ECSAC-Korea Journal Editors Workshop 2013 국내 학술지의 Scopus 등재를 위한 특별 세미나

■ 일시 및 장소: 2013.08.30.(금) 14:20~ / 한국연구재단 대전청사 1층 대강당

[행사일정]

시간	발표 내용	연 사	비고
13:50 – 14:20 (30′)		등 록	
14:20 - 14:30 (10')	개회사	이승종 이사장 한국연구재단	
14:30 - 15:00 (30')	Scopus 한국저널선정위원회 운영 경과 및 향후 과제	김정구 교수 Scopus 한국저널선정위원회 위원장 서울대학교 물리학과 명예교수	
15:00 - 15:30 (30′)	Scopus 한국저널 등재 분석 및 조언 (Rejection Analysis)	Derrick Duncombe Lead for CSAB & ECSAC, Elsevier Singapore	영어 발표
15:30 – 15:50 (20')	Production & Hosting (Elsevier와 공동출판)	장현주 차장 Elsevier 한국지사	
15:50 – 16:30 (40′)	Elsevier Helps Strengthen the Global Research Community	지영석 회장 Elsevier(네델란드) 본 가 회장 세계출판협회(IPA) 회장	영어 발표
16:30 - 17:00 (30')	질의 응답	전 체	
17:00 – 17:10 (10′)	폐희 선언	사회자	

[※] 영어 발표는 번역 자료를 제공하며, 발표 내용 및 순서는 사정에 따라 변경될 수 있습니다.

Contents

1. Scopus 한국저널선정위원회 운영 경과 및 향후 과제

김정구 교수

Scopus 한국저널선정위원회 위원장 서울대학교 물리학과 명예교수

2. Scopus 한국저널 등재 분석 및 조언 (Rejection Analysis)

Derrick Duncombe

Lead for CSAB & ECSAC, Elsevier Singapore

3. Production & Hosting (Elsevier 와 공동출판)

장현주 차장

Elsevier 한국지사

4. Elsevier Helps Strengthen the Global Research Community

지영석 회장

Elsevier(네덜란드) 본사 회장

세계출판협회(IPA) 회장

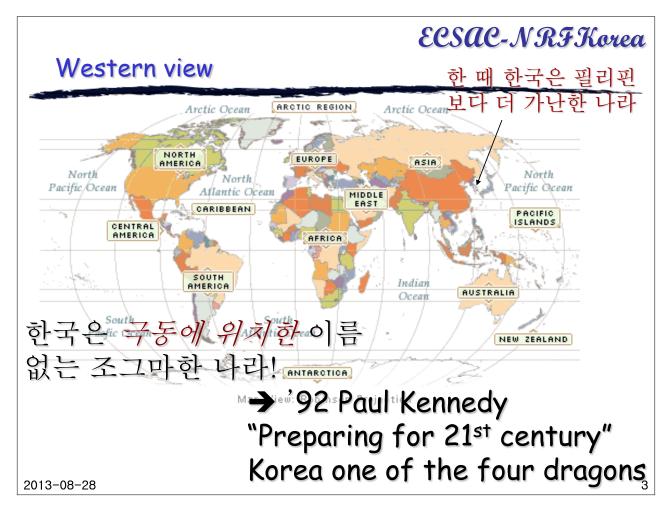
1. Scopus 한국저널선정위원회 운영 경과 및 향후 과제

김정구 교수

Scopus 한국저널선정위원회 위원장 서울대학교 물리학과 명예교수





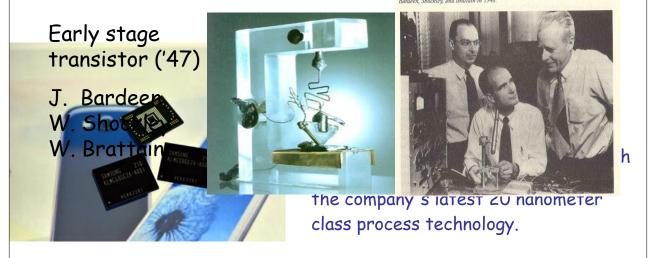




I-3 Phenomenal growth of ECSAC-NRIKorea semiconductor business in Korea

Korea became one of the leading or at least competing country in the field of electronics and heavy industry that started from the ashes of Korean war.

How this incredible dream became a reality?



5 2013-08-28

ECSAC-NRFKorea

Global competition in IT area

Era of Semiconductor in USA:

1956 Schockley Semiconductor Lab

1956 Nobel prize to Schockley, Brattain, Bardeen

1957 Fairchild, National, Texas Instrument

1968 Intel (Noyce, Moore, Grove)

1973 µA741 by Fairchild, CCD by Fairchild

8008 µ-processor by Intel, ADC by Analog Device

→ leading to the glorious

Korea

semiconductor era of USA

1969 Samsung Electronics Co (Home appliance)

1983 Samsung Semicondtor Co (memory device)

1990 Two companies merged

Well educated, yet hungry and hard working man powers. but most of all it was due to the eye-opening experiences provided through Korean war. > Importance of Globalization

Globalization: the most widely ECSAC-NRFKorea talked about subject at the end of 20th century

The emergence of new international network of social and economic system based on science and technology

Science & technology based globalization advanced countries advantageous less developed countries disadvantageous

Countries with rich cultural heritage but with less developed manufacturing capacity such as Spain or Italy, they will certainly survive or even prosper!

Importance of culture and history: Korean history and culture is part of human history

- → Importance of Globalization even in the field of Humanity and Social Science
- → Openness of the journals: readability, open access

7

ECSAC-NRFKorea II Society and Journal 복합학(176개) 예•체(248개) 인문(739개) **늉수해(83개)** 의약학(396개)

Korean academic society (total 3,185)

공학(2587

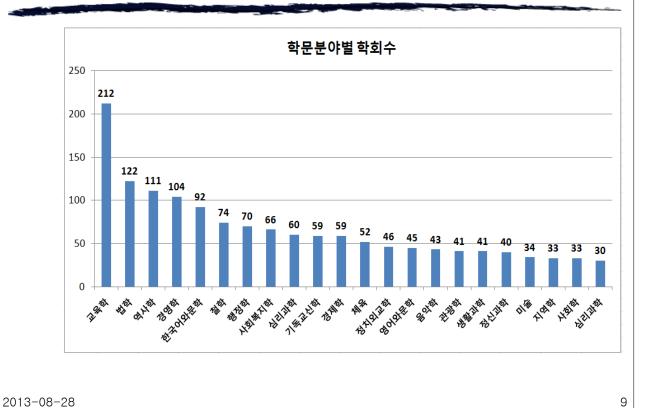
자연(160개)

(단위:개)

사회(1,125개)

구분	인문	사희	자연	공학	의약학	농수해	예술 체육	복합학	합계
학회 수	739	1,125	160	258	396	83	248	176	3,185
중분야 수	23	23	14	27	38	8	13	10	156
중분야별 평균학회수	32	48	11	10	10	10	19	18	20

학문분야(중분야)별 학회현황30개 이상인 경우



ECSAC-NRFKorea

동일학문분야(중분야) 학회 50개 이상인 학회운영 현황

중분야 구분	교육학	뺩	역학	한국 아 와 문학	경영학	찰학	행정학	세회 뙂 (학	경제학	기독교 신학	심리 과학	체육	계
분야별 등록 학회 수	212	122	111	94	104	73	&	86	59	58	60	52	1,079
최근 5년간 학술대회 개최 건 수가 0 건인 학회 수 (%)	122 (58%)	57 (47%)	51 (46%)	26 (28%)	60 (58%)	37 (51%)	38 (55%)	49 (75%)	30 (51%)	38 (68%)	48 (80%)	38 (73%)	594 (55%)
정기간행 학술지가 1건 미만인 학회 수 (%)	104 (49%)	49 (40%)	49 (44%)	21 (22%)	43 (41%)	34 (47%)	36 (52%)	43 (66%)	28 (47%)	36 (62%)	43 (72%)	27 (52%)	513 (48%)
설립된 지 10년 미만인 학회 수 (%)	65 (31%)	27 (22%)	24 (22%)	11 (12%)	38 (37%)	22 (30%)	30 (43%)	36 (55%)	11 (19%)	20 (34%)	29 (48%)	15 (29%)	328 (30%)
회원 수가 300명 미만인 학회 수 (%)	137 (65%)	94 (77%)	81 (73%)	45 (48%)	62 (60%)	61 (84%)	52 (75%)	53 (82%)	45 (76%)	49 (84%)	49 (82%)	37 (71%)	765 (71%)

II-2 Academic journals

Objectives:

- 1) Propagation and verification of research result propagation of information Widely read journal objective evaluation of the result
- 2) Evaluation on the ability of each researcher importance of the result related to the no of → Evaluation citation

Problems:

- 1) Volume increase in the no of societies and journals KCI journals 2,128 (WoS 11,487, Scopus 20,469) 발행횟수 인문학 2,3,4/yr 사회학 2,3,4/yr 4,6,12/yr 공학 4,6,12/yr
- 2) Journal당 연구자 수 극히 적음, reader의 수가 적어 journal의 파급효과 제한됨

3) 비도덕적 행위 다발

2013-08-28

11

ECSAC-NRFKorea

Strategy to globalize a few selected journals in Humanity & Social Science field

Healthy society

- 1. Merging with similar societies
- 2. Sustainable journal publication (joint publication)

Globalization

- 3. Evaluation system --- KCI
- 4. Language and format of the journal
- 5. Encourage representative journals to register on international citation system

2013-08-28

12

III. Scopus Story

III-1 Scopus Statistics

2011 3,884 ⇒ 1,394 review 36% success New title

2012 3,291 \Rightarrow 1,311 review 40% success

Publisher(25%), Editor(chief)(37%), Editor Suggester

board member(5%), Librarian(5%)

Publisher(54%), Editor(chief)(44%), Editorial Success

ratio board(38%), Librarian(19%)

Reasons for "not for review"

1) no publication ethics statement(660 cases)

2) short publication history(450 cases)

3) no ISSN (225 cases)

4) already indexed(200cases)

5) recently accepted (75 cases)

2013-08-28 13

ECSAC-NRFKorea

Top countries that suggested titles

1. U.S.A(390) 11. Russia

2. UK(230) 12. Poland

3. India(260) 13. Turkey 14. China 4. Italy(120)

5. Brazil(80) 15. Korea(55)

16. New Zealand 6. Spain(80)

7. Netherlands(75) 17. Columbia

18. Malaysia 8. Romania(75)

9. Iran(90) 19. Ukraine 10. Germany(75) 20. Australia

Subject area

1. Medicine(medical science) 6. Agri&Biological Science

2. Social science 7.Business, management, accounting

3. Art Humanities 8. Multidisciplinary

9. Economical, finance 4. Engineering

10. Mathematical 5. Computer Science

ECSAC-NRFKorea III-2 How to deal with unethical manipulation of the registered titles?

Citation

- extensive self citation > 20%
- editorial practice (encouraging self-citation)
- coercive citation
- citation cartel
- Mocked review

Plagiarism iThenticate to detect plagiarism

- plagiarism
- no fraudulent data, no duplicate

Reviewing guide

Openness: English or big language

to reduce language barrier

Diversity: Editorial board famed foreigners

Citedness: rather low priority?

2013-08-28 15

ECSAC-NRFKorea

III-3 About the sanction to the rejected titles?

Sanction for the rejected titles

- setting the embargo period to the rejected titles is decided solely by the subject chair
- average embargo period is about 34 months
- respect the opinion of the local board

In case if there is any problem on this issue, Chairperson of ECSAC can discuss the issue with responsible person at Elsevier(Mr. Wim Meesteer).

The approach of Elsevier about this issue is basically mutual respect and thrust between local board (ECSAC) and CSAB.





