

# 代表論文

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## 代表論文

**Ho, Y.S.\*** (2004), Pseudo-isotherms using a second order kinetic expression constant. *Adsorption-Journal of the International Adsorption Society*, **10** (2), 151-158. (SCI)

代表論文中文譯名：二級動力學常數之偽等溫線

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Rank 1<sup>st</sup> in citation from 30 papers of *Adsorption-Journal of the International Adsorption Society* (2004), Last data updates: 28 September 2007

**Abstract:** The kinetics of four sorption systems, Cu/tree fern, Pb/tree fern, AB9/activated clay and BR18/activated clay have been studied based on the assumption of a pseudo-second order rate law. Pseudo-isotherms using the pseudo-second order kinetic expression constant have been developed to describe the four liquid-solid sorption systems. The experimental results have been analyzed using a pseudo-Langmuir and a pseudo-Redlich-Peterson isotherm. Both isotherms were found to represent the measured sorption data well. According to the evaluation using the pseudo-Langmuir equation, the monolayer sorption capacities were obtained to be 13.9, 46.6, 124 and 105 mg g<sup>-1</sup> for copper, lead, AB9 and BR18 respectively.

### **Subject Categories:**

Physical Chemistry: Impact Factor 0.590, 91/108 (2006)

Chemical Engineering: Impact Factor 0.590, 62/110 (2006)

### Cited by papers as follows:

1. Ofomaja, A.E. and Ho, Y.S. (2008), Kinetic biosorption study of cadmium onto coconut copra meal as biosorbent. *International Journal of Environment and Pollution*. In press
2. Kumar, K.V. and Porkodi, K. (2007), Mass transfer, kinetics and equilibrium studies for the biosorption of methylene blue using *Paspalum notatum*. *Journal of Hazardous Materials*, **146** (1-2), 214-226.
3. Porkodi, K. and Kumar, K.V. (2007), Equilibrium, kinetics and mechanism modeling and simulation of basic and acid dyes sorption onto jute fiber carbon: Eosin yellow, malachite green and crystal violet single component systems. *Journal of Hazardous Materials*, **143** (1-2), 311-327.
4. Weng, C.H., Tsai, C.Z., Chu, S.H. and Sharma, Y.C. (2007), Adsorption characteristics of copper(II) onto spent activated clay. *Separation and Purification Technology*, **54** (2), 187-197.
5. Janoš, P., Michálek, P. and Turek, L. (2007), Sorption of ionic dyes onto untreated low-rank coal - oxihumolite: A kinetic study. *Dyes and Pigments*, **74** (2), 363-370.
6. Kumar, K.V. and Sivanesan, S. (2006), Pseudo second order kinetics and pseudo isotherms for malachite green onto activated carbon: Comparison of linear and non-linear regression methods. *Journal of Hazardous Materials*, **136** (3), 721-726.
7. Ozsoy, H.D. and Kumbur, H. (2006), Adsorption of Cu(II) ions on cotton boll. *Journal of Hazardous Materials*, **136** (3), 911-916.
8. Goel, J., Kadirvelu, K., Rajagopal, C. and Garg, V.K. (2006), Cadmium(II) uptake from aqueous solution by adsorption onto carbon aerogel using a response surface methodological approach. *Industrial & Engineering Chemistry Research*, **45** (19), 6531-6537.
9. Ghosh, U.C., Bandyopadhyay, D., Manna, B. and Mandal, M. (2006), Hydrous iron(III)-tin(IV) binary mixed oxide: Arsenic adsorption behaviour from aqueous solution. *Water Quality Research Journal of Canada*, **41** (2), 198-209.
10. Kumar, K.V. and Sivanesan, S. (2006), Isotherm parameters for basic dyes onto activated carbon: Comparison of linear and non-linear method. *Journal of Hazardous Materials*, **129** (1-3), 147-150.
11. Yeddou, N. and Bensmaili, A. (2005), Kinetic models for the sorption of dye from aqueous solution by clay-wood sawdust mixture. *Desalination*, **185** (1-3), 499-508.
12. Ho, Y.S. (2005), Comment on "Two-stage batch sorber design using second-order kinetic model for the sorption of metal complex dyes onto pine sawdust" by Özacar, M. and Şengül, İ.A. *Biochemical Engineering Journal*, **23** (3), 291-292.
13. Ho, Y.S. (2005), Comment on "Adsorption of naphthalene on zeolite from aqueous solution" by C.F. Chang, C.Y. Chang, K.H. Chen, W.T. Tsai, J.L. Shie, Y.H. Chen. *Journal of Colloid and Interface Science*, **283** (1), 274-277.
14. Ho, Y.S. and Ofomaja, A.E. (2006), Pseudo-second-order model for lead ion sorption from aqueous solutions onto palm kernel fiber. *Journal of Hazardous Materials*, **129** (1-3), 137-142.

## 參考論文

### 參考論文 (一)

**Ho, Y.S.\*** (2003), Removal of copper ions from aqueous solution by tree fern. *Water Research*, **37** (10), 2323-2330. (SCI)

參考著作中文譯名：蛇木屑去除水溶液中銅離子之研究

Document type: Article	Language: English	Cited references: 18	Times cited: 93
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Rank 1<sup>st</sup> in citation from 529 articles of *Water Research* (2003), Last data updates: 28 September 2007

Rank 19<sup>th</sup> in *Water Research* and rank 2<sup>nd</sup> in Taipei Medical University; rank 1157<sup>th</sup> in the world and rank 6<sup>th</sup> in Taiwan, in the field of Environment/Ecology. (Essential Science Indicators was updated on September 1, 2007 to cover a ten-year plus six-month period, January 1, 1997-June 30, 2007.)

Abstract: Tree fern, an agricultural by-product, was used for the sorptive removal of copper ions from aqueous solution. The experimental data was analysed by Langmuir, Freundlich and Redlich-Peterson isotherms. The equilibrium sorption capacity of copper ions was determined from the Langmuir equation and found to be 11.7 mg/g. A batch sorption model, based on the assumption of the pseudo-second-order mechanism, was developed to predict the rate constant of sorption, the equilibrium sorption capacity and the initial sorption rate with the effect of initial copper ion concentration and the tree fern dose. Various thermodynamic parameters, such as  $\Delta G^0$ ,  $\Delta H^0$  and  $\Delta S^0$ , have been calculated. The thermodynamics of copper ion/tree fern system indicates spontaneous and endothermic nature of the process.

#### **Subject Categories:**

Environmental Engineering: Impact Factor 2.459, 4/35 (2006)

Environmental Sciences: Impact Factor 2.459, 25/144 (2006)

Water Resources: Impact Factor 2.459, 1/57 (2006)

Ho, Y.S.\* (2003), Removal of copper ions from aqueous solution by tree fern. *Water Research*, 37 (10), 2323-2330.

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### Cited by papers as fallows:

1. Saltalı, K., Sari, A. and Aydın, M. (2007), Removal of ammonium ion from aqueous solution by natural Turkish (Yıldızeli) zeolite for environmental quality. *Journal of Hazardous Materials*. In press
2. Mukhopadhyay, M., Noronha, S.B. and Suraishkumar, G.K. (2007), Kinetic modeling for the biosorption of copper by pretreated *Aspergillus niger* biomass. *Bioresource Technology*. In press
3. Malkoc, E. and Nuhoglu, Y. (2007), Potential of tea factory waste for chromium(VI) removal from aqueous solutions: Thermodynamic and kinetic studies. *Separation and Purification Technology*. In press
4. Hanafiah, M.A.K.M., Ngah, W.S.W., Ibrahim, S.C., Zakaria, H. and Ilias, W.A.H.W. (2006), Kinetics and thermodynamic study of lead adsorption from aqueous solution onto rubber (*Hevea brasiliensis*) leaf powder. *Journal of Applied Sciences*, **6** (13), 2762-2767.
5. Smičiklas, I., Dimović, S. and Plećaš, I. (2007), Removal of  $\text{Cs}^{1+}$ ,  $\text{Sr}^{2+}$  and  $\text{Co}^{2+}$  from aqueous solutions by adsorption on natural clinoptilolite. *Applied Clay Science*, **35** (1-2), 139-144.
6. Mukhopadhyay, M., Noronha, S.B. and Suraishkumar, G.K. (2007), Kinetic modeling for the biosorption of copper by pretreated *Aspergillus niger* biomass. *Bioresource Technology*, **98** (9), 1781-1787.
7. Wu, C.H. (2007), Studies of the equilibrium and thermodynamics of the adsorption of  $\text{Cu}^{2+}$  onto as-produced and modified carbon nanotubes. *Journal of Colloid and Interface Science*, **311** (2), 338-346.
8. Wang, X.S., Hu, H.Q. and Sun, C. (2007), Removal of copper(II) ions from aqueous solutions using Na-mordenite. *Separation Science and Technology*, **42** (6), 1215-1230.
9. Bhattacharyya, K.G. and Sen Gupta, S. (2007), Adsorptive accumulation of Cd(II), Co(II), Cu(II), Pb(II), and Ni(II) from water on montmorillonite: Influence of acid activation. *Journal of Colloid and Interface Science*, **310** (2), 411-424.
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.
11. Bhattacharyya, K.G. and Sen Gupta, S. (2007), Influence of acid activation of kaolinite and montmorillonite on adsorptive removal of Cd(II) from water. *Industrial & Engineering Chemistry Research*, **46** (11), 3734-3742.
12. Benaïssa, H. and Elouchdi, M.A. (2007), Removal of copper ions from aqueous solutions by dried sunflower leaves. *Chemical Engineering and Processing*, **46** (7), 614-622.
13. Malkoc, E. and Nuhoglu, Y. (2007), Potential of tea factory waste for chromium(VI) removal from aqueous solutions: Thermodynamic and kinetic studies. *Separation and Purification Technology*, **54** (3), 291-298.
14. Li, Q., Zhai, J.P., Zhang, W.Y., Wang, M.M. and Zhou, J. (2007), Kinetic studies of adsorption of Pb(II), Cr(III) and Cu(II) from aqueous solution by sawdust and modified peanut husk. *Journal of Hazardous Materials*, **141** (1), 163-167.
15. Saltalı, K., Sari, A. and Aydın, M. (2007), Removal of ammonium ion from aqueous solution by natural Turkish (Yıldızeli) zeolite for environmental quality. *Journal of Hazardous Materials*, **141** (1), 258-263.

