:03 ratio in the O3/H2O2 process, and the impact of the low extinction coefficient of H2O2 in the H202/UV process.

? Jensen, J.N. and Tuan, Y.J. (1993), Chemical oxidation of thiocyanate ion by ozone. *Ozone-Science & Engineering*, **15** (4), 343-360.

Abstract: Thiocyanate ion and weak ammonia liquor from a coking operation were ozonated in a semi-batch reactor. In a typical case, 500 mg/L thiocyanate ion disappeared in 8 minutes using an ozone dose of 82 mg/min at pH 7. The cyanide ion concentration was maximized immediately after the thiocyanate ion disappeared. The ozone-to-thiocyanate ion stoichiometric molar ratio was found to be 2.0±0.2. The rate constants for the reaction of thiocyanate ion and cyanide ion with ozone under the typical conditions listed above were 5.4×104 L2/(mmole2-min) and 1.5 U(mmole-min), respectively.

Keywords: Ammonia, Coke Waste-Water, Cyanide, Ozonation, Ozone, Thiocyanate, Water, Weak Ammonia Liquor

? Rice, R.G. (1997), Applications of ozone for industrial wastewater treatment: A review. *Ozone-Science & Engineering*, **18** (6), 477-515.

Abstract: This paper presents a detailed review of published applications of ozone for treating many types of industrial wastewaters. Applications of ozone technologies to control pollution in full-scale industrial wastewater treatment plants in the areas of recycling marine aquaria, electroplating wastes, electronic chip manufacture, textiles, and petroleum refineries, are discussed. The rising acceptance of ozone as a replacement bleaching agent for paper pulp to eliminate the discharge of halogenated effluents from pulp bleaching plants also is traced. Newer applications for ozone in treating rubber additive wastewaters, landfill leachates, and detergents in municipal wastewaters are summarized briefly. The combination of ozone oxidation followed by biological treatment has been installed full-scale at a large German industrial chemical complex. Ozone coupled with ultraviolet radiation and/or hydrogen peroxide (advanced oxidation) is being utilized to destroy organic contaminants in groundwaters at munitions manufacturing plants and at Superfund sites (hazardous wastes). Ozone followed by activated carbon adsorption removes color and organics cost-effectively from North African phosphoric acid.

Keywords: Ozone, Industrial Wastewater Treatment, Marine Aquaria, Electroplating, Electronic Chip Manufacturing, Textiles, Refineries, Pulp Bleaching, Industrial Chemical Industry Wastewaters, Landfill Leachates, Hazardous Wastes, Industrial Phosphoric Acid, Petroleum Tank and Storage Facilities

? Dussert, B.W. and Kovacic, S.L. (1997), Impact of drinking water preozonation on granular activated carbon quality and performance. *Ozone-Science & Engineering*, **19** (1), 1-11.

Full Text: Ozo Sci Eng19, 1

Abstract: A bench-scale laboratory system was set up to study the impact of residual ozone on the properties and performance of granular activated carbon (GAC). Simulating a carbon service life of two years, the study demonstrated that the effect of residual ozone was minimal and was the same as aerated or nitrogen-purged waters. Dissolved oxygen did modify the surface properties of GAG, with some impact on the adsorptive properties of exposed carbon. However, after thermal reactivation, the physical and adsorptive properties were comparable to reactivated virgin carbon.

Keywords: Adsorption, Filters, Removal, Ozone, Ozone, Ozonation, Granular Activated Carbon, Drinking Water Treatment, Ozone Residual, GAC Properties, GAC Performance, GAC Thermal Reactivation, GAC Oxidation

? Qiang, Z., Adams, C. and Surampalli, R. (2004), Determination of ozonation rate constants for lincomycin and spectinomycin. *Ozone-Science & Engineering*, **26** (6), 525-537.

Full Text: Ozo Sci Eng26, 525

Abstract: Recent occurrences of pharmaceutical antibiotics in surface water, drinking water, and wastewater systems have gained significant attention due to their potential threats to human health. This study determined the absolute second-order rate constants of ozone with two amine-based antibiotics, namely, lincomycin and spectinomycin, using the stopped-flow technique under controlled ionic strength, buffer, and temperature. Results indicate that ozone reacts quickly with the selected antibiotics, and the reaction rate significantly depends on solution pH. For lincomycin, ozone attacks its free amine group and sulfur group with absolute rate constants of 2.76×106 M-1.s-1 (for neutral form) and 3.26×105 M-1.s-1 (for monoprotonated form), respectively. For spectinomycin, ozone attacks two free amine groups with absolute rate constants of 1.27×106 M-1.s-1 (for neutral form) and 3.30×105 M-1.s-1 (for monoprotonated form), respectively. These rate constants have been corrected to zero ionic strength. Protonated amine is nonreactive toward ozone. Model prediction indicates that lincomycin and spectinomycin can be effectively transformed by ozonation processes around neutral pH.