Strengthening the communication channel between CSAB and ECSAC members

2013-08-28 17

ECSAC-NRFKorea

First Name	Surname	Email address	Affiliation
Evan	Bieske	evanjb@unimelb.edu.au	University Of Melbourne
Peter	Brimblecombe	p.brimblecombe@uea.ac.uk	University Of East Anglia
Donald	Dingwell	dingwell@lmu.de	University Of Munchen
Wouter	Gerritsma	Wouter.gerritsma@wur.nl	Wageningen University
Karen	Holland	K.Holland@salford.ac.uk	University Of Salford
Peter	Miller	millerpm@musc.edu	Medical University Of South Carolina
David	Nelken	Sen4144@gmail.com	University Of Macerata
Manolis	Papadrakakis	mpapadra@entral.ntua.gr	National Technical University Athens
Ashok Kumar	Raina	raina@theory.tifr.res.in	TATA Institute Of Fundamental Research
David	Rew	D.Rew@soton.ac.uk	University Of Southampton
Jorg-Rudiger	Sack	sack@scs.carleton.ca	Carleton University
Peter	Stambrook	Peter.stambrook@uc.edu	University Of Cincinnati

First Name	Surname	Email address	Affiliation
Karin	Wahl-Jorgensen	Wahl-jorgensenk	Cardiff University
		@cardiff.ac.uk	
Olivier	Dumon	o.dumon@elsevier.com	Managing Director Research Markets,
			Amsterdam
Derrick	Duncombe	d.duncombe@elsevier.com	Partner Relations Manager Singapore
Elizabeth	Dyas	e.dyas@elsevier.com	Senior Product Manager Elsevier Amsterdam
Gillian	Griffiths	g.griffiths@elsevier.com	Analytical Product Manager Elsevier
			Amsterdam
Wim	Meester	w.meester@elsevier.com	Senior Product Manager Elsevier Amsterdam
Cameron	Ross	Cameron.ross@elsevier.com	Head Of Product Management Scopus
			Amsterdam
Judy	Salk	j.salk@elsevier.com	Director, Scopus And EV Content Management
Zheong	Khim	jnine@snu.ac.kr	Department Of Physics And Astronomy
Marco	Malgarini	Marco.malgarini@anvur.org	Senior Manager For Research ANVUR

2013-08-28 19

ECSAC-NRFKorea

IV ECSAC-Korea Activity

State of ECSAC-Korea

Date	activity
2011. 11.24	MOU exchange between Elsevier and NRF-Korea
2012. 5.18	1st Workshop ECSAC-Korea Orientation on the role of ECSAC
6.4-7	Visiting Elsevier HQ for consultation
8.29	2nd Workshop of ECSAC-Korea (Mr Ji and Mr Duncombe)
8.30	Special seminar for upgrading Korean journal Orientation of Korean journal editors for SCOPUS registration
9.26	3 rd Workshop on the evaluation process with Prof. HS Kim
10.1	1st stage evaluation process began by ECSAC
11.2	CSAB meeting as an observer at Penang
2013. 1.30	Planning meeting of 2013 ECSAC-Korea operation
3.18	Lecture "SCOPUS registering and role of editor" at KCSE
3.22	4th Workshop ECSAC-Korea
5.22-24	CSAB meeting as an observer at Nice

Over view of evaluation results

	Scopus-Admin			Scopus-Admin ECSAC KOREA (1st, 2nd stage)			Subject Chair-Final review		
	Suggested titles	NAFR titles	In process	Accepted for review		Under review	Accepted titles	Rejected titles	Under review
2011	34	17					10	6	1
2012	56	21	1	21	8	1	14	7	4
2013	24	17	2			5			

* NARF Titles : Non-eligible titles

2013-08-28 21

ECSAC-NRFKorea

1st Stage evaluation

Primary Field		No of title	Primary Field		No of title	Primary Field		No of title
1	Multidisciplinary	1	11	Earth & Planetary Science	1	21	Library and Information Sciences	-
2	Agricultural & Biological Sciences	4	12	Economics, Econometrics & Finance	2	22	Materials Science	-
3	Arts & Humanities	-	13	Education	-	23	Mathematics	1
4	Biochemistry, Genetics & Molecular Biology	1	14	Energy	-	24	Medicine	4
5	Business, Management & Accounting	1	15	Engineering	5	25	Neuroscience	-
6	Chemical Engineering	-	16	Environmental Science	1	26	Nursing	-
7	Chemistry	1	17	Health Professions	3	27	Pharmacology, Toxicology & Pharmaceutics	-
8	Computer Science	6	18	Immunology & Microbiology	-	28	Physics & Astronomy	-
9	Decision Sciences	_	19	Language, Linguistics,	2	28	Psychology	-
	2000011000			Communication and Media		30	Social Sciences	1
10	Dentistry	-	20	Law, Crime, Criminology and Criminal Justice	-	31	Veterinary	-
Titles applied for registration (1st evaluation) Total: 34								

Reject Reason

10 out of 34 applications rejected

1. Journal A

Poor homepage

2. Journal B

Not really scientific

Not enough information available (Poor homepage)

Missing indication of quality control (e.g. peer review)

3. Journal C

Peer review: not mentioned anywhere.

Not clearly stated whether a manuscripts submitted for publication would be reviewed independently by at least two referees or not.

English abstracts: OK.

All the abstracts of articles examined so far are written in English.

Regular publication: No. The first vol of 2010 consist of two issues at Mar and Sep.

The second vol of 2011, however, had another issue at Dec. We have to see whether Dec issue would be published this year or not.

4. Journal D

Poor quality of abstracts

2013-08-28 23

ECSAC-NRFKorea

24

Reject Reason

Journal E

Citedness below expectations

No international diversity among authors

Comments Only one issue published per year; Author instruction needs to be described more in detail

6. Journal F

No international diversity among editors

Comments Some part of reference listing is inconsistent with author instructions

7. Journal G

Delayed publishing schedule Irregular Publication in 2000, and only 3 issues published in 2006 and 2007

8. Journal H

References are not in consistent formats

9. Journal I

Delayed publishing schedule.

Comments Only 2 issues were published in 2012 based on home page information

10. Journal J

No international diversity among authors

Missing indication of quality control (e.g. peer review) No international diversity among authors Title not easily accessible (e.g. non-English website)

No international diversity among editors / Unclear editorial concept/strategy

V. Summary

Goal of ECSAC-Korea:

Upgrading Korean academic level through enhancing the international visibility of the Korean journals

Wish list?

- 1. Self sustainable academic societies thru merging similar ones
 - for society with a larger number of members
 - for sound financial structure
- 2. Maintaining professional editorial board
 - to increase the impact of the journal
 - forming a consultative body for editors
- 3. Encouraging societies to enhance visibility
 - to join an international citation system (SCOPUS)

2013-08-28 25

ECSAC-NRFKorea

V. Summary

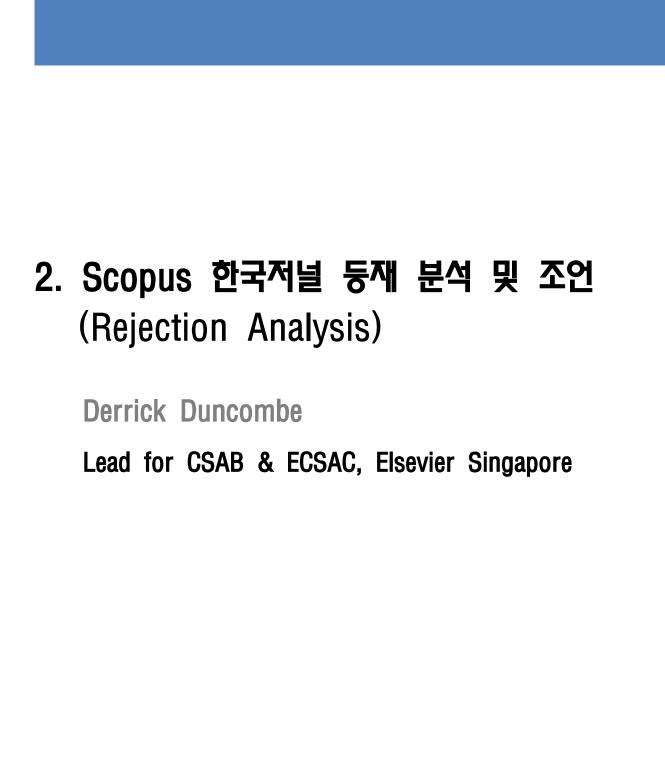
- ECSAC-Korea was quite successful in drawing attention of society for "globalization"
- The effect of ECSAC-Korea is not reflected yet.
- Sharing the information ECSAC-Korea has very little information on 2nd and 3rd evaluation results (for the purpose of statistics and improvement of evaluation process)
- Mobilizing subject chair of ECSAC-K to deliver a special seminar at the annual meeting of society, thus encouraging society to prepare registering on SCOPUS.
- -Strengthening the link between CSAB and ECSAC subject-chairs
- Need to prepare a policy on the shaky or bogus journals?

Thank You

<u>jnine@snu.ac.kr</u>

Note

Note





Scopus

ECSAC-KOREA JOURNAL EDITORS WORKSHOP

Presented by: **Derrick Duncombe** Lead for CSAB & ECSAC 30 August 2013





Agenda

Scopus

Quick Recap (2012)

- 1) Scopus Journal Selection criteria (Scopus 저널 심사기준)
- 2) Publication ethics (출판윤리)

(2013)

1) Case study overview: Rejection analysis (사례연구: 등재 누락 분석)







Scopus

QUICK RECAP (2012)

- 1) SCOPUS JOURNAL SELECTION CRITERIA
- 2) PUBLICATION ETHICS





1) Quick recap: Scopus journal selection criteria Technical criteria (Pre-selection conditions)

Scopus

Eligibility (최소요건 심사)

- Peer-review: 동료 연구자의 심사평가
- English abstracts: 영문 초록
- Regular publication: 학술지의 정기적인 발행
- References in Roman script: 참고문헌 영문으로 작성
- Publication ethics and malpractice statement: 출판물 윤리 규정





Scopus selection criteria a combination of quantitative and qualitative measures

Scopus

	■ Convincing editorial concept/policy: 편집정책 및 방향
Journal	■ Level of peer-review: 동료평가 제도
policy (정책)	■ Diversity in geographic distribution of editors: 편집인의 다양성
	■ Diversity in geographic distribution of authors: 저자의 다양성
	 Academic contribution to the field: 학문에 기여도
Quality of content	■ Clarity of abstracts: 초록 상태
content (편집)	■ Quality and conformity with stated aims & scope: 학술지 목적에 부합 정도
	■ Readability of articles: 이독성
Journal standing	 Citedness of journal articles in Scopus: 학술지 인용도
(인용도)	■ Editor standing: 편집인 인용도
Regularity (정규성)	■ No delay in publication schedule: 정시 발행
Online	■ Content available online: 온라인 접근성
availability	■ English-language journal home page: 홈페이지 언어
(접근성)	■ Quality of home page: 홈페이지 상태
ELCEVIED	



http://www.info.sciverse.com/scopus/ scopus-in-detail/content-selection



Title submission queries

Scopus

All queries regarding Scopus or title submission should be emailed directly to one central place:

(Scopus 등재 신청 문의)

titlesuggestion@scopus.com





2) Quick recap: Publication Ethics

Scopus

www.ethics.elsevier.com

(출판윤리 관련 싸이트)

Developed with advice from independent experts incl. COPE, librarians, editors

(독립적인 전문가 그룹인 COPE, 사서, 편집인들의 조언으로 개발)

Teaching the "ground rules" (기본 원칙 교육)

...and what happens when they're broken (규칙을 지키지 않았을 때, 일어날 수 있는 사항들)

Real-life stories of those affected by plagiarism etc (표절 등의 영향을 받은 사례)





CASE STUDY OVERVIEW: REJECTION ANALYSIS

(사례연구: 등재누락 분석)



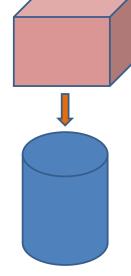


Increasing your chances

Scopus

Trying to fit a square peg into a round cylinder?

(둥그런 실린더에 네모난 못을 억지로 끼워 넣기 위한 노력?: 적합하지 않은 상황)



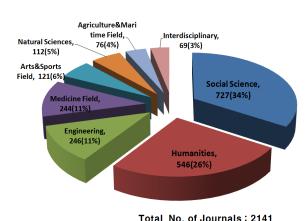
Make it past Stage 1: Technical criteria (Pre-selection conditions)

Analyzing the common reasons for rejection helps you know the areas that needs to be improved.