16. Wang, X.S., Wang, J. and Sun, C. (2006), Removal of lead(II) ions from aqueous solutions using a modified cellulose adsorbent. *Adsorption Science & Technology*, **24** (6), 517-530.
17. Janoš, P., Sypecká, J., Mlčkovská, P., Kuráň, P. and Pilařová, V. (2007), Removal of metal ions from aqueous solutions by sorption onto untreated low-rank coal (oxihumolite). *Separation and Purification Technology*, **53** (3), 322-329.
18. Marungrueng, K. and Pavasant, P. (2007), High performance biosorbent (*Caulerpa lentillifera*) for basic dye removal. *Bioresource Technology*, **98** (8), 1567-1572.
19. Crini, G., Peindy, H.N., Gimbert, F. and Robert, C. (2007), Removal of C.I. Basic Green 4 (Malachite Green) from aqueous solutions by adsorption using cyclodextrin-based adsorbent: Kinetic and equilibrium studies. *Separation and Purification Technology*, **53** (1), 97-110.
20. Barriada, J.L., Herrero, R., Prada-Rodríguez, D. and Sastre de Vicente, M.E. (2007), Waste spider crab shell and derived chitin as low-cost materials for cadmium and lead removal. *Journal of Chemical Technology & Biotechnology*, **82** (1), 39-46.
21. O'Connell, D.W., Birkinshaw, C. and O'Dwyer, T.F. (2006), Removal of lead(II) ions from aqueous solutions using a modified cellulose adsorbent. *Adsorption Science & Technology*, **24** (4), 337-348.
22. Wang, X.S. and Qin, Y. (2006), Removal of Ni(II), Zn(II) and Cr(VI) from aqueous solution by *Alternanthera philoxeroides* biomass. *Journal of Hazardous Materials*, **138** (3), 582-588.
23. O'Connell, D.W., Birkinshaw, C. and O'Dwyer, T.F. (2006), A modified cellulose adsorbent for the removal of nickel(II) from aqueous solutions. *Journal of Chemical Technology & Biotechnology*, **81** (11), 1820-1828.
24. Qin, F., Wen, B., Shan, X.Q., Xie, Y.N., Liu, T., Zhang, S.Z. and Khan, S.U. (2006), Mechanisms of competitive adsorption of Pb, Cu, and Cd on peat. *Environmental Pollution*, **144** (2), 669-680.
25. Dali-Youcef, N., Ouddane, B. and Derriche, Z. (2006), Adsorption of zinc on natural sediment of Tafna River (Algeria). **137** (3), 1263-1270.
26. Ho, Y.S. and Ofomaja, A.E. (2006), Kinetic studies of copper ion adsorption on palm kernel fibre. *Journal of Hazardous Materials*, **137** (3), 1796-1802.
27. Pal, S., Lee, K.H., Kim, J.U., Han, S.H. and Song, J.M. (2006), Adsorption of cyanuric acid on activated carbon from aqueous solution: Effect of carbon surface modification and thermodynamic characteristics. *Journal of Colloid and Interface Science*, **303** (1), 39-48.
28. Bhattacharyya, K.G. and Gupta, S.S. (2006), Adsorption of chromium(VI) from water by clays. *Industrial & Engineering Chemistry Research*, **45** (21), 7232-7240.
29. Chingombe, P., Saha, B. and Wakeman, R.J. (2006), Sorption of atrazine on conventional and surface modified activated carbons. *Journal of Colloid and Interface Science*, **302** (2), 408-416.
30. Ho, Y.S. (2006), Review of second-order models for adsorption systems. *Journal of Hazardous Materials*, **136** (3), 681-689.
31. Bhattacharyya, K.G. and Gupta, S.S. (2006), Kaolinite, montmorillonite, and their modified derivatives as adsorbents for removal of Cu(II) from aqueous solution. *Separation and Purification Technology*, **50** (3), 388-397.
32. Singh, K.K., Talat, M. and Hasan, S.H. (2006), Removal of lead from aqueous



- solutions by agricultural waste maize bran. *Bioresource Technology*, **97** (16), 2124-2130.
33. Pehlivan, E., Cetin, S. and Yanik, B.H. (2006), Equilibrium studies for the sorption of zinc and copper from aqueous solutions using sugar beet pulp and fly ash. *Journal of Hazardous Materials*, **135** (1-3), 193-199.
  34. Ho, Y.S. and Ofomaja, A.E. (2006), Biosorption thermodynamics of cadmium on coconut copra meal as biosorbent. *Biochemical Engineering Journal*, **30** (2), 117-123.
  35. Senthilkumaar, S., Kalaamani, P., Porkodi, K., Varadarajan, P.R. and Subburaam, C.V. (2006), Adsorption of dissolved Reactive red dye from aqueous phase onto activated carbon prepared from agricultural waste. *Bioresource Technology*, **97** (14), 1618-1625.
  36. Nacéra, Y. and Aicha, B. (2006), Equilibrium and kinetic modelling of methylene blue biosorption by pretreated dead *streptomyces rimosus*: Effect of temperature. *Chemical Engineering Journal*, **119** (23), 121-125.
  37. Lodeiro, P., Barriada, J.L., Herrero, R. and Sastre de Vicente, M.E. (2006), The marine macroalga *Cystoseira baccata* as biosorbent for cadmium(II) and lead(II) removal: Kinetic and equilibrium studies. *Environmental Pollution*, **142** (2), 264-273.
  38. Chingombe, P., Saha, B. and Wakeman, R.J. (2006), Effect of surface modification of an engineered activated carbon on the sorption of 2,4-dichlorophenoxyacetic acid and benazolin from water. *Journal of Colloid and Interface Science*, **297** (2), 434-442.
  39. Crini, G. (2006), Non-conventional low-cost adsorbents for dye removal: A review. *Bioresource Technology*, **97** (9), 1061-1085.
  40. Bhattacharyya, K.G. and Gupta, S.S. (2006), Pb(II) uptake by kaolinite and montmorillonite in aqueous medium: Influence of acid activation of the clays. *Colloids and Surfaces A-Physicochemical and Engineering Aspects*, **277** (1-3), 191-200.
  41. Ferruti, P., Ranucci, E., Bianchi, S., Falciola, L., Mussini, P.R. and Ross, M. (2006), Novel polyamidoamine-based hydrogel with an innovative molecular architecture as a  $\text{Co}^{2+}$ -,  $\text{Ni}^{2+}$ -, and  $\text{Cu}^{2+}$ -sorbing material: Cyclovoltammetry and extended X-ray absorption fine structure studies. *Journal of Polymer Science Part A: Polymer Chemistry*, **44** (7), 2316-2327.
  42. 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.
  43. Wang, X.S., Qin, Y. and Li, Z.F. (2006), Biosorption of zinc from aqueous solutions by rice bran: Kinetics and equilibrium studies. *Separation Science and Technology*, **41** (4), 747-756.
  44. Gupta S.S. and Bhattacharyya, K.G. (2006), Removal of Cd(II) from aqueous solution by kaolinite, montmorillonite and their poly(oxo zirconium) and tetrabutylammonium derivatives. *Journal of Hazardous Materials*, **128** (2-3), 247-257.
  45. O'Connell, D.W., Birkinshaw, C. and O'Dwyer, T.F. (2006), A chelating cellulose adsorbent for the removal of Cu(II) from aqueous solutions. *Journal of Applied Polymer Science*, **99** (6), 2888-2897.

46. Weng, C.H. and Pan, Y.F. (2006), Adsorption characteristics of methylene blue from aqueous solution by sludge ash. *Colloids and Surfaces A-Physicochemical and Engineering Aspects*, **274** (1-3), 154-162.
47. Crini, G. and Peindy, H.N. (2006), Adsorption of C.I. Basic Blue 9 on cyclodextrin-based material containing carboxylic groups. *Dyes and Pigments*, **70** (3), 204-211.
48. Yan, C.Z., Wang, S.R., Zeng, A.Y., Jin, X.C., Xu, Q.J. and Zhao, J.Z. (2005), Equilibrium and kinetics of copper(II) biosorption by *Myriophyllum spicatum* L.. *Journal of Environmental Sciences-China*, **17** (6), 1025-1029.
49. Ramesh, A., Lee, D.J. and Wong, J.W.C. (2005), Thermodynamic parameters for adsorption equilibrium of heavy metals and dyes from wastewater with low-cost adsorbents. *Journal of Colloid and Interface Science*, **291** (2), 588-592.
50. Kumar, K.V. and Kumaran, A. (2005), Removal of Methylene blue by mango seed kernel powder. *Biochemical Engineering Journal*, **27** (1), 83-93.
51. Horsfall, Jr., M. and Spiff, A.I. (2005), Effects of temperature on the sorption of  $Pb^{2+}$  and  $Cd^{2+}$  from aqueous solution by *Caladium bicolor* (Wild Cocoyam) biomass. *Electronic Journal of Biotechnology*, **8** (2), 162-169.
52. Ringot, D., Lerzy, B., Bonhoure, J.P., Auclair, E., Oriol, E. and Larondelle, Y. (2005), Effect of temperature on in vitro ochratoxin A biosorption onto yeast cell wall derivatives. *Process Biochemistry*, **40** (9), 3008-3016.
53. Aksu, Z. and İsoğlu, İ.A. (2005), Removal of copper(II) ions from aqueous solution by biosorption onto agricultural waste sugar beet pulp. *Process Biochemistry*, **40** (9), 3031-3044.
54. Singh, K.K., Rastogi, R. and Hasan, S.H. (2005), Removal of Cr(VI) from wastewater using rice bran. *Journal of Colloid and Interface Science*, **290** (1), 61-68.
55. Lodeiro, P., Rey-Castro, C., Barriada, J.L., Sastre de Vicente, M.E. and Herrero, R. (2005), Biosorption of cadmium by the protonated macroalga *Sargassum muticum*: Binding analysis with a nonideal, competitive, and thermodynamically consistent adsorption (NICCA) model. *Journal of Colloid and Interface Science*, **289** (2), 352-358.
56. Özcan, A., Özcan, A.S., Tunali, S., Akar, T. and Kiran, I. (2005), Determination of the equilibrium, kinetic and thermodynamic parameters of adsorption of copper(II) ions onto seeds of *Capsicum annum*. *Journal of Hazardous Materials*, **124** (1-3), 200-208.
57. Lodeiro, P., Cordero, B., Barriada, J.L., Herrero, R. and Sastre de Vicente, M.E. (2005), Biosorption of cadmium by biomass of brown marine macroalgae. *Bioresource Technology*, **96** (16), 1796-1803.
58. Ramesh, A., Lee, D.J. and Wong, J.W.C. (2005), Adsorption equilibrium of heavy metals and dyes from wastewater with low-cost adsorbents: A review. *Journal of the Chinese Institute of Chemical Engineers*, **36** (3), 203-222.
59. Maity, S., Chakravarty, S., Bhattacharjee, S. and Roy, B.C. (2005), A study on arsenic adsorption on polymetallic sea nodule in aqueous medium. *Water Research*, **39** (12), 2579-2590.
60. Bhat, S.C., Goswami, S., Palchoudhuri, S., Manna, B.R. and Ghosh, U.C. (2005), Synthetic hydrous titanium(IV) oxide (HTO): Adsorptive removal of lead(II) from the contaminated industrial waste water. *Journal of the Indian Chemical Society*,

