

# EI数据库简介

# 信息在工程领域的使用

## 科研

合作 & 社交

整合 & 分析



检索、发现、阅读、评审

实验

- 什么是最新的趋势和技术？
- 研究之前有做过吗？
- 我有哪些新的研究机会？
- 我的同行在做什么？
- 我如何写一个成功地投资提案？
- 我如何监控我的竞争对手？
- 如何找到我的合作伙伴？
- 如何快速获取我不熟悉领域的背景知识？

## 教学

授课 & 布置作业

批改作业和评分



课程设计

分享支持工具

- 我如何让学生参与/感兴趣？
- 我如何确保学生使用可信的信息来源？
- 我如何教导学生写一篇成功的研究论文？
- 我如何教导学生解决实际的开放式问题？
- 我如何为我的学生准备工作场所？

# Engineering Village™ – 深入工程研究的首选工具

掌控您的研究工作

找到所需的



确定研究的独特性



产生想法



保持与时俱进



了解新的学科领域



找到同行和合作者



追踪竞争工作

避免不想要的



质量不可靠  
缺乏准确性、可信性



错过内容



重复工作



读到不相关的内容



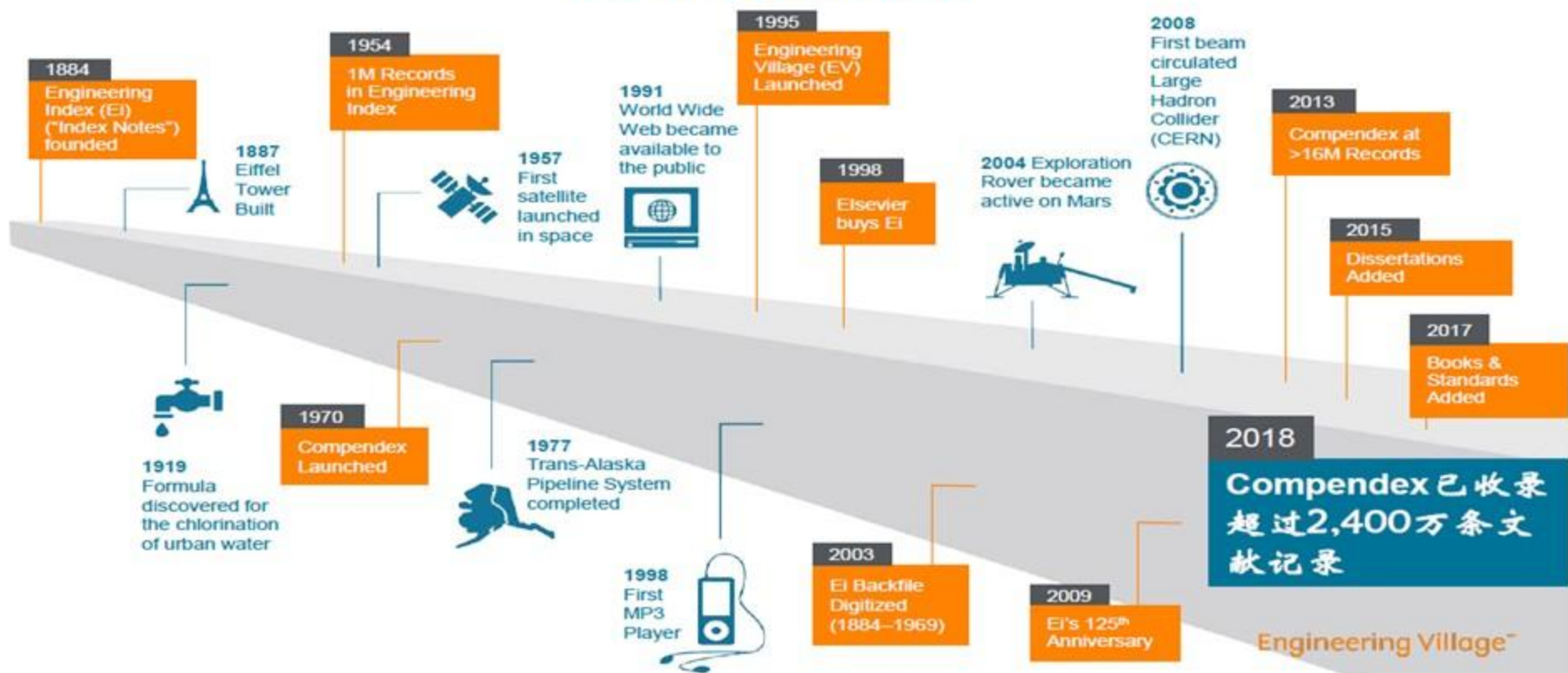
在多个系统中  
重复搜索

以最少的时间和劳力取得最大的成果

# Ei & Engineering Village 的里程碑

Ei 和 Engineering Village 是已确立声誉的品牌

收录工程文献已有134年



# Engineering Village™

- 拥有13个专注专业文摘索引 ( A&I ) 数据库的平台



20所全球顶尖大学  
100% 使用  
(US News & World Report)

**Ei Compindex**  
Ei Backfile  
Inspec  
Inspec Archive

**GEOBASE**  
GeoRef

**Chimica**  
CBNB

**EnCompassLIT**  
**EnCompassPAT**

**PaperChem**

**NTIS**

**USPTO**  
**EPO**  
**WIPO**

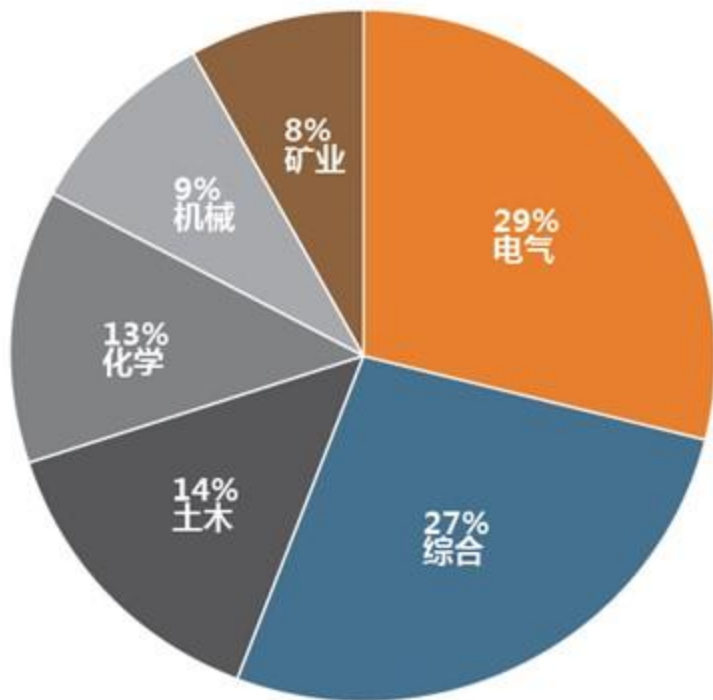


Engineering Village™

# Ei Compendex工程学科领域

## Ei Compendex相关领域

- 应用物理学，包括光学
- 生物工程与生物技术
- 食品科学与技术
- 材料科学
- 仪器仪表，包括医疗器械
- 纳米技术



# Ei Compendex

## 是世界上涵盖面最广最完整的工程文献数据库



**~26.1M条**文献记录

并正在持续增长

>1.78M条记录  
来自Ei Backfile

1884年至1969年

每年增加

1.3M条记录

1970年至今



通过DOIs实现全文链接

涵盖**190**个工程相关领域

来自**78**个国家的**2,291**个出版社



# 在工科文献调研中的应用EI数据库



## 一、文献收集重点-文献调研阶段

### 大致确定课题方向后泛调研

收集该领域的综述文献、博士学位论文；重点利用本领域经典或综述文集数据库

重点阅读英文综述或研究论文标题、摘要：了解前沿、难点、创新点、并收集关键词

确定研究题目=实验室研究背景+当前研究热点+自身兴趣点

### 确定具体研究题目后的精调研

有针对性的收集文献，重点在于确定内容；利用数据库的分析功能，查找主要的研究者和机构

文献阅读-泛读和精读相结合

确定课题实施方案（技术和方法的创新）



## 二、先看综述性论文，再看研究论文。

- 特点：综合性、扼要性和评价性，参考文献多。
- 应作为“起步文献”加以参考利用。

The screenshot shows the Engineering Village search interface. At the top left is the logo "Engineering Village™" with the tagline "The first choice for serious engineering research." To the right are links for "Search", "Alerts", and "Selected records". Below this is a "Quick search" section with a search bar containing the text "Search for... e.g. transcription factors AND jon smith". Below the search bar are various filters: "Databases", "Date", "Document type", "Language", "Treatment", "Discipline", "Sort by", "Autostemming", and "Browse indexes". The "Treatment" filter is highlighted with a red box, and its dropdown menu is open, showing options like "All Treatments", "Experimental", "Management aspects", "Applications", "General review", "Numerical", "Biographical", "Historical", "Theoretical", "Economic", and "Literature review". The "Literature review" option is also highlighted with a red box. Below the search interface, two orange callout boxes provide Chinese translations: "General Review" (一般性综述) and "Literature Review" (文献综述). At the bottom left is the Elsevier logo, and at the bottom right are links for "Terms and Conditions" and "Privacy Policy".



