激发科研灵感　乐享创新成果
WEB OF SCIENCE
助力创新性研究

Kun Yu (余昆), Ph.D.
Clarivate Analytics
原汤森路透知识产权与科技事业部
2017/4/19

Clarivate
Analytics

Outline

01 科学信息在科研过程中的作用

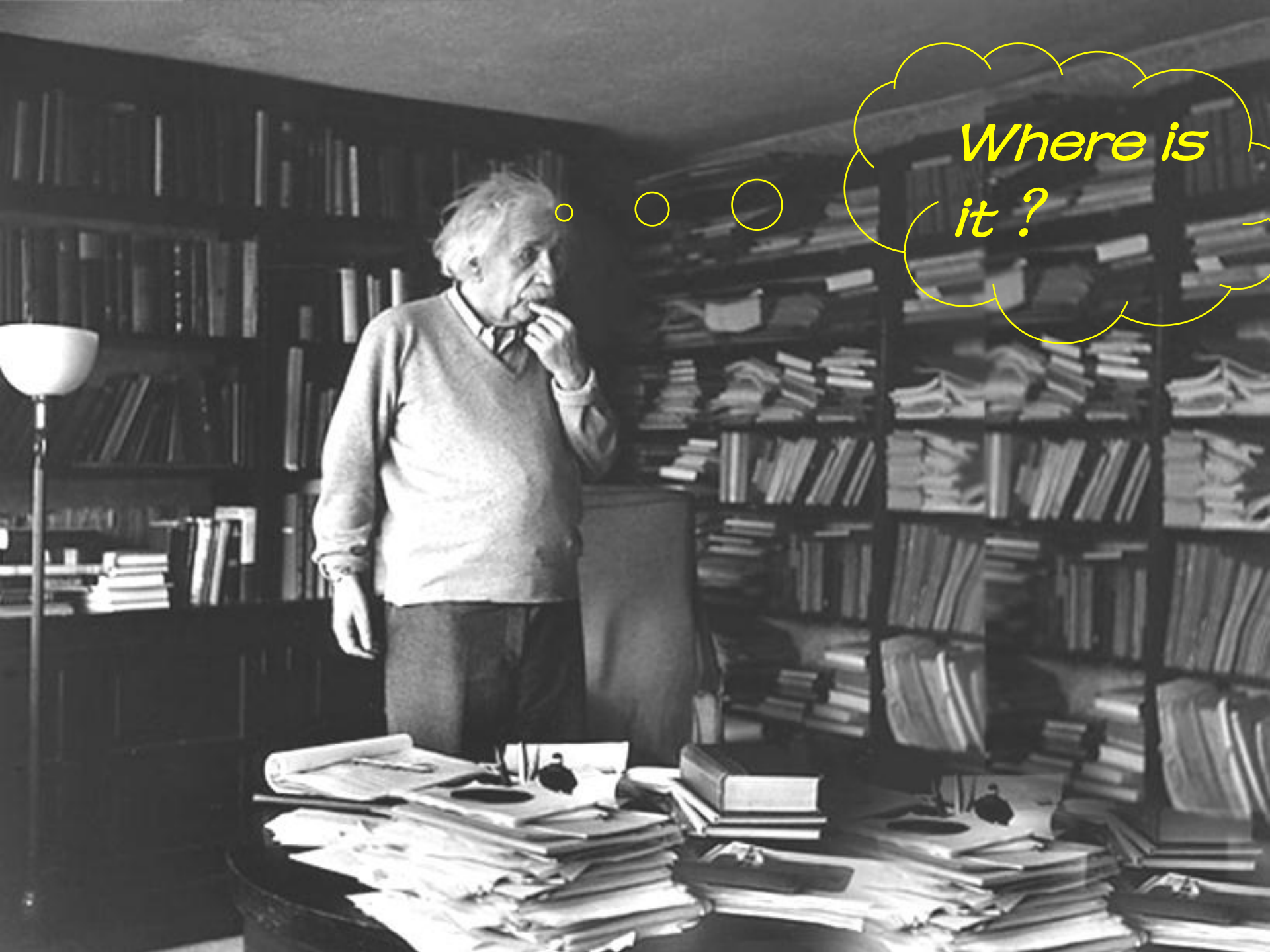
02 Web of Science™及引文索引简介

03 如何利用Web of Science™服务教学科研

04 学术出版

做好科学研究

掌握科技文献是前提


Where is it ?

Outline

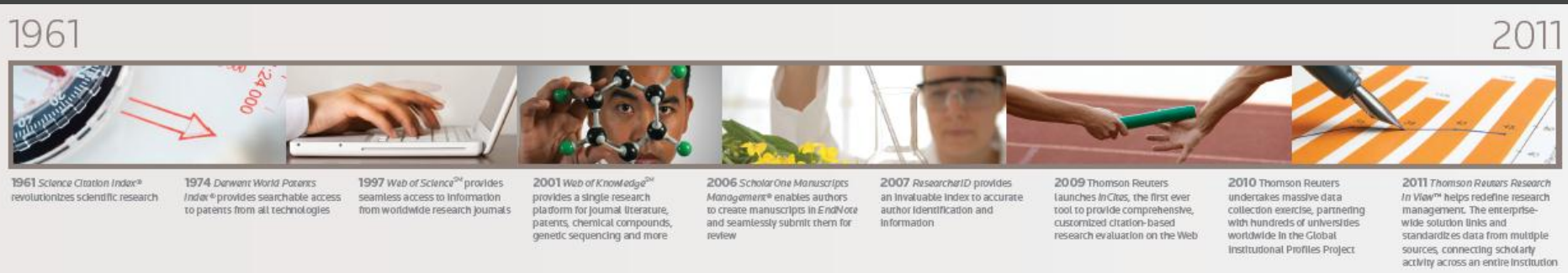
01 科学信息在科研过程中的作用

02 Web of Science™及引文索引简介

03 如何利用Web of Science™服务教学科研

04 学术出版

Web of Science™及引文索引简介



Clarivate Analytics | Formerly the IP & Science business of Thomson Reuters

Web of Science™平台界面

基本检索

示例: oil spill* mediterranean

时间跨度

所有年份

从 1864 至 2013

更多设置

客户反馈和技术支持

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Web of Science TM | InCites® | Journal Citation Reports® | Essential Science Indicators SM | EndNote® | 登录 | 帮助 | 简体中文

WEB OF SCIENCE™ THOMSON REUTERS

检索 | 所有数据库 | 我的工具 | 检索历史 | 标记结果列表

已订阅的数据库

所有数据库
通过一组共有的检索字段同时检索所订阅的全部产品，从而获得最为全面的检索结果。

Web of Science™ 核心合集 (1900-至今)
访问世界领先的自然科学、社会科学、艺术和人文领域的权威学术文献数据库；研究和分析国际会议、专题讨论会、研讨会、座谈会、研习会和代表会议的会议文集。
[更少]

借助被引参考文献检索和作者甄别工具进行浏览
借助引证关系图直观展示引用关系
借助引文报告功能以图形方式揭示引用活动和趋势
使用分析工具确定研究趋向和模式
文献回溯至 1900 年

您的版本:

Science Citation Index Expanded (1900-至今)
Social Sciences Citation Index (1900-至今)
Arts & Humanities Citation Index (1975-至今)
Conference Proceedings Citation Index - Science (1990-至今)
Conference Proceedings Citation Index - Social Science & Humanities (1990-至今)
Book Citation Index– Science (2005-至今)
Book Citation Index– Social Sciences & Humanities (2005-至今)
Current Chemical Reactions (1985-至今)
(包括 Institut National de la Propriete Industrielle 化学结构数据, 可回溯至 1840 年)
Index Chemicus (1993-至今)

Web of Science核心合集

BIOSIS Citation Index SM (1926-至今)
生命科学与生物医学研究工具，内容涵盖临床前和实验室研究、仪器和方法、动物学研究等。
[更多内容]

BIOSIS Previews® (1926-至今)
生命科学与生物医学研究工具，内容涵盖临床前和实验室研究、仪器和方法、动物学研究等。
[更多内容]

CABI : CAB Abstracts® 和 Global Health® (1910-至今)
提供有关农业、环境以及相关的应用生命科学的权威研究信息。
[更多内容]

中国科学引文数据库 SM (1989-至今)
为 1200 种在中华人民共和国出版的科学与工程核心期刊中的文献提供题录信息与引文。
[更多内容]

Current Contents Connect® (1998-至今)
包含世界一流学术性期刊和图书的完整目录和题录信息，以及经过评估的相关网站和文献。
[更多内容]

Data Citation Index SM (1900-至今)
发现科学数据（包含众多国际性数据知识库收集的数据研究成果和数据集），并将科学数据与科技文献相关联以获得科学数据引用的关键线索。
[更多内容]

Derwent Innovations Index SM (1963-至今)
来自 *Derwent World Patent Index®* 的增值专利信息和来自 *Patents Citation Index®* 的专利引文信息。
[更多内容]

Derwent Innovations Index专利数据库

全面收录全球范围内在物理、电气电子工程、计算、控制工程、机械工程、生产和制造工程以及信息技术领域的各种期刊和会议文献的索引。
[更多内容]

MEDLINE® (1950-至今)
美国 National Library of Medicine®（美国国家医学图书馆，NLM®）的主要生命科学数据库。
[更多内容]

SciELO Citation Index (2002-至今)
访问拉丁美洲、葡萄牙、西班牙及南非等国在自然科学、社会科学、艺术和人文领域的前沿公开访问期刊中发表的权威学术文献。
[更多内容]

Zoological Record® (1864-至今)
世界顶尖的动物学分类参考文献与建立时间最早的相关连续数据库。
[更多内容]

Web of Science™核心合集数据库简介

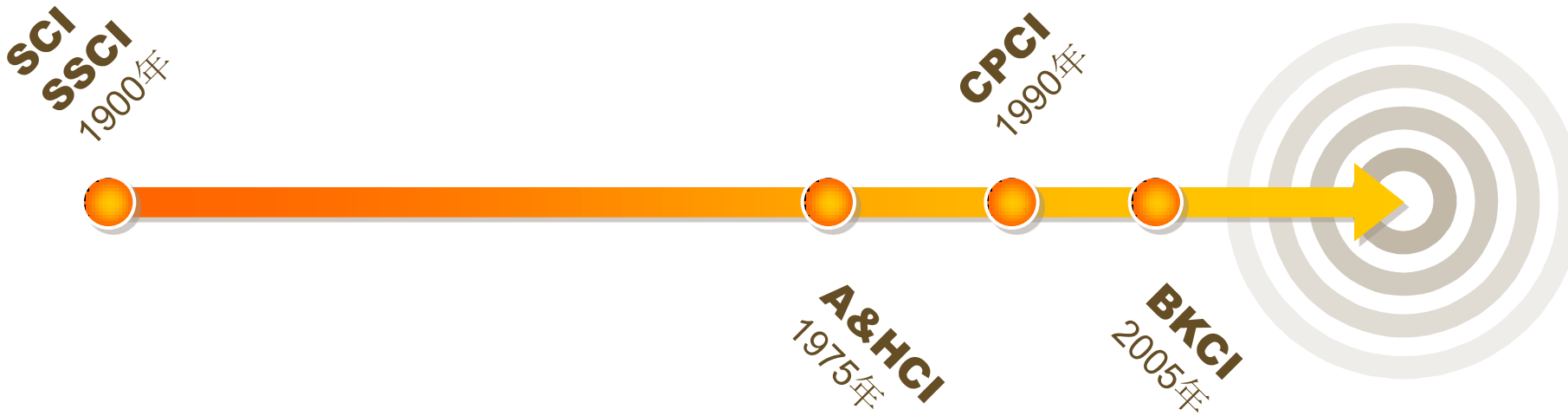
Web of Science™核心合集数据库——广度

- Science Citation Index Expanded (科学引文索引) 176个学科的8800多种高质量学术期刊 。
- Social Sciences Citation Index (社会科学引文索引) 56个社会科学学科的3200多种权威学术期刊。
- Arts & Humanities Citation Index (艺术与人文引文索引) 收录28个人文艺术领域学科的1700多种国际性、高影响力的学术期刊的数据内容 。
- Conference Proceedings Citation Index – Science+ Social Science & Humanities(会议录引文索引– 自然科学版+社会科学与人文版) 超过160，000个会议录，有自然科学、社会科学两个版本，涉及250多个学科。
- Emerging Sources Citation Index 截止至2017年2月收录6300多种学术专著，且每个星期都在增加。

截止日期至2016/11/11

Web of Science™核心合集数据库——质量

Web of Science™核心合集数据库——深度



基于早期的期刊、报告、出版物来定位当前研究；
追溯某一观点从首次提出至今的历史脉络与方法论；
进行更深入、更全面的检索，并跟踪百年的研究发展趋势。

Web of Science™核心合集数据库——独特性

Citation Index 引文索引

Dr. Eugene Garfield

Founder & Chairman Emeritus
ISI, Thomson Scientific

- **Dr. Garfield 1955年在 *Science* 发表论文提出将引文索引作为一种新的文献检索与分类工具**

Citation Indexes for Science

A New Dimension in Documentation through Association of Ideas

"The uncritical citation of disputed ... approach to subject control of the litera-

critical notes are increasingly likely to be overlooked with the passage of time, while the studies to which they pertain, having been reported more widely, are ...

tional subject indexes but only within the limits of a particular subject heading.

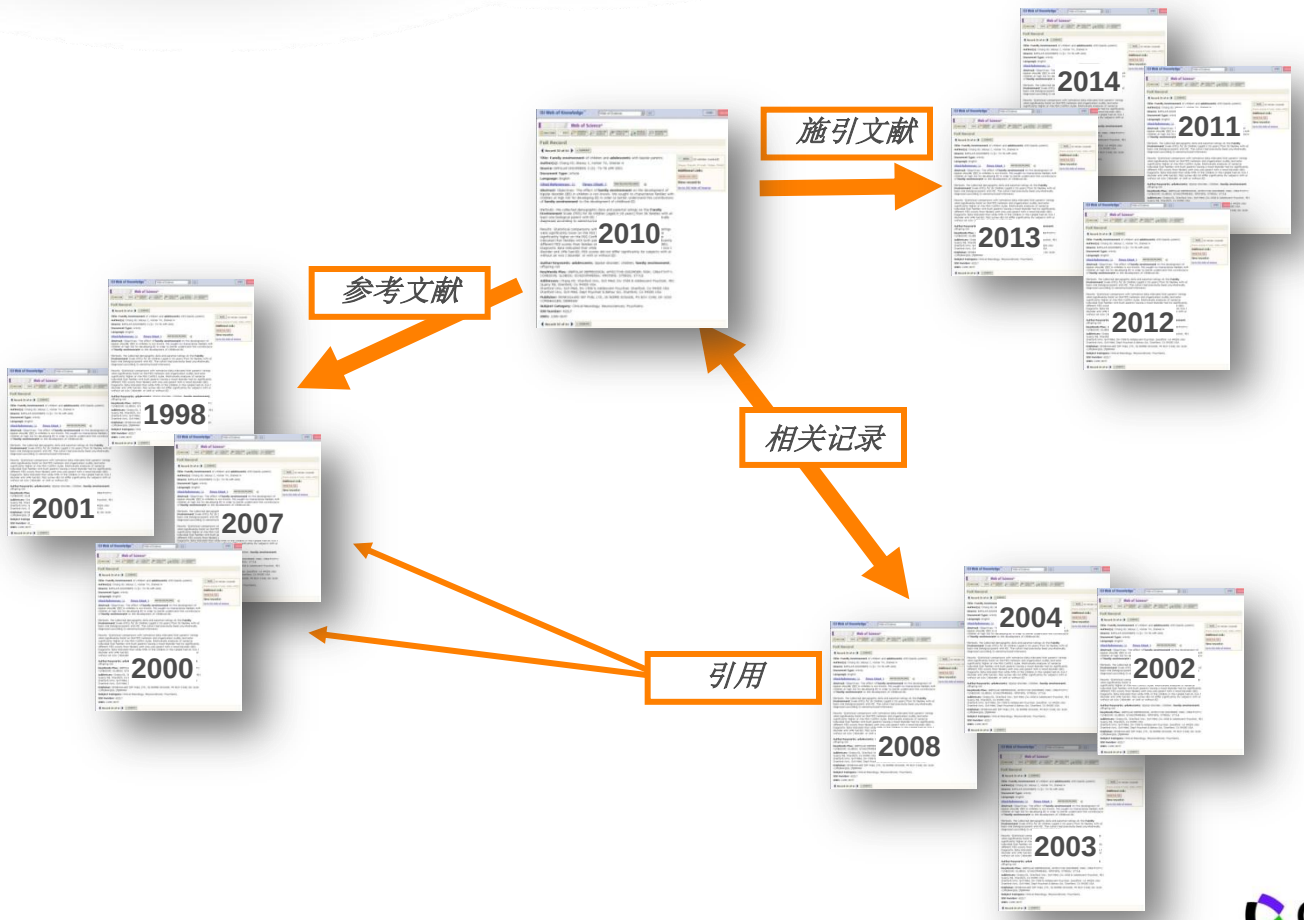
If one considers the book as the macro unit of thought and the periodical article ...