- 82** (7), 632-636.
61. Ugurlu, M., Gurses, A., Yalcin, M. and Dogar, C. (2005), Removal of phenolic and lignin compounds from bleached kraft mill effluent by fly ash and sepiolite. *Adsorption-Journal of the International Adsorption Society*, **11** (1), 87-97.
  62. Kumar, K.V. and Sivanesan, S. (2005), Comparison of linear and non-linear method in estimating the sorption isotherm parameters for safranin onto activated carbon. *Journal of Hazardous Materials*, **123** (1-3), 288-292.
  63. Zeledón-Toruño, Z., Lao-Luque, C. and Solé-Sardans, M. (2005), Nickel and copper removal from aqueous solution by an immature coal (leonardite): effect of pH, contact time and water hardness. *Journal of Chemical Technology & Biotechnology*, **80** (6), 649-656.
  64. Vadivelan, V. and Kumar, K.V. (2005), Equilibrium, kinetics, mechanism, and process design for the sorption of Methylene blue onto rice husk. *Journal of Colloid and Interface Science*, **286** (1), 90-100.
  65. Ho, Y.S. (2005), Comment on ‘Biosorption of cadmium using the fungus *Aspergillus niger*’. by Barros, L.M., Macedo, G.R., Duarte, M.M.L., Silva, E.R and Lobato, A.K.C.L. *Brazilian Journal of Chemical Engineering*, **22** (2), 319-322.
  66. Ho, Y.S. (2005), Effect of pH on lead removal from water using tree fern as the sorbent. *Bioresource Technology*, **96** (11), 1292-1296.
  67. Ahmad, R., Begum, S., Hoek, E.M.V., Karanfil, T., Genceli, E.A., Yadav, A., Trivedi, P. and Zhang, C.L. (2004), Physico-chemical processes. *Water Environment Research*, **76** (6), 823-1002.
  68. Khan, E., Huang, C.P. and Reed, B.E. (2004), Hazardous waste treatment technologies. *Water Environment Research*, **76** (6), 1872-1966.
  69. Ho, Y.S. (2005), Comment on “Adsorption of naphthalene on zeolite from aqueous solution” by C.F. Chang, C.Y. Chang, K.H. Chen, W.T. Tsai, J.L. Shie, Y.H. Chen. *Journal of Colloid and Interface Science*, **283** (1), 274-277.
  70. Zheng, S.K., Yang, Z.F., Jo, D.H., Park, Y.H. and Ho, Y.S. (2005), Comment on “Removal of chlorophenols from groundwater by chitosan sorption”. *Water Research*, **39** (1), 264-268.
  71. Ho, Y.S. (2004), Erratum to “Removal of copper ions from aqueous solution by tree fern”: [Water Res. 37 (2003) 2323–2330]. *Water Research*, **38** (20), 4536-4537.
  72. Bhattacharyya, K.G. and Sharma, A. (2005), Kinetics and thermodynamics of Methylene Blue adsorption on Neem (*Azadirachta indica*) leaf powder. *Dyes and Pigments*, **65** (1), 51-59.
  73. Wang, X.S. and Qin, Y. (2005), Equilibrium sorption isotherms for of Cu<sup>2+</sup> on rice bran. *Process Biochemistry*, **40** (2), 677-680.
  74. Ho, Y.S. (2004), Comment on “Sorption of basic dyes from aqueous solution by activated sludge” [J. Hazard. Mater. 108 (2004) 183–188]. *Journal of Hazardous Materials*, **114** (1-3), 241-245.
  75. Lee, C.I., Yang, W.F. and Hsieh, C.I. (2004), Removal of Cu(II) from aqueous solution in a fluidized-bed reactor. *Chemosphere*, **57** (9), 1173-1180.
  76. Ho, Y.S., Chiang, T.H. and Hsueh, Y.M. (2005), Removal of basic dye from aqueous solution using tree fern as a biosorbent. *Process Biochemistry*, **40** (1), 119-124.
  77. Lodeiro, P., Cordero, B., Grille, Z., Herrero, R. and Sastre de Vicente, M.E. (2004),

- Physicochemical studies of Cadmium(II) biosorption by the invasive alga in Europe, *Sargassum muticum*. *Biotechnology and Bioengineering*, **88** (2), 237-247.
78. Zeng, L. (2004), Arsenic adsorption from aqueous solutions on an Fe(III)-Si binary oxide adsorbent. *Water Quality Research Journal of Canada*, **39** (3), 269-277.
  79. Özer, A., Özer, D. and Özer, A. (2004), The adsorption of copper(II) ions on to dehydrated wheat bran (DWB): Determination of the equilibrium and thermodynamic parameters. *Process Biochemistry*, **39** (12), 2183-2191.
  80. Ho, Y.S. (2004), Pseudo-isotherms using a second order kinetic expression constant. *Adsorption-Journal of the International Adsorption Society*, **10** (2), 151-158.
  81. Bektaş, N., Ağım, B.A. and Kara, S. (2004), Kinetic and equilibrium studies in removing lead ions from aqueous solutions by natural sepiolite. *Journal of Hazardous Materials*, **112** (1-2), 115-122.
  82. Ho, Y.S. (2004), Comment on "Removal of copper from aqueous solution by aminated and protonated mesoporous aluminas: kinetics and equilibrium," by S. Rengaraj, Y. Kim, C.K. Joo, and J. Yi. *Journal of Colloid and Interface Science*, **276** (1), 255-258.
  83. Ho, Y.S. (2004), Comment on "Arsenic removal using mesoporous alumina prepared via a templating method". *Environmental Science & Technology*, **38** (11), 3214-3215.
  84. Ho, Y.S. (2004), "Kinetic modeling and equilibrium studies during cadmium biosorption by dead *Sargassum* sp biomass" by Cruz, C.C.V., da Costa, A.C.A., Henriques, C.A., Luna, A.S. *Bioresource Technology*, **93** (3), 321-323.
  85. Ho, Y.S. (2004), Comment on "Removal of heavy metal ions by modified sawdust of walnut" by Bulut, Y. and Tez, Z. *Fresenius Environmental Bulletin*, **13** (4), 370-373.
  86. Fiol, W., Poch, J. and Villaescusa, I. (2004), Chromium(VI) uptake by grape stalks wastes encapsulated in calcium alginate beads: Equilibrium and kinetics studies. *Chemical Speciation and Bioavailability*, **16** (1-2), 25-33.
  87. Horsfall, Jr., M. and Spiff, A.I. Effects of temperature on the sorption of Pb<sup>2+</sup> and Cd<sup>2+</sup> from aqueous solution by *Caladium bicolor* (Wild Cocoyam) biomass. *Electronic Journal of Biotechnology* [online]. 15 August 2005, vol. 8, no. 2 [cited 17 September 2005]. Available from: <http://www.ejbiotechnology.info/content/vol8/issue2/full/4/index.html>. ISSN 0717-3458.
  88. Cordero, B., Lodeiro, P., Herrero R. and Sastre de Vicente, M.E. (2004), Biosorption of cadmium by *Fucus spiralis*. *Environmental Chemistry*, **1** (3), 180-187.
  89. Huang, C.T. (2004), Removal of lead ions from aqueous solution by using tree fern. *M.Sc. Thesis*, Taipei Medical University, Taipei, Taiwan.
  90. Fiol, W., Poch, J. and Villaescusa, I. (2004), Chromium(VI) uptake by grape stalks wastes encapsulated in calcium alginate beads: Equilibrium and kinetics studies. *Chemical Speciation and Bioavailability*, **16** (1-2), 25-33.
  91. Horsfall, Jr., M. and Spiff, A.I. Effects of temperature on the sorption of Pb<sup>2+</sup> and Cd<sup>2+</sup> from aqueous solution by *Caladium bicolor* (Wild Cocoyam) biomass. *Electronic Journal of Biotechnology* [online]. 15 August 2005, vol. 8, no. 2 [cited 17 September 2005]. Available from:

<http://www.ejbiotechnology.info/content/vol8/issue2/full/4/index.html>. ISSN 0717-3458.

