

Journal of Zhejiang University SCIENCE B
 ISSN 1673-1581 (Print); ISSN 1862-1783 (Online)
 www.zju.edu.cn/jzus; www.springerlink.com
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Editorial:

SCI citation analysis and impact factor prediction of *JZUS-B* in 2008*

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doi:10.1631/jzus.B0840002

In 2005, *Journal of Zhejiang University-SCIENCE* was split formally into two distinct sections making them in fact two separate journals: *Journal of Zhejiang University-SCIENCE A (JZUS-A)* focused on Applied Physics and Engineering; *Journal of Zhejiang University-SCIENCE B (JZUS-B)* focused on Biomedicine, Biochemistry and Biotechnology. Usually, this is done to benefit the readership of and contributors to the journals, as disciplines expand or become more specialized, or as a journal's aims and scopes are modified.

And, it is just in 2008 that *JZUS-B* was covered in Science Citation Index-Expanded (SCI-E) of Thomson Reuters, and as the first university journal, received a grant (No. 30824802) from the National Natural Science Foundation of China. And also *JZUS (A&B)* have been the first journals from China to become members of CrossRef in 2008 (http://www.crossref.org/crosscheck_members.html) in order to prevent from plagiarism and ensure the copyright and credibility of the contributing authors and their articles to *JZUS (A&B)*.

As newly included in SCI for no more than three years that is the period to calculate the classical Journal Impact Factor (JIF), *JZUS-B* has no official IF released by Thomson Reuters until July in 2011. However, it is crucial to make citation analysis and IF prediction of *JZUS-B*. In fact, since 2004, we have been collecting citation data from Web of Science to build *JZUS (A&B)* citation database (http://www.zju.edu.cn/jzus/download/Wu_Xiufang.rar). From this database, we can obtain a lot of important information related to *JZUS-B*'s development, as shown in Figs.1~2 and Table 1. We found that

JZUS-B's articles were mainly cited by these journals: *Colloids and Surfaces B-Biointerfaces* (13 citations), *Brazilian Archives of Biology and Technology* (9 citations), *Comptes Rendus Biologies* (9 citations), *Journal of Agricultural and Food Chemistry* (8 citations), *Pakistan Journal of Botany* (6 citations) and *Journal of Hazardous Materials* (6 citations), etc. And also we analyzed that the non-self-citation and the self-citation rates related to the predicted *JZUS-B* 2008 IF, are 83.8% (165/197) and 16.2% (32/197), respectively; the self-citation rate is far lower than that (>20%) of other newly SCI-covered journals at the same status.

It is possible to predict IF for an upcoming year with reasonable accuracy using the Garfield's JIF calculation formula. When estimating the *JZUS-B* 2008 IF, the numerator is the number of all citations in 2008 to articles that had been published in *JZUS-B* in 2006 and 2007 (total 197), and the denominator is the number of citable articles published in *JZUS-B* in 2006 and 2007 (total 292). The current IF (on 12-23-2008) is 0.675 (197/292). With the 4-week tracking method (Ketcham, 2007; Wu *et al.*, 2008), we can also forecast *JZUS-B* 2008 IF in the range of 0.737~0.915 (averaged value is 0.807), which is higher than the predicted *JZUS-B* 2007 IF (211/371=0.569) (Table 2). In turn, the predicted *JZUS-A* 2008 IF is in the range of 0.222~0.274 (average IF is 0.236), also much larger than its predicted 2007 IF, 0.159 (Zhai *et al.*, 2009). As Journal Citation Reports (JCR) processing deadline is around mid-February following the JCR year, we can estimate IFs at least four months before their official release in June or July.

Two major reasons can explain the recent uptrend of *JZUS-B*'s IF: strict international peer review system and improving innovative information. Moreover, it is reasonable to anticipate a further increase in *JZUS-B* IF for 2009.