CI — CITATION INDEX

Dr. Garfield认为：将一篇文献作为检索字段从而跟踪一个Idea的发展过程及学科之间的交叉渗透的关系。

从一篇高质量的文献出发，沿着科学研究的发展道路……

引文索引系统打破了传统的学科分类界限，既能揭示某一学科的继承与发展关系，又能反映学科之间的交叉渗透的关系 。



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04 学术出版

电子资源 MORE

- 中文资源
- 外文资源
- 自建资源
- 特色资源
- 试用资源
- 免费资源

信息服务 MORE

- 好书推介
- 期刊通报
- 高教信息
- 轻院文库
- 科技查新
- 新书通报
- 文献传递
- 学科导航

"兩學一做"學習教育專題庫

入馆教育

新闻与公告 More

数据库利用网络培训：IEEE数据库	2017-04-12
数据库利用网络培训：EBSCO数据库	2017-04-05
图书馆新增免费资源使用通知	2017-04-05
图书馆“清明节”闭馆通知	2017-03-30
国研网系列数据库试用通知	2017-03-28
校工会再次到图书馆送温暖	2017-03-16
艺术设计学院师群教授向图书馆赠送画作	2017-03-15
Lexis.com全球法律信息数据库试用通知	2017-03-12
河南财经政法大学图书馆同仁来我校逸夫图书馆参观考察	2017-03-02

More

读者指南

- 文明公约
- 书证管理
- 借阅规则
- 查阅规则
- 新生专栏
- 离校手续

快速链接

- 图书续借
- 论文提交
- 书刊荐购
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- 校外用户

专题检索 MORE

- 馆藏书目检索
- 读者信息检索
- 随书光盘检索
- 学术搜索与全文递送

参考咨询 MORE

- 讲座平台
- 学术研究
- 书刊分类
- 联系我们
- 常见问题
- 资源介绍
- 教学参考
- 考研信息

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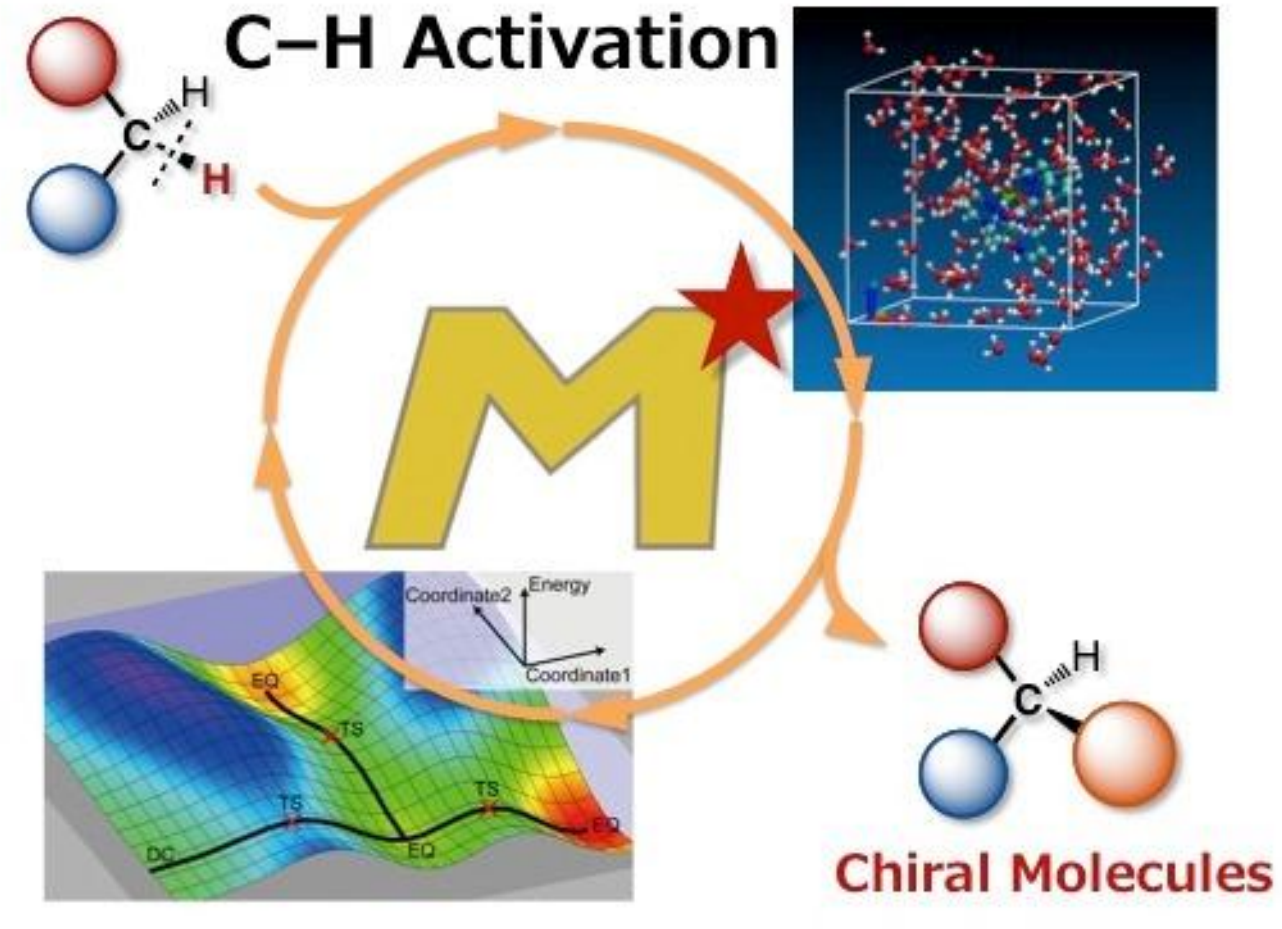
外文资源
中文资源
外文资源
自建资源
特色资源
试用资源
免费资源
版权声明

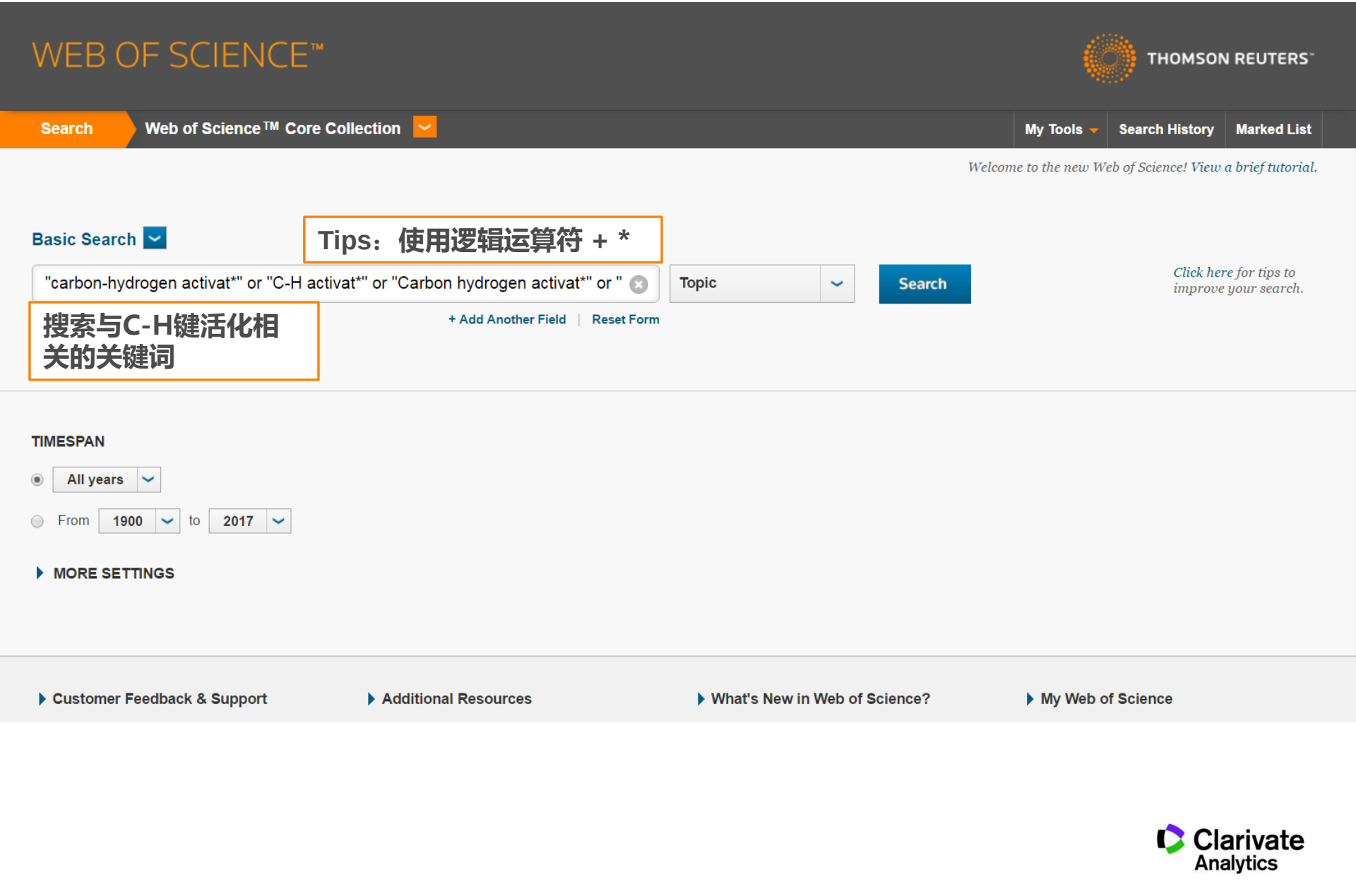
外文资源

学术搜索与全文递送系统	(54084)	2012-09-03
Emerald全文期刊回溯库（管理学、工程学）	(1653)	2016-04-26
JCR期刊分区数据在线平台	(4187)	2015-11-16
Science科学周刊	(15253)	2014-10-20
Nature自然周刊	(9197)	2014-10-19
Elsevier SDOL电子期刊数据库	(64779)	2014-10-18
SCI/SSCI/A&HCI/CPCI-S/CPCI-SS/CCR/IC/MEDLINE数据库	(51577)	2014-10-17
Springerlink电子期刊	(29060)	2014-10-16
IEEE/IEL（美国电气电子工程师学会）数据库	(12541)	2014-10-15
RSC（英国皇家化学学会）数据库	(12155)	2014-10-14
ACS（美国化学学会）电子期刊	(15153)	2014-10-13
EI(工程索引)－compendexWeb	(20376)	2014-10-12
EBSCO全文数据库（食品科学、美国经济学会经济学、环境科学）	(8399)	2014-10-11
Wiley Online Library在线期刊数据库	(7835)	2014-10-10
SciFinder Academic（美国化学文摘网络版）数据库	(8072)	2014-09-11
I Mech E（英国机械工程师学会）电子期刊	(2946)	2014-09-10
ACM（美国计算机学会）数据库	(3341)	2014-09-09