### 三、注重学位论文的检索和阅读。

五个显著特点：

- (1) 数据图表充分详尽
- (2) 参考文献丰富全面

- (3) 可得到课题研究现状综述
- (4) 可跟踪名校导师的科研进程
- (5) 学习学位论文的写作方法

可以获得课题研究的  
更多相关文献



Search Alerts Selected records

#### Quick search

Search in: All fields for Search for... e.g. transcription factors AND jon smith

Databases Date Document type Language Treatment Discipline Sort by Autostemming Browse Index

- All Document types
- Conference article
- Patents (before 1970)
- Article in Press
- Conference proceeding
- Report chapter
- Book
- Dissertation
- Report review
- Book chapter
- Journal article

ProQuest: Dissertation

学位论文

|               |                           |                         |
|---------------|---------------------------|-------------------------|
| Ei            | Engineering Village       | Customer Service        |
| About Ei      | About Engineering Village | Contact and support     |
| History of Ei | Accessibility Statement   | Subscribe to newsletter |
|               | Content Available         | Blog                    |
|               | Who uses EV?              | Twitter                 |
|               | Privacy matters           |                         |

ELSEVIER Terms and Conditions Privacy Policy



## 四、阅读本领域的主要研究者/机构的文献

- **如何知道主要的研究者/机构?**
- 利用数据库的分析功能获得。
- 通过本领域作者发文量重要国际会议中的特邀报告人信息获得。


The screenshot shows the Engineering Village search interface. On the left, there is a 'Refine results' sidebar with a 'Controlled vocabulary' section. Two callout boxes are overlaid on the page:

- An orange callout box labeled 'Author' (作者信息) points to the 'Author' section in the controlled vocabulary, which lists authors like Wang, Wei (1119), Zhang, Wei (1119), Li, Wei (1112), Wang, Jun (883), and Wang, Yan (806).
- Another orange callout box labeled 'Author Affiliation' (机构信息) points to the 'Author affiliation' section, which lists institutions such as University Of Chinese Academy Of Sciences (1096), U.S. Geological Survey (2342), State Key Laboratory Of Water Resources And Hydropower Engineering Science, Wuhan University (2049), Cairns Land And Water (1818), and State Key Laboratory Of Urban Water Resource And Environment, Harbin Institute Of Technology (1705).



The main search results area shows several entries, including 'Water demand forecasting by trend and harmonic analysis' and 'Sustainable energy: Human factors in geothermal water resource management'. Each entry includes a title, author list, affiliation, and source information.

## 阅读高被引次数的文献



- 被引次数是判断一篇论文是否有影响力（价值）的一种比较直观和比较有效的方法。

 Engineering Village

14.  **Prospects of high temperature superconductors for fusion magnets and power applications**  
Fietz, Walter H. (Karlsruhe Institute of Technology, Karlsruhe, Germany); Barth, Christian; Drotziger, Sandra; Goldacker, Wilfried; H I.; Weiss, Klaus-Peter **Source:** *Fusion Engineering and Design*, v 88, n 6-8, p 440-445, 2013  
**Database:** Compendex

[Abstract](#) | [Detailed](#) |  [Show preview](#) | [Cited by in Scopus \(6\)](#) | [Full Text Link](#) | 

15.  **Conduction cooled high temperature superconducting dipole magnet for accelerator applications**  
Zangenberg, Nikolaj (Danfysik A/S, Gregersensvej 8, DK-2630, Taastrup, Denmark); Nielsen, Gunver; Hauge, Nils; Nielsen, Bjarne Christian G.; Bräuner, Lars; Ulse, Bo; Miller, Sren Pape **Source:** *IEEE Transactions on Applied Superconductivity*, v 22, n 3, 2012  
**Database:** Compendex

[Abstract](#) | [Detailed](#) |  [Show preview](#) | [Cited by in Scopus \(6\)](#) | [Full Text Link](#) | 

引文信息

# 文摘索引过程



## Nickel-based HVOF coatings promoting high temperature corrosion resistance of biomass-fired power plant boilers

Maria Oksa<sup>a</sup>, Pertti Auerkari, Jorma Salonen, Tommi Varis

VTT Technical Research Centre of Finland, P.O. Box 1000, 02044 VTT Espoo, Finland

### ARTICLE INFO

Article history:  
Received 11 November 2013  
Received in revised form 4 April 2014  
Accepted 5 April 2014  
Available online 1 May 2014

### Keywords:

Thermal spray coating  
HVOF  
High-temperature corrosion  
Biomass combustion  
Corrosion protection  
Oxidation-induced corrosion

### ABSTRACT

There are over 1000 biomass boilers in Europe, and the number is increasing due to efforts for reducing greenhouse gas emissions. Biomass boilers often experience strong corrosion due to harmful elements in fuels. In biomass burning, detrimental components include especially chlorine, potassium and heavy metals, which can cause chlorine-induced active oxidation or hot corrosion by molten phase from air-borne low temperature. In order to increase the corrosion resistance of heat exchanger components, rather than alloyed steels or protective coatings should be applied. High velocity oxy-fuel (HVOF) sprayed coatings may provide corrosion protection for low alloy tube materials. Three nickel based thermal spray coatings (Ni-Cr-Al, Ni-Cr-Al-Si and Ni-Cr-Al-Si-B) and (Ni-Cr-Al-Si) were tested for two years in a biomass-firing solid-fuel boiler (SFB), which had experienced severe corrosion and a tube failure. The coated tubes were installed to the cold and the hot economizer. After the testing, the coatings and the substrate materials were analyzed with SEM-EDS. The coated boiler tubes corroded strongly, whereas the thermal spray coating exhibited excellent corrosion performance. This paper illustrates the tube failure in an oxidizing, evaporator conditions, the analysis of the coated and the coated samples, and the corrosion mechanisms of the steam tubes.

© 2014 Elsevier B.V. All rights reserved.



受控词及非受控词

分类码

会议信息

会议码

NEW

数值数据索引

NEW

化学索引

- 根据Ei工程索引叙词表进行索引 (始于1884年)
- 受控词汇由各个学科专家设计并维护
- 学科领域特制索引：
  - 实现高精确度及查全率
  - 节省时间
  - 解决拼写不同、缩写问题
  - 同义词及同形异义词均得到考虑
- 数值数据索引以及化学索引

# 索引实现精确搜索和检索



# 如果没有Engineering Village上的Ei Compendex

NO

工程师需要花上2页半长的  
搜索查询才能相当于Ei  
Compendex叙词表的贡献



## 而在Engineering Village上的Ei Compendex...

工程师只需通过叙词表中的  
“Secondary batteries”在Engineering  
Village上检索所需结果  
(Ei Thesaurus)

YES

Engineering Village™  
The first choice for serious engineering research.

Quick search

Search in:

All fields

for

rechar

Databases

Date

Language

Document type

Sort by

All

Compendex  
 GEOBASE

Inspec  
 GeoRef

NTIS  
 US Patents

Paper  
 EP P

Rechargeable batteries

Recommended terms: Secondary batteries

Recharging (underground waters)

Autosuggest Powered by: Ei Thesaurus

Ei

About Ei

History of Ei

Engineering Village

About Engineering Village

Accessibility Statement

Content Available

Who uses EV?

Privacy matters

Customer Service

Contact and support

Subscribe to newsletter

Blog

Twitter

# 叙词检索 Thesaurus Search: 迅速高效了解新领域



Engineering Village

Search

Search |

Thesaurus search:

Vocabulary search



for

rechargeable batteries

Database:



Compendex

## Exact term results

rechargeable batteries > Rechargeable batteries > Secondary batteries

Secondary batteries

For: Electric batteries, Secondary\*; Rechargeable batteries

Broader terms

Electric batteries

Related terms

- Battery electric vehicles
- Battery management systems
- Battery storage
- Charging (batteries)
- Charging time
- Electric bikes
- Electrolysis
- Fast charging (Batteries)
- Light electric vehicles
- Plug-in electric vehicles
- Plug-in hybrid vehicles
- Transition metal oxides

Narrower terms

- Automotive batteries
- Battery Pack
- Flow batteries
- Lead acid batteries
- Lithium batteries
- Lithium sulfur batteries
- Metal-air batteries
- Nickel cadmium batteries
- Nickel metal hydride batteries
- Sodium-ion batteries
- Solid-State Batteries

Date

Document type

Language

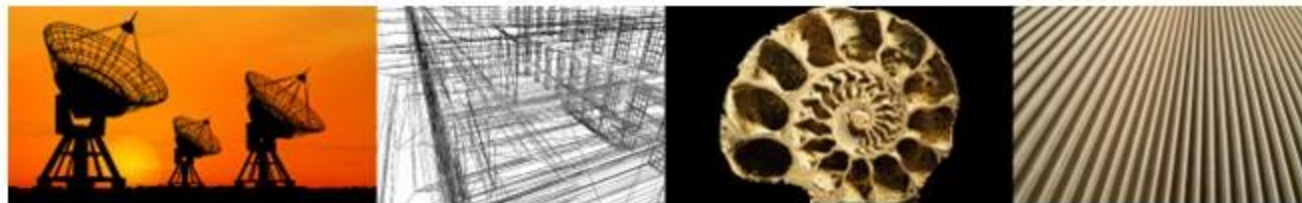
Discipline

Treatment

Sort by

# EI数据库文献检索过程

# 检索文献



# 检索方式



Engineering Village

Search ^

Search history v <sup>1</sup>

Thesaurus search: Vocabulary search v for

Database:  Compendex

Quick **快速检索**

Expert **专家检索**

Thesaurus **词库检索**

Engineering Research Profile

Exact term results ^

[rechargeable batteries](#) > [Rechargeable batteries](#) > [Secondary batteries](#)

Secondary batteries

For: [Electric batteries](#), [Secondary\\*](#); [Rechargeable batteries](#)

Broader terms

Electric batteries

Related terms

- Battery electric vehicles
- Battery management systems
- Battery storage
- Charging (batteries)
- Charging time
- Electric bikes
- Electrolysis

Narrower terms

- Automotive batteries
- Battery Pack
- Flow batteries
- Lead acid batteries
- Lithium batteries
- Lithium sulfur batteries
- Metal-air batteries

Selected term(s) >



1896 1907 1956 1979 1989 1993 2006  
1884 1902 1937 1963 1988 1993 2006

# 页面介绍

功能列；快速检索、  
专家检索、词库检索

Search ▾

Results

Alerts 0

Selected records 0

?