등재 누락에 대한 일반적인 원인 분석을 통한 개선사항 파악)

Subject field distribution of KCI registered academic Journals in Korea:





<KCI에 등재된 저널의 주제 분포>

Liberal arts & Humanities and Social Science: 60%.

The cross citation (KCI) ratio among journals in the field of Humanities and Social Science is much higher than that of Natural Science and Engineering. (인문, 사회과학분야 저널간의 인용비율이 자연과학, 공학분야 저널간의 인용비율보다 더 높음)

All the more important to have the ECSAC-Korea

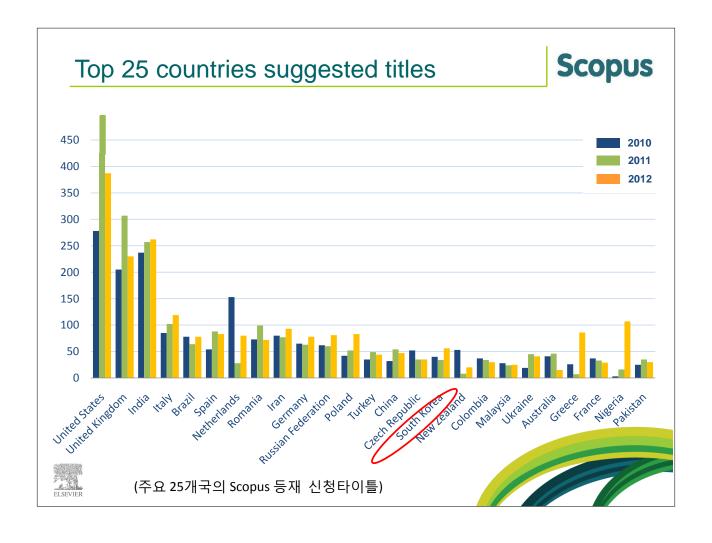
Goal of ECSAC-Korea:

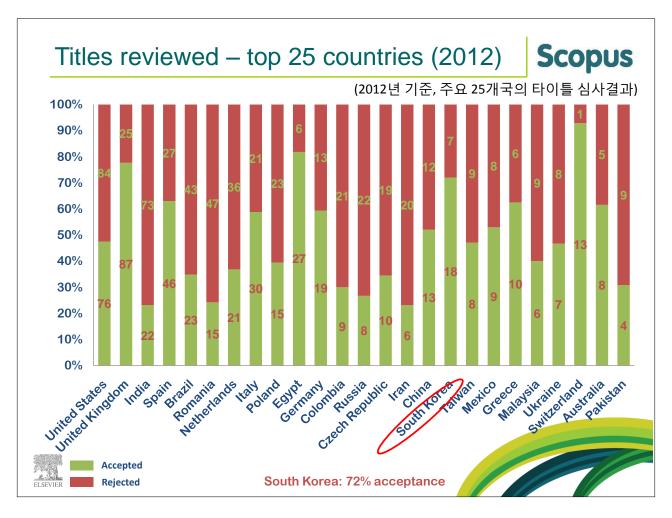
Upgrading Korean academic level through enhancing the international visibility of the Korean journals

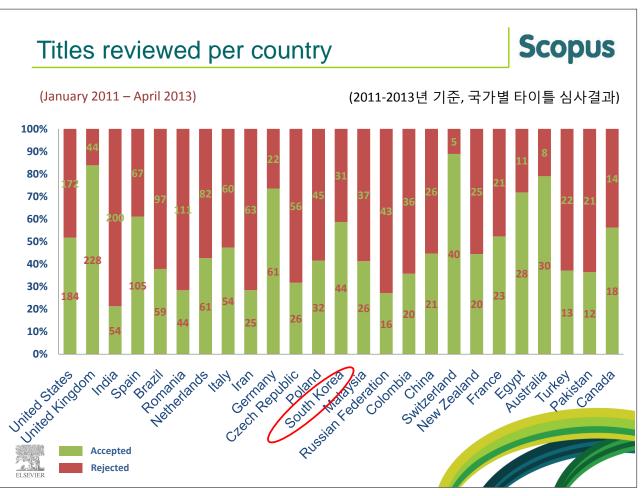
(한국저널의 국제적인 가시성 향상을 통한 한국의 학문수준 업그레이드)

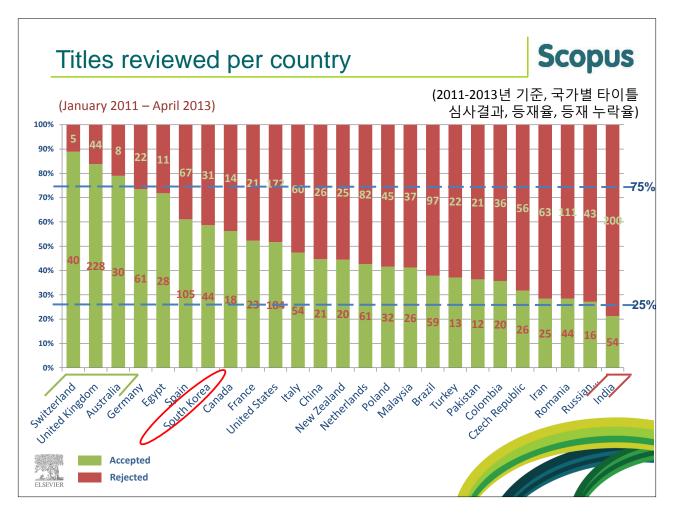


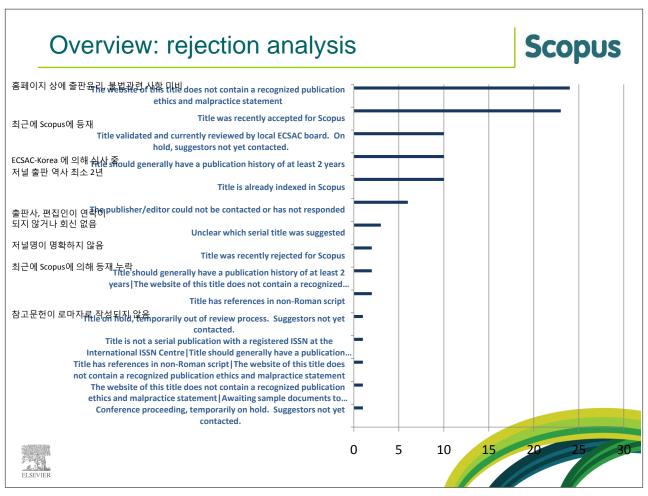
Increasing your chances Scopus The importance of ECSAC-Korea **Education of local** editors/publishers (한국의 편집인, 출판사 교육) Insight on selection policy and First right of refusal for process local titles (심사 정책 및 과정에 대한 통찰력) Landscaping of local titles Local knowledge for title reviews Increase chances of local (타이틀 심사를 위한 한국적인 지식) titles being accepted 한국타이틀 등재 누락에 대한 첫번째 권리 한국타이틀에 대한 개관 한국 타이틀의 등재율을 높일 수

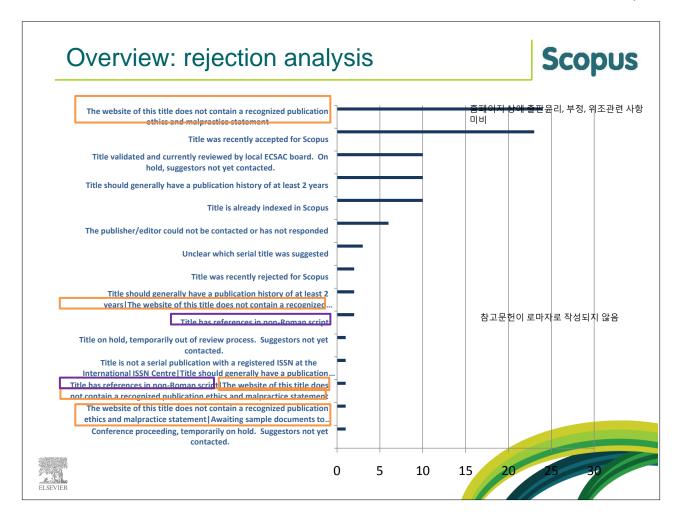












Overview: rejection analysis

Scopus

1) The website of this title does not contain a recognized publication ethics and malpractice statement

(출판 윤리, 위조관련 사항에 대한 정보를 포함하고 있지 않음)

2) Title has references in non-Roman script (참고문헌이 로마자(영어)로 표기되어 있지 않음)





Technical criteria (Pre-selection conditions) **Scopus**

(등재신청 웹 페이지)



TITLE SUGGESTION

Help

Title suggestion agreement

We ask you to provide full title detail information: all questions in the suggestion form are mandatory, and you will also be required to upload sample articles in order to complete the suggestion.

If you are not the publisher or editor of the title, or otherwise in a position to provide all the information required, we recommend that you contact the publisher of the title and request that the publisher complete the suggestion form.

Agreement



am aware of the general guidelines that Scopus uses to select titles.

opus only allows titles to be evaluated when they meet the following minimum criteria:

- The title should publish peer reviewed content. The title should be published on a regular basis (i.e. have an ISSN that has been registered with the International ISSN Centre). The title should have English language abstracts

The title should have a publication ethics and publication malpractice statement.



Copyright © 2012 Elsevier B.V. All rights reserved.

SciVerse® is a registered trademark of Elsevier Properties S.A., used under license. Scopus® is a registered trademark of Elsevier B.V. Cookies are set by this site. To decline them or learn more, visit our cookie policy page.

Completing the Title Suggestion form





TITLE SUGGESTION

(등재 신청 시 질문은 "titlesuggestion@scopus.com 으로 이메일 문의)

•

Help

Please read carefully before completing this form

- Please check the <u>Scopus title list</u> to determine whether the title you wish to suggest is already in Scopus. Please be aware that active Medline-sourced titles (see column M in the title list) may also be suggested for full Scopus coverage.
 New titles are reviewed on a continuous basis by the independent Scopus <u>Content Selection & Advisory Board</u> (CSAB).
 We strive to evaluate new title suggestions as quickly as possible, however, please allow for several months up to one year for the review process to be completed.
 The CSAB uses sample documents of published content to evaluate the quality of a title. We recommend that a title has The CSAB uses sample documents of published content to evaluate the quality of a title. We recommend that a title has published for at least two years before it is suggested for inclusion in Scopus and we may reject a title suggestion for review if the publication history is too short to review the title. You will be asked to provide sample PDFs as a final step in the title suggestion process. It is not possible to complete the title suggestion process without uploading PDFs.

 Be aware that the evaluation of a title is not influenced by the number of times it is suggested. Multiple submissions of the same

- title will only delay the review process.

 Review of your title suggestion does not guarantee selection of the title.

you have any questions about the evaluation process, you can contact us at titlesuqqestion@scopus.com.

* = mandatory field. Input is required

Scopus Title Suggestion

Contact information

* Form of address: - select -

* Your first name and/or initials

Completing the Title Suggestion form

Scopus

Additional information	
* Please describe the aims & scope of the title (in English):	
* What is the start year (of current title):	
* Has this title undergone any name changes, mergers or splits:	⊚ Yes
spiits:	No Don't know
Publisher contact name:	
Publisher contact e-mail address:	
Additional publisher contact name:	
Additional publisher contact e-mail address:	
Editorial contact name:	
Editorial contact e-mail address:	
Additional editorial contact name: Additional editorial contact e-mail address:	
* Is there a publication ethics and publication malpractice statement for this title:	● Yes (학회, 출판사 웹 페이지에 출판 윤리, 위조등교 ● No 같은 사항이 명시되어 있습니까?