实例——碳氢活化领域的相关研究

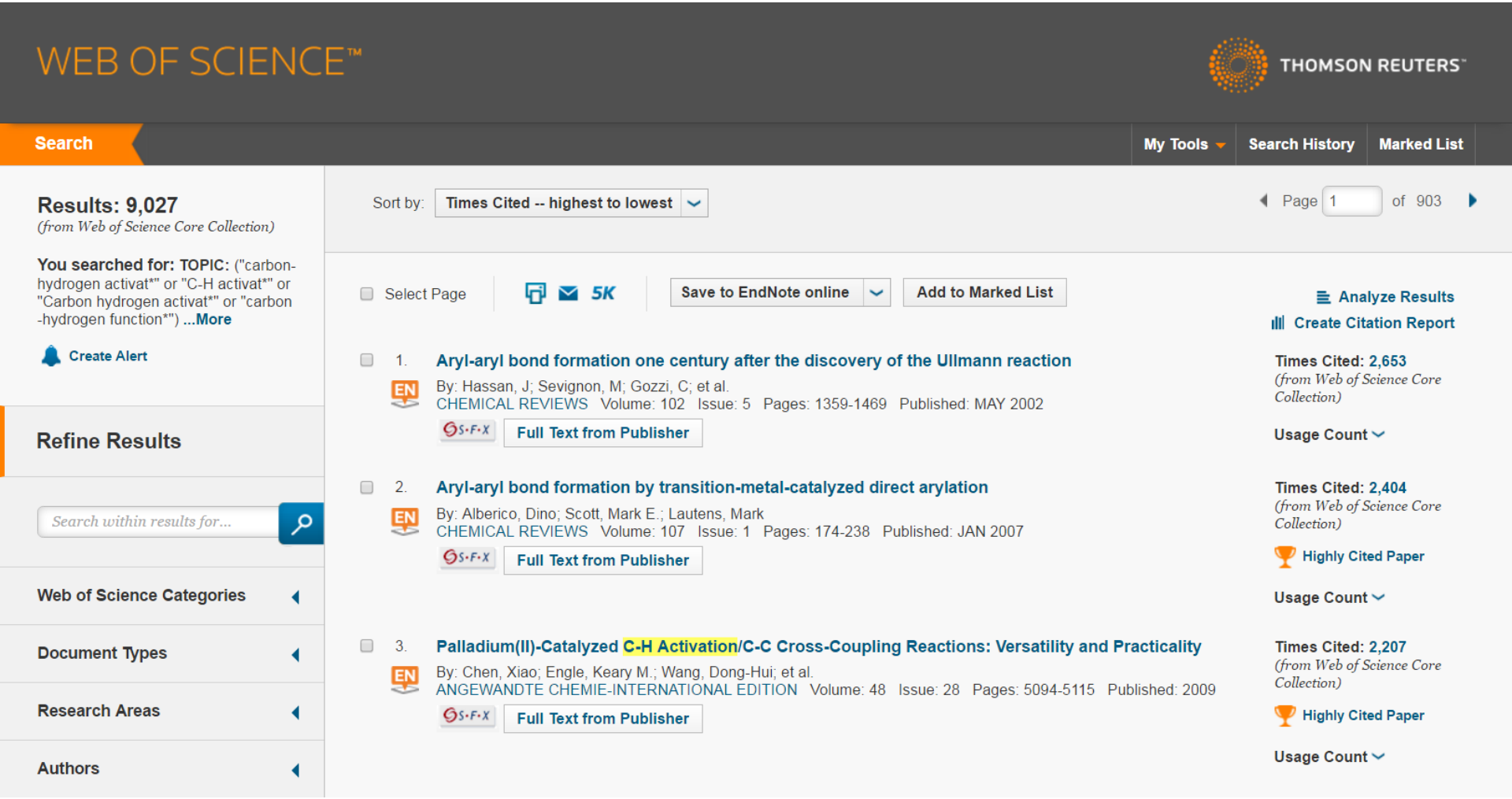


Source: https://www.jst.go.jp/act-c/en/research_area/ongoing/sawamura_en.html



Clarivate Analytics

检索结果



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HELP

我该先读哪些文章？

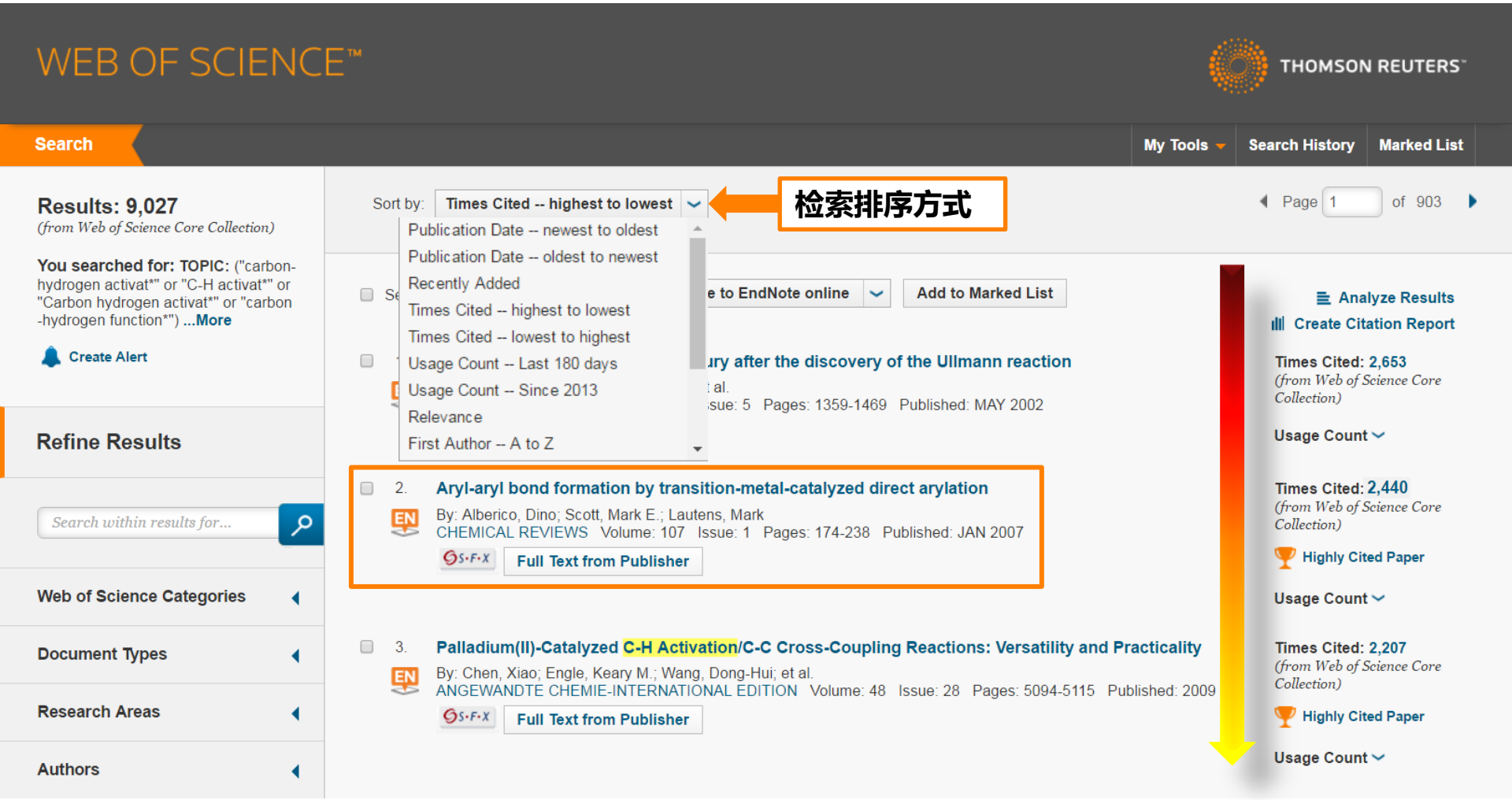
高影响力论文？

锁定相关领域的论文？

综述文章？

……

快速锁定高影响力的论文——被引频次（降序）



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全记录页面：进一步了解高影响力论文内容

Aryl-aryl bond formation by transition-metal-catalyzed direct arylation

By: Alberico, D (Alberico, Dino); Scott, ME (Scott, Mark E.); Lautens, M (Lautens, Mark)

CHEMICAL REVIEWS
Volume: 107 **Issue:** 1 **Pages:** 174-238
DOI: 10.1021/cr0509760
Published: JAN 2007
View Journal Information

Keywords

KeyWords Plus: C-H ACTIVATION; BIARYL COUPLING REACTION; POLYCYCLIC AROMATIC-HYDROCARBONS; ENANTIOSELECTIVE TOTAL SYNTHESIS; HIV-1 REVERSE-TRANSCRIPTASE; ACTIVE PALLADIUM CATALYSTS; HECK REACTION CONDITIONS; CONCISE TOTAL SYNTHESIS; ONE-POT SYNTHESIS; INTRAMOLECULAR ARYLATION

Author Information

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E-mail Addresses: mlautens@chem.utoronto.ca

Publisher

AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036 USA

Categories / Classification

Research Areas: Chemistry

Web of Science Categories: Chemistry, Multidisciplinary

Document Information

Document Type: Review

Language: English

Citation Network

2,440 Times Cited
336 Cited References
View Related Records
View Citation Map
Create Citation Alert
(data from Web of Science™ Core Collection)

All Times Cited Counts

2,446 in All Databases
2,440 in Web of Science Core Collection
611 in BIOSIS Citation Index
24 in Chinese Science Citation Database
0 in Data Citation Index
0 in Russian Science Citation Index
3 in SciELO Citation Index

Highly Cited Paper

Usage Count

Last 180 Days: 53
Since 2013: 496
Learn more

Clarivate Analytics

ESI高水平论文

2. ESI高水平论文
近年的高质量论文

高被引论文
(Highly Cited Paper)

- 过去10年中发表的论文,被引用次数在同年同学科发表的论文中进入全球前1%

被引频次: 627
(来自 Web of Science 的核心合集)
高被引论文

热点论文
(Hot Paper)

- 过去 2 年中所发表的论文,在最近两个月中其影响力排在某学科前0.1%的论文

被引频次: 4
(来自 Web of Science 的核心合集)
热点论文

Clarivate Analytics

碳氢活化领域全球近十年的高被引论文

Results: 180
(from Web of Science Core Collection)

You searched for: TOPIC: ("carbon-hydrogen activat*" or "C-H activat*" or "Carbon hydrogen activat*" or "carbon -hydrogen function*") ...More

Create Alert

Refine Results

Search within results for...

- Web of Science Categories
- Document Types
- Research Areas
- Authors
- Group Authors
- Editors
- Source Titles

Sort by: Times Cited -- highest to lowest

Page 1 of 18

Select Page | 5K | Save to Other File For... | Add to Marked List

1. **C-H bond activation enables the rapid construction and late-stage diversification of functional molecules**
By: Wencel-Delord, Joanna; Glorius, Frank
NATURE CHEMISTRY Volume: 5 Issue: 5 Pages: 369-375 Published: MAY 2013
Full Text from Publisher | View Abstract

2. **Functionalization of Organic Molecules by Transition-Metal-Catalyzed C(sp(3))-H Activation**
By: Jazzar, Rodolphe; Hitce, Julien; Renaudat, Alice; et al.
CHEMISTRY-A EUROPEAN JOURNAL Volume: 16 Issue: 9 Pages: 2654-2672 Published: 2010
Full Text from Publisher | View Abstract

3. **Palladium-catalyzed benzene arylation: Incorporation of catalytic pivalic acid as a proton shuttle and a key element in catalyst design**
By: Lafrance, Marc; Fagnou, Keith
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY Volume: 128 Issue: 51 Pages: 16496-16497 Published: DEC 27 2006
Full Text from Publisher

4. **Catalytic intermolecular direct arylation of perfluorobenzenes**
By: Lafrance, Marc; Rowley, Christopher N.; Woo, Tom K.; et al.
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY Volume: 128 Issue: 27 Pages: 8754-8756 Article Number: JA062509L Published: JUL 12 2006
Full Text from Publisher

Analyze Results
Create Citation Report

Times Cited: 657
(from Web of Science Core Collection)
Highly Cited Paper
Usage Count

Times Cited: 627
(from Web of Science Core Collection)
Highly Cited Paper
Usage Count

Times Cited: 563
(from Web of Science Core Collection)
Highly Cited Paper
Usage Count

Times Cited: 496
(from Web of Science Core Collection)
Highly Cited Paper
Usage Count

Clarivate Analytics

碳氢活化领域全球近两年的热点论文

Results: 7
(from Web of Science Core Collection)

You searched for: TOPIC: ("carbon-hydrogen activat*" or "C-H activat*" or "Carbon hydrogen activat*" or "carbon -hydrogen function*") ...More

Create Alert

Refine Results

Search within results for...

- Web of Science Categories
- Document Types
- Research Areas
- Authors
- Group Authors
- Editors

Sort by: Times Cited -- highest to lowest

Page 1 of 1

Select Page | 5K | Save to Other File For... | Add to Marked List

1. **Co(III)-Catalyzed C-H Activation/Formal S-N-Type Reactions: Selective and Efficient Cyanation, Halogenation, and Allylation**
By: Yu, Da-Gang; Gensch, Tobias; de Azambuja, Francisco; et al.
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY Volume: 136 Issue: 51 Pages: 17722-17725 Published: DEC 24 2014
Full Text from Publisher | View Abstract

Times Cited: 154
(from Web of Science Core Collection)
Hot Paper
Highly Cited Paper
Usage Count

2. **Metal-Ligand Cooperation**
By: Khusnutdinova, Julia R.; Milstein, David
ANGEWANDTE CHEMIE-INTERNATIONAL EDITION Volume: 54 Issue: 42 Special Issue: SI Pages: 12236-12273 Published: OCT 12 2015
Full Text from Publisher | View Abstract

Times Cited: 89
(from Web of Science Core Collection)
Hot Paper
Highly Cited Paper
Usage Count

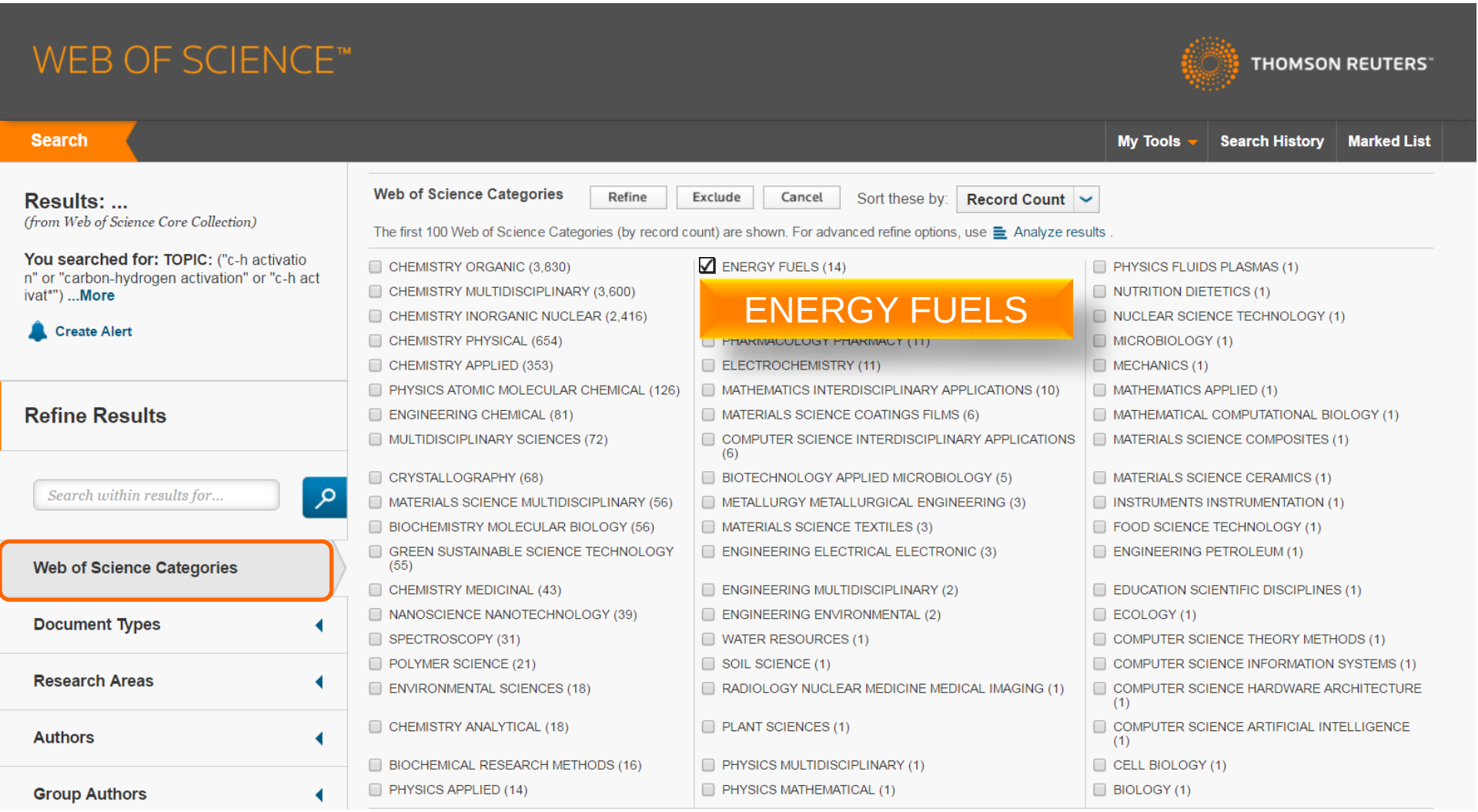
3. **Site-selective arene C-H amination via photoredox catalysis**
By: Romero, Nathan A.; Margrey, Kaila A.; Tay, Nicholas E.; et al.
SCIENCE Volume: 349 Issue: 6254 Pages: 1326-1330 Published: SEP 18 2015
Full Text from Publisher | View Abstract

Times Cited: 55
(from Web of Science Core Collection)
Hot Paper
Highly Cited Paper
Usage Count