## Quick search

Search in:

All fields



for Search for... e.g. transcription factors AND jon smith



限制条件、排  
序选项

增加检索字段

Turn off AutoSuggest

+ Add search field

Reset form

Databases ^

Date ▾

Document type ▾

Language ▾

Treatment ▾

Discipline ▾

Sort by ▾

Autostemming ▾

Browse indexes ▾

All

Compendex

Inspec

NTIS

PaperChem

Chimica

CBNB

EnCompassLIT

EnCompassPAT

GEOBASE

GeoRef

US Patents

EP Patents

Knovel



选择数据库

Ei

Engineering Village

Customer Service

About Ei

About Engineering Village

Contact and support

History of Ei

Accessibility Statement

Subscribe to newsletter

Content Available

Blog

Who uses EV?

Twitter

Privacy matters

ELSEVIER [Terms and Conditions](#) [Privacy Policy](#)



# 以关键词“air pollution”检索：结果页面 - 1

Quick search

Search in: All fields for air pollution

Databases Date Document type Language Treatment Discipline Sort by

123241 records for 1884-2018 (air pollution) WN All fields

检索结果：  
快速检索/篇摘要数据/  
数据库：Compendex & INSPECT

1 of 4930 pages

Create alert Save search RSS feed Display: 25

results per page

Sort on: Relevance

Numeric filter

数据检索功能

Refine results

Remove Add

Add a term

Controlled vocabulary

Author

Author affiliation

Classification code

Country

Document type

Language

Year

Source title

Publisher

Funding sponsor

1.  A review on air pollution monitoring and management using plants with special reference to foliar dust adsorption and physiological stress responses

Ram, S.S. (UGC Centre for Advanced Study in Environmental Science, Department of Environmental Science and Technology, v 45, n 23, p 2489-2522, December 2, 2015)

2.  Air pollution in China: Status and spatiotemporal variations

Song, Congbo (Center for Urban Transport Emission Research, State Environmental Protection Key Laboratory of Urban Ambient Air Particulate Matter Pollution Prevention and Control, College of Environmental Science and Engineering, Nankai University, Tianjin; 300071, China); Wu, Lin; Xie, Yaochen; He, Jianjun; Chen, Xi; Wang, Ting; Lin, Yingchao; Jin, Taosheng; Wang, Anxu; Liu, Yan; Dai, Qili; Liu, Baoshuang; Wang, Ya-nan; Mao, Hongjun Sources Environmental Pollution, v 227, p 334-347, 2017

3.  Modelling air pollution in Algiers

Ghazi, Sabri (Conference on System Sciences, HICSS 2016, Maui, Hawaii, December 12, Annaba; 23000, Algeria); Dugdale, Julie; Khadir, Tarek Sources Proceedings of the Annual Hawaii International Conference on System Sciences, HICSS 2016

4.  Mapping indoor air quality in a residential building in the United Kingdom

Taylor, Jonathan (University of Exeter, School of Environment, Energy and Resources, Central House, 14 Upper Woburn Pl, London, United Kingdom); Das, Payel; Jones, Benjamin; Oikonomou, Eleni; Biddulph, Phillip Sources Building and Environment, v 99, p 1-12, 2017

输入关键词开启新的检索

-输出数-图表显示数据  
-打开/关闭限缩字段详细信息  
-可用拖曳的方式改变限缩字段顺序



# 以关键词“air pollution”检索：结果页面 - 2

Selected Records: 暂存文章

管理检索结果：寄E-mail/打印/下载书目信息/存到我的数据夹/移除

可依照相关程度、日期，作者，期刊，出版社(默认为相关性)；在相同条件之下，再依降序或升幂规则排序

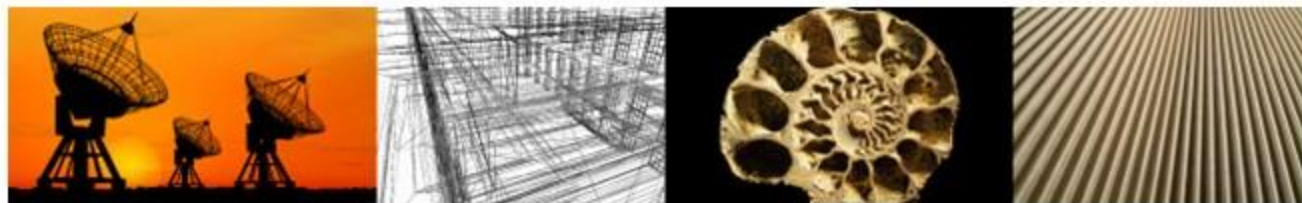
The screenshot shows a search results page for the keyword "air pollution". The search bar at the top indicates "123241 records for 1884-2018 [air pollution] W/ All fields". The page is annotated with red boxes and arrows pointing to various features:

- A box highlights the "Selected Records: 暂存文章" and "管理检索结果" text at the top left.
- A box highlights the "Sort by" dropdown menu, which is currently set to "Relevance". Other options include "Date (Oldest)", "Date (Newest)", "Author (A-Z)", and "Author (Z-A)".
- A box highlights the "Numeric filter" and "Refine results" section on the left side of the page.
- A box highlights the "Full text" and "Download" buttons for a search result.
- A box highlights the "Full text" and "Download" buttons for another search result.

Annotations include:

- "Selected Records: 暂存文章" and "管理检索结果：寄E-mail/打印/下载书目信息/存到我的数据夹/移除" (Management of search results: email, print, download citation, save to my folder, remove).
- "可依照相关程度、日期，作者，期刊，出版社(默认为相关性)；在相同条件之下，再依降序或升幂规则排序" (Can be sorted by relevance, date, author, journal, publisher (default relevance); under the same conditions, then sorted by descending or ascending order).
- "可同时勾选多篇文献，进行管理(E-mail/打印/下载书目信息/存到我的数据夹/暂存)" (Can select multiple articles at once for management (email/print/download citation/save to my folder/save)).

# 过滤和分析检索结果



# 过滤检索结果

Numeric filter ⊙ ▾

## Refine results

Limit to Exclude

Add a term

Controlled vocabulary ⊞ ⬇ ▾

Author ⊞ ⬇ ▾

Author affiliation ⊞ ⬇ ▾

Classification code ⊞ ⬇ ▾

Country ⊞ ⬇ ▾

Document type ⊞ ⬇ ▾

Language ⊞ ⬇ ▾

Year ⊞ ⬇ ▾

Source title ⊞ ⬇ ▾

Publisher ⊞ ⬇ ▾

Funding sponsor ⊞ ⬇ ▾

Limit to Exclude

New search with facets Q

Knowel Search >

- Water demand forecasting by trend and harmonic  
Kozłowski, Edward (Lublin University of Technology, Faculty of Mechanical Engineering, Lublin, Poland); Kozłowski, Beata; Kowalski, Dariusz; Mazurkiewicz, Dariusz Sources: *Advances in Intelligent Systems and Computing*, v 143, p 1-10, 2017, 10 pages  
Database: Compendex  
Detailed Show preview ▾ Full text [↗](#) Check local full text [↗](#)
- Estimation of river water temperature from air temperature  
Ouyang, Heng (Department of Civil Engineering, Fujian University of Technology, Fuzhou, China); Wang, Xianqin Sources: *Advances in Intelligent Information Hiding and Multimedia Signal Processing - Proceedings of the 13th International Conference on Intelligent Information Hiding and Multimedia Signal Processing*, v 81, p 264-271, 2018, 8 pages  
Database: Compendex  
Detailed Show preview ▾ Full text [↗](#) Check local full text [↗](#)
- Catalytic reduction for water treatment  
Hu, Maocong (Department of Chemical, Biological and Pharmaceutical Engineering, New Jersey Institute of Technology, Newark, NJ; 07102, United States); Liu, Yin; Yao, Zhenhua; Ma, Liping; Wang, Xianqin Sources: *Frontiers of Environmental Science and Engineering*, v 12, n 1, February 1, 2018, 10 pages  
Database: Compendex  
Detailed Show preview ▾ Full text [↗](#) Check local full text [↗](#)
- Sustainable energy: Human factors in geothermal water resource management  
Tomaszewska, Barbara (AGH University of Science and Technology, Mickiewicza 30, Krakow; 30-059, Poland) Sources: *Advances in Intelligent Systems and Computing*, v 599, p 60-71, 2018, 12 pages  
Database: Compendex  
Detailed Show preview ▾ Full text [↗](#) Check local full text [↗](#)
- Evaluation and reutilization of water sludge from fresh water processing plant as a green clay substituent  
Ling, Yew Pei (School of Materials and Mineral Resources Engineering, Engineering Campus, Universiti Sains Malaysia, Nibong Tebal; Penang; 14300, Malaysia); Tham, Ren-Haw; Lim, Siew-Ming; Fahim, Muhammad; Ooi, Chee-Heong; Krishnan, Pusparathan; Matsumoto, Akihiko; Yeoh, Fei-Yee Sources: *Applied Clay Science*, v 143, p 300-306, July 1, 2017, 7 pages  
Database: Compendex

•在Refine Results检索结果中:可依作者、作者所属机构、国家、文献种类等类别进阶筛选:可Include或是Exclude一个或多个标目  
•在Refine Results中可结合超过一个以上的分析项目,透过每篇标目前的勾选框勾选要结合的记录