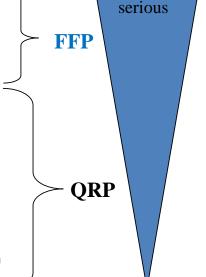
Types of ethics complaints

Scopus

- ■데이터, 사례 조작
- ■고의적인 데이터 위조
- ■표절

- **Fabrication of data or cases**
- Wilful falsification of data
- **Plagiarism**
- ■윤리 준수하지 않음
- ■누락데이터를 인정하지 않음
- ■이상치를 무시
- ■부작용에 대한 자료 없음
- ■저자권 선물
- ■중복출판
- ■불충분한 문헌 조사

- No ethics approval
- Not admitting missing data
- Ignoring outliers
- No data on side effects
- Gift authorship
- **Redundant publication**
- Inadequate literature search



FFP = Falsification, Fabrication, Plagiarism (날조/조작, 변조/위조, 표절)



QRP= Questionable Research Practice; (부적절한 연구 행위)

Plagiarism

Scopus

- Literal copying without acknowledgement or permission
- Substantial copying
- Paraphrasing ideas without acknowledgement
- Reproducing portions of an author's own work

- 승인 또는 허락 없이 그대로 복사(인용)
- 상당 부분 복사
- 승인 없이 아이디어 활용
- 저자 자신의 논문을 일정부분 복사(재인용)





Educating researchers on Publication ethics Scopus



www.ethics.elsevier.com





Publishing Ethics Resource Kit (PERK)

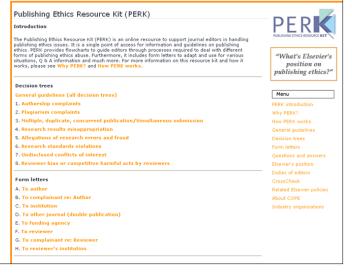
Scopus

First stop for editors: advice on how to handle ethics Cases (편집인들이 첫번째로 검토해야 할 사항: 윤리 관련 이슈를 어떻게 처리해야 하는지에 대한 조언)

Policy statements, form letters, case studies (some from COPE), flow-charts and decision-trees (정책, 포맷, 사례, 플로우

차트, 의사결정분석방법)

http://www.elsevier.com/editors/perk





25

COMMITTEE ON PUBLICATION ETHICS



- Independent body (독립기구)
- Started in 1997 as "self-help" group of editors (e.g. Richard Horton, Lancet) (1997년 편집인들의 "self-help" 그룹으로 1997년
- As of 2008, all Elsevier journals part of COPE: first major publisher to do so (2008년 모든 엘스비어 저널은 COPE의 멤버쉽 가입, 엘스비어는 세계적인 출판사 중 최초로 COPE 멤버)
- Website with searchable database of sample cases back to 1997 (웹 싸이트에 1997년 이후 사례 제공)
- Teleconferences where editors can seek advice on tricky Cases (원격회의를 통해 복잡한 사례에 대한 조언)
- Online distance-learning modules for Editors (편집인을 위한 온라인 원격 학습 모듈)



http://publicationethics.org/



Scopus

QUICK REFERENCES





The broad source for research answers

Scopus

21,000 active titles

20,000 Peer reviewed journals

393 Trade journals

371 **Book series**

240 Conf. series

A rich and extended coverage including

21.2M pre-1996 records 29.5M post-1995 records >50M records

64k pre-1996 conf events 10.5k post-1995 conf events 5.7M total conference records (10%)

844k book items

- Content from > 5,000 publishers
- "Articles in Press" from > 3,750 titles
- Abstracts going back to 1823
- 40 languages covered
- 380 M integrated scientific websites
- 24M Patents

Total average processing time: 5 days

<Scopus 등재 출판물 형태 분석>





Breadth of coverage across subject areas

Scopus

Physical Sciences 6,600

- Chemistry
- Physics
- Engineering
- etc.,

Health Sciences 6,300

- (100% Medline)
- Nursing
- Dentistry
- etc.,

Social Sciences 6,350

- Psychology
- Economics
- Business
- A&H
- etc.,

Life Sciences 4,050

- Neuroscience
- Pharmacology
- Biology
- etc.,

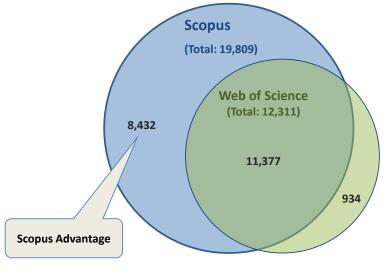
More than 20,400 titles in Scopus, titles can be in more than one subject area





Broader coverage than nearest peer

Scopus



<Scopus와 경쟁 DB의 타이틀 중복 현황 비교>



Source: http://adat.crl.edu/, May 2012

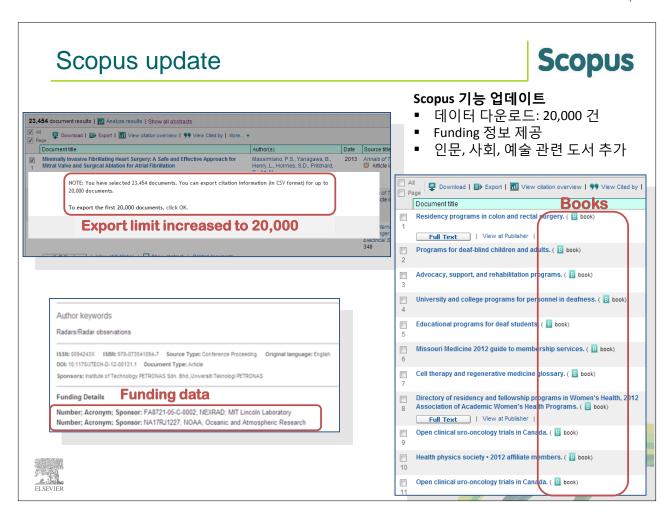


Scopus Broader coverage = higher citations New England Journal of Medicine Volume 350, Issue 9, 26 February 2004, Pages 865-875 Relation of Serial Changes in Childhood Body-Mass Index to Impaired Glucose Tolerance in Young Adulthood Bhargava, S.K.^a, Sachdev, H.S.^{bf} 🜌 , Fall, C.H.D.^e, Osmond, C.^e, Lakshmy, R.^c, Barker, D.J.P.^e, Biswas, S.K.D.^d, Ramji, S.^b, Prabhakaran, D.^c, Reddy, K.S.^c Cited by since 1996 a Department of Pediatrics, Sunder Lal Jain Hospital, Delhi, India b Department of Pediatrics, Maulana Azad Medical College, New Delhi, India This article has been cite 425 times (Showing the 2 most recent) ° Department of Cardiology, All India Inst. of Medical Sciences, New Delhi, India Wehkalampi, K., Muurinen, M., Wirta, S.B. Altered Methylation of IGF2 Locus 20 Years after Preterm Birth at Very Low Birth Weight (2013) PLoS ONE DeBoer, M.D., Chen, D., Burt, D.R. Early childhood diarrhea and cardiometabolic risk factors in adulthood: The Institute of Nutrition of Central America and Panama Nutritional Supplementation Longitudinal Study (2013) Annals of Epide View details of all 425 citations Web of Science® Title: Relation of serial changes in childhood body-mass index to impaired glucose tolerance in young adulthood Author(s): Bhargava, SK; Sachdev, HS; Fall, CHD; et al. Source: NEX ENGL: ND JOURNAL OF MEDICINE Volume: 350 | Issue: 9 | Pages: 865-875 | DOI: 10.1056/NEJMoa035698 | Published: FEB 26 2004 Times Cited: 385 (from Web of Science) Full Tea [• View abstract] Scopus의 등재 출판물의 종수가 많기 때문에 피인용 횟수 상대적으로 높음

Scopus coloction critoria

elsevier http://www.info.sciverse.com/scopus/scopus-in-detail/content-selection

Scopus selection crite	eria	Scopus
Eligibility (최소요건 심사) Peer-review: 동료 연구자의 심사평가 English abstracts: 영문 초록 Regular publication: 학술지의 정기적인 발행	Journal policy (정책)	 Convincing editorial concept/policy: 편집정책 및 방향 Level of peer-review: 동료평가 제도 Diversity in geographic distribution of editors: 편집인의 다양성 Diversity in geographic distribution of authors: 저자의 다양성
 References in Roman script: 참고문헌 영문으로 작성 Publication ethics and malpractice statement: 출판물 윤리 규정 	Quality of content (편집)	 Academic contribution to the field: 학문에 기여도 Clarity of abstracts: 초록 상태 Quality and conformity with stated aims & scope: 학술지 목적에 부합 정도
	Journal standing (인용도)	 Readability of articles: 이독성 Citedness of journal articles in Scopus: 학술지 인용도 Editor standing: 편집인 인용도
-to-space (Control of the Control of	Regularity (정규성) Online availability	 No delay in publication schedule: 정시 발행 Content available online: 온라인 접근성 English-language journal home page: 홈페이지 언어
	(접근성)	■ Quality of home page: \$3000000000000000000000000000000000000



Questions?

Scopus

titlesuggestion@scopus.com





ORCID

Scopus

Claiming who you are

Open Researcher and Contributor ID(ORCID): 세계 연구자들의 이름표기 문제를 다루며, 연구자 별 고유번호 부여





The Challenge: Scholarly Name Ambiguity

Scopus

Many researchers that too closely resemble one another.

(비슷한 이름의 연구자들이 매우 많음)







Dr. Lee

Dr. Lee Dr. Lee

Researchers publish under name variations.



Dr. Lee Dr. J. Lee Dr. James Lee

연구자들은 이름을 여러 가지 방식으로 표기하여 논문 출판



The Solution: The ORCID Registry

Scopus





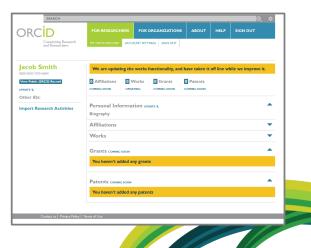


Dr. Lee Dr. J. Lee Dr. James Lee Dr. James Lee 46533489

Open Research and Contributor ID (ORCID)

Aims to solve the name ambiguity problem in research and scholarly communications by creating a central registry of unique identifiers for individual researchers

연구자별 고유번호 부여함으로써 연구 및 학술 커뮤니케이션에 나타날 수 있는 저자들의 이름 모호성 문제를 해결하는 것을 목표로 함



The (Future) Benefits of ORCID

Scopus

By issuing unique identifiers to all researchers, ORCID aims to facilitate discovery and evaluation for

researchers, institutions, scholarly societies and publishers. (ORCID는 모든 연구자에 고유 식별번호를 발행하여, 연구자, 기관, 학회, 출판사들이 검색 및 평가를 편리하게 할 수 있도록 지원)





Joins faculty or student body

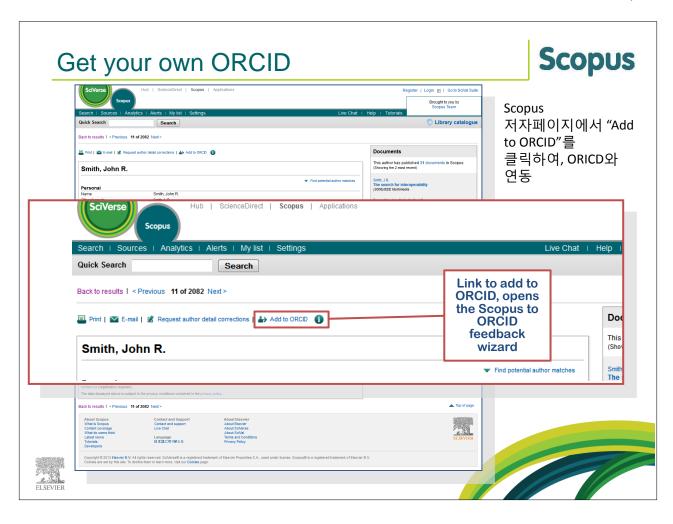
Joins scholarly society

Applies for grant

Submits manuscript









Scopus

orcid.scopusfeedback.com Scopus의 저자 페이지를 통한 "ORCID" 계정 셋업



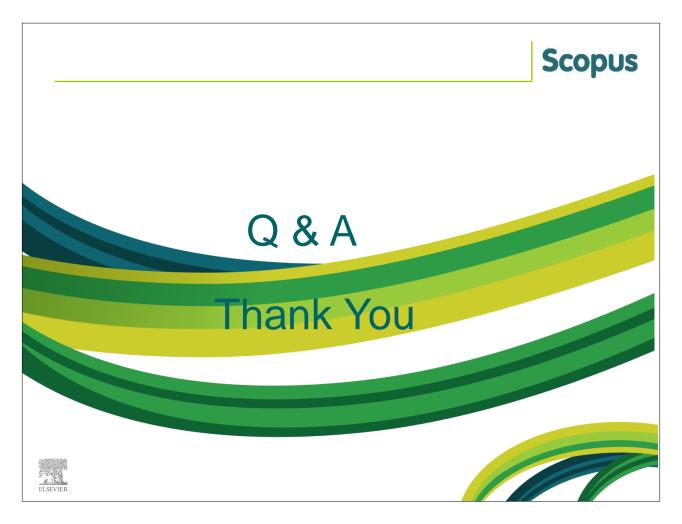
Enter via Scopus2ORCID Wizard or from ORCID!