Analyze Results
Create Citation Report

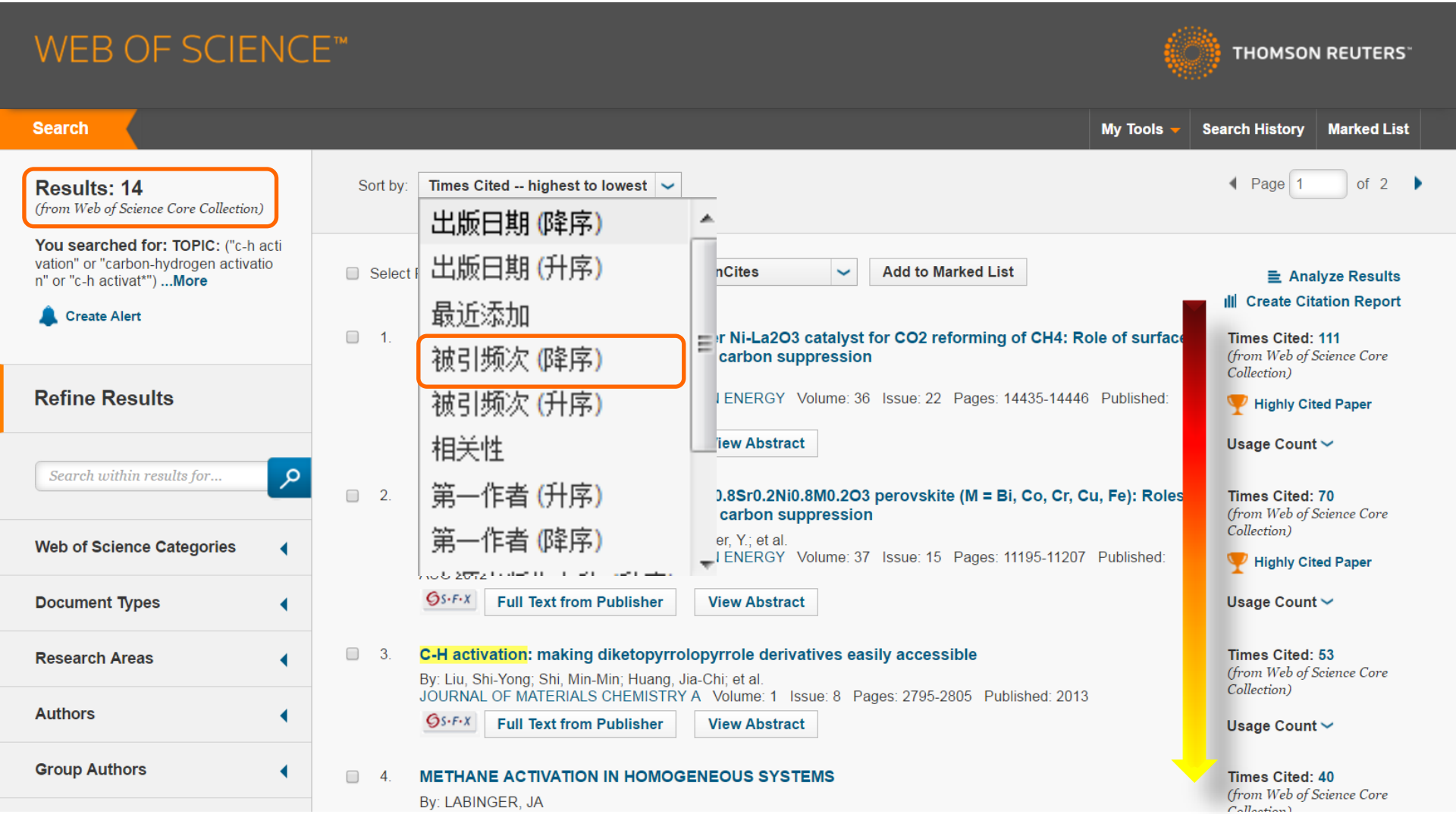
Clarivate Analytics

锁定特定学科领域论文



Clarivate Analytics

碳氢活化在能源领域的论文



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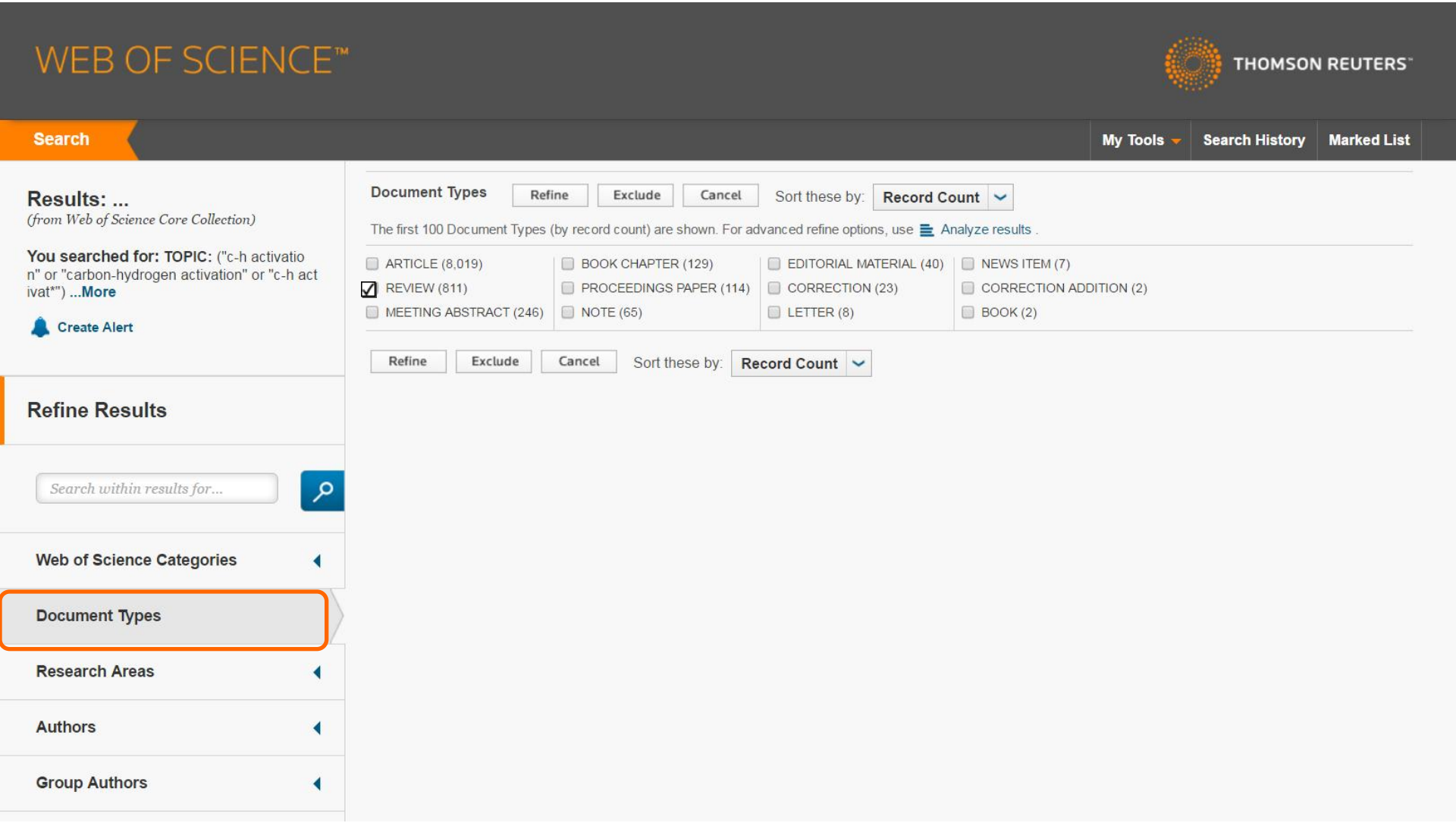


Clarivate Analytics

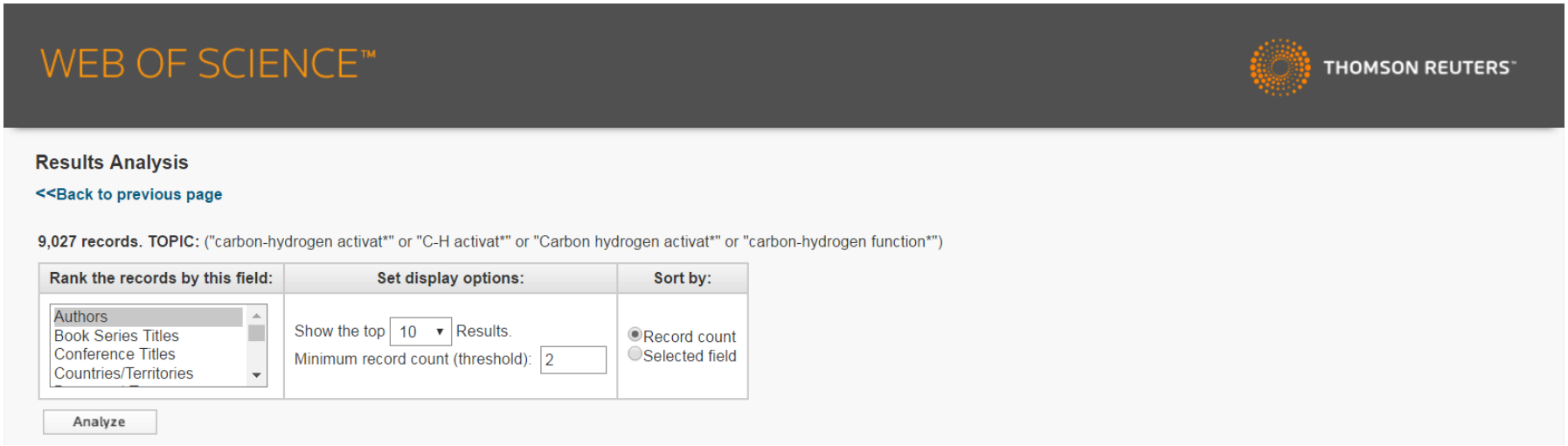
分析已有文献的信息价值

分析某研究课题的总体发展趋势。

找到该研究课题中潜在的合作者和合作机构。

对该课题领域的国家信息分析，例：国家内领先机构和高校等。

WEB OF SCIENCE分析功能



16种分析功能及精炼方式：

▪作者 ▪出版年 ▪来源期刊 ▪文献类型 ▪会议名称 ▪国家/地区 ▪基金资助机构 ▪授权号

▪团体作者 ▪机构 ▪机构 扩展 ▪语种 ▪WOS学科类别 ▪编者 ▪丛书名称 ▪研究方向

ESI高被引及热点论文

Clarivate Analytics

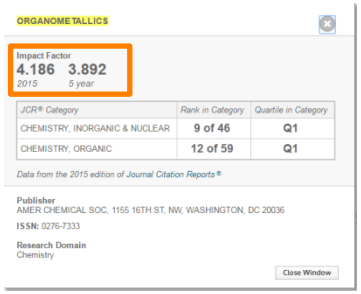
主要基金资助机构

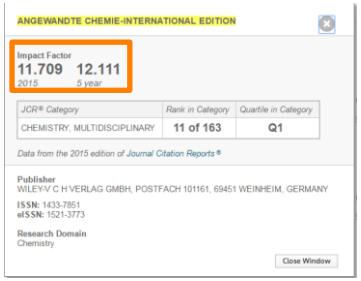
View Records / Exclude Records	Field: Funding Agencies	Record Count	% of 9027	Bar Chart
	NATIONAL NATURAL SCIENCE FOUNDATION OF CHINA	742	8.220 %	
	NSFC	224	2.481 %	
	NATIONAL SCIENCE FOUNDATION	181	2.005 %	
	EPSRC	145	1.606 %	
	NATIONAL BASIC RESEARCH PROGRAM OF CHINA	145	1.606 %	
	NSF	139	1.540 %	
	DEUTSCHE FORSCHUNGSGEMEINSCHAFT	130	1.440 %	
	NATIONAL SCIENCE FOUNDATION OF CHINA	119	1.318 %	
	FUNDAMENTAL RESEARCH FUNDS FOR THE CENTRAL UNIVERSITIES	116	1.285 %	
	CNRS	105	1.163 %	
	FONDS DER CHEMISCHEN INDUSTRIE	97	1.075 %	
	CSIR NEW DELHI	92	1.019 %	
	CSIR	85	0.942 %	
	ALEXANDER VON HUMBOLDT FOUNDATION	81	0.897 %	
	NATIONAL BASIC RESEARCH PROGRAM OF CHINA 973 PROGRAM	81	0.897 %	
	NIGMS NIH HHS	81	0.897 %	
	JSPS	80	0.886 %	
	NIH	79	0.875 %	
	NSERC	77	0.853 %	
	NATURAL SCIENCE FOUNDATION OF CHINA	76	0.842 %	

Clarivate Analytics

主要出版期刊源

View Records / Exclude Records	Field: Source Titles	Record Count	% of 9027	Bar Chart
	ORGANOMETALLICS	1044	11.565 %	
	ANGEWANDTE CHEMIE INTERNATIONAL EDITION	789	8.740 %	
	JOURNAL OF THE AMERICAN CHEMICAL SOCIETY	717	7.943 %	
	CHEMISTRY A EUROPEAN JOURNAL	511	5.661 %	
	ORGANIC LETTERS	404	4.475 %	
	JOURNAL OF ORGANOMETALLIC CHEMISTRY	334	3.700 %	
	CHEMICAL COMMUNICATIONS	316	3.501 %	
	ADVANCED SYNTHESIS CATALYSIS	270	2.991 %	
	JOURNAL OF ORGANIC CHEMISTRY	258	2.858 %	
	EUROPEAN JOURNAL OF ORGANIC CHEMISTRY	242	2.681 %	
	ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY	241	2.670 %	
	DALTON TRANSACTIONS	239	2.648 %	
	TETRAHEDRON LETTERS	208	2.304 %	
	INORGANIC CHEMISTRY	189	2.094 %	
	EUROPEAN JOURNAL OF INORGANIC CHEMISTRY	163	1.806 %	
	SYNLETT	163	1.806 %	
	TETRAHEDRON	157	1.739 %	
	ACS CATALYSIS	136	1.507 %	
	ORGANIC BIOMOLECULAR CHEMISTRY	133	1.473 %	
	SYNTHESIS STUTTGART	98	1.086 %	





Clarivate Analytics

碳氢活化研究在顶级期刊的表现

Results: 30
(from Web of Science Core Collection)

You searched for: TOPIC: ("carbon-hydrogen activat*" or "C-H activat*" or "Carbon hydrogen activat*" or "carbon -hydrogen function*") ...More

Create Alert

Refine Results

Search within results for...

Web of Science Categories

- MULTIDISCIPLINARY SCIENCES (30)

Refine

Document Types

- ARTICLE (24)
- REVIEW (3)
- CORRECTION (2)
- EDITORIAL MATERIAL (1)

Sort by: Times Cited -- highest to lowest

Page 1 of 3

Select Page | 5K | Save to EndNote online | Add to Marked List

Analyze Results
Create Citation Report

1. **Catalytic C-H functionalization by metal carbenoid and nitrenoid insertion**
By: Davies, Huw M. L.; Manning, James R.
NATURE Volume: 451 Issue: 7177 Pages: 417-424 Published: JAN 24 2008
Full Text from Publisher | View Abstract

2. **Organometallic chemistry - C-H activation**
By: Bergman, Robert G.
NATURE Volume: 446 Issue: 7134 Pages: 391-393 Published: MAR 22 2007
Full Text from Publisher

Times Cited: 981
from Web of Science Core Collection)
Highly Cited Paper
Usage Count

Times Cited: 620
from Web of Science Core Collection)
Usage Count

3. **Remarkably selective iridium catalysts for the elaboration of aromatic C-H bonds**
By: Cho, JY; Tse, MK; Holmes, D; et al.
SCIENCE Volume: 295 Issue: 5553 Pages: 305-308 Published: JAN 11 2002
Full Text from Publisher | View Abstract

4. **Thermal, catalytic, regiospecific functionalization of alkanes**
By: Chen, HY; Schlecht, S; Semple, TC; et al.
SCIENCE Volume: 287 Issue: 5460 Pages: 1995-1997 Published: MAR 17 2000
Full Text from Publisher | View Abstract

Times Cited: 593
from Web of Science Core Collection)
Usage Count

Times Cited: 568
from Web of Science Core Collection)
Usage Count

Clarivate Analytics

碳氢活化领域主要研究机构

View Records | Exclude Records

Save Analysis Data to File

Data rows displayed in table
All data rows (up to 200,000)

Field: Organizations-Enhanced	Record Count	% of 9027	Bar Chart
CHINESE ACADEMY OF SCIENCES	584	6.469 %	
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS	371	4.110 %	
UNIVERSITY OF CALIFORNIA SYSTEM	347	3.844 %	
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS CSIC	214	2.371 %	
UNIVERSITY OF CALIFORNIA BERKELEY	188	2.083 %	
UNITED STATES DEPARTMENT OF ENERGY DOE	148	1.640 %	
CALIFORNIA INSTITUTE OF TECHNOLOGY	139	1.540 %	
COUNCIL OF SCIENTIFIC INDUSTRIAL RESEARCH CSIR INDIA	131	1.451 %	
PEKING UNIVERSITY	127	1.407 %	
INDIAN INSTITUTE OF TECHNOLOGY IIT	118	1.307 %	
SCRIPPS RESEARCH INSTITUTE	111	1.230 %	
UNIVERSITY OF ZARAGOZA	98	1.086 %	
KYOTO UNIVERSITY	96	1.063 %	
UNIVERSITY OF MUNSTER	94	1.041 %	
ZHEJIANG UNIVERSITY	94	1.041 %	
UNIVERSITY OF GOTTINGEN	93	1.030 %	
OSAKA UNIVERSITY	83	0.919 %	
UNIVERSITY OF WURZBURG	78	0.864 %	
NANJING UNIVERSITY	77	0.853 %	
UNIVERSITY OF OXFORD	76	0.842 %	

Clarivate Analytics

碳氢活化领域领军人物

View Records | Exclude Records

Save Analysis Data to File

Data rows displayed in table
All data rows (up to 200,000)

Field: Authors	Record Count	% of 9027	Bar Chart
BERGMAN RG	101	1.118 %	I
YU JQ	84	0.931 %	I
LI XW	76	0.842 %	I
DAVIES HML	74	0.82	
CUNDARI TR	70	0.77	
ACKERMANN L	65	0.72	
LI CJ	64	0.70	
MILSTEIN D	59	0.65	
GUNNOE TB	56	0.62	
DOUCET H	55	0.60	
BERCAW JE	52	0.57	
GLORIUS F	52	0.57	
JONES WD	52	0.57	
WANG L	52	0.	
WERNER H	52	0.576 %	I
LABINGER JA	49	0.543 %	I
ZHANG Y	45	0.499 %	I
PERIANA RA	40	0.443 %	I
CARMONA E	39	0.432 %	I
CHENG CH	39	0.432 %	I

Professor Jinquan Yu
Scripps Research Institute

Professor Robert G. Bergman
UC Berkeley

Clarivate Analytics

各国研究状况

View Records | Exclude Records

Save Analysis Data to File

Data rows displayed in table

All data rows (up to 200,000)

Field: Countries/Territories	Record Count	% of 9027	Bar Chart
USA	2265	25.091 %	
PEOPLES R CHINA	1817	20.129 %	
GERMANY	1006	11.144 %	
JAPAN	628	6.957 %	
ENGLAND	529	5.860 %	
INDIA	528	5.849 %	
SPAIN	507	5.616 %	
FRANCE	481	5.328 %	
CANADA	436	4.830 %	
ITALY	251	2.781 %	
SOUTH KOREA	190	2.105 %	
SWITZERLAND	161	1.784 %	
NETHERLANDS	148	1.640 %	
TAIWAN	148	1.640 %	
SINGAPORE	113	1.252 %	
SCOTLAND	107	1.185 %	
ISRAEL	105	1.163 %	
RUSSIA	85	0.942 %	
AUSTRALIA	74	0.820 %	
SWEDEN	67	0.742 %	