## 控制词汇

| Controlled vocabulary                        |         |  |
|--|---------|--|
| <input type="checkbox"/> Water               | (76175) |  |
| <input type="checkbox"/> Mathematical Models | (72140) |  |
| <input type="checkbox"/> Computer Simulation | (57816) |  |
| <input type="checkbox"/> Soils               | (53764) |  |
| <input type="checkbox"/> Water Quality       | (48305) |  |
| <a href="#">View all &gt;</a>                |         |  |

## 作者

| Author                              |        |  |
|-------------------------------------|--------|--|
| <input type="checkbox"/> Wang, Wei  | (1194) |  |
| <input type="checkbox"/> Zhang, Wei | (1139) |  |
| <input type="checkbox"/> Li, Wei    | (1112) |  |
| <input type="checkbox"/> Wang, Jun  | (883)  |  |
| <input type="checkbox"/> Wang, Yan  | (806)  |  |
| <a href="#">View all &gt;</a>       |        |  |

## 作者机构

| Author affiliation  |        |  |
|---|--------|--|
| <input type="checkbox"/> University Of Chinese Academy Of Sciences  | (3096) |  |
| <input type="checkbox"/> U.S. Geological Survey   | (2262) |  |
| <input type="checkbox"/> State Key Laboratory Of Water Resources And Hydropower Engineering Science, Wuhan University | (2049) |  |
| <input type="checkbox"/> Cairo Land And Water   | (1818) |  |
| <input type="checkbox"/> State Key Laboratory Of Urban Water Resource And Environment, Harbin Institute Of Technology | (1705) |  |
| <a href="#">View all &gt;</a>   |        |  |

## 学科分类

| Classification code                                  |          |  |
|--|----------|--|
| <input type="checkbox"/> Chemical Products Generally | (305324) |  |
| <input type="checkbox"/> Chemical Operations         | (284168) |  |
| <input type="checkbox"/> Organic Compounds           | (258893) |  |
| <input type="checkbox"/> Chemical Reactions          | (228331) |  |
| <input type="checkbox"/> Chemistry                   | (185796) |  |
| <a href="#">View all &gt;</a>                        |          |  |

## 国家

| Country                                 |          |  |
|---|----------|--|
| <input type="checkbox"/> United States  | (300214) |  |
| <input type="checkbox"/> China          | (268704) |  |
| <input type="checkbox"/> Japan          | (85354)  |  |
| <input type="checkbox"/> United Kingdom | (67054)  |  |
| <input type="checkbox"/> Germany        | (65020)  |  |
| <a href="#">View all &gt;</a>           |          |  |

## 文献类型

| Document type                                  |          |  |
|--|----------|--|
| <input type="checkbox"/> Journal article       | (117153) |  |
| <input type="checkbox"/> Conference article    | (39749)  |  |
| <input type="checkbox"/> Dissertation          | (1868)   |  |
| <input type="checkbox"/> Article in Press      | (799)    |  |
| <input type="checkbox"/> Conference proceeding | (773)    |  |
| <a href="#">View all &gt;</a>                  |          |  |

## 原文语言

| Language                          |           |  |
|-----------------------------------|-----------|--|
| <input type="checkbox"/> English  | (1508046) |  |
| <input type="checkbox"/> Chinese  | (74904)   |  |
| <input type="checkbox"/> German   | (18953)   |  |
| <input type="checkbox"/> Russian  | (13839)   |  |
| <input type="checkbox"/> Japanese | (10762)   |  |
| <a href="#">View all &gt;</a>     |           |  |

## 年

| Year                          |         |  |
|-------------------------------|---------|--|
| <input type="checkbox"/> 2018 | (269)   |  |
| <input type="checkbox"/> 2017 | (64800) |  |
| <input type="checkbox"/> 2016 | (94832) |  |
| <input type="checkbox"/> 2015 | (92476) |  |
| <input type="checkbox"/> 2014 | (97399) |  |
| <a href="#">View all &gt;</a> |         |  |

## 刊源

| Source title   |         |  |
|--|---------|--|
| <input type="checkbox"/> Water Science And Technology  | (21535) |  |
| <input type="checkbox"/> Proquest Dissertations And Theses Global                                | (18684) |  |
| <input type="checkbox"/> Water Research  | (16333) |  |
| <input type="checkbox"/> Advanced Materials Research   | (14270) |  |
| <input type="checkbox"/> Proceedings Of Spie - The International Society For Optical Engineering | (14068) |  |
| <a href="#">View all &gt;</a>  |         |  |

## 出版社

| Publisher   |          |  |
|---|----------|--|
| <input type="checkbox"/> Elsevier Ltd   | (144352) |  |
| <input type="checkbox"/> Elsevier   | (121944) |  |
| <input type="checkbox"/> American Chemical Society                              | (67892)  |  |
| <input type="checkbox"/> Institute Of Electrical And Electronics Engineers Inc. | (26782)  |  |
| <input type="checkbox"/> Springer Verlag  | (25231)  |  |
| <a href="#">View all &gt;</a>   |          |  |

## 赞助机构

| Funding sponsor  |         |  |
|--|---------|--|
| <input type="checkbox"/> National Natural Science Foundation Of China                | (16140) |  |
| <input type="checkbox"/> National Science Foundation                                 | (2324)  |  |
| <input type="checkbox"/> Natural Sciences And Engineering Research Council Of Canada | (1002)  |  |
| <input type="checkbox"/> National Research Foundation Of Korea                       | (842)   |  |
| <input type="checkbox"/> U.S. Department of Energy                                   | (826)   |  |
| <a href="#">View all &gt;</a>  |         |  |



# 分析检索结果

Engineering Village™  
The first choice for serious engineering research.

Search ▾ Results Alerts 0 Selected records 0 0 ▾ Create account Login ▾




Numeric filter 0 ▾

Refine results  
Limit to Exclude  
Add a term

Controlled vocabulary ▾ ▾ ▾ ▾ ▾  
Author ▾ ▾ ▾  
Author affiliation ▾ ▾ ▾  
Classification code ▾ ▾ ▾ ▾ ▾  
Country ▾ ▾ ▾ ▾ ▾  
Document type ▾ ▾ ▾ ▾ ▾  
Language ▾ ▾ ▾ ▾ ▾  
Year ▾ ▾ ▾ ▾ ▾  
Source title ▾ ▾ ▾ ▾ ▾  
Publisher ▾ ▾ ▾ ▾ ▾  
Funding sponsor ▾ ▾ ▾ ▾ ▾  
Limit to Exclude  
New search with facets

1.  Water demand forecasting by trend and ha...  
Kozłowski, Edward (Lublin University of Technol...  
Bista; Kowalski, Dariusz; Mazurkiewicz, D...  
Database: Compendex  
Detailed Show preview ▾ Full text 2

2.  Estimation of river water temperature from...  
Guoqing, Heng (Department of Civil Engineering...  
and Technologies, v 81, p 264-273, 2018, Advan...  
an  
Di  
Di

Author affiliation   

3.  Search: ((air pollution) WN ALL)  
Click to limit your results


University Of Chinese Academy Of Sciences 494  
State Key Joint Laboratory Of Environment Simula... 263  
U.S. Environmental Protection Agency 250  
State Key Laboratory Of Organic Geochemistry, G... 211  
Department Of Building Science, Tsinghua Univer... 202  
State Environmental Protection Key Laboratory Of... 200  
State Key Laboratory Of Environmental Criteria A... 186  
Chinese Research Academy Of Environmental Sci... 183  
National Institute For Environmental Studies 166  
School Of Environment, Tsinghua University 152

0 50 100 150 200 250 300 350 400 450 500  
Records

- 统计图表输出的按钮会出现在每个检索结果项目的旁边
- 此功能允许使用者可以透过图表形式浏览各项目结果数据，或是下载成文字文件并可以输出到其它软件中，例如：Excel