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* Project (No. 30824802) supported by the National Natural Science Foundation of China

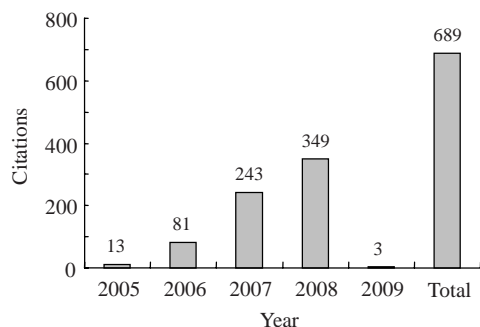


Fig.1 The annual SCI citation records of JZUS-B from 2005 to 2009

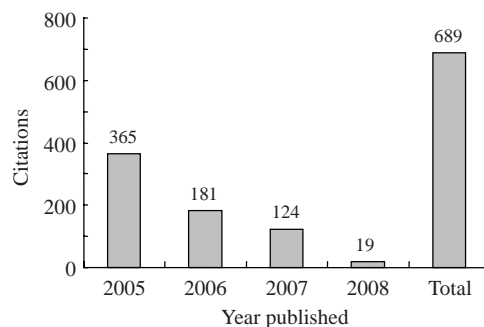


Fig.2 SCI citation records of annual JZUS-B articles from 2005 to 2008

Table 1 Top 10 SCI cited articles published in JZUS-B

Citations	Author	Affiliation	Year, Vol.(No.):Page	Article title [doi]
27	Druzhinina I. et al.	Research Area Gene Technology and Applied Biochemistry, Austria	2005, 6(2):100	Species concepts and biodiversity in <i>Trichoderma</i> and <i>Hypocrea</i> : from aggregate species to species clusters? [doi:10.1631/jzus.2005.B0100]
24	Jaleel C.A. et al.	Annamalai University, India	2007, 8(4):283	Changes in biochemical constituents and induction of early sprouting by triadimefon treatment in white yam (<i>Dioscorea rotundata</i> Poir.) tubers during storage [doi:10.1631/jzus.2007.B0283]
21	Gruys E. et al.	Utrecht University, the Netherlands	2005, 6(11):1045	Acute phase reaction and acute phase proteins [doi:10.1631/jzus.2005.B1045]
13	Abreu P.R.C. et al.	University of Estate of Rio de Janeiro, Brazil	2006, 7(6):429	Guava extract (<i>Psidium guajava</i>) alters the labelling of blood constituents with technetium-99m [doi:10.1631/jzus.2006.B0429]
12	Liu J. et al.	Zhejiang University, China	2005, 6(1):4	Serum protein fingerprinting coupled with artificial neural network distinguishes glioma from healthy population or brain benign tumor [doi:10.1631/jzus.2005.B0004]
10	Schmitt E. et al.	University of Montreal Hospital Centre (CRCHUM), Canada	2007, 8(6):377	DNA-damage response network at the crossroads of cell-cycle checkpoints, cellular senescence and apoptosis [doi:10.1631/jzus.2007.B0377]
9	Karthikeyan B. et al.	Annamalai University, India	2007, 8(7):453	Alterations in seedling vigour and antioxidant enzyme activities in <i>Catharanthus roseus</i> under seed priming with native diazotrophs [doi:10.1631/jzus.2007.B0453]
9	Wang J.A. et al.	Zhejiang University, China	2005, 6(4):242	Human bone marrow-derived mesenchymal stem cells transplanted into damaged rabbit heart to improve heart function [doi:10.1631/jzus.2005.B0242]
9	Zhang Y. et al.	Zhejiang University, China	2005, 6(2):87	Two ancient rounds of polyploidy in rice genome [doi:10.1631/jzus.2005.B0087]
8	Jiang Z.Y. et al.	Zhejiang University, China	2005, 6(12):1213	Study on EEG power and coherence in patients with mild cognitive impairment during working memory task [doi:10.1631/jzus.2005.B1213]

Table 2 Predicted JZUS-B 2008 IF by JIF formula

Date	Current IF	Δ IF for 4 weeks
02-23-2008	4/292=0.014	
03-23-2008	24/292=0.082	0.068
04-19-2008	41/292=0.140	0.058
05-18-2008	55/292=0.188	0.048
06-15-2008	74/292=0.253	0.065
07-13-2008	86/292=0.294	0.041
08-09-2008	121/292=0.414	0.120
09-21-2008	153/292=0.524	0.110
10-19-2008	162/292=0.555	0.031
11-15-2008	175/292=0.599	0.044
12-13-2008	197/292=0.675	0.076

Note: Predicted IF_{max} : $0.675+2 \times 0.120=0.915$; Predicted IF_{min} : $0.675+2 \times 0.031=0.737$; Predicted IF_{avg} : $0.675+2 \times 0.066$ (ΔIF_{avg})=0.807

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