Clarivate Analytics

主要学术会议

View Records / Exclude Records	Field: Conference Titles	Record Count	% of 9027	Bar Chart
☐	245TH NATIONAL SPRING MEETING OF THE AMERICAN CHEMICAL SOCIETY ACS	17	0.188 %	I
☐	248TH NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY ACS	14	0.155 %	I
☐	244TH NATIONAL FALL MEETING OF THE AMERICAN CHEMICAL SOCIETY ACS	12	0.133 %	I
☐	247TH NATIONAL SPRING MEETING OF THE AMERICAN CHEMICAL SOCIETY ACS	12	0.133 %	I
☐	226TH NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY	8	0.089 %	I
☐	227TH NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY	7	0.078 %	I
☐	230TH NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY	7	0.078 %	I
☐	235TH AMERICAN CHEMICAL SOCIETY NATIONAL MEETING	7	0.078 %	I
☐	231ST NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY	6	0.066 %	I
☐	242ND NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY ACS	6	0.066 %	I
☐	243RD NATIONAL SPRING MEETING OF THE AMERICAN CHEMICAL SOCIETY	5	0.055 %	I
☐	20TH INTERNATIONAL CONFERENCE ON ORGANOMETALLIC CHEMISTRY ICOMC	4	0.044 %	I
☐	228TH NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY	4	0.044 %	I
☐	229TH NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY	4	0.044 %	I
☐	236TH NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY	4	0.044 %	I
☐	241ST NATIONAL MEETING AND EXPOSITION OF THE AMERICAN CHEMICAL SOCIETY ACS	4	0.044 %	I
☐	245TH NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY ACS	4	0.044 %	I
☐	15TH IUPAC INTERNATIONAL SYMPOSIUM ON ORGANOMETALLIC CHEMISTRY DIRECTED TOWARDS ORGANIC SYNTHESIS OMCOS 15	3	0.033 %	I
☐	225TH NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY	3	0.033 %	I
☐	246TH NATIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY ACS	3	0.033 %	I
☐	SYMPOSIUM ON SYNTHERIC CLEAN FUELS FROM NATURAL GAS AND COAL BED METHANE	3	0.033 %	I

Clarivate Analytics

主要研究领域

View Records / Exclude Records	Field: Research Areas	Record Count	% of 9027	Bar Chart	Save Analysis Data to File
	CHEMISTRY	8826	97.773 %		Data rows displayed in table
	SCIENCE TECHNOLOGY OTHER TOPICS	162	1.795 %		All data rows (up to 200,000)
	PHYSICS	145	1.606 %		
	ENGINEERING	84	0.931 %		
	BIOCHEMISTRY MOLECULAR BIOLOGY	71	0.787 %		
	CRYSTALLOGRAPHY	68	0.753 %		
	MATERIALS SCIENCE	60	0.665 %		
	PHARMACOLOGY PHARMACY	50	0.554 %		
	SPECTROSCOPY	31	0.343 %		
	POLYMER SCIENCE	21	0.233 %		
	ENVIRONMENTAL SCIENCES ECOLOGY	18	0.199 %		
	BIOPHYSICS	13	0.144 %		
	ENERGY FUELS	13	0.144 %		
	MATHEMATICS	11	0.122 %		
	ELECTROCHEMISTRY	10	0.111 %		
	COMPUTER SCIENCE	8	0.089 %		
	BIOTECHNOLOGY APPLIED MICROBIOLOGY	5	0.055 %		
	METALLURGY METALLURGICAL ENGINEERING	3	0.033 %		
View Records / Exclude Records	Field: Research Areas	Record Count	% of 9027	Bar Chart	Save Analysis Data to File
					Data rows displayed in table
					All data rows (up to 200,000)

生物化学、分子生物学领域的延伸

能源、燃料领域的延伸

Clarivate Analytics

利用Web of Science跟踪最新研究进展

- 怎样利用Web of Science™将有关课题的最新文献信息自动发送到您的Email邮箱?
  - 定题跟踪
  - 引文跟踪

保存检索历史,创建定题跟踪

创建“定题跟踪” - 实时跟踪最新研究进展

Clarivate Analytics

保存检索历史在服务器或本地计算机上，订制定题服务

设定选项：

-检索历史名称

-电子邮箱

-定制类型及格式

-频率

Clarivate Analytics


Web of Science™
InCites™
Journal Citation Reports®
Essential Science Indicators℠
EndNote®
Deborah
帮助
简体中文
WEB OF SCIENCE™
THOMSON REUTERS
检索
检索历史：We
检索式
检索结
8
153,2
7
292
6
13,74
5
153,2
4
292
3
13,74
2
153,2
1
153,2
保存检索历史
检索历史名称: genome sequencing (必填)
说明: (可选)
电子邮件跟踪:
电子邮件地址: deborah.guo@thomsonreuters.com
类型: 作者、标题、来源出版物
格式: 纯文本
频率: 每周 每月
跟踪检索式: 主题: (genome sequencing AND genome)
保存检索历史后才可使用 RSS feed。
保存
取消
保存至本地磁盘
保存检索历史至本地磁盘。保存后，关闭此窗口。
保存

创建“引文跟踪” - 随时掌握最新研究进展

Clarivate Analytics

谢顶率 = 16/29 = 55%

利用Web of Science服务教学

Web of Science – Book Citation Index

Essential Science Indicators

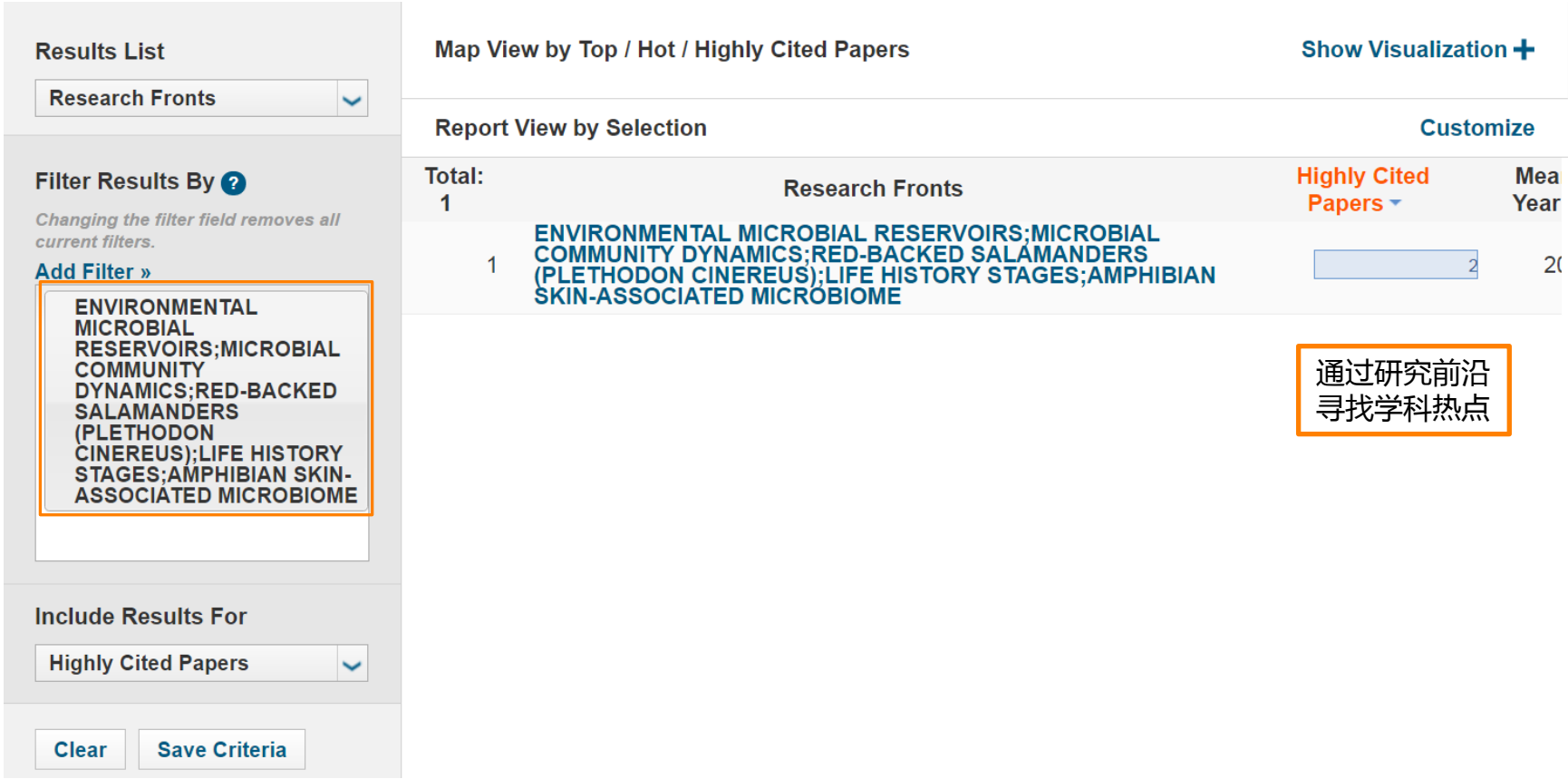
寻找学科热点

获取学科背景

发现教科书

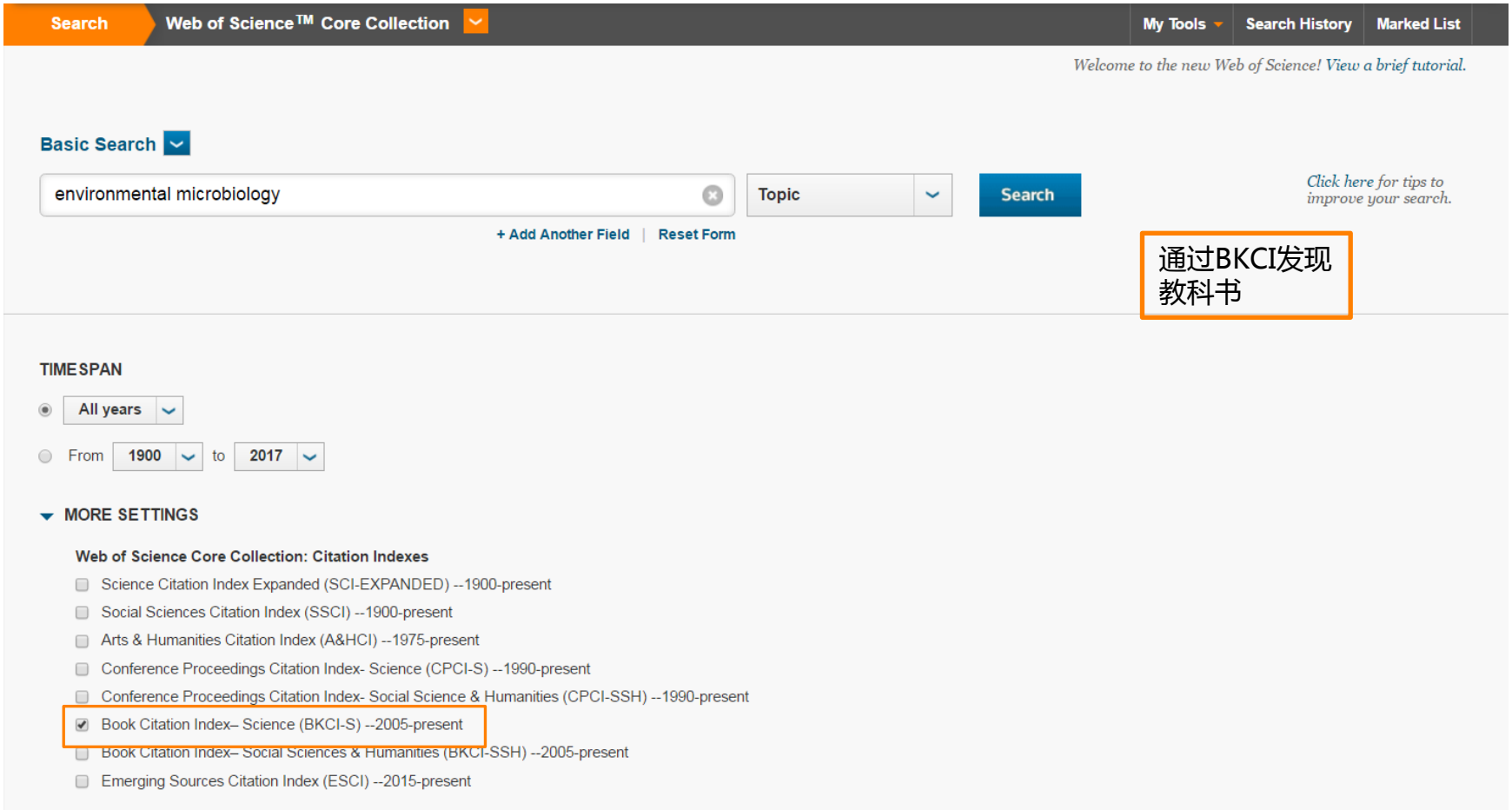
跟踪学科进展

利用Web of Science服务教学

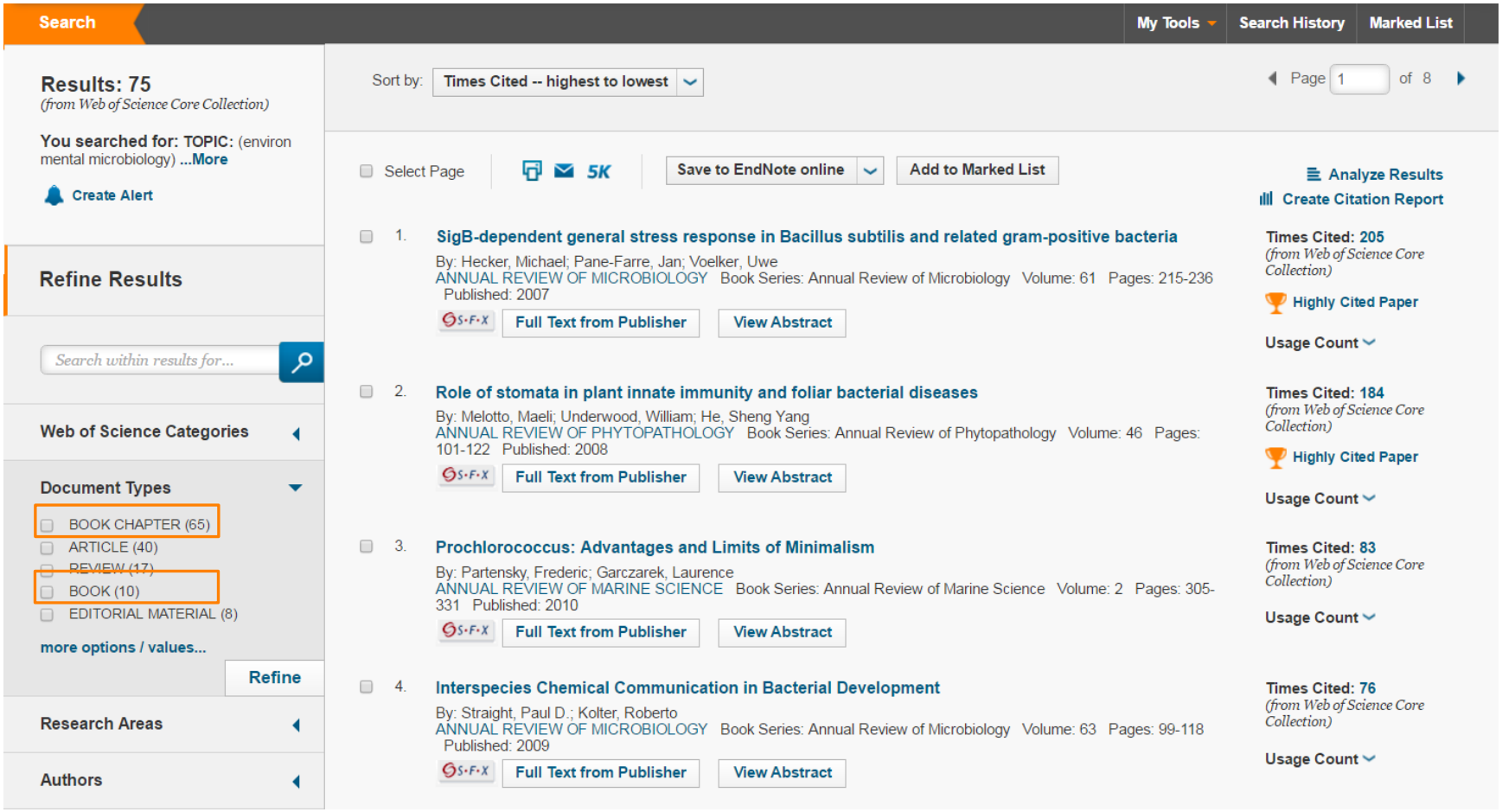


通过研究前沿
寻找学科热点

利用Web of Science服务教学

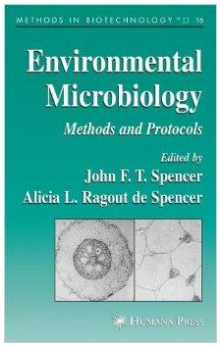


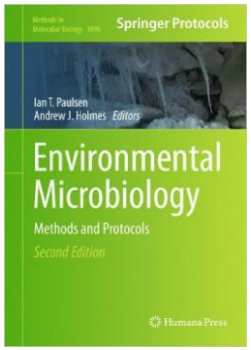
利用Web of Science服务教学



利用Web of Science服务教学

Field: Source Titles	Record Count	% of 75
METHODS IN MOLECULAR BIOLOGY	8	10.667 %
ANNUAL REVIEW OF MICROBIOLOGY	5	6.667 %
ENVIRONMENTAL MICROBIOLOGY METHODS AND PROTOCOLS 2ND EDITION	4	5.333 %
MANUAL OF ENVIRONMENTAL MICROBIOLOGY 3RD ED	4	5.333 %
METHODS IN ENZYMOLOGY	4	5.333 %
ADVANCES IN APPLIED MICROBIOLOGY	3	4.000 %
ADVANCES IN BIOCHEMICAL ENGINEERING BIOTECHNOLOGY	3	4.000 %
ENVIRONMENTAL MICROBIOLOGY 2ND EDITION	3	4.000 %
ARSENIC ENVIRONMENTAL GEOCHEMISTRY MINERALOGY AND MICROBIOLOGY	2	2.667 %
ENVIRONMENTAL MICROBIOLOGY CURRENT TECHNOLOGY AND WATER APPLICATIONS	2	2.667 %
METAGENOMICS CURRENT INNOVATIONS AND FUTURE TRENDS	2	2.667 %
MICROBIOLOGY MONOGRAPHS	2	2.667 %
REVIEWS IN MINERALOGY GEOCHEMISTRY	2	2.667 %