4.  Su...  
To  
Ad  
Po  
Di  
De

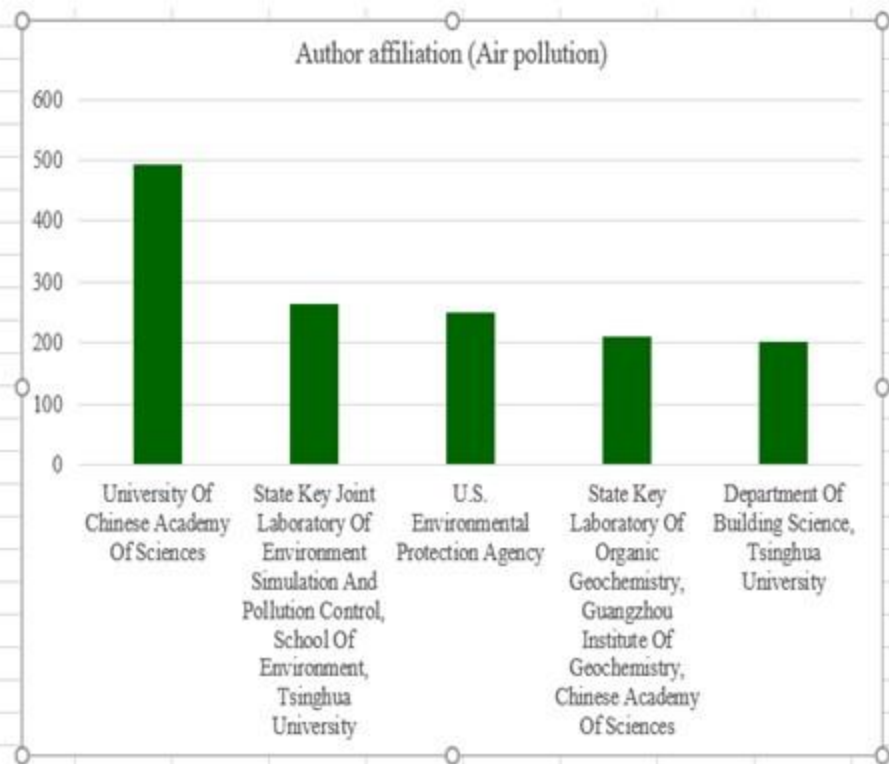
5.  Ev...  
Li  
Me  
Di



# 分析检索结果

- 点选  图标可以让您将图表输出成tab档案
- 您也可以将输出的档案以Excel软件开启分析管理

| Author affiliation                                  | Count |
|---|-------|
| University Of Chinese Academy Of Sciences           | 494   |
| State Key Joint Laboratory Of Environment Simul     | 263   |
| U.S. Environmental Protection Agency                | 250   |
| State Key Laboratory Of Organic Geochemistry, (     | 211   |
| Department Of Building Science, Tsinghua Univer     | 202   |
| State Environmental Protection Key Laboratory C     | 200   |
| State Key Laboratory Of Environmental Criteria A    | 186   |
| Chinese Research Academy Of Environmental Sc        | 183   |
| National Institute For Environmental Studies        | 166   |
| School Of Environment, Tsinghua University          | 152   |
| Air Pollution Research Center, University Of Califo | 142   |
| State Key Joint Laboratory Of Environmental Sim     | 142   |
| State Key Laboratory Of Atmospheric Boundary I      | 140   |
| Division Of Atmospheric Sciences, Desert Researc    | 137   |
| California Air Resources Board                      | 137   |
| Univ Of California                                  | 131   |
| Department Of Environmental Engineering, Natic      | 126   |
| School Of Environmental Science And Engineerin      | 124   |
| National Center For Atmospheric Research            | 118   |
| School Of Civil And Environmental Engineering, G    | 108   |
| University Of California                            | 108   |
| Key Laboratory Of Beijing On Regional Air Polluti   | 107   |



## 举例：只关注‘中国’近5年的‘air pollution’的研究

Engineering Village™

Search ▾

Results

Alerts 0

Selected records 0

🕒 ▾

Ying Luo ▾



| Country                                   |          |
|---|----------|
| <input type="checkbox"/> United States    | (27736)  |
| <input checked="" type="checkbox"/> China | (14306)  |
| <input type="checkbox"/> United Kingdom   | (5507)   |
| <input type="checkbox"/> Canada           | (4594)   |
| <input type="checkbox"/> Germany          | (4435)   |
| View more >                               |          |
| Language                                  |          |
| <input type="checkbox"/> English          | (109118) |
| <input type="checkbox"/> Chinese          | (2360)   |
| <input type="checkbox"/> German           | (2152)   |
| <input type="checkbox"/> Russian          | (1115)   |
| <input type="checkbox"/> French           | (398)    |
| View more >                               |          |
| Year                                      |          |
| <input checked="" type="checkbox"/> 2018  | (2654)   |
| <input checked="" type="checkbox"/> 2017  | (5827)   |
| <input checked="" type="checkbox"/> 2016  | (5381)   |
| <input checked="" type="checkbox"/> 2015  | (4596)   |

8.  **H15-S9: High quality air pollution dispersion modelling using high computational performance Lagrangian particle model**

Grašič, Boštjan (MEIS d.o.o., Mali Vrh pri Šmarju 78, Šmarje - Sap, Slovenia); Mlakar, Primo; Bonar, Marja Zlata; Kocijan, Juš; Tinarelli, Gianni Sources: *Proceedings of the 15th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, HARMO 2013*, p 337-342, 2013, *Proceedings of the 15th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, HARMO 2013*

Databases: Compendex

Detailed Show preview ▾

Check Local Full text

9.  **Ozone Levels in the North and South of Jordan: Effects of Transboundary Air Pollution**

Alsawair, Jihad Khalaf (University of Nevada, Reno) Sources: *ProQuest Dissertations and Theses Global*, 2011

Databases: Compendex

Detailed Show preview ▾

Full text ↗

Check Local Full text

10.  **Air pollution forecast in cities by an air pollution index highly correlated with meteorological variables**

Cogliani, Euro (Energy Department, ENEA (Agency for New Technologies, Energy and Environment), Box 117, Via Anguillarese, 301 S. Maria di G., 00060 Rome, Italy) Sources: *Atmospheric Environment*, v 35, n 16, p 2871-2877, 2001

Databases: Compendex

Detailed Show preview ▾

Cited by in Scopus (62)

Full text ↗

Check Local Full text

11.  **Responses of serum chemokines to dramatic changes of air pollution**

Li, Yanli (State University of New York at Buffalo) Sources: *ProQuest Dissertations and Theses Global*, 2013

Databases: Compendex

## Refine Results 的用途

- 了解你的同行，他们目前研究处于什么阶段
- 了解你关心的课题所涉及的领域，是否能发现新的研究方向
- 了解课题所处的生命周期，通过文献计量的年代分析
- 了解课题的热门期刊，作为投递文章的选择
- 通过文献类型了解论文的分布



# 经过EI整理：文献记录详细格式

Record 21 from Compendex & Inspect for (stress) With All fields; 1884-2012

Check record to add to Selected Records

21.  Accession number: 2006289991405

Title: **Stress wave emission and cavitation bubble dynamics by nanosecond optical breakdown in a tissue phantom**

Authors: [Brujan, Emil-Alexandru<sup>1,2</sup>](#), [Vogel, Alfred<sup>1</sup>](#)

Author affiliation: <sup>1</sup> Institute of Biomedical Optics, University of Lübeck, Peter-Monni-Platz 4, 23564 Lübeck, Germany  
<sup>2</sup> Department of Hydraulics, University Politehnica, Spl. Independentei 313, 060042 Bucharest, Romania

Corresponding author: [Vogel, A. \(vogel@oms.uni-luebeck.de\)](mailto:vogel@oms.uni-luebeck.de)

Source title: Journal of Fluid Mechanics

Abbreviated source title: J Fluid Mech

Volume: 558

Issue date: July 10, 2006

Publication year: 2006

Pages: 281-308

Language: English

ISSN: 00221120

E-ISSN: 14697645

CODEN: JFLSA7

Document type: Journal article (JA)

Publisher: Cambridge University Press

Abstract: **Stress wave emission and cavitation bubble dynamics after optical breakdown in water and a tissue phantom with ns YAG laser pulses of ns duration were investigated both experimentally and numerically to obtain a better understanding of the physical mechanisms involved in**

Number of references: 79

Main heading: **Acoustic emissions**

Controlled terms: **Bubbles (in fluids) - Cavitation - Compressive stress - Computer simulation - Mechanical properties - Semiconductor lasers - Tensile stress**

Uncontrolled terms: **Cavitation bubble dynamics - Compressive stress wave - Optical breakdown**

Classification code: **631.1.1 Liquid Dynamics - 723.5 Computer Applications - 744.4.1 Semiconductor Lasers - 751.2 Acoustic Properties of Materials - 931.2 Physical Properties of Gases, Liquids and Solids**

Treatment: Theoretical (THR)

DOI: 10.1017/S0022112006000115

Databases: Compendex

Compilation and indexing terms, © 2012 Elsevier Inc.



Authors: 点选作者名字找到更多该作者发表的文章

Author affiliation: 每位作者的所属机构

E-mail: 主要作者联络信息

ISSN: 找到更多关于这本期刊的文章

Corresponding Author: 通讯作者

Abstract: 文章内容摘要

Main heading: 主要主题

Controlled term: 索引词汇标准

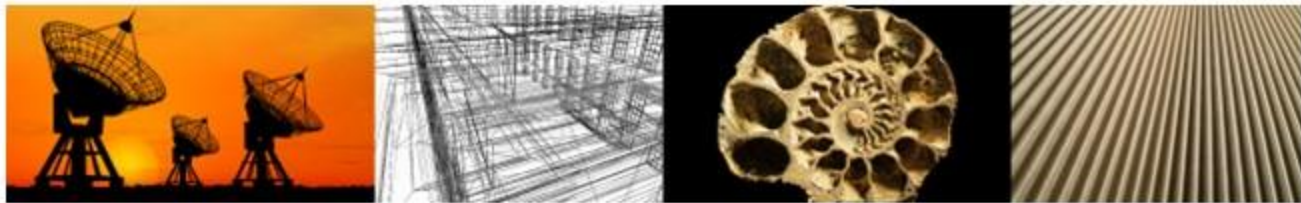
Uncontrolled term: 相关主题的广义分类

Classification code: 在来源中其它附加优势的词汇和词组

# 管理检索结果

[Blog/E-mail/打印/](#)

[下载书目信息/存到我的数据夹](#)



# 有五种选项保存需要的文章

## Record

Record 1 from Compendex for: ((water) WN All fields) , 1884-2018

< Back to results

Full text



Abstract

Detailed

Compendex Refs **13**

**Water dem**

Kozłowski, Edward

Source: Archives of  
10.1016/j.acme.2018.04.001

Author affiliation:  
Management, Na  
2 Lublin Universi  
Nadbystrzycka 40

### Download record(s)

NOTE: Your selected records (maximum of 500) will be kept until your session ends. To clear selected records:  
\* Go to the Selected records page and clear records; OR  
\* End your session

#### Location:

- My PC
- Mendeley
- RefWorks
- Google Drive
- Dropbox
- Your Folder(s)

#### Format:

- EndNote (RS, Ref. Manager)
- BibTeX
- Text (ASCII)
- CSV
- Excel®
- PDF
- RTF (Word®)

#### Output:

- Current page view
- Citation
- Abstract
- Detailed record

File name:

Engineering\_Village

Login or Create account to save to My Preferences

..current\_page\_view\_DateTime.pdf

Cancel

Download record(s)

Disposal,

# 存到我的资料夹

注意，此为个人化功能，需注册及登录后才能使用。

The screenshot shows the Engineering Village interface. A 'Download record(s)' dialog box is open, displaying options for Location, Format, and Output. The 'Your Folder(s)' option under Location is highlighted with a red box. Below it, the 'View/Update Folders' dialog box is also open, showing a list of existing folders with 'Water' selected. The 'Create a folder' field contains the text 'Example: 'Nanotechnology folder''. Red arrows indicate the flow from the 'Your Folder(s)' selection to the folder management dialog.