Scopus Great free tool to manage your research http://www.mendeley.com/ (연구관리를 위해 무료로 이용 가능한 툴) Sign up & Download Sign in 🔻 MENDELEY Papers ▼ Search. Q Get Mendeley What is Mendeley? Papers Groups It's time to change the way we do research. Mendeley is a free reference manager and academic social network that can help you organize your research, collaborate with others online, and discover the latest research. Automatically generate bibliographies Collaborate easily with other researchers online Easily import papers from other research software · Find relevant papers based on what you're reading Access your papers from anywhere online . Read papers on the go, with our new iPhone app View more features.. First name Last name WATCH THE VIDEO E-mail address or sign in with



Note

3. Production & Hosting (Elsevier 와 공동출판)

장현주 차장

Elsevier 한국지사





Production and Hosting services

- Elsevier와 공동출판-

30 August, 2013 Elsevier Korea Product Sales Manager, Scopus & SciVal 장현주 차장



Contents

Bibliometric index for Journals

- Journal Index
- Journal Performance Analysis
- Authors Performance Analysis

Production & Hosting Service

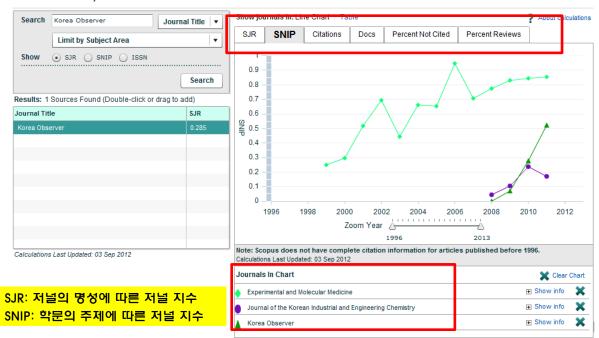
- **Production & Hosting**
- Case Studies
- Summary



저널 평가 및 비교

개별 저널 평가 및 분석: 논문 수, 피인용 건수, 인용되지 않은 논문 수, 리뷰 비율, SJR, SNIP 지수 (3년간의 인용패턴, 1년 2회 업데이트)

Journal Analyzer

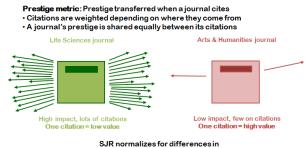




SJR (SCImago Journal Rank)



- SJR (SCImago Journal Rank) Indicator: 학술지의 명성에 따른 지수
- 스페인 Consejo Superior de Investigaciones CientOficas 교수인 Felix de Moya에 의해 개발
- "모든 인용을 동등하게 평가하면 안 된다"는 전제하에 Google의 PageRank 알고리즘을 기반 으로 완성
- 학술지의 주제, 질, 명성은 SJR지수를 산출하는 데 직접적인 영향 미침
- 예) 인용도 지수가 낮은 학술지에서 인용하는 것보다 Cell, Nature, Lancet 등 인용도 지수가 높은 학술지에서 인용하는 것을 더 높이 평가 (Transfer of Prestige: 명성의 이전)



citation behaviour between subject fields

SJR 평균 = 1

$$SJR2_{i} = \frac{PSJR2_{i}}{\left(Art_{i} / \sum_{j=1}^{N} Art_{j}\right)} = \frac{PSJR2_{i}}{Art_{i}} \cdot \sum_{j=1}^{N} Art_{j}$$

SJR i: 학술지 i의 SCImago Journal Rank Cji: 학술지 j로부터 학술지 i에 대한 인용빈도 Cj: 학술지 j의 참고문헌 수 Art j: 학술지 j의 논문 수, N: 학술지 종수 Cosji: 학술지 j와i의 동시인용형태 간의 코사인

$$PSJR2D = \sum_{i=1}^{N} \sum_{j=1}^{N} \frac{\left(Cos_{ji} \cdot C_{ji}\right)}{\sum\limits_{k=1}^{N} \left(Cos_{jk} \cdot C_{jk}\right)} \cdot PSJR2_{j}$$



SNIP (Source Normalized Impact per Paper)

- Leiden 대학 CWTS (Center for Science & Technology Studies) Henk Moed 교수에 의해 개발된 평가지수
- SNIP은 해당연도의 Impact 와 인용잠재력 (Citation Potential) 간의 비율로 계산
- 학술지의 주제분야별 인용패턴 고려
- 논문이 얼마나 빠르게 해당 주제분야에 영향을 미치는지
- 주제분야 학술지의 Coverage 고려

SNIP 2 = RIP (Raw Impact Per Paper)

RDCP (Relative Database Citation Potential)

2011 RIP: 특정 학술지에서 2010,2009,2008년에 출판된 논문들의

2011년에 인용된 횟수

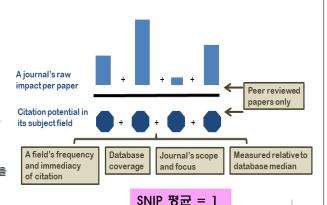
2010-2008 년에 발표된 논문수로 나눈 값

2011 DCP: 특정 학술지에서 2010, 2009,2008년에 출판된 논문들을 2011년도에 인용한 모든 논문에서 인용한 참고문헌들 중 2010-2008년 출판된 참고문헌들의 총수

인용한 논문들의 총수로 나눈 값

RDCP: 데이터베이스에 포함된 학술지들에 대해 DCP 순서로 나열했을

때의 중간 값에 해당하는 학술지의 DCP

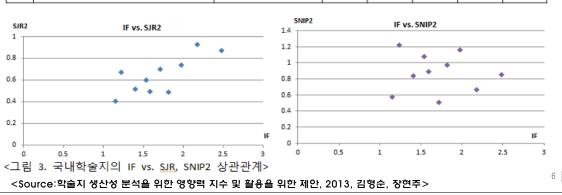




Journal index Comparison

<우리나라 학술지: 2011 영향력 지수 비교>

No	Title	Publisher	2011 IF	Rank	5-Yr IF	2011 SNIP2	2011 SJR2
1	Experimental and Molecular Medicine	생화학분자생물학회	2.481	50 of 111	2.384	0.854	0.871
2	Molecules and Cells	한국분자세포생물학회	2.178	191 of 289	1.993	0.663	0.926
3	Journal of Industrial and Engineering Chemistry	한국공업화학회	1.977	51 of 152	1.647	1.159	0.739
4	Electronic Materials Letters	대한금속재료학회	1.819	73 of 231		0.974	0.486
5	BMB Reports	생화학분자생물학회	1.718	220 of 289	2.003	0.504	0.698
6	Archives of Pharmacal Research	대한약학회	1.592	38 of 59	1.624	0.892	0.492
7	Korean Journal of Radiology	대한영상의학회	1.538	65 of 116	1.882	1.078	0.597
8	Journal of Medicinal Food	한국식품영양과학회	1.408	55 of 128	1.687	0.838	0.514
9	Smart Structures and Systems	국제구조공학회	1.231	28 of 118	1.248	1.218	0.669
10	Macromolecular Research	한국고분자학회	1.153	45 of 78	1.212	0.572	0.407





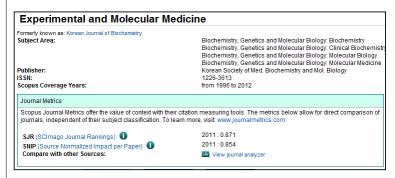
Journal Performance Analysis

Journal Subject, SNIP, SJR, International Collaboration, Uncited rate, Citation Per Article (CPA), H-index, Usage (Abstract, Fulltext Link) Analysis data source: 3 Years Data, Scopus, SCImago, Scopus usage(প্রধার)

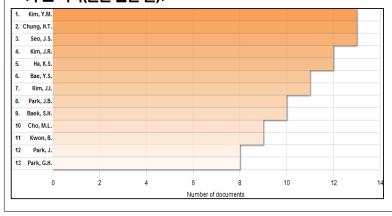
Source Title	Subject	SNIP Percentile	SJR Percentile	International Collaboration	Uncited Rate	Citation Per Article	Aveage H-index	Abstract Usage	Fulltext link Usage
Journal of Industrial	Physical	26.01%	20.89%	13.40%	25.0%	4.2	10.7	6524.3	4874.7
International Journa	Physical	26.09%	38.30%	12.16%	29.6%	2.4	6.7	1663.0	1048.7
Metals and Materials	Physical	27.36%	20.75%	16.45%	28.8%	2.7	7.7	2487.7	1795.3
ETRI Journal	Physical	27.86%	38.06%	12.19%	31.4%	2.9	7.7	1708.7	679.3
Wind and Structures,	Physical	29.70%	31.00%	31.15%	29.2%	2.5	4.3	978.3	311.0
Smart Structures and	Physical	30.10%	31.01%	27.38%	34.2%	3.9	6.7	961.0	299.0
International Journa	Physical	31.35%	37.76%	9.60%	25.2%	2.9	8.3	1335.3	890.0
International Journa	Physical	31.94%		0.00%	39.5%	1.4	3.0	164.5	113.5
Current Applied Phys	Physical	34.16%	36.06%	14.73%	30.3%	4.3	15.3	13813.3	13475.0
Photochemical and Pl	Physical	36.15%	32.06%	33.81%	30.9%	5.7	13.3	4908.0	4785.7
Nuclear Engineering	Physical	36.36%	45.45%	10.71%	33.0%	2.2	4.7	838.3	341.0
Steel and Composite S	Physical	36.79%	19.81%	11.23%	29.1%	2.1	3.7	755.7	228.0
International Journa	Physical	36.99%	60.80%	11.54%	37.3%	1.6	3.7	195.0	119.0
Geosciences Journal	Physical	37.41%	32.64%	30.68%	32.0%	1.9	3.7	812.3	385.7
Journal of Electrical 1	Physical	38.83%	58.14%	15.42%	34.9%	2.1	5.3	509.3	238.0
Steel and Composite S	Physical	36.79%	19.81%	11.23%	29.1%	2.1	3.7	755.7	228.0
Metals and Materials	Physical	27.36%	20.75%	16.45%	28.8%	2.7	7.7	2487.7	1795.3