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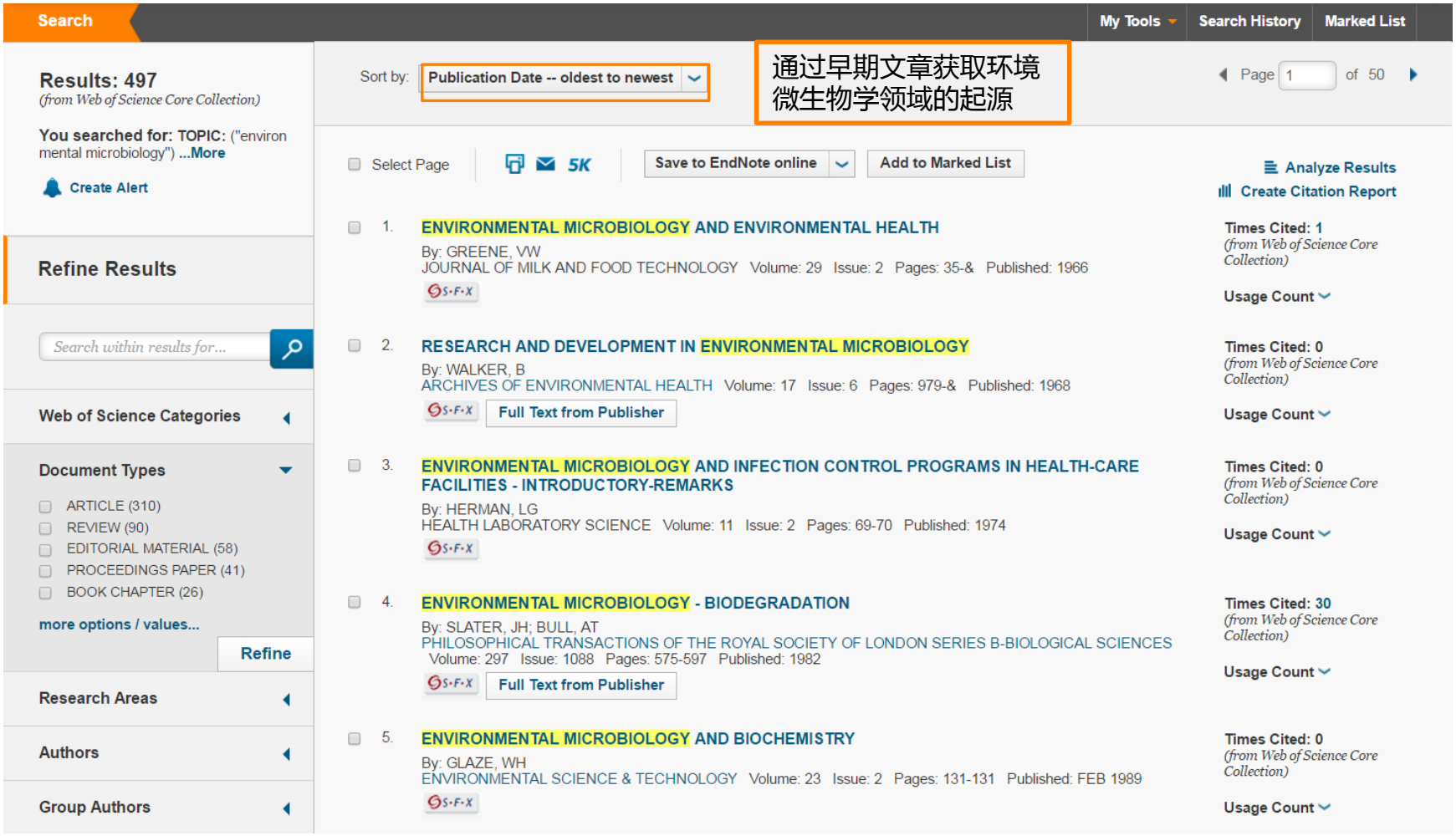
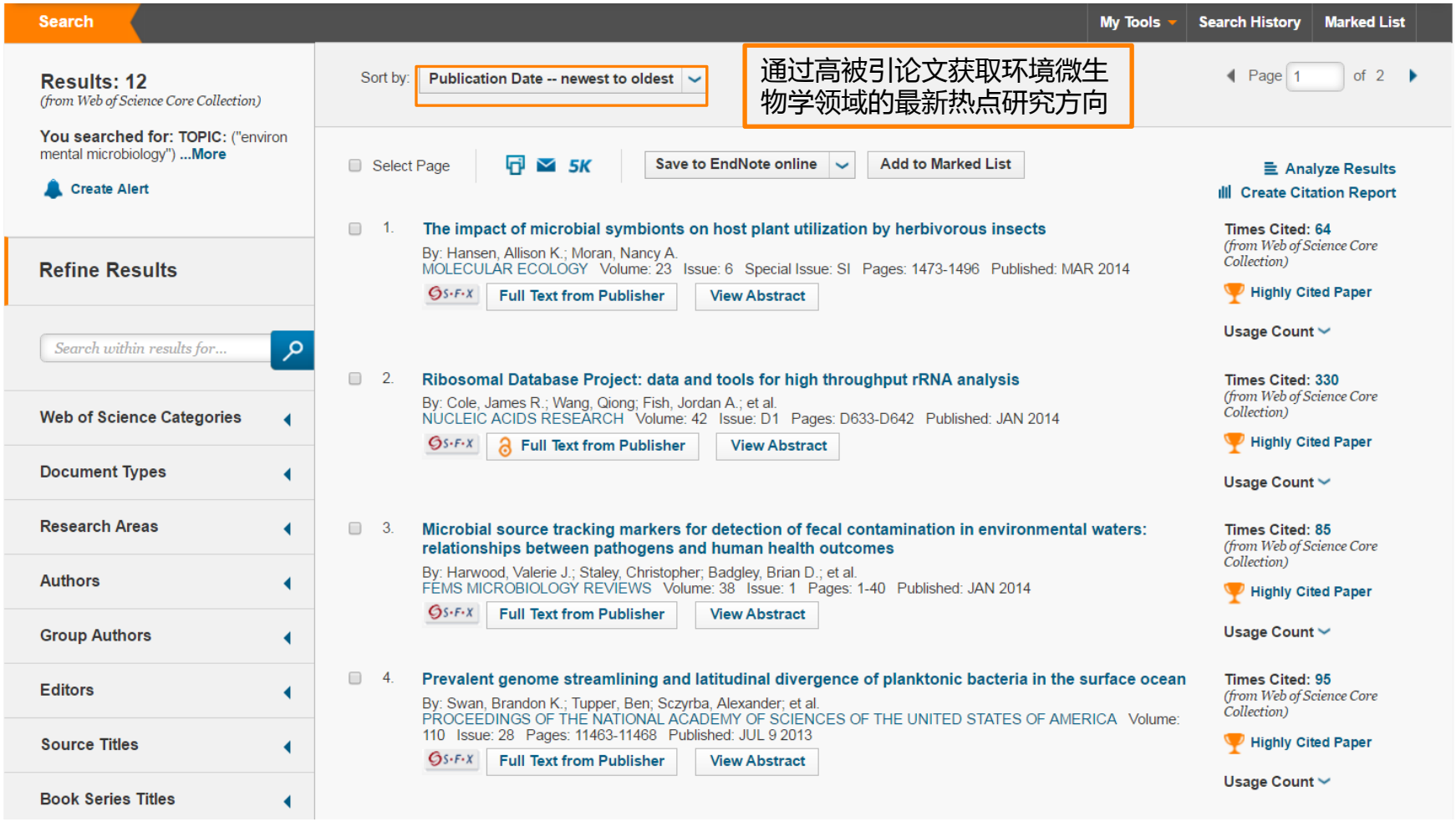


利用Web of Science服务教学

利用Web of Science服务教学

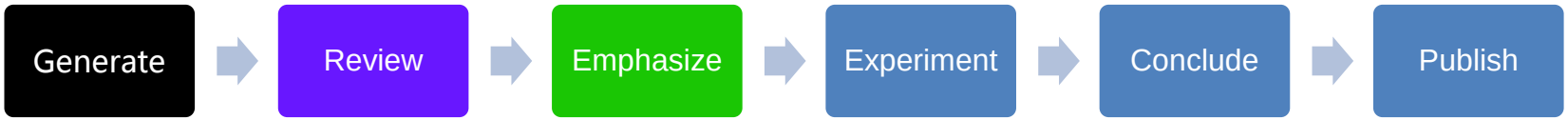


利用Web of Science服务科研

Web of Science

Journal Citation Report

Essential Science Indicators



利用Web of Science服务科研

RESEARCH
FUNDING

使用ESI及WOS分析研究前沿，帮助基金选题

1. 获取研究前沿的方法
2. 明确研究方向的学者
3. 首次申请基金的青年学者
4. 利用研究前沿预判基金资助方向

1、获取研究前沿的方法

Essential Science Indicators
定量分析研究绩效的工具

- 来自于 Web of Science 的10年滚动数据，每一种期刊都被按照22个学科进行了分类标引；
- 基于科学家、研究机构（或大学）、国家（或地区）及学术期刊的研究成果数量和影响力指标，以及在全球各研究领域中的排名
- 全球各学科领域的论文被引频次基准值
- 高被引论文、热点论文和研究前沿

分析学科热点及前沿

ESI已成为教育部学位评估中心及2011计划（高校协同创新平台计划）重要评估指标之一

Report View by Selection

Total: 5186	Institutions	Web of Science Documents			
1	UNIV CALIF SYSTEM	354,087	8,441,711	23.84	11,606
2	HARVARD UNIV	184,707	5,569,706	30.15	8,394
3	CNRS	289,453	4,599,426	15.89	4,501

ESI高被引论文 (Highly Cited Paper)、
热点论文 (Hot Paper)、
前沿研究 (Research Fronts)
定义及价值

ESI高被引论文及热点论文定义

过去**10年**中所发表的，在统计时间点，**被引次数**在**同年同学科**中达到该学科的**前1%**--高被引论文Highly Cited Paper

近**两年内发表**，在统计时间点，**近两个月的被引次数**达到该学科的**前0.1%**--热点论文HOT Paper

统计高被引论文之间的**引证关系**，采用**共聚类分析**得出关键词—研究前沿Research Fronts

2、明确研究方向的学者发现自己领域的研究前沿

Results List

Research Fields

选择研究领域

Filter Results By

Changing the filter field removes all current filters.

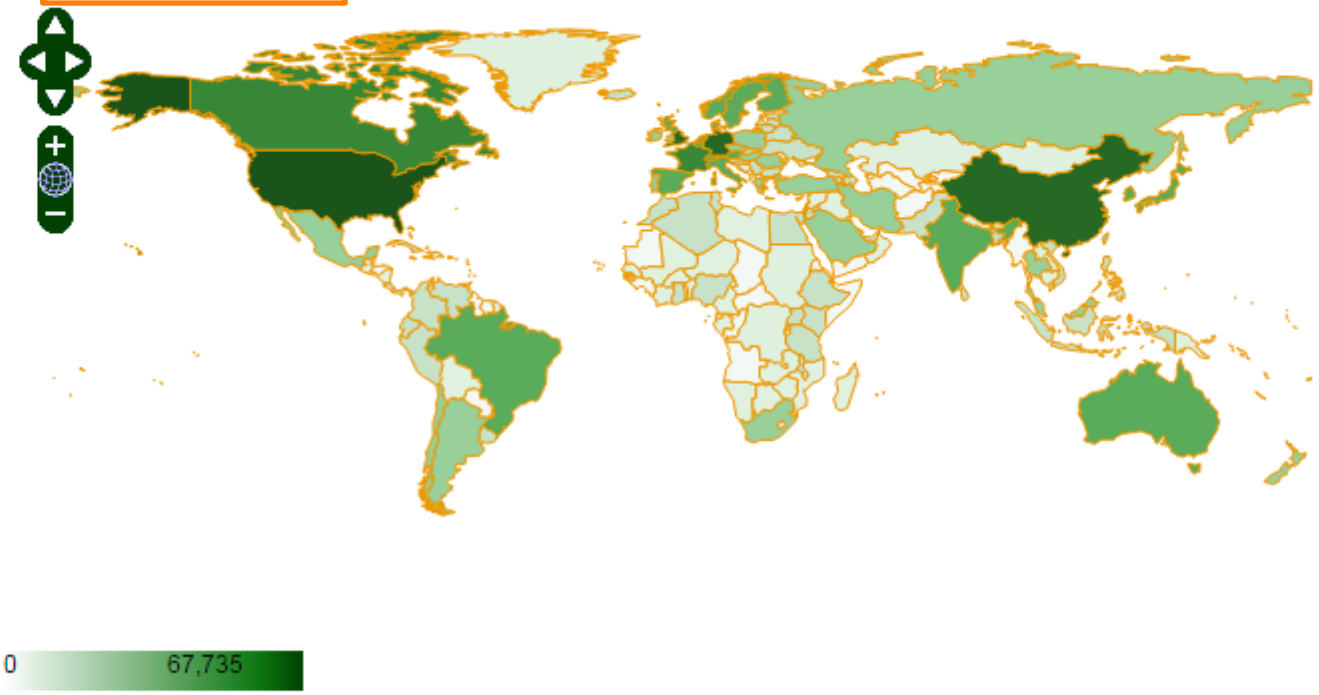
Add Filter »

Include Results For

Top Papers

Clear | Save Criteria

Map View by Top / Hot / Highly Cited Papers — Hide Visualization



Report View by Selection — Customize

选择化学

Total: 22	Research Fields	Web of Science Documents	Cites	Cites/Paper	Top Papers
1	CLINICAL MEDICINE	2,475,019	30,725,900	12.41	24,46
2	CHEMISTRY	1,544,366	20,295,392	13.14	15,36
3	PHYSICS	1,104,434	11,899,217	10.77	11,12
4	BIOLOGY & BIOCHEMISTRY	678,952	10,972,022	16.16	6,60
5	MOLECULAR BIOLOGY & GENETICS	418,962	10,135,315	24.19	4,19

Citation Trends

Documents

Filter Results By

Add Filter »

输入研究方向

Include Results For

Top Papers

Clear | Save Criteria

Sort By Citations | Customize Documents | 1 - 10 of 15,361

1 **A SHORT HISTORY OF SHELX** — Times Cited: 48,054

By: SHELDRICK, GM;
Source: ACTA CRYSTALLOGR A 64: 112-122 PART 1 JAN 2008
Research Fields: CHEMISTRY