92. Cordero, B., Lodeiro, P., Herrero R. and Sastre de Vicente, M.E. (2004), Biosorption of cadmium by *Fucus spiralis*. *Environmental Chemistry*, **1** (3), 180-187.
93. Huang, C.T. (2004), Removal of lead ions from aqueous solution by using tree fern. *M.Sc. Thesis*, Taipei Medical University, Taipei, Taiwan.

## 參考論文 (二)

**Ho, Y.S.** and McKay, G. (2003), Sorption of dyes and copper ions onto biosorbents. *Process Biochemistry*, **38** (7), 1047-1061. (SCI)

參考著作中文譯名：生物吸附劑吸附染料與銅離子之研究

Document type: Article	Language: English	Cited references: 29	Times cited: 48
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Rank 1<sup>st</sup> in citation from 174 papers of *Process Biochemistry* (2003), Last data updates: 28 September 2007

Abstract: The batch kinetic sorption of copper ions and dyes onto two low-cost biosorbents, peat and pith, has been studied. A model, based on the assumption of a pseudo-second-order mechanism, has been developed to predict the rate constant of sorption, the equilibrium capacity and initial sorption rate with the effect of initial concentration, particle size, temperature and sorbent concentration dose. An activation energy of sorption has also been evaluated as 7.13 kJ/mol for the sorption of BB69 onto pith.

### Subject Categories:

Biochemistry & Molecular Biology: Impact Factor 2.008, 160/262 (2006)

Biotechnology & Applied Microbiology: Impact Factor 2.008, 66/140 (2006)

Chemical Engineering: Impact Factor 2.008, 10/110 (2006)

### Cited by papers as follows:

1. Eren, Z. and Acar, F.N. (2007), Equilibrium and kinetic mechanism for Reactive Black 5 sorption onto high lime Soma fly ash. *Journal of Hazardous Materials*, **143** (1-2), 226-232.
2. Han, R.P., Wang, Y.F., Han, P., Shi, J., Yang, J. and Lu, Y.S. (2006), Removal of methylene blue from aqueous solution by chaff in batch mode. *Journal of Hazardous Materials*, **137** (1), 550-557.
3. Kumar, K.V. and Porkodi, K. (2007), Mass transfer, kinetics and equilibrium studies for the biosorption of methylene blue using *Paspalum notatum*. *Journal of Hazardous Materials*, **146** (1-2), 214-226.
4. Hameed, B.H., Ahmad, A.A. and Aziz, N. (2007), Isotherms, kinetics and thermodynamics of acid dye adsorption on activated palm ash. *Chemical Engineering Journal*, **133** (1-3), 195-203.
5. Doğan, M., Özdemir, Y. and Alkan, M. (2007), Adsorption kinetics and mechanism of cationic methyl violet and methylene blue dyes onto sepiolite. *Dyes and Pigments*, **75** (3), 701-713.
6. Laasri, L., Elamrani, M.K. and Cherkaoui, O. (2007), Removal of two cationic dyes from a textile effluent by filtration-adsorption on wood sawdust. *Environmental Science and Pollution Research*, **14** (4), 237-240.
7. Fernandes, A.N., Almeida, C.A.P., Menezes, C.T.B., Debacher, N.A. and Sierra, M.M.D. (2007), Removal of methylene blue from aqueous solution by peat. *Journal of Hazardous Materials*, **144** (1-2), 412-419.
8. El Qada, E.N., Allen, S.J. and Walker, G.M. (2007), Kinetic modeling of the adsorption of basic dyes onto steam-activated bituminous coal. *Industrial & Engineering Chemistry Research*, **46** (14), 4764-4771.
9. Wang, X.S., Hu, H.Q. and Sun, C. (2007), Removal of copper(II) ions from aqueous solutions using Na-mordenite. *Separation Science and Technology*, **42** (6), 1215-1230.
10. Saravanabhavan, S., Sreeram, K.J., Rao, J.R. and Nair, B.U. (2007), The use of toxic solid waste for the adsorption of dyes from waste streams. *Journal of Chemical Technology and Biotechnology*, **82** (4), 407-413.
11. Wang, X.S., Huang, J., Hu, H.Q., Wang, J. and Qin, Y. (2007), Determination of kinetic and equilibrium parameters of the batch adsorption of Ni(II) from aqueous solutions by Na-mordenite. *Journal of Hazardous Materials*, **142** (1-2), 468-476.
12. Batzias, F.A. and Sidiras, D.K. (2007), Simulation of dye adsorption by beech sawdust as affected by pH. *Journal of Hazardous Materials*, **141** (3), 668-679.
13. Aksu, Z. and Isoglu, I.A. (2007), Use of dried sugar beet pulp for binary biosorption of Gemazol Turquoise Blue-G reactive dye and copper(H) ions: Equilibrium modeling. *Chemical Engineering Journal*, **127** (1-3), 177-188.
14. Ncibi, M.C., Mahjoub, B. and Seffen, M. (2006), Studies on the biosorption of textile dyes from aqueous solutions using *Posidonia oceanica* (L.) leaf sheath fibres. *Adsorption Science & Technology*, **24** (6), 461-473.
15. Meenakshi, S. and Viswanathan, N. (2007), Identification of selective ion-exchange resin for fluoride sorption. *Journal of Colloid and Interface Science*, **308** (2), 438-450.
16. Bayramoğlu, G., Şenkal, F.B., Çelik, G. and Arıca, M.Y. (2007), Preparation and characterization of sulfonyl-hydrazine attached poly(styrene-divinylbenzene) beads for separation of albumin. *Colloids and Surfaces A-Physicochemical and Engineering Aspects*, **294** (1-3), 56-63.
17. Chadlia, A. and Farouk, M.M. (2007), Removal of basic blue 41 from aqueous

- solution by carboxymethylated *Posidonia oceanica*. *Journal of Applied Polymer Science*, **103** (2), 1215-1225.
18. Cestari, A.R., Vieira, E.F.S., Vieira, G.S. and de Almeida, L.E. (2006), The removal of anionic dyes from aqueous solutions in the presence of anionic surfactant using aminopropylsilica: A kinetic study. *Journal of Hazardous Materials*, **138** (1), 133-141.
  19. Doğan, M., Alkan, M., Demirbaş, Ö., Özdemir, Y. and Özmetin, C. (2006), Adsorption kinetics of maxilon blue GRL onto sepiolite from aqueous solutions. *Chemical Engineering Journal*, **124** (1-3), 89-101.
  20. Inbaraj, B.S., Chien, J.T., Ho, G.H., Yang, J. and Chen, B.H. (2006), Equilibrium and kinetic studies on sorption of basic dyes by a natural biopolymer poly( $\gamma$ -glutamic acid). *Biochemical Engineering Journal*, **31** (3), 204-215.
  21. Maliyekkal, S.M., Sharma, A.K. and Philip, L. (2006), Manganese-oxide-coated alumina: A promising sorbent for defluoridation of water. *Water Research*, **40** (19), 3497-3506.
  22. Ozmihci, S. and Kargi, F. (2006), Utilization of powdered waste sludge (PWS) for removal of textile dyestuffs from wastewater by adsorption. *Journal of Environmental Management*, **81** (3), 307-314.
  23. Malkoc, E. (2006), Ni(II) removal from aqueous solutions using cone biomass of *Thuja orientalis*. *Journal of Hazardous Materials*, **137** (2), 899-908.
  24. Adak, A. and Pal, A. (2006), Removal kinetics and mechanism for crystal violet uptake by surfactant-modified alumina. *Journal of Environmental Science and Health Part A-Toxic, Hazardous Substances & Environmental Engineering*, **41** (10), 2283-2297.
  25. Cochrane, E.L., Lu, S., Gibb, S.W. and Villaescusa, I. (2006), A comparison of low-cost biosorbents and commercial sorbents for the removal of copper from aqueous media. *Journal of Hazardous Materials*, **137** (1), 198-206.
  26. Inbaraj, B.S., Chiu, C.P., Ho, G.H., Yang, J. and Chen, B.H. (2006), Removal of cationic dyes from aqueous solution using an anionic poly- $\gamma$ -glutamic acid-based adsorbent. *Journal of Hazardous Materials*, **137** (1), 226-234.
  27. Ho, Y.S. (2006), Review of second-order models for adsorption systems. *Journal of Hazardous Materials*, **136** (3), 681-689.
  28. Hsieh, C.H., Lo, S.L., Kuan, W.H. and Chen, C.L. (2006), Adsorption of copper ions onto microwave stabilized heavy metal sludge. *Journal of Hazardous Materials*, **136** (2), 338-344.
  29. Wang, Y., Mu, Y., Zhao, Q.B. and Yu, H.Q. (2006), Isotherms, kinetics and thermodynamics of dye biosorption by anaerobic sludge. *Separation and Purification Technology*, **50** (1), 1-7.
  30. Brouers, F. and Sotolongo-Costa, O. (2006), Generalized fractal kinetics in complex systems (application to biophysics and biotechnology). *Physica A-Statistical Mechanics and Its Applications*, **368** (1), 165-175.
  31. Kumar, K.V. and Sivanesan, S. (2006), Selection of optimum sorption kinetics: Comparison of linear and non-linear method. *Journal of Hazardous Materials*, **134** (1-3), 277-279.
  32. Gürses, A., Doğan, Ç., Yalçın, M., Açıkyıldız, M., Bayrak, R. and Karaca, S. (2006), The adsorption kinetics of the cationic dye, methylene blue, onto clay. *Journal of Hazardous Materials*, **131** (1-3), 217-228.
  33. Crini, G. (2006), Non-conventional low-cost adsorbents for dye removal: A review. *Bioresource Technology*, **97** (9), 1061-1085.
  34. Ho, Y.S. (2006), Second-order kinetic model for the sorption of cadmium onto tree