Journal Performance Analysis – 개별저널 1



<주요 저자(논문 출판 순)>



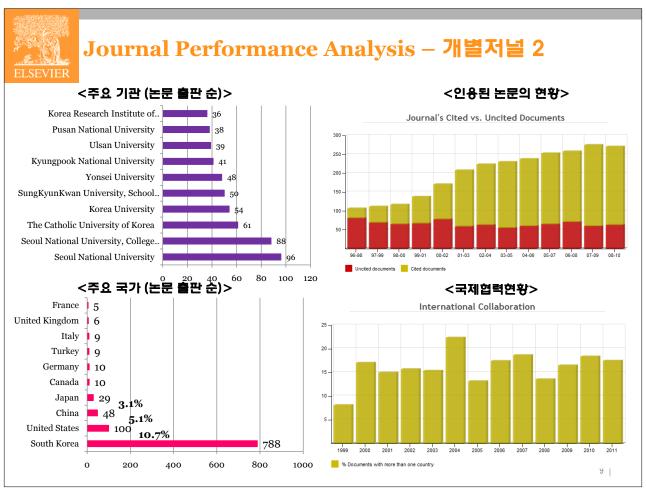
<논문 출판 현황>

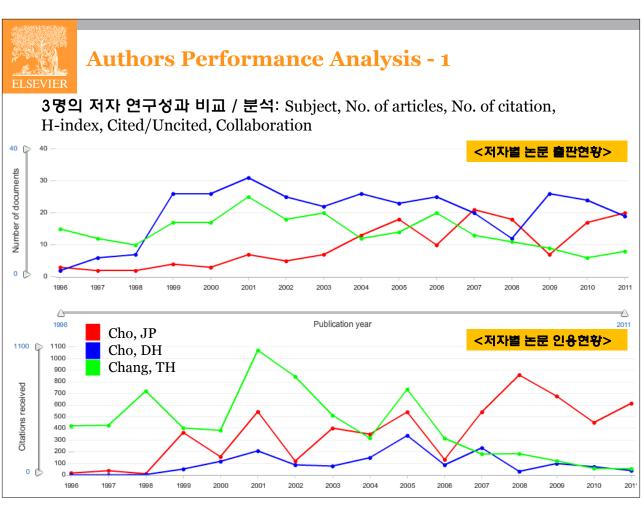
YEAR	Articles	Citations	CPA
2013	35	6	0.2
2012	83	157	1.9
2011	80	354	4.4
2010	87	647	7.4
2009	103	1,115	10.8
2008	81	762	9.4
2007	91	1,360	14.9
2006	86	1,318	15.3
2005	76	1,346	17.7
2004	76	1,458	19.2
2003	78	1,404	18.0
2002	45	821	18.2
2001	11	28	2.5
1999	2	3	1.5
1997	2	1	0.5
Total	936	10,780	11.5

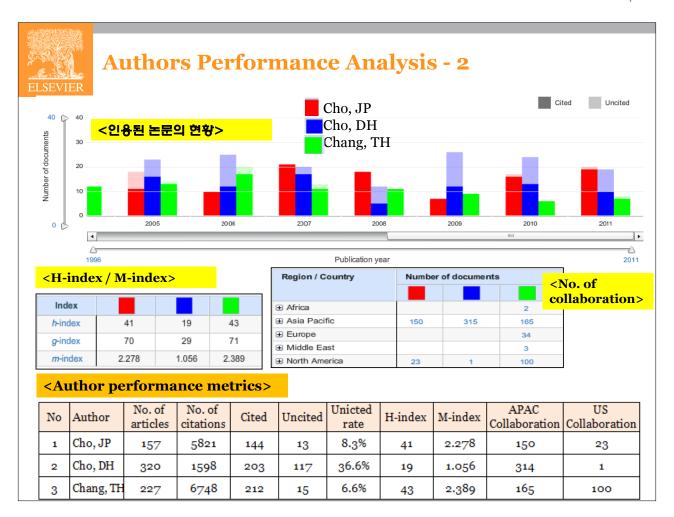
- Citation per article(CPA): 11.5
- H-index: 41
- SJR: 0.871

SNIP: 0.854

8









Production & Hosting Service

- Production & Hosting
- Case Studies
- 예택
- Summary



Production and Hosting Solution

PH PUBLISHING SOLUTION

한국에서 발행되는 저널의 전반적인 출판 과정을 도와, 전 세계적인 저널로 인지도를 높일 수 있도록 지원

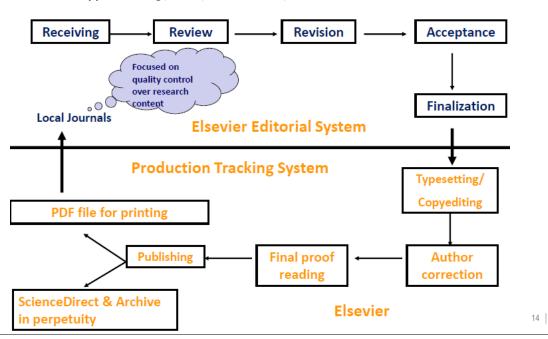
- ScienceDirect 상에서 저널 이용(Gold Open) Access): 홈페이지, 아티클 이용
- Elsevier Editorial System(EES)를 이용한 투고, 심사. 편집
- 저널의 편집권, 소유권, 저작권은 출판사가 확보
- 저널 이용통계, 편집성과(투고, 심사결과, 인용데이터 추척) 관련 리포트 제공
- Manuscript tracking, Typesetting, Search engine optimization, Reference linking, CrossRef 등 지원
- Scopus Access 권 제공

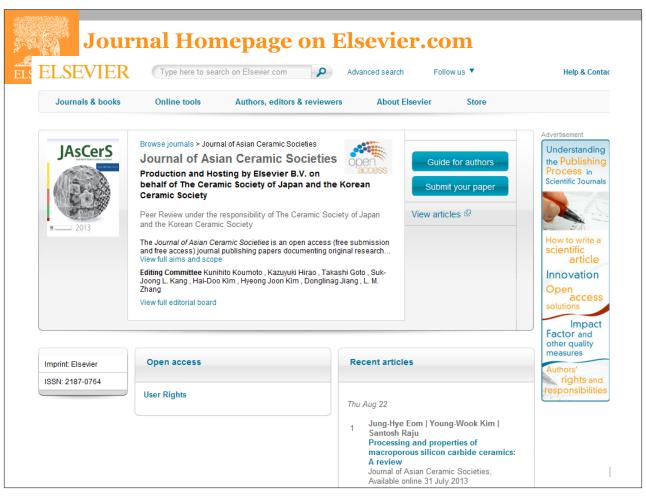


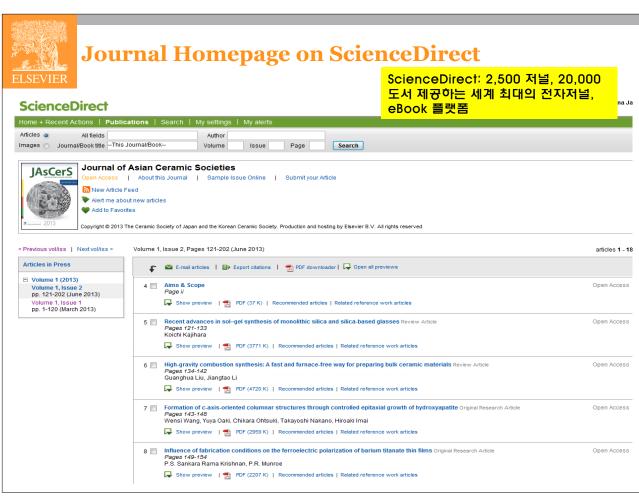


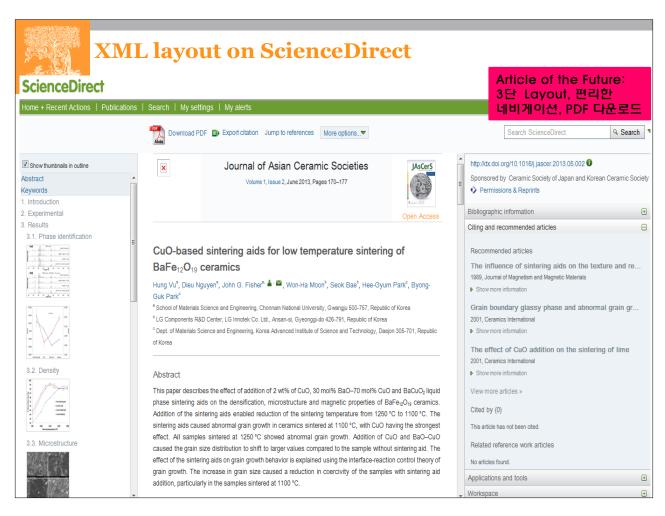
Production and Hosting Journal Publishing Flowchart

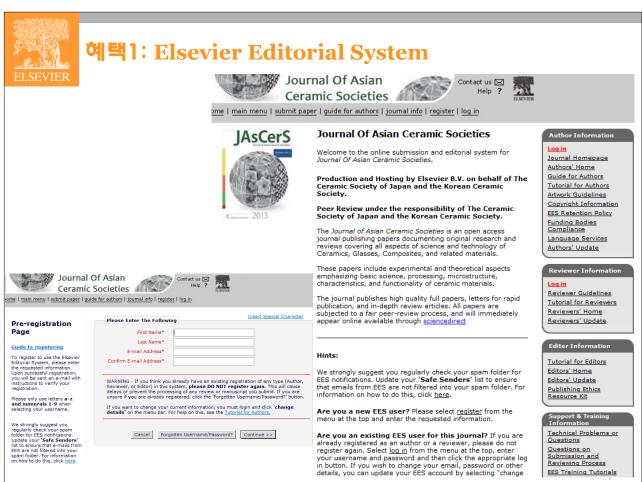
- EES 싸이트를 통한 이용자의 논문투고에서 SD상에 아티클이 제공되는 전 과정
- 출판사: 편집과정 전반에 대한 책임 (Peer-review, 편집위원 구성, Assignment 등)
- 엘스비어: Typesetting, 교정, PDF 업로드, 인쇄물 출판을 제외한 모든 과정 지원

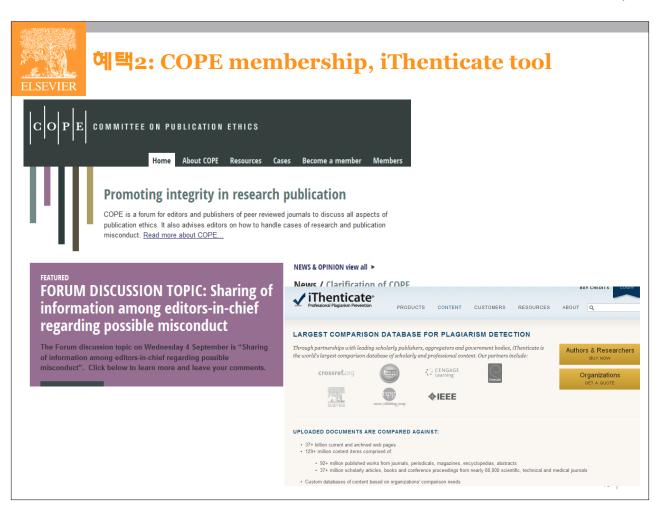


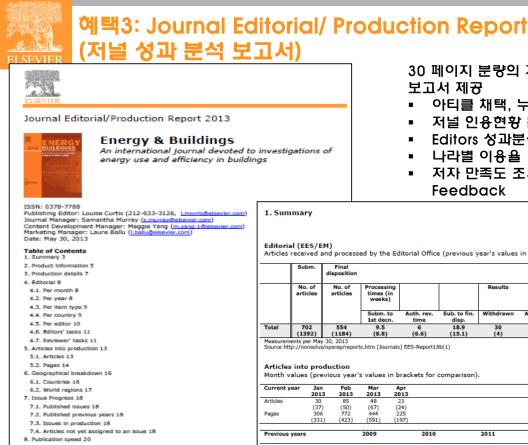










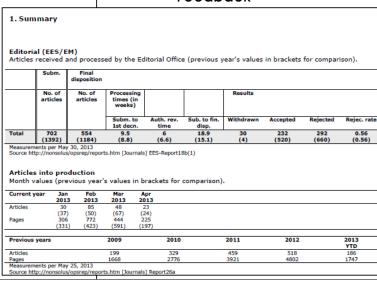


8.1. All articles 20

Operations Reporting

30 페이지 분량의 저널 성과 분석 보고서 제공

- 아티클 채택, 누락등
- 저널 인용현황 분석
- Editors 성과분석 (리뷰결과)
- 나라별 이용율
- 저자 만족도 조사: Author Feedback