Keywords: Ozone, Rate Constants, Antibiotics, Lincomycin, Spectinomycin, Stopped-Flow Spectrophotometry, Dissociating Organic-Compounds, Inorganic-Compounds, Water Contaminants, Ozone, Pharmaceuticals, Antibiotics, Surface, Sulfonamide, Kinetics, Removal

? Yong, K.T., Wu, J.N. and Andrews, S. (2005), Heterogeneous catalytic ozonation of aqueous reactive dye. *Ozone-Science & Engineering*, **27** (4), 257-263.

Full Text: Ozo Sci Eng27, 257

Abstract: The aqueous solution of a model reactive dye, C.I. Reactive Blue 5, was ozonated in the presence of a heterogeneous catalyst, CuS. It was found that CuS was very effective for catalyzing the decolorization so that both treatment time and ozone consumption were significantly reduced. For I g/L of the reactive dye, the stoichiometric ratios of ozone to dye in catalyzed and noncatalyzed ozonations were 2.7 and 10.6 (moles of ozone consumed)/(moles of dye oxidized), respectively, and the optimum catalyst load was 0.4 g/L. Although the noncatalytic ozonation was pseudo-first-order and the apparent pseudo-first-order rate constant declined with initial dye concentration logarithmically, in contrast, the experimental results showed that the catalytic ozonation was pseudo-second-order and the apparent pseudo-second-order rate constant decreased with initial dye concentration semilogarithmically. It was observed that the efficacy of ozone decolorization was higher at low pH and a scavenger test revealed that the amount of free radicals were negligible during ozonation. The experimental data further indicated that increase in temperature would increase the rate of the catalytic ozonation, however, the increment in the rate was not significant beyond 20°C.

Keywords: Ozone, Catalytic Ozonation, Color Removal, Wastewater Treatment, Textile Effluent, Reactive Dye, Waste-Water, Decolorization, Ozone, Oxidation, Effluents, Acid

? Acero, J.L., Benitez, F.J., Real, F.J., Leal, A.I. and Sordo, A. (2005), Oxidation of esculetin, a model pollutant present in cork processing wastewaters, by chemical methods. *Ozone-Science & Engineering*, **27** (4), 317-326.

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Abstract: The ozonation of esculetin (6,7-dihydroxycoumarin), a major pollutant present in the wastewater generated in the cork industry, was accelerated at high pH, with apparent second-order rate constants in the range from 3.3×104 L/(mol(.)s) at pH = 2 to 8.4×107 L/(mol(.)s) at pH = 9. The acid-base equilibrium of esculetin was studied, resulting in a pK(a) value of 7.37. Taking into account this pK(a), the rate constants for the reaction between ozone and the un dissociated and dissociated forms of esculetin were 3.0×104 and L/(mol(.)s) 6.67×108 L/(mobs), respectively. Apparent first-order rate constants for the photolysis by U V irradiation were also evaluated, with values between 0.12×10-2 min-1 at pH = 2 and 1.15×10-2 min-1 at pH = 9, while the quantum yields or this photo-degradation reaction varied from 0.99×10-2 mol/Eins to 11.1×10-2 mol/Eins at these pHs. The Fentons reagent system was used for the generation of hydroxyl radicals, and the rate constant for the reaction between esculetin and these radicals was determined to be 1.06×1010 L/(mol(.)s). Finally, several chemical oxidation systems were used in the degradation of this pollutant: single oxidants (ozone, UV irradiation) and advanced oxidation processes (Fentons reagent, UV/H2O2, O3/H2O2, O3/UV, O3/H2O2/UV, and photo-Fenton system). The results revealed that the most efficient methods in terms of esculetin removal were ozonation among the single oxidants, and the photo-Fenton System among the combined processes.

Keywords: Ozone, Esculetin, Cork Processing Wastewater, UV Irradiation, Fenton’s Reagent, Advanced Oxidation Processes, Hydrogen-Peroxide, Aqueous-Solutions, Water-Treatment, Rate Constants, Ozone, Ozonation, Radiation, Photodegradation, Kinetics, Media