- fern: A comparison of linear and non-linear methods. *Water Research*, **40** (1), 119-125.
35. Turabik, M. and Kumbur, H. (2005), Equilibrium and kinetic modelling of adsorption of a basic dye on bentonite. *Fresenius Environmental Bulletin*, **14** (12A), 1105-1114.
  36. Yeddou, N. and Bensmaili, A. (2005), Kinetic models for the sorption of dye from aqueous solution by clay-wood sawdust mixture. *Desalination*, **185** (1-3), 499-508.
  37. Özcan, A.S. and Özcan, A. (2005), Adsorption behavior of a disperse dye on polyester in supercritical carbon dioxide. *Journal of Supercritical Fluids*, **35** (2), 133-139.
  38. Aksu, Z. and İšoğlu, İ.A. (2005), Removal of copper(II) ions from aqueous solution by biosorption onto agricultural waste sugar beet pulp. *Process Biochemistry*, **40** (9), 3031-3044.
  39. Sharma, A. and Bhattacharyya, K.G. (2005), Utilization of a biosorbent based on *Azadirachta indica* (Neem) leaves for removal of water-soluble dyes. *Indian Journal of Chemical Technology*, **12** (3), 285-295.
  40. Gücek, A., Şener, S., Bilgen, S. and Mazmancı, M.A. (2005), Adsorption and kinetic studies of cationic and anionic dyes on pyrophyllite from aqueous solutions. *Journal of Colloid and Interface Science*, **286** (1), 53-60.
  41. Kargı, F. and Ozmıhçı, S. (2005), Comparison of adsorption performances of powdered activated sludge and powdered activated carbon for removal of turquoise blue dyestuff. *Process Biochemistry*, **40** (7), 2539-2544.
  42. Minihan, M.M., McCann, E. and Leahy, J.J. (2004), Metal ion adsorption by peat and solvent-extracted peat. *Adsorption Science & Technology*, **22** (10), 783-793.
  43. Yalçın, M., Gürses, A., Doğar, Ç. and Sözbilir, M. (2004), The adsorption kinetics of Cethyltrimethylammonium Bromide (CTAB) onto powdered active carbon. *Adsorption-Journal of the International Adsorption Society*, **10** (4), 339-348.
  44. Özcan, A.S., Erdem, B. and Özcan, A. (2004), Adsorption of Acid Blue 193 from aqueous solutions onto Na-bentonite and DTMA-bentonite. *Journal of Colloid and Interface Science*, **280** (1), 44-54.
  45. Kargı, F. and Ozmıhçı, S. (2004), Biosorption performance of powdered activated sludge for removal of different dyestuffs. *Enzyme and Microbial Technology*, **35** (2-3), 267-271.
  46. Özcan, A.S. and Özcan, A. (2004), Adsorption of acid dyes from aqueous solutions onto acid-activated bentonite. *Journal of Colloid and Interface Science*, **276** (1), 39-46.
  47. Bhattacharyya, K.G. and Sharma, A. (2004), *Azadirachta indica* leaf powder as an effective biosorbent for dyes: A case study with aqueous Congo Red solutions. *Journal of Environmental Management*, **71** (3), 217-229.
  48. Onyango, M.S., Kojima, Y., Matsuda, H. and Ochieng, A. (2003), Adsorption kinetics of arsenic removal from groundwater by iron-modified zeolite. *Journal of Chemical Engineering of Japan*, **36** (12), 1516-1522.

### 參考論文 (三)

**Ho, Y.S.\***, Chiu, W.T., Hsu, C.S. and Huang, C.T. (2004), Sorption of lead ions from aqueous solution using tree fern as a sorbent. *Hydrometallurgy*, **73** (1-2), 55-61. (SCI)

代表著作中文譯名：蛇木屑吸附水溶液中鉛離子之研究

Document type: Article	Language: English	Cited references: 19	Times cited: 31
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Rank 1<sup>st</sup> in citation from 128 papers of *Hydrometallurgy* (2004), Last data updates: 07 September 2007

Abstract: This study is on sorption of lead ions on an agricultural by-product, tree fern. Equilibrium isotherms have been measured and modeled. The equilibrium sorption capacity of lead(II) was determined from the Langmuir isotherm and found to be 40.0 mg/g. Based on the assumption of the pseudo-second order mechanism, a batch sorption model was developed to predict the rate constant of sorption, the equilibrium sorption capacity and the initial sorption rate with the effect of initial lead(II) concentration and temperature. The sorption rate was found to increase with temperature, and an activation energy of approximately 87 kJ/mol was determined from the pseudo-second order rate constants. The findings of this investigation suggest that chemical sorption plays a role in controlling the sorption rate.

**Subject Categories:**

Metallurgy & Metallurgical Engineering: Impact Factor 1.227, 9/65 (2006)

Ho, Y.S.\*, Chiu, W.T., Hsu, C.S. and Huang, C.T. (2004), Sorption of lead ions from aqueous solution using tree fern as a sorbent. *Hydrometallurgy*, **73** (1-2), 55-61.

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### Cited by papers as fallows:

1. Oubagaranadin, J.U.K., Sathyamurthy, N. and Murthy, Z.V.P. (2007), Evaluation of Fuller's earth for the adsorption of mercury from aqueous solutions: A comparative study with activated carbon. *Journal of Hazardous Materials*. In press
2. Ofomaja, A.E. and Ho, Y.S. (2008), Kinetic biosorption study of cadmium onto coconut copra meal as biosorbent. *International Journal of Environment and Pollution*, **33** (1-4), In press
3. Sheha, R.R. and Metwally, E. (2007), Equilibrium isotherm modeling of cesium adsorption onto magnetic materials. *Journal of Hazardous Materials*, **143** (1-2), 354-361.
4. Oubagaranadin, J.U.K., Sathyamurthy, N. and Murthy, Z.V.P. (2007), Evaluation of Fuller's earth for the adsorption of mercury from aqueous solutions: A comparative study with activated carbon. *Journal of Hazardous Materials*, **142** (1-2), 165-174.
5. Giménez, J., Martínez, M., de Pablo, J., Rovira, M. and Duro, L. (2007), Arsenic sorption onto natural hematite, magnetite, and goethite. *Journal of Hazardous Materials*, **141** (3), 575-580.
6. Özer, A. (2007), Removal of Pb(II) ions from aqueous solutions by sulphuric acid-treated wheat bran. *Journal of Hazardous Materials*, **141** (3), 753-761.
7. Meenakshi, S. and Viswanathan, N. (2007), Identification of selective ion-exchange resin for fluoride sorption. *Journal of Colloid and Interface Science*, **308** (2), 438-450.
8. Ren, A., Yu, S., Han, J., Chang, P., Chen, C., Chen, J. and Wang, X. (2007), A comparative study of Pb<sup>2+</sup> sorption onto MX-80 bentonite, LA bentonite,  $\gamma$ -Al<sub>2</sub>O<sub>3</sub> and SiO<sub>2</sub>. *Journal of Radioanalytical and Nuclear Chemistry*, **272** (1), 3-10.
9. Baker, H. and Abdel-Halim, H.M. (2007), Removal of nickel ions from aqueous solutions by using insolubilized humic acid: Effect of pH and temperature. *Asian Journal of Chemistry*, **19** (1), 233-245.
10. de Hoces, M.C., de Castro, F.H.B., Garcia, G.B. and Rivas, G.T. (2006), Equilibrium modeling of removal of cadmium ions by olive stones. *Environmental Progress*, **25** (3), 261-266.
11. Arámbula-Villazana, V., Solache-Ríos, M. and Olguín, M.T. (2006), Sorption of cadmium from aqueous solutions at different temperatures by Mexican HEU-type zeolite rich tuff. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, **55** (3-4), 229-236.
12. Arámbula-Villazana, V., Solache-Ríos, M. and Olguín, M.T. (2006), Sorption of cadmium from aqueous solutions at different temperatures by Mexican HEU-type zeolite rich tuff. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*, **55** (3-4), 237-245.
13. Kumar, K.V. and Sivanesan, S. (2007), Sorption isotherm for safranin onto rice husk: Comparison of linear and non-linear methods. *Dyes and Pigments*, **72** (1), 130-133.
14. Ho, Y.S. (2006), Review of second-order models for adsorption systems. *Journal of Hazardous Materials*, **136** (3), 681-689.
15. Singh, K.K., Talat, M. and Hasan, S.H. (2006), Removal of lead from aqueous solutions by agricultural waste maize bran. *Bioresource Technology*, **97** (16), 2124-2130.