예택4: CiteAlert

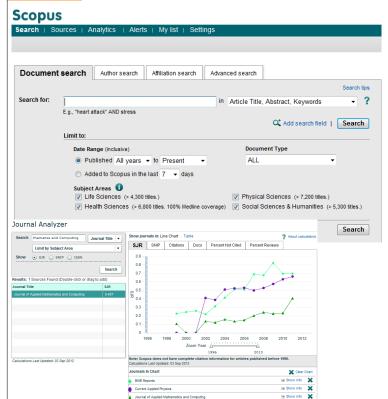
SD에 출판되는 다른 아티클들이 저널의 아티클을 인용할 때마다 해당 저자에게 인용에





예택5: Scopus 제공

volume 77, Issue 7, year 2005, pp. 142 - A149



Scopus

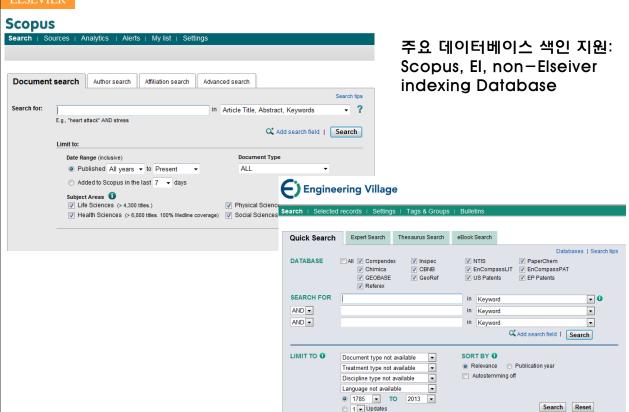
- Peer-Reviewed된 연구문헌 정보를 제공하는 초록 및 인용 데이터베이스.
- 전 세계 5.000여 개 이상의 출판사에서 출판되는 21,000종 이상의 타이틀 수록 과학, 기술, 의학, 사회과학, 인 문, 예술 분야)

Scopus 엑세스권 제공

- 엘스비어를 퉁한 출판 시 해당 학회 및 편집인에 Scopus에 대한 엑세스권 제공
- Scopus를 통해 논문의 인용 건수, 편집인, 투고자(저자) 들의 연구업적 및 인용현황, 경쟁저널의 인용현황 분석



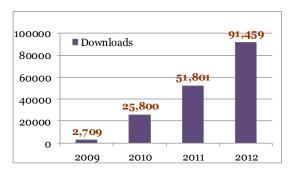
혜택6: 주요 색인 데이터베이스 등재 지원

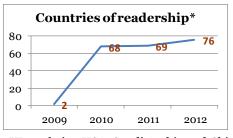




Case studies 1: Usage and citations improvement

- S국가의 약학분야 저널: P&H 서비스 이용 후의 이용율과 논문 투고 관련 변화
- ScienceDirect 상에서의 아티클 다운로드 국제적으로 증가





*Top 3 being USA, Saudi Arabia and China

결과

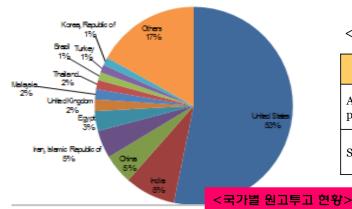
- GlaxoSmithKline, MIT, Yale University 대학을 비롯한 8,512개 기관의 이용자 이용
 - ✓ 편집위원: 8개 국가 저자
 - ✓ 20개 국가 저자들의 원고 투고
 - ✓ 원고 투고율이 지난 3년간 3배 상승
 - ✓ 2010년 Scopus, WoS에 등재
 - ✓ SNIP 지수 2배, IF 지수 5배 상승
 - Rejection rate이 2009년 3%에서 2012년 90% 정도로 높아짐

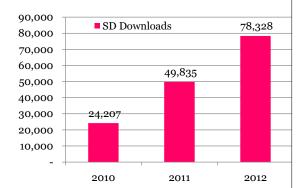


Case studies 2: Usage and citations improvement

C국가의 다학제 저널: P&H 서비스 이용 후 현황 분석 (2010년 이후 이용)

- 아티클 원문 다운로드 중가: 2010년 24,207건에서 2012년 78,328건으로 증가
- 피인용 건수 증가: 2010년 3건에서 2012년 139건으로 증가
- 이용국가: 50개국에서 원문 이용, 미국의 이용이 가장 많음
- 원고투고: 27개국 연구자들이 원고 투고





<SD Usage, Scopus citation>

Year	2010	2011	2012	
Average Downloads per Article	590	1246	2008	
Scopus citations	3	58	139	



Summary

Elsevier와 공동출판: 학회. 출판사의 저널의 질, 인지도 (이용율, 피인용), 영향력을 높여 드립니다.!!!

- Gold Open Access
- Elseiver 홈페이지에 저널 페이지 제공
- SD상에 저널 페이지 및 아티클 제공
- Elseiver Editorial System(EES) 제공
- Journal Performance 리포트 제공
- COPE membership, iThenticate 量
- CiteAlert 제공
- Scopus 제공
- 주요 색인데이터베이스 등재 지원







감사합니다. 장현주 차장

Email: d.jang@elsevier.com

Tel: 02-6714-3102

Note

Note



지영석 회장

Elsevier(네델란드) 본사 회장 세계출판협회(IPA) 회장

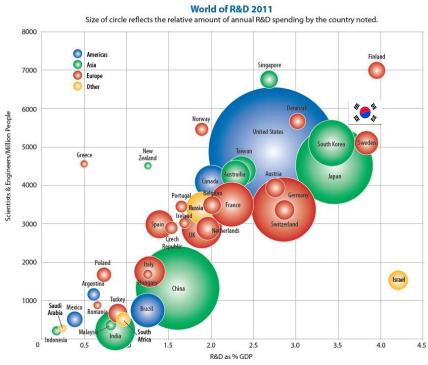


Elsevier Helps Strengthen the Global Research Community

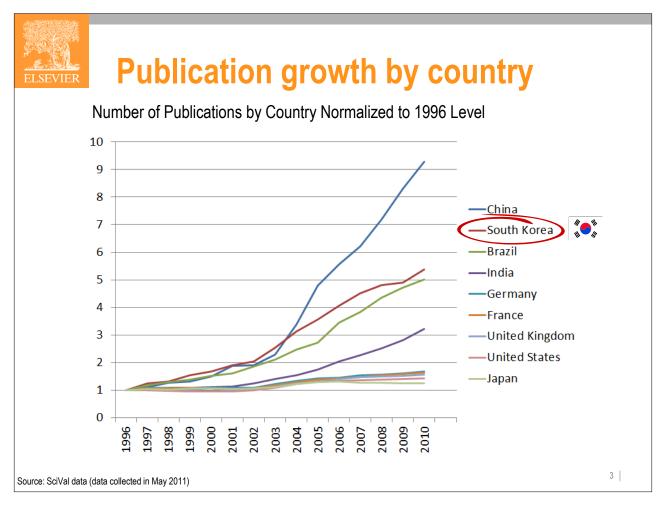
Youngsuk "Y.S." Chi Chairman, Elsevier 30 August 2013

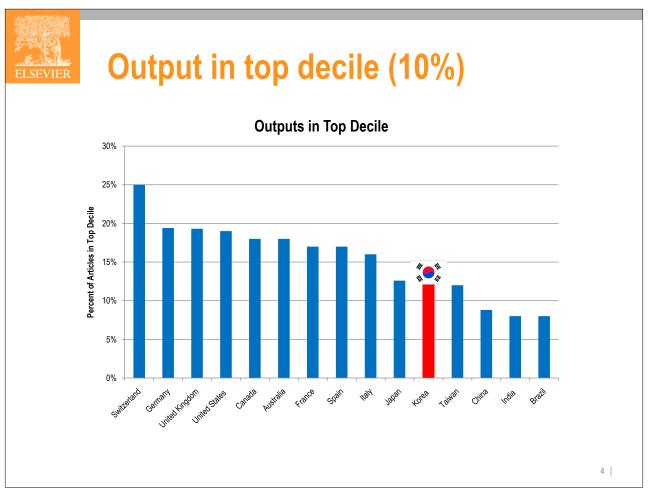


Growing R&D expenditure



Source: Battelle, R&D Magazine, International Monetary Fund, World Bank, CIA World Factbook, OECD







Long history of publishing







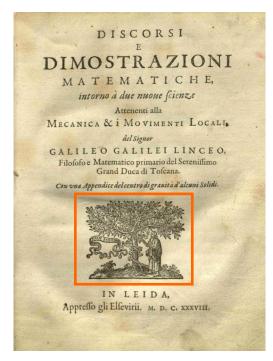


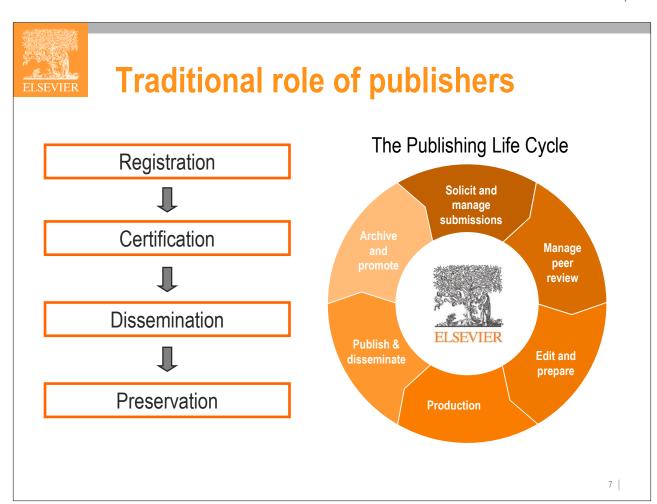
5



Galileo Galilei









Personal infrastructure







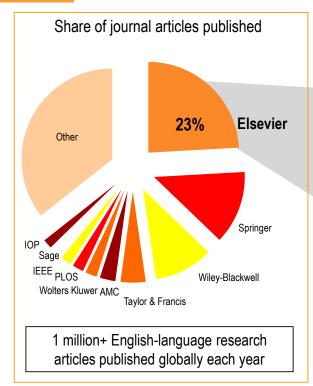


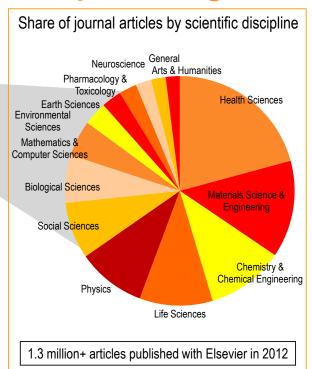






Global leader in STM publishing







High quality content

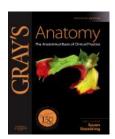
Journals experiencing increase in 53% Impact Factor over past year

Journals with an impact factor above their subject category's aggregate **Impact Factor**









11



Information Overload!