The screenshot shows the 'Folder Name : Water' view. It displays '1 record in this folder'. The record listed is 'Water demand forecasting by trend and harmonic analysis' by Koźłowski, Edward, published in 'Sources Archives of Civil and Mechanical Engineering' in 2013. The record is highlighted with a red box. Below the record title, there are buttons for 'Full text' and 'Check Local Full-text'.

# 标签功能

## Tags & Groups

Browse tags Search tags View/Edit groups Rename/Delete tags

Display: Public

1 123 Ad Hoc networks AP Arabidopsis thaliana assessment BUPT cao Capillary electrophoresis Cloud Index Conducting polymers Contact resistance Data sets Datasets E12 Electrodeposition Electronics cooling ESJP Fault diagnosis folksonomy Gene expression Gulf of Mexico Hydrogen production Informatics Information Literacy irr irrelevant Lead Free solder Lead-free solder Metamaterials Microchannels Modeling My Nanoparticles Ni Chen Noise sources nope Numerical modeling Oil Spills Paper Ontology Optical Burst Switching OBS Optical network fibers Photonic crystals Power Quality Room temperature Sea Surface Temperature SST Sensor networks Silicon photonics Soil properties Stars Suction Support Vector Machine SVM Support vector machines survey paper tag clouds tagging TEST Thermal aging Thermal management Triaxial tests Unsaturated Soils usc Volume rendering Water content Water management Waynestate Web Services Wireless Sensor Networks xionghui yes

- My preferences
- Personal details
- Change password
- Alerts & Saved searches
- Folders
- Tags & groups**
- Publications
- Interactive equations

标签功能

1884 1896 1902 1907 1937 1956 1963 1979 1988 1989 1993 1998 2006

# Expert Search - 专家检索

## Expert search

Search for:

Eg.:smith wn AU and ("autonomous navigation" or radar\*)



Reset form

[Databases](#) ▾ [Date](#) ▾ [Sort by](#) ▾ [Autostemming](#) ▾ [Search codes](#) ^ [Browse indexes](#) ▾

### Database

c = Compendex  
i = Inspec  
n = NTIS  
pc = PaperChem  
cm = Chimica  
cb = CBNB  
el = EnCompassLIT  
ep = EnCompassPAT  
n = GFOR&SF

### Code = Field

AB = Abstract (c,i,n,pc,cm,cb,el,ep,g,f,u,e,k)  
AN = Accession number (c,i,n,pc,el,ep,g,f,k)  
AF = Affiliation/Assignee (c,i,n,pc,cm,el,ep,g,f,u,e)  
ALL = All fields (c,i,n,pc,cm,cb,el,g,f,u,e,k)  
ANN = Annotation (f)  
AI = Astronomical indexing (i)  
AU = Author/Inventor (c,i,n,pc,el,ep,g,f,u,e,k)  
AV = Availability (n,cb,f)  
CR = CAS registry number (cm,cb,el,en)

### Code = Field

CVM# = Major term as a reagent (el,ep)  
CVMN# = Major term with no role (el,ep)  
MS = Map Scale (f)  
MP = Map Type (f)  
MI = Material identity number (i)  
AG = Monitoring agency (n)  
NT = Notes (n)  
NU = see Numerical Data Codes (c,i)  
NI = Numerical indexing (i)



Codes displayed will depend on your current database selection

# 通配符

- \*右截词-命中检索词起始部分相同的记录
- Learn\* 命中 learn, learns, learning, learned, learnt, learner(s), learner's, learnability, learnable

# 位置算符

- 词组检索 “ ” 或{ }- 词间不能插词，词序不能颠倒
- “International Space Station”命中包含有词组“International Space Station”的记录
- near/n- 两个词之间可插入0—n个词,如
- Distance Onear/3 learning





## 查收-人名检索

- ◆EI数据库的作者有九种写法：以**赵文立** (Zhao Wenli) 为例 Zhao Wenli or Zhao Wen-li or Zhao Wl or Zhao W-l or Zhao W or Wenli Zhao or Wen-li Zhao or Wenli Z or Wen-li Z
- ◆建议大家采用通配符“\*”，以三种形式来代替，并用其他检索字段来限制 Zhao W\* or Wenli Z\* or Wen-li Z \*
- ◆利用作者单位提高查准率□  
**((Zhao W\* ) or (Wenli Z\* ) or (Wen-li Z\*)) wn au AND (Aalto near univ\* )  
wn af )**
- ◆用作者查不到某篇文章时，可用篇名试试

# 查收-机构检索

- 推荐检索式：
- 以清华大学为例
- (tsinghua near univ\* and (beijing or 100084 or china)) wn af and 2015 wn yr
- 由refine results - author affiliation可知，均为清华大学。
- （此检索式只供参考，在借鉴使用时一定要考虑自身情况优化）



1896 1907 1956 1979 1989 1993 2006  
1884 1902 1937 1963 1988 1993 2006

[www.ei.org](http://www.ei.org)

Thesaurus Search – 叙词检索



## 提高主题检索效率的方法（准且全）

- 从文中选词检索易漏检或误检
  - 一个概念有多种表示—**导致漏检** (检索时需要收集同义词，费时麻烦且易漏检)
  - 一个词可以表示多个概念—**导致误检** (cell 细胞、电池 Cell w n ti, 检出的文献中有solar cell, tumor cells等)
- **EI**的解决方案：对文献进行主题标引
  - 做到**标引词与概念一一对应**,
  - 标引词来源于词表，故EI的标引词也称为受控词



# 叙词表的作用

- 叙词表是由专业的**规范词**组成，它可以将**同一主题不同表述**的词，按主题内容规范在标准的专业词下，避免了由于词汇书写不同造成**漏检**，或词义概念混淆导致**错检**的问题。
- 用户利用叙词表可从**主题角度**检索文献，进而提高文献的**查准率**。
- 利用叙词表还可以从**主题概念**的角度**扩展**或**缩小**检索范围。

- 控制词汇

- 不使用其他的术语

- 每年更新

- 词汇工作组和索引工作人员决定变化
- 叙词表新版本

- 具体范围标记

- 受控词的信息

- 分面层次

- 分面: 按类别分组
- 层次: 上位类/下位类

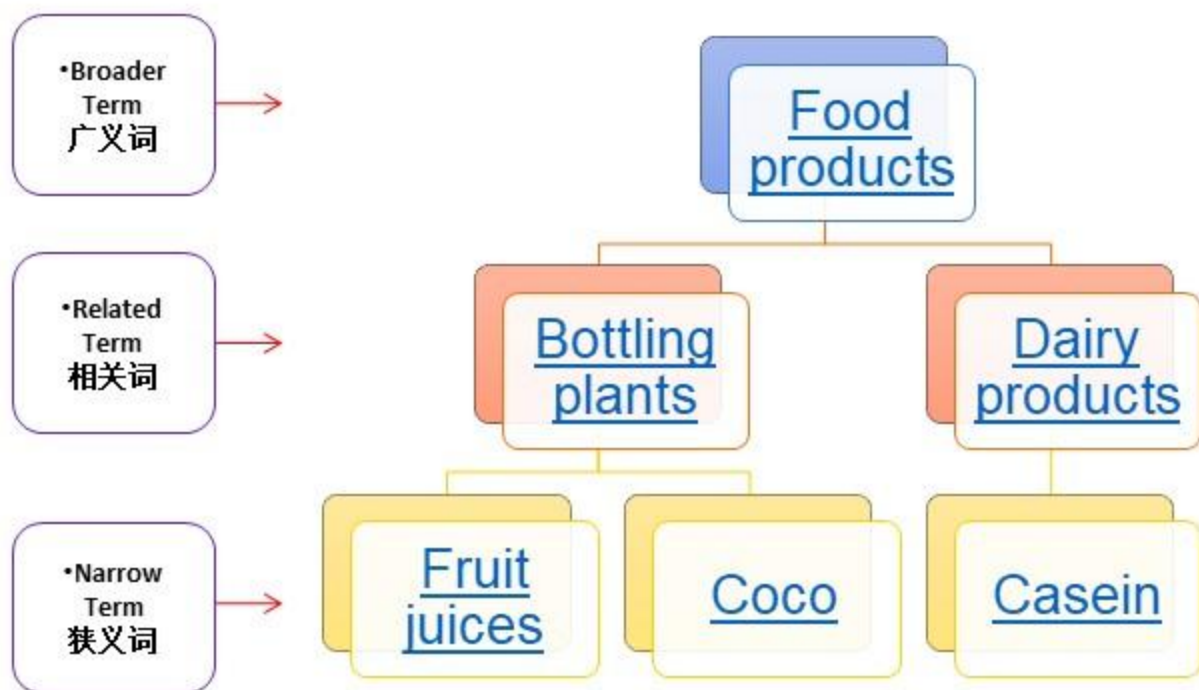
- 自动显示的款目

- 有信心检索专属性的任一层次

- 相互参照

- 引导用户使用有效款目

# THESAURUS词库-Beverages (饮料)



## 实例一用叙词表选词进行主题检索

- 用Thesaurus方式检索有关气候学中气候变化的温室效应
- 构设计方面的文献。
- 从课题名称中提取概念
  - 气候学 Climatology
  - 气候变化 Climate Change
  - 温室效应 Greenhouse effect
- 专家检索式写法：
- ((({Climatology} WN CV) AND ({Climate change} WN CV) AND ({Greenhouse effect} WN CV)))