16. Ray, A.B., Selvakumar, A. and Tafuri, A.N. (2006), Removal of selected pollutants from aqueous media by hardwood mulch. *Journal of Hazardous Materials*, **136** (2), 213-218.
17. Fiol, N., Villaescusa, I., Martínez, M., Miralles, N., Poch, J. and Serarols, J. (2006), Sorption of Pb(II), Ni(II), Cu(II) and Cd(II) from aqueous solution by olive stone waste. *Separation and Purification Technology*, **50** (1), 132-140.
18. Kumar, K.V. and Sivanesan, S. (2006), Selection of optimum sorption kinetics: Comparison of linear and non-linear method. *Journal of Hazardous Materials*, **134** (1-3), 277-279.
19. Martínez, M., Miralles, N., Hidalgo, S., Fiol, N., Villaescusa, I. and Poch, J. (2006), Removal of lead(II) and cadmium(II) from aqueous solutions using grape stalk waste. *Journal of Hazardous Materials*, **133** (1-3), 203-211.
20. Lodeiro, P., Barriada, J.L., Herrero, R. and Sastre de Vicente, M.E. (2006), The marine macroalga *Cystoseira baccata* as biosorbent for cadmium(II) and lead(II) removal: Kinetic and equilibrium studies. *Environmental Pollution*, **142** (2), 264-273.
21. Ho, Y.S. (2006), Second-order kinetic model for the sorption of cadmium onto tree fern: A comparison of linear and non-linear methods. *Water Research*, **40** (1), 119-125.
22. Mussatto, S.I., Dragone, G. and Roberto, I.C. (2006), Brewers' spent grain: Generation, characteristics and potential applications. *Journal of Cereal Science*, **43** (4), 1-14.
23. Kumar, K.V. and Sivanesan, S. (2005), Comparison of linear and non-linear method in estimating the sorption isotherm parameters for safranin onto activated carbon. *Journal of Hazardous Materials*, **123** (1-3), 288-292.
24. Ho, Y.S. and Ofomaja, A.E. (2005), Effects of calcium competition on lead sorption by palm kernel fibre. *Journal of Hazardous Materials*, **120** (1-3), 157-162.
25. Ho, Y.S. (2005), Comment on "Adsorption of naphthalene on zeolite from aqueous solution" by C.F. Chang, C.Y. Chang, K.H. Chen, W.T. Tsai, J.L. Shie, Y.H. Chen. *Journal of Colloid and Interface Science*, **283** (1), 274-277.
26. Zheng, S.K., Yang, Z.F., Jo, D.H., Park, Y.H. and Ho, Y.S. (2005), Comment on "Removal of chlorophenols from groundwater by chitosan sorption". *Water Research*, **39** (1), 264-268.
27. Ho, Y.S. (2004), Comment on "Sorption of basic dyes from aqueous solution by activated sludge" [J. Hazard. Mater. 108 (2004) 183-188]. *Journal of Hazardous Materials*, **114** (1-3), 241-245.
28. Ho, Y.S. (2004), Pseudo-isotherms using a second order kinetic expression constant. *Adsorption-Journal of the International Adsorption Society*, **10** (2), 151-158.
29. Ho, Y.S. (2004), Comment on 'Removal of copper from aqueous solution by aminated and protonated mesoporous aluminas: kinetics and equilibrium,' by S. Rengaraj, Y. Kim, C.K. Joo, and J. Yi. *Journal of Colloid and Interface Science*, **276** (1), 255-258.
30. Ho, Y.S. (2004), Comment on "Arsenic removal using mesoporous alumina prepared via a templating method". *Environmental Science & Technology*, **38** (11), 3214-3215.
31. Huang, C.T. (2004), Removal of lead ions from aqueous solution by using tree fern.

*M.Sc. Thesis*, Taipei Medical University, Taipei, Taiwan.

## 參考論文 (四)

**Ho, Y.S.\*** (2004), Citation review of Lagergren kinetic rate equation on adsorption reactions. *Scientometrics*, **59** (1), 171-177. (**SCI, SSCI**)

參考著作中文譯名：Lagergren 吸附動力學模式被引用之回顧

Document type: Review	Language: English	Cited references: 37	Times cited: 54
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Rank 1<sup>st</sup> in citation from 101 papers of *Scientometrics* (2004), Rank 17<sup>th</sup> in citation from 2,286 papers of *Scientometrics* (from year 1979, Volume 1 (2) to year 2007, Volume 72 (1)), Last data updates: 29 September 2007

Rank 2<sup>nd</sup> in *Scientometrics* and rank 3<sup>rd</sup> in Taipei Medical University; rank 1747<sup>th</sup> in the world and rank 1<sup>st</sup> in Taiwan, in the field of Social Sciences, General. (Essential Science Indicators was updated on September 1, 2007 to cover a ten-year plus six-month period, January 1, 1997-June 30, 2007.)

Abstract: This study presents a literature review concerning the preciseness of over 170 publications citing the original Lagergren's paper in kinetics equation for solute adsorption on various adsorbents. This equation applies to a range of solid-liquid systems such as metal ions, dyestuffs and several organic substances in aqueous systems onto various adsorbents. The main objectives are to manifest different forms of citations presented and offers a correct reference style for citing the original Lagergren's paper published in 1898.

### **Subject Categories:**

Interdisciplinary Applications Computer Science: Impact Factor 1.363, 24/87 (2006)  
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### Cited by papers as fallows:

1. Kumar, K.V. and Porkodi, K. (2007), Mass transfer, kinetics and equilibrium studies for the biosorption of methylene blue using *Paspalum notatum*. *Journal of Hazardous Materials*, **146** (1-2), 214-226.
2. Leinekugel-le-Cocq, D., Tayakout-Fayolle, M., Le Gorrec, Y. and Jallut, C. (2007), A double linear driving force approximation for non-isothermal mass transfer modeling through bi-disperse adsorbents. *Chemical Engineering Science*, **62** (15), 4040-4053.
3. Marungrueng, K. and Pavasant, P. (2006), Removal of basic dye (Astrazon Blue FGRL) using macroalga *Caulerpa lentillifera*. *Journal of Environmental Management*, **78** (3), 268-274.
4. Smičiklas, I., Dimović, S. and Plečaš, I. (2007), Removal of  $\text{Cs}^{1+}$ ,  $\text{Sr}^{2+}$  and  $\text{Co}^{2+}$  from aqueous solutions by adsorption on natural clinoptilolite. *Applied Clay Science*, **35** (1-2), 139-144.
5. Bhattacharyya, K.G. and Sen Gupta, S. (2007), Adsorptive accumulation of Cd(II), Co(II), Cu(II), Pb(II), and Ni(II) from water on montmorillonite: Influence of acid activation. *Journal of Colloid and Interface Science*, **310** (2), 411-424.
6. Xia, X.Y., d'Alnoncourt, R.N., Strunk, J., Litvinov, S. and Muhler, M. (2007), Isothermal adsorption kinetics on heterogeneous surfaces. *Applied Surface Science*, **253** (13), 5851-5855.
7. Yuan, X., Zhuo, S.P., Xing, W., Cui, H.Y., Dai, X.D., Liu, X.M. and Yan, Z.F. (2007), Aqueous dye adsorption on ordered mesoporous carbons. *Journal of Colloid and Interface Science*, **310** (1), 83-89.
8. Bhattacharyya, K.G. and Sen Gupta, S. (2007), Influence of acid activation of kaolinite and montmorillonite on adsorptive removal of Cd(II) from water. *Industrial & Engineering Chemistry Research*, **46** (11), 3734-3742.
9. Oubagaranadin, J.U.K., Sathyamurthy, N. and Murthy, Z.V.P. (2007), Evaluation of Fuller's earth for the adsorption of mercury from aqueous solutions: A comparative study with activated carbon. *Journal of Hazardous Materials*, **142** (1-2), 165-174.
10. Harouna-Oumarou, H.A., Fauduet, H., Porte, C. and Ho, Y.S. (2007), Comparison of kinetic models for the aqueous solid-liquid extraction of Tilia sapwood in a continuous stirred tank reactor. *Chemical Engineering Communications*, **194** (4), 537-552.
11. Meenakshi, S. and Viswanathan, N. (2007), Identification of selective ion-exchange resin for fluoride sorption. *Journal of Colloid and Interface Science*, **308** (2), 438-450.
12. Crini, G., Peindy, H.N., Gimbert, F. and Robert, C. (2007), Removal of C.I. Basic Green 4 (Malachite Green) from aqueous solutions by adsorption using cyclodextrin-based adsorbent: Kinetic and equilibrium studies. *Separation and Purification Technology*, **53** (1), 97-110.
13. Ofomaja, A.E. (2007), Kinetics and mechanism of methylene blue sorption onto palm kernel fibre. *Process Biochemistry*, **42** (1), 16-24.
14. Wang, S.B., Li, L. and Zhu, Z.H. (2007), Solid-state conversion of fly ash to effective adsorbents for Cu removal from wastewater. *Journal of Hazardous Materials*, **139** (2), 254-259.
15. Ofomaja, A.E. and Ho, Y.S. (2007), Effect of pH on cadmium biosorption by

- coconut copra meal. *Journal of Hazardous Materials*, **139** (2), 356-362.
16. Antonio, P., Iha, K. and Suárez-Iha, M.E.V. (2007), Kinetic modeling of adsorption of di-2-pyridylketone salicyloylhydrazone on silica gel. *Journal of Colloid and Interface Science*, **307** (1), 24-28.
  17. Bhattacharyya, K.G. and Sen Gupta, S. (2006), Adsorption of Fe(III) from water by natural and acid activated clays: Studies on equilibrium isotherm, kinetics and thermodynamics of interactions. *Adsorption-Journal of the International Adsorption Society*, **12** (3), 185-204.
  18. Wang, Y.L., Liao, X.P., Gu, Y.C., Zhao, S.L. and Shi, B. (2006), Alternative utilization of skin wastes: Preparation of a Fe(III)-loaded adsorbent for anionic dyes in aqueous solution. *Journal of the Society of Leather Technologists and Chemists*, **90** (5), 205-210.
  19. Chandrasekhar, S. and Pramada, P.N. (2006), Rice husk ash as an adsorbent for methylene blue-effect of ashing temperature. *Adsorption-Journal of the International Adsorption Society*, **12** (1), 27-43.
  20. Bhattacharyya, K.G. and Gupta, S.S. (2006), Adsorption of chromium(VI) from water by clays. *Industrial & Engineering Chemistry Research*, **45** (21), 7232-7240.
  21. Ho, Y.S. (2007), Comments on “An adsorption and kinetic study of lac dyeing on silk”. *Dyes and Pigments*, **72** (1), 134-136.
  22. Kumar, K.V. (2006), Comments on “Adsorption of acid dye onto organobentonite”. *Journal of Hazardous Materials*, **137** (1), 638-639.
  23. Bou-Maroun, E., Goetz-Grandmont, G.J. and Boos, A. (2006), Sorption of europium(III) and copper(II) by a mesostructured silica doped with acyl-hydroxypyrazole derivatives: Extraction, kinetic and capacity studies. *Colloids and Surfaces A-Physicochemical and Engineering Aspects*, **287** (1-3), 1-9.
  24. Ho, Y.S. (2006), Review of second-order models for adsorption systems. *Journal of Hazardous Materials*, **136** (3), 681-689.
  25. Mohan, D., Singh, K.P. and Singh, V.K. (2006), Trivalent chromium removal from wastewater using low cost activated carbon derived from agricultural waste material and activated carbon fabric cloth. *Journal of Hazardous Materials*, **135** (1-3), 280-295.
  26. Ozturk, N. and Bektaş, T.E. (2006), Batch adsorption of dyestuff from aqueous solutions onto various adsorbents. *Fresenius Environmental Bulletin*, **15** (6), 489-496.
  27. Li, L., Wang, S.B. and Zhu, Z.H. (2006), Geopolymeric adsorbents from fly ash for dye removal from aqueous solution. *Journal of Colloid and Interface Science*, **300** (1), 52-59.
  28. Mohan, D. and Chander, S. (2006), Single, binary, and multicomponent sorption of iron and manganese on lignite. *Journal of Colloid and Interface Science*, **299** (1), 76-87.
  29. Ho, Y.S. (2006), Comment on “Remediation of soil contaminated with the heavy metal ( $Cd^{2+}$ )”. *Journal of Hazardous Materials*, **134** (1-3), 41-42.
  30. Wang, S.B., Soudi, M., Li, L. and Zhu, Z.H. (2006), Coal ash conversion into effective adsorbents for removal of heavy metals and dyes from wastewater. *Journal of Hazardous Materials*, **133** (1-3), 243-251.
  31. Ho, Y.S. (2006), Comment on Equilibrium and kinetics studies of adsorption of copper(II) on chitosan and chitosan/PVA beads. *International Journal of*