2 **THE M06 SUITE OF DENSITY FUNCTIONALS FOR MAIN GROUP THERMOCHEMISTRY, THERMOCHEMICAL KINETICS, NONCOVALENT INTERACTIONS, EXCITED STATES, AND TRANSITION ELEMENTS: TWO NEW FUNCTIONALS AND SYSTEMATIC TESTING OF FOUR M06-CLASS FUNCTIONALS AND 12 OTHER FUNCTIONALS** — Times Cited: 6,654

By: ZHAO, Y; TRUHLAR, DG;
Source: THEOR CHEM ACC 120 (1-3): 215-241 MAY 2008
Research Fields: CHEMISTRY

3 **SEMIEMPIRICAL GGA-TYPE DENSITY FUNCTIONAL CONSTRUCTED WITH A LONG-RANGE DISPERSION CORRECTION** — Times Cited: 6,384

By: GRIMME, S;
Source: J COMPUT CHEM 27 (15): 1787-1799 NOV 30 2006
Research Fields: CHEMISTRY

4 **PHASER CRYSTALLOGRAPHIC SOFTWARE** — Times Cited: 6,076

By: MCCOY, AJ; GROSSE-KUNSTLEVE, RW; ADAMS, PD; et.al
Source: J APPL CRYST 40: 658-674 PART 4 AUG 2007
Research Fields: CHEMISTRY

5 **GRAPHENE-BASED COMPOSITE MATERIALS** — Times Cited: 5,660

By: STANKOVICH, S; DIKIN, DA; DOMMETT, GHB; et.al
Source: NATURE 442 (7100): 282-286 JUL 20 2006
Research Fields: CHEMISTRY

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carbon-carbon

C-C SINGLE BONDS;METAL-CATAL
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1 **A SHORT HISTORY OF SHELX** — Times Cited: 48,054

By: SHELDRICK, GM;
Source: ACTA CRYSTALLOGR A 64: 112-122 PART 1 JAN 2008
Research Fields: CHEMISTRY

2 **THE M06 SUITE OF DENSITY FUNCTIONALS FOR MAIN GROUP THERMOCHEMISTRY, THERMOCHEMICAL KINETICS, NONCOVALENT INTERACTIONS, EXCITED STATES, AND TRANSITION ELEMENTS: TWO NEW FUNCTIONALS AND SYSTEMATIC TESTING OF FOUR M06-CLASS FUNCTIONALS AND 12 OTHER FUNCTIONALS** — Times Cited: 6,654

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× CARBON-CARBON CROSS COUPLING REACTIONS;CARBON-CARBON CROSS-COUPLING REACTIONS;PD-PARTIALLY REDUCED GRAPHENE OXIDE CATALYSTS (PD/PRGO);LASER SYNTHESIS;MICROWAVE-ASSISTED SYNTHESIS

× COPPER(I)-CATALYZED ALKYNE-AZIDE CYCLOADDITION (CUAAC) CLICK REACTION;CLICK CHEMISTRY;CLICK DENDRIMERS;IRIDIUM-CATALYZED INTERMOLECULAR AZIDE-ALKYNE CYCLOADDITION;CROSS CARBON-CARBON COUPLING REACTIONS

× UNACTIVATED TERTIARY ALKYL HALIDES;NON-ACTIVATED ALKYL HALIDES;NICKEL-CATALYZED CARBON-CARBON BOND-FORMING REACTIONS;NICKEL-CATALYZED CROSS COUPLING;SUZUKI ARYLATIONS

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1 **CLICK CHEMISTRY FOR DRUG DEVELOPMENT AND DIVERSE CHEMICAL-BIOLOGY APPLICATIONS**
By: THIRUMURUGAN, P; MATOSIUK, D; JOZWIAK, K;
Source: CHEM REV 113 (7): 4905-4979 JUL 2013
Research Fields: CHEMISTRY
Times Cited: 308
Research Front

2 **CLICK CHEMISTRY: 1,2,3-TRIAZOLES AS PHARMACOPHORES**
P. ISS. SI OCT 4 2011
Times Cited: 295
Research Front

3 **PD NANOPARTICLES FOR C-C COUPLING REACTIONS**
By: BALANTA, A; GODARD, C; CLAVER, C;
Source: CHEM SOC REV 40 (10): 4973-4985 2011
Research Fields: CHEMISTRY
Times Cited: 276
Research Front

4 **NANOCATALYSTS FOR SUZUKI CROSS-COUPLING REACTIONS**
By: FIHRI, A; BOUHRARA, M; NEKOUEISHAHRAKI, B; et.al
Source: CHEM SOC REV 40 (10): 5181-5203 2011
Research Fields: CHEMISTRY
Times Cited: 273
Research Front

5 **THE COPPER(I)-CATALYZED ALKYNE-AZIDE CYCLOADDITION (CUAAC) CLICK REACTION AND ITS APPLICATIONS. AN OVERVIEW**
By: LIANG, LY; ASTRUC, D;
Source: COORD CHEM REV 255 (23-24): 2933-2945 DEC 2011
Research Fields: CHEMISTRY
Times Cited: 231
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× CARBON-CARBON CROSS COUPLING REACTIONS;CARBON-CARBON CROSS-COUPLING REACTIONS;PD-PARTIALLY REDUCED GRAPHENE OXIDE CATALYSTS (PD/PRGO);LASER SYNTHESIS;MICROWAVE-ASSISTED SYNTHESIS

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1 **MICROWAVE-ASSISTED SYNTHESIS OF PALLADIUM NANOPARTICLES SUPPORTED ON GRAPHENE: A HIGHLY ACTIVE AND RECYCLABLE CATALYST FOR CARBON-CARBON CROSS-COUPLING REACTIONS**

By: SIAMAKI, AR; KHDER, AES; ABDELSAYED, V; et.al
Source: J CATAL 279 (1): 1-11 APR 1 2011
Research Fields: CHEMISTRY

Times Cited: 165
Research Front

2 **PD-PARTIALLY REDUCED GRAPHENE OXIDE CATALYSTS (PD/PRGO): LASER SYNTHESIS OF PD NANOPARTICLES SUPPORTED ON PRGO NANOSHEETS FOR CARBON-CARBON CROSS COUPLING REACTIONS**

By: MOUSSA, S; SIAMAKI, AR; GUPTON, BF; et.al
Source: ACS CATAL 2 (1): 145-154 JAN 2012
Research Fields: CHEMISTRY

Times Cited: 105
Research Front

3、首次申请基金的青年学者发现所在学科的研究前沿

Indicators

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0 67,612

该研究前沿相关的高被引文章数

论文出版的平均年份

Report View by Selection

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I:	Research Fronts	Highly Cited Papers	Mean Year
1	FEW-LAYER BLACK PHOSPHORUS FIELD-EFFECT TRANSISTORS;FLEXIBLE BLACK PHOSPHORUS AMBIPOLAR TRANSISTORS;BLACK PHOSPHORUS FIELD-EFFECT TRANSISTORS;PRISTINE FEW-LAYER BLACK PHOSPHORUS;FEW-LAYER BLACK PHOSPHORUS	46	2014.3
2	CU-WATER NANOFLUID HEAT TRANSFER;MHD NATURAL CONVECTION HEAT TRANSFER;MAGNETOHYDRODYNAMIC NATURAL CONVECTION HEAT TRANSFER;NATURAL CONVECTION HEAT TRANSFER;FORCED CONVECTION HEAT TRANSFER	45	2013.9
2	HIGHLY SELECTIVE LUMINESCENT SENSING;INFRARED LUMINESCENT YTTERBIUM METAL-ORGANIC FRAMEWORK;LUMINESCENT NANOSCALE METAL-ORGANIC FRAMEWORK;LUMINESCENT CADMIUM METAL-ORGANIC FRAMEWORK;LUMINESCENT METAL-ORGANIC FRAMEWORK FILMS	45	2013.7
2	COMPETITIVE ULTRASONIC ASSISTED REMOVAL;ULTRASONIC ASSISTED REMOVAL;BASED RESPONSE SURFACE METHODOLOGY OPTIMIZATION;ACID BLUE 129 REMOVAL;MULTI-WALLED CARBON NANOTUBES	45	2013.5
5	CU2ZNSNS4 THIN FILM SOLAR CELL EFFICIENCY;HIGH EFFICIENCY ELECTRODEPOSITED CU2ZNSNS4 SOLAR CELL;CU2ZNSNS4 SOLAR CELLS;CU2ZNSNSE4 THIN FILM	43	2012.6

对研究前沿关键词进行分析

HIGHLY SELECTIVE LUMINESCENT SENSING;INFRARED LUMINESCENT YTTERBIUM METAL-ORGANIC FRAMEWORK;LUMINESCENT NANOSCALE METAL-ORGANIC FRAMEWORK;LUMINESCENT CADMIUM METAL-ORGANIC FRAMEWORK;LUMINESCENT METAL-ORGANIC FRAMEWORK FILMS	45	2013.7	有机金属配合物发光材料
TETRAPHENYLETHYLENE CORE-BASED 3D STRUCTURE SMALL MOLECULAR ACCEPTOR ENABLING EFFICIENT NON-FULLERENE ORGANIC SOLAR CELLS;HIGHLY EFFICIENT SOLUTION-PROCESSED NON-FULLERENE ORGANIC SOLAR CELLS;HIGH-PERFORMANCE NON-FULLERENE BASED ORGANIC SOLAR CELLS;EFFICIENT ORGANIC BULK HETEROJUNCTION SOLAR CELLS;EFFICIENT NON-FULLERENE POLYMER SOLAR CELLS ENABLED	39	2014.3	非富勒烯型聚合物太阳能电池
LUMINESCENT LANTHANIDE METAL-ORGANIC FRAMEWORKS;LUMINESCENT MULTIFUNCTIONAL LANTHANIDES-BASED METAL-ORGANIC FRAMEWORKS;LUMINESCENT FUNCTIONAL METAL-ORGANIC FRAMEWORKS;FERROELECTRIC METAL-ORGANIC FRAMEWORKS;MICROPOROUS METAL-ORGANIC FRAMEWORKS	37	2012.3	发光镧系金属-有机骨架材料
ASYMMETRIC N-HETEROCYCLIC CARBENE (NHC) CATALYZED ACYL ANION REACTIONS;N-HETEROCYCLIC CARBENE CATALYZED DOMINO REACTIONS;N-HETEROCYCLIC CARBENE CATALYZED ACTIVATION;N-HETEROCYCLIC CARBENE (NHC) CATALYSIS;ACYL ANION FREE N-HETEROCYCLIC CARBENE ORGANOCATALYSIS	34	2013.3	N-杂环卡宾(NHC)催化
ENANTIOSELECTIVE ELECTROPHILIC TRIFLUOROMETHYLTHIOLATION;LEWIS ACID-CATALYZED ELECTROPHILIC TRIFLUOROMETHYLTHIOLATION;SILVER-MEDIATED OXIDATIVE ALIPHATIC C-H TRIFLUOROMETHYLTHIOLATION;DIRECT CATALYTIC TRIFLUOROMETHYLTHIOLATION;COPPER-CATALYZED OXIDATIVE TRIFLUOROMETHYLTHIOLATION	30	2013.6	C-H键的三氟甲基化
COBALT(III)-CATALYZED DIRECTED C-H ALLYLATION;COBALT(III)-CATALYZED DIRECTED C-H COUPLING;COBALT(III)-CATALYZED C-H BOND AMIDATION;COBALT(III)-CATALYZED C-H AMIDATION;COBALT(III)-CATALYZED C2-SELECTIVE C-H ALKYNYLATION	29	2014.8	C-H键的烯丙基化、酰胺化、炔基化
ORGANOMETALLIC SANDWICH LANTHANIDE SINGLE-ION MAGNET;LANTHANIDE ORGANOMETALLIC SINGLE-ION MAGNETS;LANTHANIDE SINGLE-MOLECULE MAGNETS;ASYMMETRIC DY-2 SINGLE-MOLECULE MAGNET;SINGLE-MOLECULE MAGNET BEHAVIOR	28	2012.3	镧系金属元素的单粒子磁体
EFFICIENT BLUE ORGANIC LIGHT-EMITTING DIODES EMPLOYING THERMALLY;DELAYED FLUORESCENT ORGANIC LIGHT-EMITTING DIODES;HIGHLY EFFICIENT ORGANIC LIGHT-EMITTING DIODES;ORGANIC LIGHT-EMITTING DIODES EMPLOYING EFFICIENT REVERSE INTERSYSTEM CROSSING;HIGHLY EFFICIENT ORGANIC LIGHT-EMITTING DIODE BASED	26	2013.5	有机发光二极管
HIGH PERFORMANCE ORGANIC SOLAR CELLS;ALL-SOLUTION-PROCESSED BILAYER ORGANIC SOLAR CELLS;HIGH-EFFICIENCY ORGANIC SOLAR CELLS;POLYMER/FULLERENE BULK HETEROJUNCTION SOLAR CELLS;POLYMER-FULLERENE BULK HETEROJUNCTION SOLAR CELLS	25	2012.4	高效有机太阳能电池

4、利用研究前沿预判基金资助方向

2012年国家自然科学基金委有机化学面上项目指南

- 有机化学是研究有机物质的来源与组成、合成与表征、结构与性质、反应与转化，以及功能与作用机理的科学，是创造新物质的重要学科之一。有机化学的新理论、新反应、新方法不仅推动了化学学科的发展，同时也促进了该学科与生命、材料、能源、信息、农业和环境等相关领域在更大程度上的交叉和渗透，进一步拓展了有机化学的研究领域，创造了新的学科生长点。当今有机化学研究的特点是：有机化学的分子设计与制备、分子识别与组装等概念正在影响着多个学科的发展；**选择性反应尤其是催化不对称反应，已成为有机化学研究的热点**；绿色化学作为有机化学研究中具有战略意义的前沿，正在为合理利用资源、解决环境污染和可持续发展等发挥重要的作用；有机化学与生命科学的交叉为研究和认识生命体系中的复杂现象及过程提供了新的方法和手段；有机化学与材料科学的交叉促进了新型有机功能物质的发现、制备和应用；新技术的发现与应用推动着有机化学的发展。

- 通过国家自然科学基金多年的持续资助，我国有机化学的基础研究在金属有机化学、物理有机化学、生物有机化学、天然有机化学和不对称合成等研究领域都取得了重要进展。今后，有机化学除了继续支持金属有机化学、不对称合成等优势学科外，将进一步加强下列几方面的基础研究：①物理有机和有机分析领域，重视发展新理论、新方法和新思路，关注人口与健康、农业、能源、环境和新材料等交叉领域的研究；②天然有机化学领域，加强新结构、新功能天然产物的发现，鼓励开展我国自己发现的、具有独特结构和重要生理活性天然产物的合成，同时鼓励发展新的合成方法；加强基于天然产物等活性小分子的化学生物学研究；③医药和农药创制领域，鼓励开展基于分子靶标的药物设计、新先导化合物和新靶标的发现以及结构与活性关系研究；④有机功能材料领域，加强分子设计、高效合成、组装与本征物理化学性质方面的研究；⑤超分子化学领域，注重分子识别、自组装方法及组装体的功能研究；⑥鼓励开展高效、高选择性的新型催化剂和试剂的研究及其应用，推动绿色化学与可持续化学的发展。