# 用EI叙词表选词

点击“Thesaurus”，打开叙词表，输入关键词，点击“Search Index”，系统显示与之相应的叙词，勾选后，系统将所选的叙词调入检索框。选完词后，点击“search”检索

**Engineering Village™**  
The first choice for serious engineering research.

Search ▾ Alerts <sup>0</sup> Selected records <sup>0</sup> ? ▾ [Create account](#)

## Thesaurus search

Database:  Compendex  Inspec  GeoRef  GEOBASE  EnCompass

Search in: Exact term ▾ for

### Exact term

Climate Change

Climate change

| Broader terms                                   | Related terms  | Narrower terms   |
|---|--|--|
| <input checked="" type="checkbox"/> Climatology | <input type="checkbox"/> Air pollution<br><input type="checkbox"/> Atmospheric composition<br><input type="checkbox"/> Atmospheric temperature<br><input type="checkbox"/> Climate models<br><input type="checkbox"/> Greenhouse gases | <input type="checkbox"/> Global warming<br><input checked="" type="checkbox"/> Greenhouse effect |

Selected term(s) >

|                   |   |
|-------------------|---|
| Climatology       | X |
| Greenhouse effect | X |

AND  
 OR

Date ▾ Document type ▾ Language ▾ Discipline ▾ Treatment ▾ Sort by ▾



1884 1896 1902 1907 1937 1956 1963 1979 1988 1989 1993 1998 2006

个人化功能

## My Profile

- 功能
  - 储存检索策略 (125个)
  - 建立E-mail Alert (25篇)
  - 建立用户个人数据夹
    - 3个资料夹
    - 每个数据夹可储存50篇记录
  - 修改个人账号信息

1884 1896 1902 1907 1937 1956 1963 1979 1988 1989 1993 2006

## 特别功能

- 数值检索
- PlumX 指数
- 工院校Ei档案
- 检索历史

## CODiE AWARDS <sup>2018</sup>

▶ **Engineering Village with  
Numeric Index & Search**  
RELX Group

Best Content Search, Discovery  
& Analytics Solution

CONGRATULATIONS,  
2018 WINNER!

//CODiE//

# 数值检索-来自数值数据的更多信息

## Comparison of geotechnical properties from large-diameter long cores and borings in deep water Gulf of Mexico

**Abstract:** Large-diameter long piston cores (Jumbo Piston Corer, JPC) and Large-diameter Gravity Cores (LGC) were taken immediately adjacent to previously drilled geotechnical borings at three floating platform sites: Auger, Jolliet, and Marlin. This task was included as part of a more comprehensive NSF program on seabed processes in the deep water Gulf of Mexico. Sediment properties measured included bulk density, magnetic susceptibility, compression wave velocity, vane shear strength, and unconsolidated-undrained triaxial strength. A comprehensive geotechnical-testing program confirms the samples are high quality and shear strengths within the 63-ft core depth were comparable to the results of tests on the geotechnical borings. The exception occurred when gassy deposits were encountered. The use of the LGC and Multi-Sensor Core Logger (MSCL) in conjunction with the JPC proved to be valuable in assessing the quality and continuity of the piston cores. At the Auger and Marlin sites, there was good agreement between the sediment properties obtained from the borings and cores over the cored depth of 63 ft. At the Jolliet site, the values of strength obtained from the core in the upper 10 to 20-ft were considerably higher than those obtained from the nearby boring. With modifications, the long coring system can be extended to take 100-ft samples. The use of large-diameter piston and gravity cores can provide an economical alternative to traditional borings for the design of shallow foundations for subsea completions, pipelines, suction caissons, and identification of geohazards.

Controlled terms: [Core drilling](#) - [Density \(specific gravity\)](#) - [Geotechnical engineering](#) - [Hazards](#) - [Magnetic susceptibility](#) - [Mooring](#) - [Offshore pipelines](#) - [Petroleum geology](#) - [Production platforms](#) - [Sediments](#) - [Shear strength](#)

Uncontrolled terms: [Compression wave velocity](#) - [Geotechnical properties](#) - [Large diameter long piston cores](#) - [Sensor core logger](#)

Classification code: [481.1](#)Geology - [483.2](#)Foundations - [511.1](#)Oil Field Production Operations - [674.2](#)Marine Drilling Rigs and Platforms - [701.2](#)Magnetism: Basic Concepts and Phenomena - [931.2](#)Physical Properties of Gases, Liquids and Solids

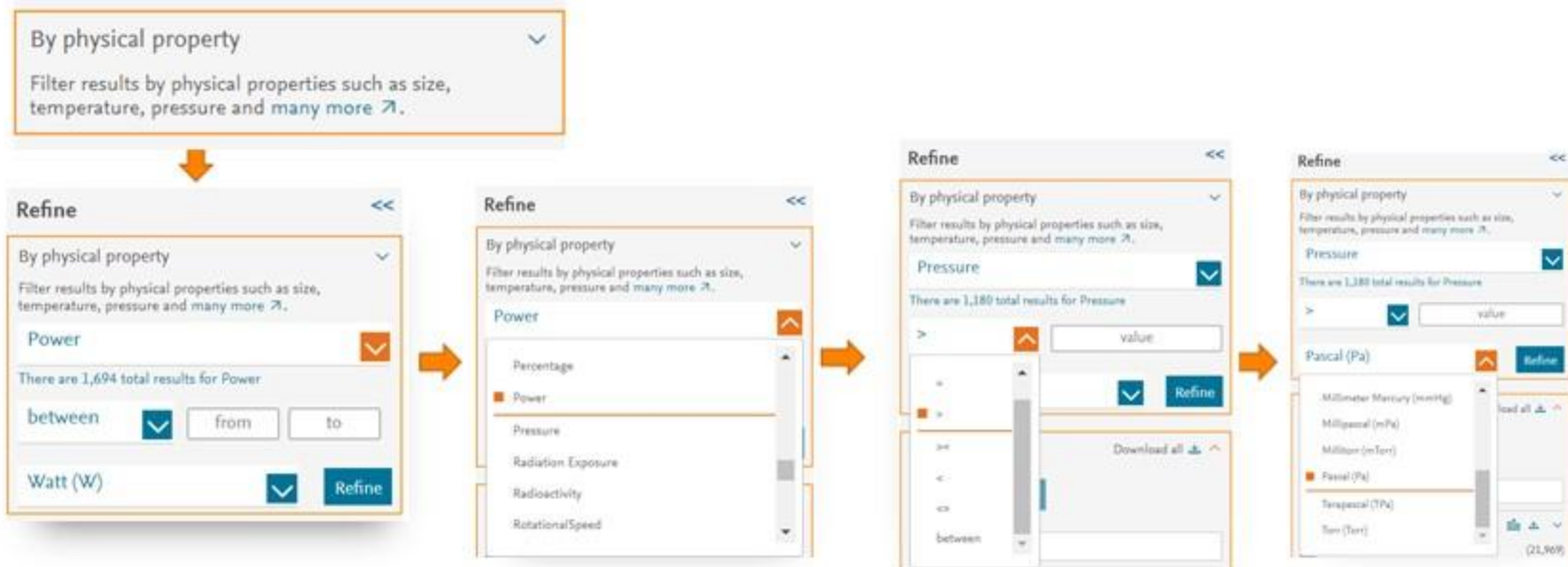
Numerical data indexing Size 1.92e+01m Size 3.05e+00m to 6.10e+00m Size 3.05e+01m

//CODiE//  
2018 SIIA CODiE WINNER

# 数值检索

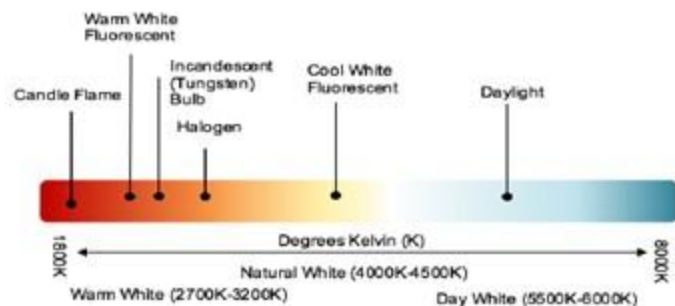
Engineering Village是唯一支持Compendex和Inspec数值搜索的平台。数值数据通常描述工程文献中最重要的方面。通过数字数据索引，研究人员可以访问可能未通过纯文本搜索发现的文档。

- 为Compendex索引的62种不同的物理和化学性质。
- 在Compendex和Inspec数据库中可用于交叉搜索的记录超过650万条。
- 460,000种不同的数字数据写入方式 - 匹配，转换和标准化。



## 实例：LED灯泡的研发

工程师参与一个LED灯泡的研发项目。该工程师需要开发日照白的LED灯泡，由于色彩取决于灯泡的温度，因此该工程师在EV上进行了基于温度的搜索。



Quick search: All fields

for light emitting diodes

Turn off AutoSuggest | + Add search field | Reset form

Refine

Numeric filter

Temperature

Kelvin (K)

Range

5500

6000

Continue

*Title:* White light-emitting diodes based on ultrasmall CdSe nanocrystal electroluminescence

*Abstract:* ... hese LEDs have excellent color characteristics, defined by their pure white CIE color coordinates (0.333, 0.333), correlated color temperatures of **5461-6007 K**, and color rendering Indexes as high as 96.6. ...