- Biological Macromolecules*, **38** (2), 148-149.
32. Wan Ngah, W.S. (2006), Reply to comment of “Prof. Y.S. Ho” on [Int. J. Biol. Macromol. 34 (2004) 155–161]. *International Journal of Biological Macromolecules*, **38** (1), 77.
  33. Bhattacharyya, K.G. and Gupta, S.S. (2006), Pb(II) uptake by kaolinite and montmorillonite in aqueous medium: Influence of acid activation of the clays. *Colloids and Surfaces A-Physicochemical and Engineering Aspects*, **277** (1-3), 191-200.
  34. Öztürk, N. and Kavak, D. (2005), Adsorption of boron from aqueous solutions using fly ash: Batch and column studies. *Journal of Hazardous Materials*, **127** (1-3), 81-88.
  35. Ho, Y.S. (2005), Comments on “Efficiency of membrane-sorption integrated processes”. *Journal of Membrane Science*, **263** (1-2), 160-161.
  36. Ho, Y.S. (2005), Comments on “Study on biosorption of Cr(VI) by *Mucor hiemalis*”. *Biochemical Engineering Journal*, **26** (1), 82-83.
  37. Ho, Y.S. (2005), Adsorption characteristics of zinc-cyanide complexes by waste brewery biomass. *Journal of Industrial and Engineering Chemistry*, **11** (3), 478-479.
  38. Ho, Y.S. (2005), Comment on “Selective adsorption of tannins onto hide collagen fibres”. *Science in China Series B-Chemistry*, **48** (2), 176.
  39. Öztürk, N. and Bektaş, T.E. (2005), Reply to comment on “Nitrate removal from aqueous solution by adsorption onto various materials”, by Y.S. Ho. *Journal of Hazardous Materials*, **120** (1-3), 277.
  40. Wang, S.B., Zhu, Z.H., Coomes, A., Haghseresht, F. and Lu, G.Q. (2005), The physical and surface chemical characteristics of activated carbons and the adsorption of methylene blue from wastewater. *Journal of Colloid and Interface Science*, **284** (2), 440-446.
  41. Ho, Y.S. (2005), Comment on “Nitrate removal from aqueous solution by adsorption onto various materials” by N. Öztürk, T.E. Bektaş. *Journal of Hazardous Materials*, **118** (1-3), 253-254.
  42. Ho, Y.S. (2005), Comments on “Chitosan functionalized with 2[-bis-(pyridylmethyl) aminomethyl]4-methyl-6-formyl-phenol: Equilibrium and kinetics of copper(II) adsorption”. *Polymer*, **46** (5), 1451-1452.
  43. Ho, Y.S. (2005), Comment on “Adsorption of naphthalene on zeolite from aqueous solution” by C.F. Chang, C.Y. Chang, K.H. Chen, W.T. Tsai, J.L. Shie, Y.H. Chen. *Journal of Colloid and Interface Science*, **283** (1), 274-277.
  44. Zheng, S.K., Yang, Z.F., Jo, D.H., Park, Y.H. and Ho, Y.S. (2005), Comment on “Removal of chlorophenols from groundwater by chitosan sorption”. *Water Research*, **39** (1), 264-268.
  45. Ho, Y.S. (2005), Comment on “Removal of heavy metals from aqueous solution by carbon nanotubes: adsorption equilibrium and kinetics” by Li, Y.H., Di, Z.C., Luan, Z. K., Ding, J., Zuo, H., Wu, X. Q., Xu, C. L. and Wu, D. H. *Journal of Environmental Sciences-China*, **17** (1), 175-176.
  46. Ho, Y.S. (2004), Comment on “Sorption of basic dyes from aqueous solution by activated sludge” [J. Hazard. Mater. 108 (2004) 183–188]. *Journal of Hazardous Materials*, **114** (1-3), 241-245.
  47. Bektaş, N., Ağim, B.A. and Kara, S. (2004), Kinetic and equilibrium studies in

- removing lead ions from aqueous solutions by natural sepiolite. *Journal of Hazardous Materials*, **112** (1-2), 115-122.
48. Ho, Y.S. (2004), Comment on “Removal of copper from aqueous solution by aminated and protonated mesoporous aluminas: Kinetics and equilibrium,” by S. Rengaraj, Y. Kim, C.K. Joo, and J. Yi. *Journal of Colloid and Interface Science*, **276** (1), 255-258.
  49. Ho, Y.S. (2004), Comment on “Arsenic removal using mesoporous alumina prepared via a templating method”. *Environmental Science & Technology*, **38** (11), 3214-3215.
  50. Ho, Y.S. (2004), Comment on “Removal of heavy metal ions by modified sawdust of walnut” by Bulut, Y. and Tez, Z. *Fresenius Environmental Bulletin*, **13** (4), 370-373.
  51. Yan, L.G., Shan, X.Q., Wen, B. and Zhang, S.Z. (2007), Effect of lead on the sorption of phenol onto montmorillonites and organo-montmorillonites. *Journal of Colloid and Interface Science*, **308** (1), 11-19.
  52. Marungrueng, K. and Pavasant, P. (2006), Removal of basic dye (Astrazon Blue FGRL) using macroalga *Caulerpa lentillifera*. *Journal of Environmental Management*, **78** (3), 268-274.
  53. Ho, Y.S. (2005), Comment on “Two-stage batch sorber design using second-order kinetic model for the sorption of metal complex dyes onto pine sawdust” by Özacar, M. and Şengül, İ.A. *Biochemical Engineering Journal*, **23** (3), 291-292.
  54. Huang, C.T. (2004), Removal of lead ions from aqueous solution by using tree fern. *M.Sc. Thesis*, Taipei Medical University, Taipei, Taiwan.

## 參考論文 (五)

**Ho, Y.S.\***, Chiang, T.H. and Hsueh, Y.M. (2005), Removal of basic dye from aqueous solution using tree fern as a biosorbent. *Process Biochemistry*, **40** (1), 119-124. (SCI)

代表著作中文譯名：蛇木屑去除水溶液中鹼性染料之研究

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**Abstract:** A batch sorption system using tree fern as biosorbent was investigated to remove Basic Red 13 from aqueous solutions. The system variables studied include sorbent particle size and temperature and results revealed the potential of tree fern, an agriculture product, as a low-cost sorbent. The Langmuir isotherm was found to represent the measured sorption data well. The dye sorption capacity of tree fern increased as the sorbent particle size decreased. Maximum saturated monolayer sorption capacity of tree fern for Basic Red 13 was 408 mg/g. Various thermodynamic parameters such as  $\Delta G^\circ$ ,  $\Delta H^\circ$  and  $\Delta S^\circ$  were calculated indicating that this system was a spontaneous and endothermic process. (C) 2003 Elsevier Ltd. All rights reserved.

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### Cited by papers as follows:

1. Malkoc, E. and Nuhoglu, Y. (2007), Potential of tea factory waste for chromium(VI) removal from aqueous solutions: Thermodynamic and kinetic studies. *Separation and Purification Technology*. In press
2. Senthilkumar, R., Vijayaraghavan, K., Thilakavathi, M., Iyer, P.V.R. and Velan, M. (2006), Seaweeds for the remediation of wastewaters contaminated with zinc(II) ions. *Journal of Hazardous Materials*. In press
3. El-Khaiary, M.I. (2007), Kinetics and mechanism of adsorption of methylene blue from aqueous solution by nitric-acid treated water-hyacinth. *Journal of Hazardous Materials*, **147** (1-2), 28-36.
4. Kumar, K.V. and Porkodi, K. (2006), Relation between some two- and three-parameter isotherm models for the sorption of methylene blue onto lemon peel. *Journal of Hazardous Materials*, **138** (3), 633-635.
5. Pavan, F.A., Gushikem, Y., Mazzocato, A.C., Dias, S.L.P. and Lima, E.C. (2007), Statistical design of experiments as a tool for optimizing the batch conditions to methylene blue biosorption on yellow passion fruit and mandarin peels. *Dyes and Pigments*, **72** (2), 256-266.
6. Özer, A., Akkaya, G. and Turabik, M. (2006), The removal of Acid Red 274 from wastewater: Combined biosorption and biocoagulation with *Spirogyra rhizopus*. *Dyes and Pigments*, **71** (2), 83-89.
7. Biswas, K., Saha, S.K. and Ghosh, U.C. (2007), Adsorption of fluoride from aqueous solution by a synthetic Iron(III)-Aluminum(III) mixed oxide. *Industrial & Engineering Chemistry Research*, **46** (16), 5346-5356.
8. Hamdaoui, O. and Chiha, M. (2007), Removal of Methylene blue from aqueous solutions by wheat bran. *Acta Chimica Slovenica*, **54** (2), 407-418.
9. Ena, A., Carlozzi, P., Pushparaj, B., Paperi, R., Carnevale, S. and Sacchi, A. (2007), Ability of the aquatic fern *Azolla* to remove chemical oxygen demand and polyphenols from olive mill wastewater. *Grasas y Aceites*, **58** (1), 34-39.
10. Iscen, C.F., Kiran, I. and Ilhan, S. (2007), Biosorption of Reactive Black 5 dye by *Penicillium restrictum*: The kinetic study. *Journal of Hazardous Materials*, **143** (1-2), 335-340.
11. Hameed, B.H., Ahmad, A.L. and Latiff, K.N.A. (2007), Adsorption of basic dye (methylene blue) onto activated carbon prepared from rattan sawdust. *Dyes and Pigments*, **75** (1), 143-149.
12. Malkoc, E. and Nuhoglu, Y. (2007), Potential of tea factory waste for chromium(VI) removal from aqueous solutions: Thermodynamic and kinetic studies. *Separation and Purification Technology*, **54** (3), 291-298.
13. Tunali, S., Ozcan, A., Kaynak, Z., Ozcan, A.S. and Akar, T. (2007), Utilization of the *Phaseolus vulgaris* L. waste biomass for decolorization of the textile dye Acid Red 57: determination of equilibrium, kinetic and thermodynamic parameters. *Journal of Environmental Science and Health Part A-Toxic/Hazardous Substances & Environmental Engineering*, **42** (5), 591-600.
14. Senthilkumar, R., Vijayaraghavan, K., Thilakavathi, M., Iyer, P.V.R. and Velan, M. (2007), Application of seaweeds for the removal of lead from aqueous solution. *Biochemical Engineering Journal*, **33** (3), 211-216.
15. Harouna-Oumarou, H.A., Fauduet, H., Porte, C. and Ho, Y.S. (2007), Comparison of kinetic models for the aqueous solid-liquid extraction of *Tilia* sapwood in a

- continuous stirred tank reactor. *Chemical Engineering Communications*, **194** (4), 537-552.
16. Vijayaraghavan, K. and Yun, Y.S. (2007), Utilization of fermentation waste (*Corynebacterium glutamicum*) for biosorption of Reactive Black 5 from aqueous solution. *Journal of Hazardous Materials*, **141** (1), 45-52.
  17. Lorenc-Grabowska, E. and Gryglewicz, G. (2007), Adsorption characteristics of Congo Red on coal-based mesoporous activated carbon. *Dyes and Pigments*, **74** (1), 34-40.
  18. Ofomaja, A.E. and Ho, Y.S. (2007), Equilibrium sorption of anionic dye from aqueous solution by palm kernel fibre as sorbent. *Dyes and Pigments*, **74** (1), 60-66.
  19. Ofomaja, A.E. (2007), Kinetics and mechanism of methylene blue sorption onto palm kernel fibre. *Process Biochemistry*, **42** (1), 16-24.
  20. Başbüyük, M., Savci, S., Keskinan, O. and Cakmak, M.E. (2007), Investigation of a basic dye adsorption characteristics of a non-living submerged aquatic plant (*Myriophyllum spicatum*). *Asian Journal of Chemistry*, **19** (3), 1693-1702.
  21. Keskinan, O. (2006), Isotherm models for predicting the dye adsorption potential of coon tail (*Ceratophyllum demersum*) and water milfoil (*Myriophyllum spicatum*). *Adsorption Science & Technology*, **24** (4), 321-336.
  22. Aloulou, F., Boufi, S. and Labidi, J. (2006), Modified cellulose fibres for adsorption of organic compound in aqueous solution. *Separation and Purification Technology*, **52** (2), 332-342.
  23. Hamdaoui, O. (2006), Dynamic sorption of methylene blue by cedar sawdust and crushed brick in fixed bed columns. *Journal of Hazardous Materials*, **138** (2), 293-303.
  24. Kumar, K.V. and Porkodi, K. (2006), Relation between some two- and three-parameter isotherm models for the sorption of methylene blue onto lemon peel. *Journal of Hazardous Materials*, **138** (3), 633-635.
  25. Doğan, M., Alkan, M., Demirbaş, Ö., Özdemir, Y. and Özmetin, C. (2006), Adsorption kinetics of maxilon blue GRL onto sepiolite from aqueous solutions. *Chemical Engineering Journal*, **124** (1-3), 89-101.
  26. Inbaraj, B.S., Chien, J.T., Ho, G.H., Yang, J. and Chen, B.H. (2006), Equilibrium and kinetic studies on sorption of basic dyes by a natural biopolymer poly( $\gamma$ -glutamic acid). *Biochemical Engineering Journal*, **31** (3), 204-215.
  27. Padmesh, T.V.N., Vijayaraghavan, K., Sekaran, G. and Velan, M. (2006), Application of *Azolla rongpong* on biosorption of Acid Red 88, Acid Green 3, Acid Orange 7 and Acid Blue 15 from synthetic solutions. *Chemical Engineering Journal*, **121** (1), 55-63.
  28. Karadag, D., Koc, Y., Turan, M. and Armagan, B. (2006), Removal of ammonium ion from aqueous solution using natural Turkish clinoptilolite. *Journal of Hazardous Materials*, **136** (3), 604-609.
  29. Ho, Y.S. (2006), Review of second-order models for adsorption systems. *Journal of Hazardous Materials*, **136** (3), 681-689.
  30. Senthilkumar, R., Vijayaraghavan, K., Thilakavathi, M., Iyer, P.V.R. and Velan, M. (2006), Seaweeds for the remediation of wastewaters contaminated with zinc(II) ions. *Journal of Hazardous Materials*, **136** (3), 791-799.
  31. Senthilkumaar, S., Kalaamani, P. and Subburaam, C.V. (2006), Liquid phase

- adsorption of Crystal violet onto activated carbons derived from male flowers of coconut tree. *Journal of Hazardous Materials*, **136** (3), 800-808.
32. Kusuktham, B. (2006), Preparation of interpenetrating polymer network gel beads for dye absorption. *Journal of Applied Polymer Science*, **102** (2), 1585-1591.
  33. Özer, A., Akkaya, G. and Turabik, M. (2006), Biosorption of Acid Blue 290 (AB 290) and Acid Blue 324 (AB 324) dyes on *Spirogyra rhizopus*. *Journal of Hazardous Materials*, **135** (1-3), 355-364.
  34. Mohanty, K., Naidu, J.T., Meikap, B.C. and Biswas, M.N. (2006), Removal of crystal violet from wastewater by activated carbons prepared from rice husk. *Industrial & Engineering Chemistry Research*, **45** (14), 5165-5171.
  35. Inbaraj, B.S., Sridharan, R., Nandhakumar, V. and Sulochana, N. (2006), Sorption of mercury(II) by an adsorbent derived from fruit shell of *Terminalia catappa*. *Journal of the Indian Chemical Society*, **83** (5), 446-452.
  36. Crini, G. (2006), Non-conventional low-cost adsorbents for dye removal: A review. *Bioresource Technology*, **97** (9), 1061-1085.
  37. Boufi, S. and Belgacem, M.N. (2006), Modified cellulose fibres for adsorption of dissolved organic solutes. *Cellulose*, **13** (1), 81-94.
  38. Kumar, K.V. and Sivanesan, S. (2006), Isotherm parameters for basic dyes onto activated carbon: Comparison of linear and non-linear method. *Journal of Hazardous Materials*, **129** (1-3), 147-150.
  39. Klimiuk, E., Gusiatin, Z. and Kabardo, K. (2006), The effectiveness of surfactants adsorption onto chitin and dye-modified chitin. *Polish Journal of Environmental Studies*, **15** (1), 95-104.
  40. Inbaraj, B.S. and Sulochana, N. (2005), Use of jackfruit peel carbon (JPC) for adsorption of rhodamine-B, a basic dye from aqueous solution. *Indian Journal of Chemical Technology*, **13** (1), 17-23.
  41. Ho, Y.S. (2006), Second-order kinetic model for the sorption of cadmium onto tree fern: A comparison of linear and non-linear methods. *Water Research*, **40** (1), 119-125.
  42. Kahraman, S. and Yalcin, P. (2005), Removal of dyes from aqueous solution using various agricultural wastes as biosorbent. *Fresenius Environmental Bulletin*, **14** (12B), 1196-1201.
  43. Akkaya, G. and Özer, A. (2005), Biosorption of Acid Red 274 (AR 274) on *Dicranella varia*: Determination of equilibrium and kinetic model parameters. *Process Biochemistry*, **40** (11), 3559-3568.
  44. Özer, A., Akkaya, G. and Turabik, M. (2005), The biosorption of Acid Red 337 and Acid Blue 324 on *Enteromorpha prolifera*: The application of nonlinear regression analysis to dye biosorption. *Chemical Engineering Journal*, **112** (1-3): 181-190.
  45. Ho, Y.S., Chiu, W.T. and Wang, C.C. (2005), Regression analysis for the sorption isotherms of basic dyes on sugarcane dust. *Bioresource Technology*, **96** (11), 1285-1291.
  46. Özer, A., Akkaya, G. and Turabik, M. (2006), The removal of Acid Red 274 from wastewater: Combined biosorption and biocoagulation with *Spirogyra rhizopus*. *Dyes and Pigments*, **71** (2), 83-89.
  47. Özcan, A.S., Erdem, B. and Özcan, A. (2004), Adsorption of Acid Blue 193 from aqueous solutions onto Na-bentonite and DTMA-bentonite. *Journal of Colloid*



*and Interface Science*, **280** (1), 44-54.