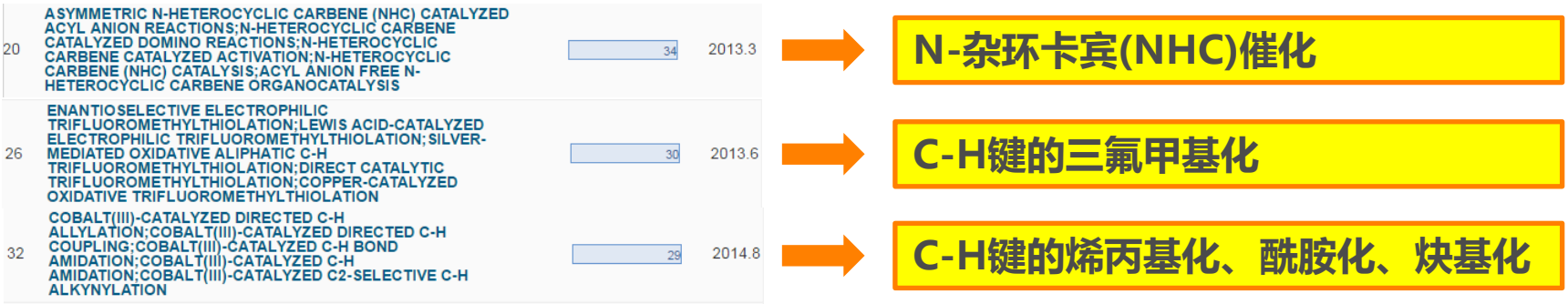
2016年国家自然科学基金委有机化学面上项目指南

- 有机化学是研究有机物质的来源与组成、合成与表征、结构与性质、反应与转化，以及功能与作用机理的科学，是创造新物质的重要学科之一。从纵向的角度看，有机化学研究不断深化学科内涵，向宏观拓展、微观深入，力争全时空揭示分子结构–性质关系、化学键形成和断裂以及分子间相互作用的规律，寻求物质转化的最优条件，逐步实现创造和应用有机物质的精准化。从横向的角度看，有机化学积极拓展与其他学科的交叉融合，催生学科增长点，推动能源、健康、环境等领域重大科学问题的解决，促进国家经济和社会发展。当前有机化学研究的主要特点是：对有机物质结构、转化和相互作用规律的认识不断系统和深入，从而推动新反应、新试剂的发现；**有机化学反应与合成更加注重选择性精准控制和原子/步骤经济性；惰性化学键与小分子的活化与转化、廉价金属催化、绿色合成、生物质转化等成为应对可持续发展需求的前沿领域**；新结构/新活性分子与生物兼容性反应为解决分子层次的生命科学问题提供关键的物质和方法支持；创造全新功能材料分子和智能组装体系从源头上推动了材料科学的创新。
- 近年来，我国有机化学的基础研究无论在规模上还是在深度上都有了长足的进步，有机合成等领域已在国际上占有一席之地，形成了一些有特色的体系。但从近年来基金申请情况来看，我国的有机化学发展也存在如下突出问题：原创性和系统性仍不足、某些领域研究同质化明显、开辟和引领新领域和新方向的能力较弱、各分支学科发展不均衡及以论文为导向的急功近利倾向严重等。有机化学学科将继续支持各分支学科的发展，鼓励科学问题导向的原创性和系统性研究，强调研究思想、研究方向、研究内容以及评价方式的多元化，关注以物质转化为核心的有机合成基础研究原创性突破及对产业应用的源头贡献，进一步加强本学科与物理、材料科学和生命科学等领域的交叉。

2012 - 2016年国家自然科学基金委有机化学面上项目指南研究前沿领域的变化

惰性化学键活化（碳氢活化）

有机化学领域的ESI研究前沿



20	ASYMMETRIC N-HETEROCYCLIC CARBENE (NHC) CATALYZED ACYL ANION REACTIONS;N-HETEROCYCLIC CARBENE CATALYZED DOMINO REACTIONS;N-HETEROCYCLIC CARBENE CATALYZED ACTIVATION;N-HETEROCYCLIC CARBENE (NHC) CATALYSIS;ACYL ANION FREE N-HETEROCYCLIC CARBENE ORGANOCATALYSIS	34	2013.3	N-杂环卡宾(NHC)催化
26	ENANTIOSELECTIVE ELECTROPHILIC TRIFLUOROMETHYLTHIOLATION;LEWIS ACID-CATALYZED ELECTROPHILIC TRIFLUOROMETHYLTHIOLATION;SILVER-MEDIATED OXIDATIVE ALIPHATIC C-H TRIFLUOROMETHYLTHIOLATION;DIRECT CATALYTIC TRIFLUOROMETHYLTHIOLATION;COPPER-CATALYZED OXIDATIVE TRIFLUOROMETHYLTHIOLATION	30	2013.6	C-H键的三氟甲基化
32	COBALT(III)-CATALYZED DIRECTED C-H ALLYLATION;COBALT(III)-CATALYZED DIRECTED C-H COUPLING;COBALT(III)-CATALYZED C-H BOND AMIDATION;COBALT(III)-CATALYZED C-H AMIDATION;COBALT(III)-CATALYZED C2-SELECTIVE C-H ALKYNYLATION	29	2014.8	C-H键的烯丙基化、酰胺化、炔基化

利用ESI研究前沿对基金资助领域进行预判

Outline

01 科学信息在科研过程中的作用

02 Web of Science™及引文索引简介

03 如何利用Web of Science™核心合集为科研服务

04 学术出版

ADVANCED MATERIALS

Whitesides' Group: Writing a Paper**

By *George M. Whitesides**

1. What is a Scientific Paper?

A paper is an organized description of hypotheses, data and conclusions, intended to instruct the reader. Papers are a central part of research. If your research does not generate papers, it might just as well not have been done. "Interesting and unpublished" is equivalent to "non-existent".

Realize that your objective in research is to formulate and test hypotheses, to draw conclusions from these tests, and to teach these conclusions to others. Your objective is not to "collect data".

A paper is not just an archival device for storing a completed research program; it is also a structure for *planning* your research in progress. If you clearly understand the purpose and form of a paper, it can be immensely useful to you in *organizing* and conducting your research. A good outline for the paper is also a good plan for the research program. You should write and rewrite these plans/outlines throughout the course of the research. At the beginning, you will have mostly plan; at the end, mostly outline. The continuous effort to understand, analyze, summarize, and reformulate hypotheses on paper will be immensely more efficient for you than a process do *not* agree on the outline, any text is useless. Much of the *time* in writing a paper goes into the text; most of the *thought* goes into the organization of the data and into the analysis. It can be relatively efficient in time to go through several (even many) cycles of an outline before beginning to write text; writing many versions of the full text of a paper is slow.

All writing that I do—papers, reports, proposals (and, of course, slides for seminars)—I do from outlines. I urge you to learn how to use them as well.

2.2. How Should You Construct an Outline?

The classical approach is to start with a blank piece of paper, and write down, in any order, all important ideas that occur to you concerning the paper. Ask yourself the obvious questions: "Why did I do this work?"; "What does it mean?"; "What hypotheses did I mean to test?"; "What ones did I actually test?"; "What were the results? Did the work yield a new method of compound? What?"; "What measurements did I make?"; "What compounds? How were they characterized?". Sketch possible equations, figures, and schemes. It is

Peer review

Peer review

- the 'life' of a manuscript

Peer review

- *what is peer review?*

- Assessment by independent experts
  - Usually at least two
  - Different reviewers may advise on different aspects
  - Chosen by the editor
- Journals provide guidelines
- Reviewers asked to return their report within two weeks (varies by journal)
- Constructive feedback helps:
  - Editor to make a decision
  - Authors to improve their manuscript

Peer review

- what do peer reviewers look for?

- Quality
- Soundness of research
- Suitability of methods and analyses
- Soundness of analysis
- Appropriateness of the conclusions
- Reporting/clarity of the message
- Language/presentation
- Contribution to the literature
- Importance/interest
- Suitability to the journal‘s scope
- Research and publication ethics

Peer review

- *why peer review?*

- Ensures that published articles are scientifically sound
- An opportunity to improve manuscripts
- If rejected: take criticism on board before submitting to another journal!

Peer review

- making a decision after peer review

- Editors make a decision on the basis of the comments from the reviewers and their own assessment
- Reviewers often disagree with each other
- Editors may overrule reviewers
- Editors, not the reviewers, decide ultimately what is published

Peer review

- decisions after peer review

Accepted

- All main aspects of the manuscript been assessed
- The study has been judged to be sound
- Study meets the required threshold for the journal (e.g. significant clinical impact)

Revisions

- Further experiments needed (e.g. more controls)
- Discuss limitations more clearly
- Ensure data supports conclusions

Rejected

- Extensive revisions required.
- Stats not appropriate
- Lack of ethical approval or missing data
- Inappropriate controls or methods for analysis
- Data do not support conclusions
- No novelty
- Misconduct, e.g. Plagiarism
- Unsuitable for journal scope or threshold

Peer review

- rejection reasons why

Scientific soundness

Results are not sound

Interpretation is fundamentally flawed

Ethical concerns

Manuscript cannot be published (in current form)

Interest/advance

Not in scope for this journal

Not a sufficient advance

Not relevant to this journal's readership

Manuscript suitable for a different journal

Transfer offered

Publication ethics

Publication ethics

- types of publication misconduct

- Plagiarism
- Duplicate submission/publication
- Undeclared competing interests
- Unethical research involving humans or animals
- Data falsification/fabrication
- Image manipulation
- Gift/ghost authorship

Publication ethics

- *plagiarism*

- Duplication of text or figures from someone else's work

- How much can you copy from someone else's work?
    1. None
    2. 10%
    3. 30%

Publication ethics

- how do editors deal with plagiarism?

Follow COPE guidelines

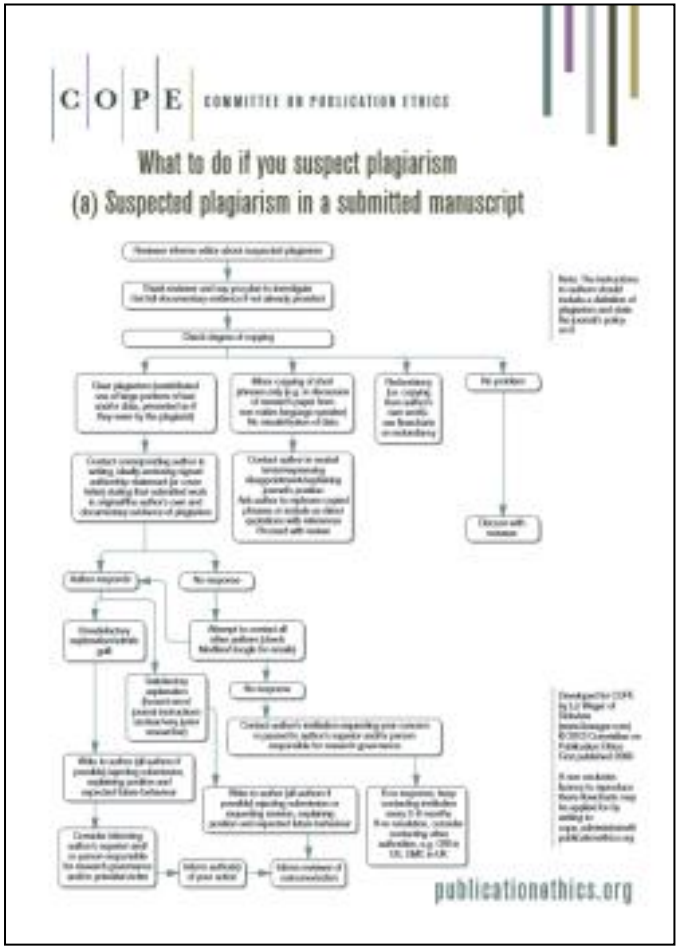
Use plagiarism detection software

During submission:

- Ask authors for an explanation
- May allow authors to re-write
- Manuscript may be rejected
- Editor may contact authors' institution

After publication:

- May publish a retraction or correction



Publication ethics

- text recycling (self-plagiarism)

- Duplication of text from your own previous work
- Usually without attribution
- Depends on journal's policy

Try to avoid repeating your published text

- If unavoidable:
  - Be transparent
  - Tell the editor
  - Cite the original article

Publication ethics

- text recycling example

Transparently!

Methods (new article):

The full methods of this study have already been reported in our previous article [6]. Briefly, we conducted a randomised control trial involving patients over the age of 18 who had undergone and elective laparoscopic cholecystectomy in 2007/8 in one of four London teaching hospitals.

There is no need to repeat the description of the methods as the authors provide a citation for the details. This clarifies that the results reported in the new article are secondary outcomes from the previous study rather than misleading the reader into believing this was another study.

Publication ethics

- duplicate submission

Is it ok to submit to more than one journal at once?

No!

Consequences of duplicate submission:

- Rejection of both manuscripts
- Editor may contact the authors' institution
- Duplicate publication
- May lead to retraction (14.2% of all retractions)
- Wastes editors' and reviewers' time

Publication ethics

- competing interests

Competing interests (CI) can be:

- Financial
- Non-financial

Importance of declaring CI on submission

- Editor is aware during manuscript assessments
- Editor will not invite reviewers with the same CI
- Reviewers are aware when assessing manuscript
- Readers are aware once published

Declaring a CI does not mean that an article will not be published

Publication ethics

- competing interests examples

In your paper you report that a commercial sequencing technology works very well; you have shares in the company that makes the technology.

Is this a competing interest?

Yes – this is a financial competing interest

Publication ethics

- competing interests examples

In your paper, you report that there are no adverse effects of smoking on fertility; your husband works in the cigarette industry.

Is this a competing interest?

Yes, this is a non-financial competing interest

Publication ethics

- *authorship*

- Agree on authorship early
- Use ICMJE criteria
- Provide correct email addresses for all authors
- Tell the Editor about any changes

What problems can occur?

- Gift authorship
- Ghost authorship
- Authorship disputes

Authorship disputes can lead to delays

Publication ethics

- who should not be an author?

Someone who has only been involved in:

- Acquisition of funding
- Collection of data
- General supervision

Contributors who do not meet the authorship criteria should be listed in the Acknowledgements

Authors should have made substantial contributions, according to ICMJE

Publication ethics

- potential consequences of unethical behavior

- Article may be rejected
- Article may be retracted (if already published)
- Institution may be contacted
- May be unable to publish in the future - (some) journals ban authors
- Loss of reputation
- Loss of employment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添加新的字段还会将第二个字段设置为 AND 运算符。可以将 AND 运算符改为 OR 或 NOT。
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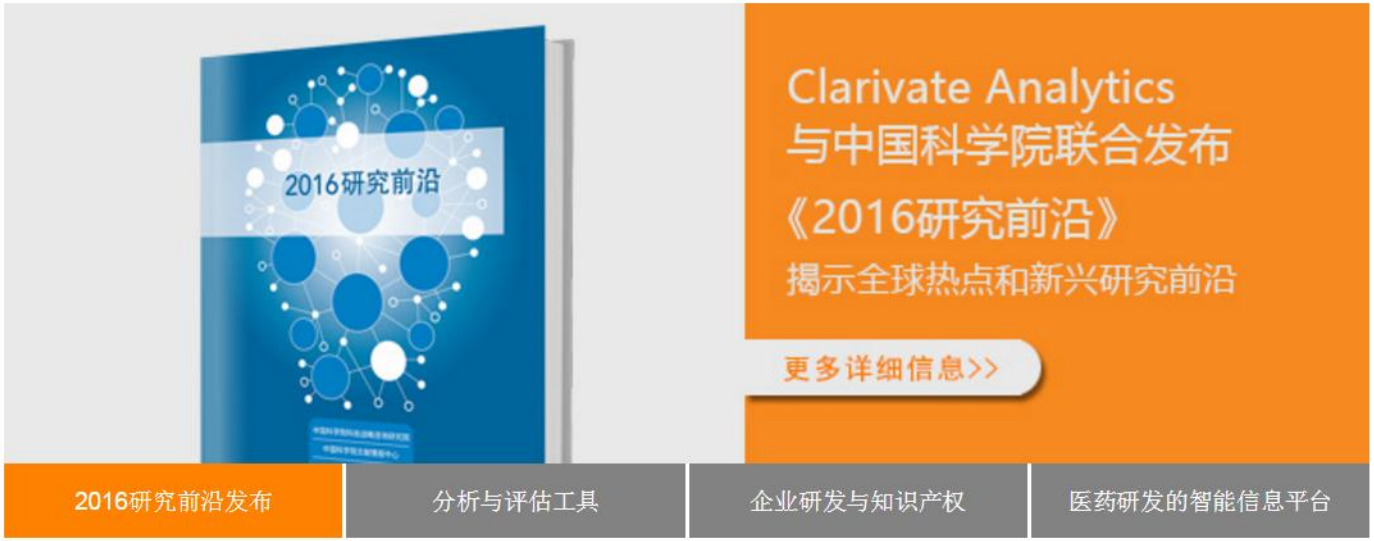

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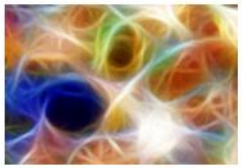

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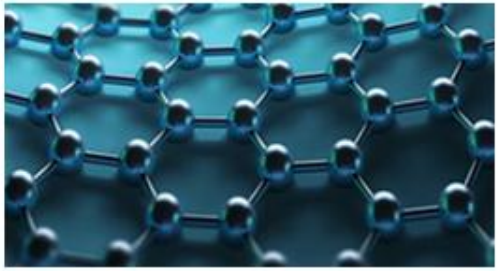

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4月18日 周二 19:00-20:00	继往开来，SCI帮您高效选题与开题	杜进	详细了解或注册课程 >
4月25日 周二 19:00-20:00	精准获取信息的基本功训练 ——如何编写检索式等应用技巧	张素芳	详细了解或注册课程 >
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6月8日 周四 15:00-16:00	专利资产 了然于胸	张丹丹	详细了解或注册课程 >
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6月15日 周四 15:00-16:00	分析工具升级您的学科服务	段鑫龙	详细了解或注册课程 >
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谢谢大家！

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