Numerical data indexing: temperature 5.46e+03K to 6.01e+03K

# 数值检索优势

一：打破计量单位限制

二：提高查全率-数值检索比关键词检索的结果多出一倍

三：高效便捷地跟踪前沿

Refine your results to the latest cutting edge research for electronic circuits using an easy-to-use numeric search filter.

2,305 records found in Compendex for 1884-2020: (cmos) WN ALL \* (NU\_SIZE LTE 14 nm) 1 of 93 pages >

Create alert Save search Share search RSS feed Sort by: Relevance 1 of 93 pages >

Display: 25 results per page

**Refine**

By physical property  
Filter results by physical properties such as size, temperature, pressure and many more >

Size  
There are 2,305 total results for Size  
14

Nanometer (nm) Refine

Controlled vocabulary  
Add a term  
Cmos Integrated Circuits (1,444)  
Mosfet Devices (444)  
Gates (Transistor) (288)  
Mos Devices (282)  
Finfet (230)  
View more >

**Comparative analysis of standard cells performance for 7nm FinFET and 28nm CMOS technologies with considering for parasitic elements**  
Ilin, Sergey [JSC 'Molecular Electronics Research Institute', Moscow, Russia]; Ryzhova, Daria; Korshunov, Andrey Sources *Proceedings of the 2018 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering, EIConRus 2018*, v 2018-January, p 1360-1363, March 14, 2018, *Proceedings of the 2018 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering, EIConRus 2018*  
Database: Compendex  
Document type: Conference article (CA)  
Detailed Show preview Full text Check local full text

**Effect of fin shape of tapered FinFETs on the device performance in 5-nm node CMOS technology**  
Kurniawan, Erry Dwi [Department of Engineering and System Science, National Tsing Hua University, Hsinchu, 300, Taiwan]; Yang, Hao; Lin, Chia-Chou; Wu, Yung-Chun Sources *Microelectronics Reliability*, v 83, p 254-259, April 2018  
Database: Compendex  
Document type: Journal article (JA)  
Detailed Show preview Cited by in Scopus (3) Full text Check local full text

**Testing system for radiation effects of CCD and CMOS image sensors**  
Li, Yu-Dong [Dinjiang Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, Urumqi 830011, China]; Wang, Bo; Guo, Qi; Ma, Li-Ya; Ren, Jian-Wei Sources *Guangxue Jingmi Gongcheng/Optics and Precision Engineering*, v 21, n 11, p 2778-2784, November 2013  
Language: Chinese  
Database: Compendex  
Document type: Journal article (JA)  
Detailed Show preview Cited by in Scopus (24) Full text Check local full text

**Opportunities and challenges of FinFET as a device structure candidate for 14nm node CMOS technology**  
Yamashita, T. [IBM Research, Albany Nanotech., Albany, NY 12203, United States]; Baske, V.S.; Standaert, T.; Yeh, C.-C.; Falkemeier, J.

## Semiconductor manufacturing processes



10  $\mu\text{m}$  - 1971

6  $\mu\text{m}$  - 1974

3  $\mu\text{m}$  - 1977

1.5  $\mu\text{m}$  - 1982

1  $\mu\text{m}$  - 1985

800 nm - 1989

600 nm - 1994

350 nm - 1995

250 nm - 1997

180 nm - 1999

130 nm - 2001

90 nm - 2004

65 nm - 2006

45 nm - 2008

32 nm - 2010

22 nm - 2012

14 nm - 2014

10 nm - 2017

7 nm - ~2018

5 nm - ~2020

Create an alert to get all of the articles pushing the boundaries of semiconductor technology delivered to your inbox each week...



## PlumX 指数：进一步了解论文影响力

### PlumX Metrics

#### PlumX Metrics



[See details](#)

#### Usage

Abstract Views: 62

Full Text Views: 44

#### Captures

Exports-Saves: 2

Readers: 5

#### Citations

Citation Indexes: 4

PlumX Metrics提供了人们与在线环境中各个研究成果交互方式的衡量。在评估研究文章时，度量标准可用于确定文档的范围或影响。度量标准分为5个独立区域：

**Usage** - clicks, downloads, views, library holdings, video plays

**Captures** - Bookmarks and favorites are examples of Captures.

**Mentions** - Blog posts, comments, reviews, and news media are tracked as Mentions.

**Social media** -tweets, Facebook likes, etc. that reference the research.

**Citations** - traditional citation indexes such as Scopus, as well as citations that help indicate societal impact such as Clinical or Policy Citations.

**Reach** -How many others are using the research.

**Repeat Use** - Indicates leading indicator of future citations.

**Engagement** - Mentions is a way to tell that people are truly engaging with the research.

**Attention** - Social Media can measure “buzz” and how well a particular piece of research has been promoted.

**Impact** - indicate societal impact such as Clinical or Policy Citations.



# 工院校Ei档案 Engineering School Profile



Engineering Village

Search ^

Quick search:

All fields



for e.g. (artificial intelligence)

Databases ^

Date v

Language v

Document type v

Sort by v

Browse

- All  Compendex  Inspec  NTIS  PaperChem   
 GEOBASE  GeoRef  US Patents  EP Patents

Quick

Expert

Thesaurus

Author

Affiliation

Engineering School Profile

Search v Results v Alerts Selected records v Alert v

## Engineering school profile

Stanford University

35,990 records

Filter by

2008

to

2019

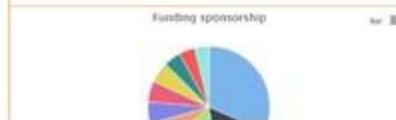
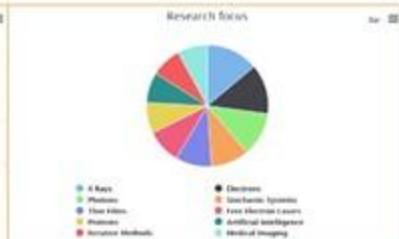
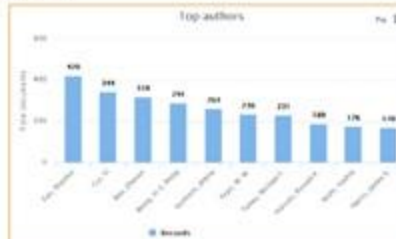
AND

Select subject Area

Reset filters

Institutions and Groups

e.g. Peiking University

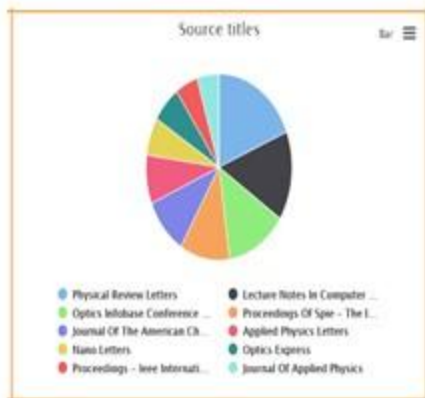


综合基金、研究重点和综合情况做出基于数据的科学决策

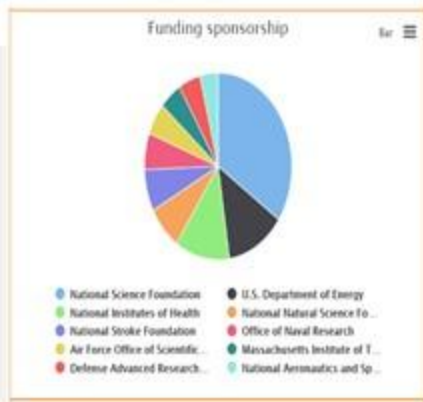
基于EI Compendex数据库分析并回答：



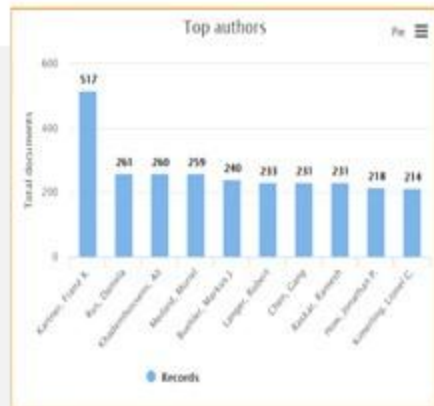
资金来源



出版去向



主要科学家



最强学科

# 检索历史

- 可快速访问最近5个检索式
- 可链接到该对话期中所有的检索式
- 可简便地再次进行检索

The screenshot displays the Engineering Village search interface. At the top left, the Engineering Village logo is visible. The main search bar contains the text "All fields" and "for alloys". Below the search bar, there are navigation options: "Databases", "Date", "Language", "Document type", "Sort by", and "Browse indexes". The search results section shows "1641373 records found in Compendex & Inspec for 1884-2018: ((alloys) WN All fields)".

A "Recent results" pop-up window is overlaid on the right side of the interface. It lists the following search results:

10. 1641373 results for: ((alloys) WN All fields)
9. 7232 results for: (((steel fatigue) WN All fields) AND (((fatigue cracks)) WN CV))
8. 69085 results for: ((steel fatigue) WN All fields)
7. 5042 results for: (((autonomous vehicles) WN All fields) AND (((path planning)) WN CV))
6. 81488 results for: ((autonomous vehicles) WN All fields)

A "View all results" button is located at the bottom right of the pop-up window. The "Results" tab in the top navigation bar is circled in red.

1896 1907 1956 1979 1989 1993 2006  
1884 1902 1937 1963 1988

## 2020年新功能

- 作者和机构检索 Author & Affiliation Search
- 下载限制放宽

Search ▾

Alerts <sup>0</sup>

Selected records <sup>0</sup>

More ▾



Create account

Sign in

ing) AND {social media}

Turn on AutoSuggest |

Discipline ▾

Treatment ▾

EnCompassLIT  EnCompassPAT

Help

Contact

Ask an expert

Product releases

Quick search tutorial

Video help

