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**Yuh-Shan Ho**

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## Some comments on using of Web of Science for bibliometric studies [Environ. Sci. Pollut. Res. Vol. 25]

Yuh-Shan Ho<sup>1</sup>

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In *Environmental Science and Pollution Research*, Volume 25, Web of Science was used in five different articles, entitled “Past, current, and future research on microalga-derived biodiesel: A critical review and bibliometric analysis” (Ma et al. 2018), “Trends on PM<sub>2.5</sub> research, 1997–2016: A bibliometric study” (Yang et al. 2018), “Global development of the studies focused on antibiotics in aquatic systems from 1945 to 2017” (Zheng et al. 2018), “Global trends and future prospects of food waste research: A bibliometric analysis” (Zhang et al. 2018), and “The way forward confronting eco-environmental challenges during land use practices: A bibliometric analysis” (Wu et al. 2018).

The Web of Science database was initially designed for researchers to find literatures, but instead the authors used it to carry out bibliometric studies (Ho 2018a, b). Hence, it is always necessary to utilize the correct bibliometric method when using the Web of Science database (Ho 2018a, b). Research is the way to the truth so that innovations are important to find something new or a new understanding to approach the truth (Ho 2019). It is not helpful for researchers to duplicate the same problem again and again without improving their research (Ho 2019). In order to find accurate publications to a specific topic for bibliometric studies, a filter named “front page” (including the document title, the abstract, and the author keywords) was proposed by Ho’s group should be used (Fu et al. 2012; Fu and Ho 2014, 2016).

Using the methods mentioned in the five original articles by Ma et al. (2018), Yang et al. (2018), Zheng et al. (2018), Zhang et al. (2018), and Wu et al. (2018) with “front page” as a filter, 3634 publications, 13,597 publications, 8386 articles,

3025 publications, and 71,704 publications were found in each of the articles respectively in Table 1. As a result, 2356 publications (65% of the 3634 publications), 1990 publications (15% of the 13,597 publications), 3445 articles (41% of the 8386 articles), 598 publications (20% of the 3025 publications), and 13,891 publications (19% of the 71,704 publications) did not include any searching keywords in their “front page.” These results show a huge difference from the results in the five original papers (Ma et al. 2018; Yang et al. 2018; Zheng et al. 2018; Zhang et al. 2018; Wu et al. 2018). Classic reviews with 1000 or more total citations from Web of Science Core Collection since publication to the end of 2017 ( $TC_{2017} \geq 1000$ ) (Long et al. 2014) in the article by Ma et al. (2018) “Biodiesel from microalgae” (Chisti 2007) and “Microalgae for biodiesel production and other applications: A review” (Mata et al. 2010); classic article “A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: A systematic analysis for the Global Burden of Disease Study 2010” (Lim et al. 2012) and classic review “Air pollution and health” (Brunekreef and Holgate 2002) in the article by Yang et al. (2018); classic article “Pharmaceuticals, hormones, and other organic wastewater contaminants in U.S. streams, 1999–2000: A national reconnaissance” (Kolpin et al. 2002) in the article by Zheng et al. (2018); and highly cited articles with 100 or more total citations from Web of Science Core Collection since publication to the end of 2017 ( $TC_{2017} \geq 100$ ) (Hsu and Ho 2014), “Bio-hydrogen production from waste materials” (Kapdan and Kargi 2006) and “Factors influencing fermentative hydrogen production: A review” (Wang and Wan 2009) in the article by Zhang et al. (2018); and classic publications “Solutions for a cultivated planet” (Foley et al. 2011), “Our evolving conceptual model of the coastal eutrophication problem” (Cloern 2001), and “Streams in the urban landscape” (Paul and Meyer 2001) in the article by Wu et al. (2018). It can be concluded that documents with searching keywords in their “front page” can improve the bibliometric studies. Similar comments were also stated in

Responsible editor: Philippe Garrigues

✉ Yuh-Shan Ho  
ysho@asia.edu.tw

<sup>1</sup> Trend Research Centre, Asia University, No. 500, Lioufeng Road, Wufeng, Taichung County 41354, Taiwan

**Table 1** Publications found using “front page” as a filter

Paper	Searching keywords	Conditions	TP (%)
Ma et al. (2018)	“alga*” or “microalga*” or “micro-alga*” or “micro alga*” and (“biodiesel” or “bio-diesel” or “bio diesel”)	SCI-EXAPNDED 1993–2016	2356 publications (65% of the 3634 publications)
Yang et al. (2018)	“pm2.5” or “fine particulate matter” or “pm 2.5” or “pm(2.5)” or “fine particulate” or “particulate matter 2.5”	SCI-EXAPNDED and SSCI 1997–2016 articles or reviews, English	1990 publications (15% of the 13,597 publications)
Zheng et al. (2018)a	“antibiotics” and “water”	SCI-EXAPNDED 1990–2017	3445 articles (41% of the 8386 articles)
Zhang et al. (2018)b	“food waste*” or “food garbage*” or “kitchen waste*” or “kitchen garbage*” or “food residue*” or “kitchen residue*”	SCI-EXAPNDED 1991–2015	598 publications (20% of the 3025 publications)
Wu et al. (2018)	“land use*” or “land utilisation*” or “land application*”	SCI-EXAPNDED and SSCI 1992–2016	5813 publications (8.1% of the 71,704 publications)

TP number of publications without searching keywords in “front page”

*Environmental Science and Pollution Research* (Ho 2018a), *Renewable & Sustainable Energy Reviews* (Ho 2018c), and *Journal of Soils and Sediments* (Ho 2019). However, there were two other articles (Mo et al. 2018a, b) published in *Environ. Sci. Pollut. Res.* that used the bibliometric method with “front page” as a filter in the same volume of 25.

The authors of the five papers used inappropriate methods to publish bibliometric papers in the 2018 *Environ. Sci. Pollut. Res.* This may result in misleading readers of the journal. Authors have the duty to use accurate methods in their publications, reviewers have the responsibility to point out the mistakes, and finally, journal editors have to pay more attention to such problems in articles that are being accepted for publication.

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