"Information that's hard to find will remain information that's hardly found" Information Architecture Institute

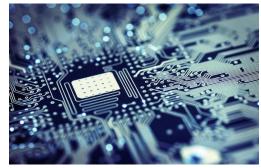


Ambidexterity



Everything that is inside in something In media production and publishing, C information and experiences that may provide value for an end-user/audien material, including text and images, constitutes a publication or documer





Content

Technology

13



Beyond content



The Elzevir print shop in Leiden











Leveraging technology

- **S-Content**
- Reuse of Content
- **Managing Content**

15



Then: "dead" content

Progress in Energy and Combustion Science 37 (2011) 52-68

Contents lists available at ScienceDirect



Progress in Energy and Combustion Science

journal homepage: www.elsevier.com/locate/pecs



Review

Production of liquid biofuels from renewable resources

Poonam Singh Nigam a,*, Anoop Singh b

^aFaculty of Life and Health Sciences, University of Ulster, Coleraine BT52 1SA, Northern Ireland, United Kingdom

ARTICLE INFO

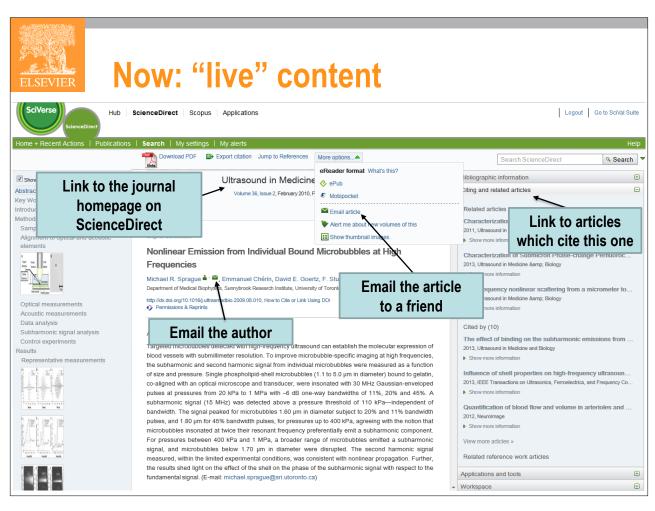
Article history: Received 7 January 2009 Accepted 4 January 2010 Available online 4 May 2010

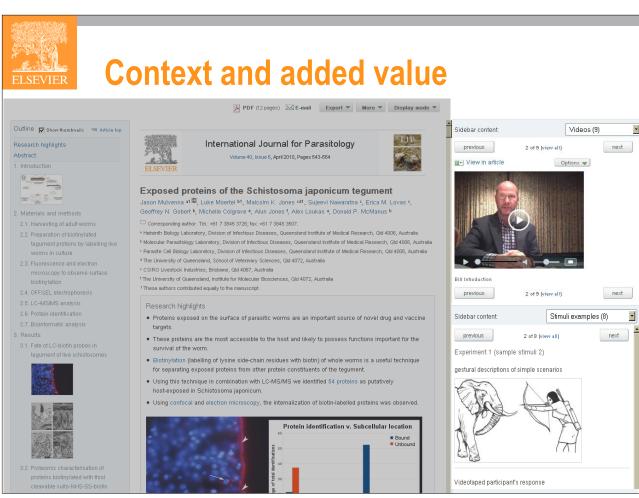
Keywords: Biofuels Agricultural residues Lignocellulosic substrates First-generation biofuels Second generation biofuels Bioeth anol

ABSTRACT

This article is an up-to-date review of the literature available on the subject of liquid biofuels. In search of a suitable fuel alternative to fast depleting fossil fuel and oil reserves and in serious consideration of the environmental issues associated with the extensive use of fuels based on petrochemicals, research work is in progress worldwide. Researchers have been re-directing their interests in biomass based fuels, which currently seem to be the only logical alternative for sustainable development in the context of economical and environmental considerations. Renewable bioresources are available globally in the form of residual agricultural biomass and wastes, which can be transformed into liquid biofuels. However, the process of conversion, or chemical transformation, could be very expensive and not worth-while to use for an economical large-scale commercial supply of biofuels. Hence, there is still need for much research to be done for an effective, economical and efficient conversion process. Therefore, this article is written as a broad overview of the subject, and includes information based on the research conducted globally by scientists according to their local socio-cultural and economic situations.

^b Biofuels Research Group, Environmental Research Institute, University College Cork, Ireland







Leveraging technology

- S-Content
- **Reuse of Content**
- Managing Content

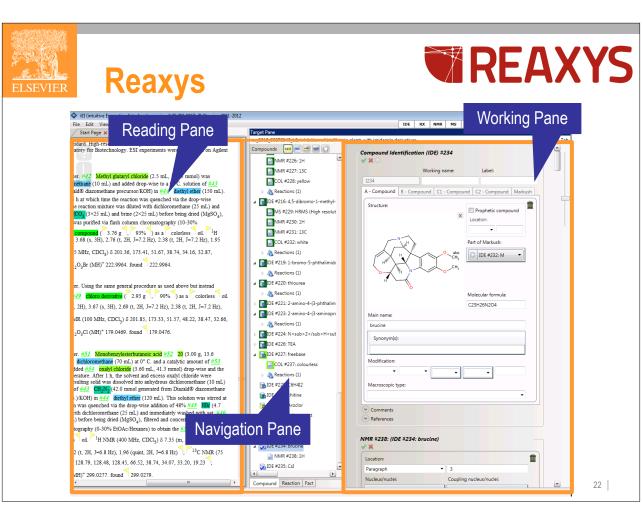


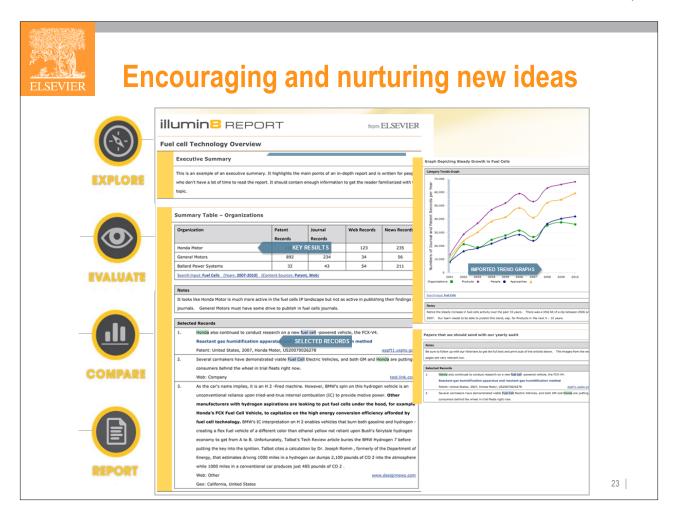
Reuse of content

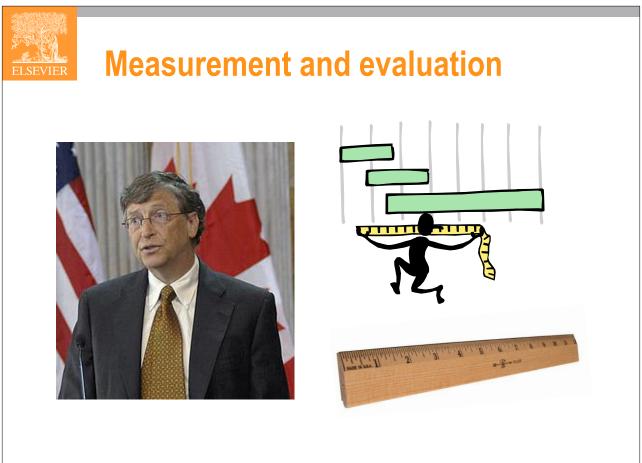


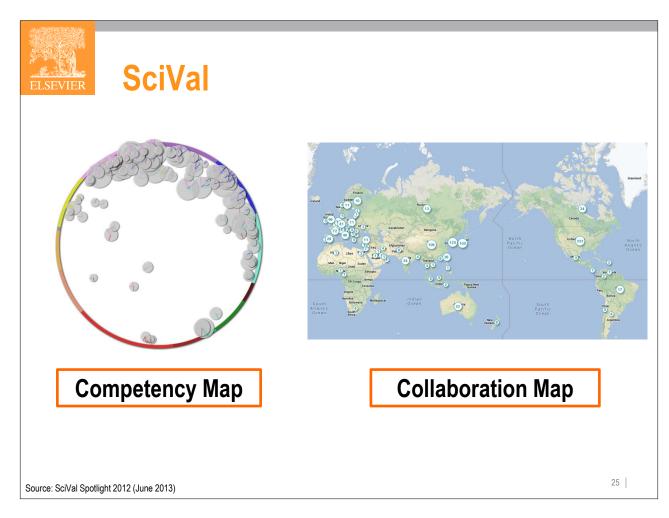


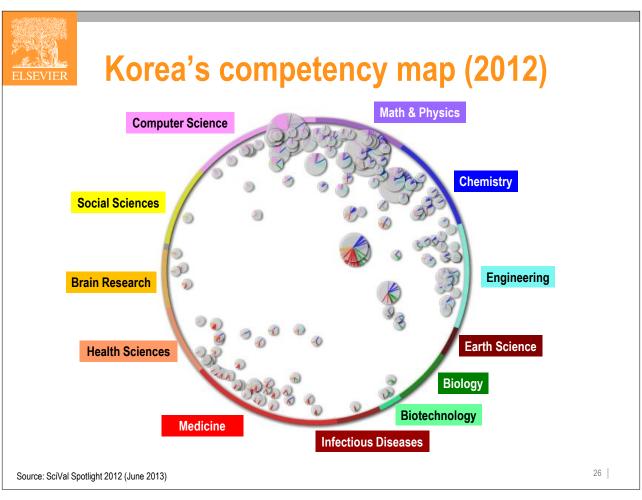










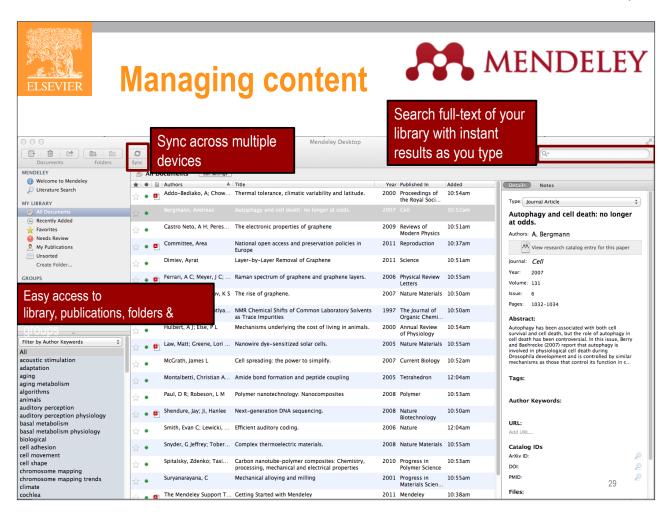


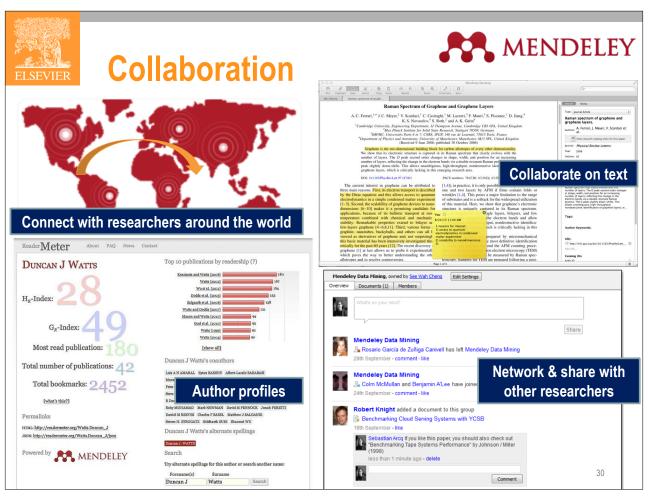




Leveraging technology

- S-Content
- **Reuse of Content**
- **Managing Content**







Global partnerships





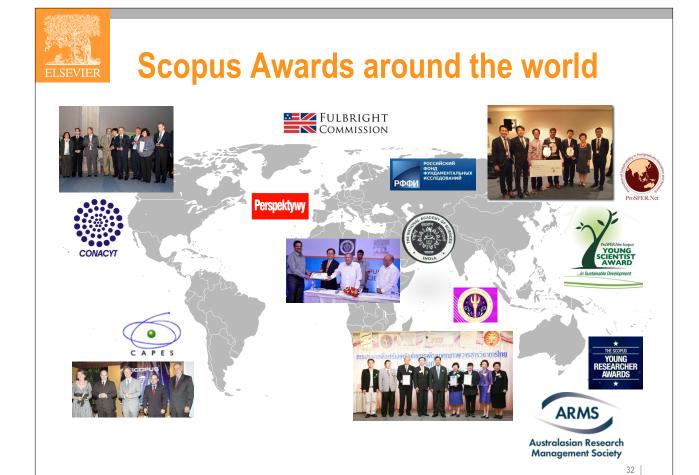








31





Non Solus

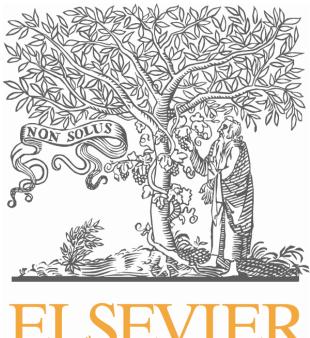


Circa 1620

33



Thank you!



Note