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—Inspec数据库介绍

IET英国工程技术学会 孙鹏宁

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2024年5月

# The Institution of Engineering and Technology

The IET inspires, informs and influences the global engineering community to **engineer a better world.**

- 成立于1871年，最早名称为电报工程师学会 (Society of Telegraph Engineers)
- 前身为著名的百年专业学术团体电机工程师学会 (IEE)
- 欧洲最大的工程技术专业机构
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**IET Inspec**




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Control, Robotics and Sensors	99	825	8.33
Materials, Circuits and Devices	95	537	5.65
Computing and Networks	49	370	7.55
Telecommunications	81	192	2.37
Healthcare Technologies	39	178	4.56
Transportation	25	63	2.52
Security	16	35	2.19
History and Management of Technology	47	29	0.62
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### Sensors in the Age of the Internet of Things: Technologies and applications



**Editors:** Octavian Adrian Postolache <sup>1</sup>; Edward Sazonov <sup>2</sup>; Subhas Chandra Mukhopadhyay <sup>3</sup>

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**Publication Year:** 2019

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Description

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The IoT is the inter-networking of connected and smart devices, buildings, vehicles and other items which are embedded with electronics, software, sensors, actuators, and network connectivity that enable these objects to collect and exchange data. A sensor is a detection device that measures, records, or responds

**Book DOI:** [10.1049/PBCE122E](https://doi.org/10.1049/PBCE122E)

**Chapter DOI:** [10.1049/PBCE122E](https://doi.org/10.1049/PBCE122E)

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**e-ISBN:** 9781785616358

**Page count:** 308

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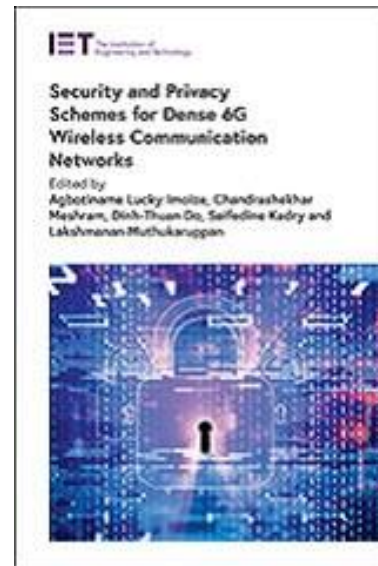
4

## 2023 Hot Topics/2023年IET电子书热门主题

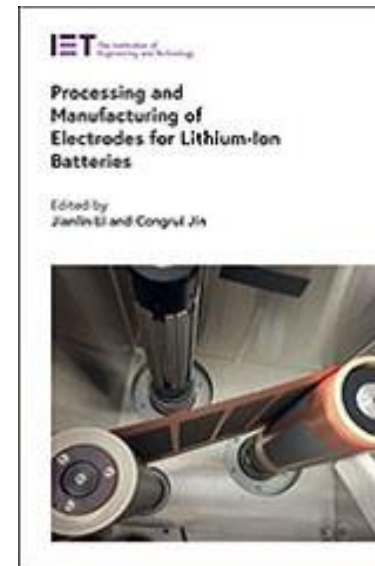
### Passive Radars on Moving Platforms



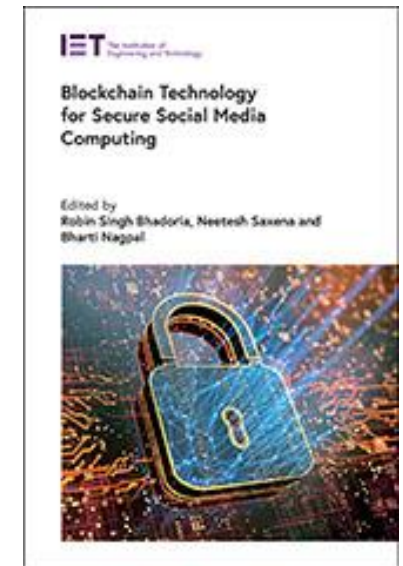
### Security and Privacy Schemes for Dense 6G Wireless Communication Networks



### Processing and Manufacturing of Electrodes for Lithium-Ion Batteries



### Blockchain Technology for Secure Social Media Computing



# 1. Inspec数据库的收录范围和内容覆盖

专注垂直细分领域，为“物理”和“新工科”领域科研师生量身打造。

# 什么是IET Inspec?

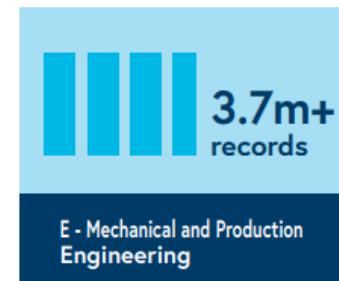
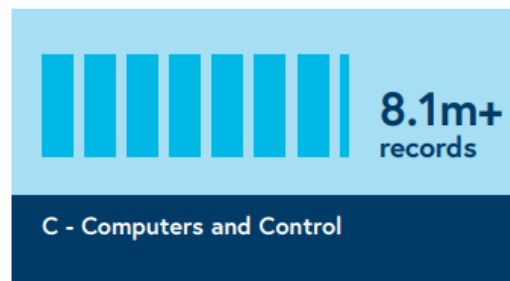
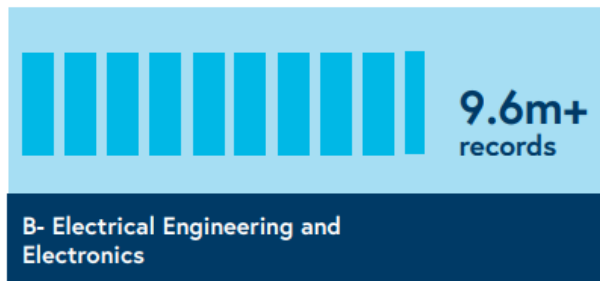
Inspec前身是“科学文摘”（Science Abstract or SA，始于1898年），于1967年完成了由传统的纸质出版向电子访问的转变，并正式更名为Information Service in Physics, Electro-Technology, Computer & Control”，简称Inspec。

Inspec包含以下四个学科：

- Physics（物理）
- Electrical engineering and electronics（电气工程与电子）
- Computing and control engineering（计算机与控制工程）
- Mechanical and production engineering（机械与制造工程）

- Inspec是世界上最大的物理和工程摘要索引(Abstract & Indexing)分析数据库。
- Inspec的数据库审查小组由主题专家组成，他们以足够的谨慎和严格审查文章，以确保内容具有高质量和相关性。（请点击[此处](#)查看Inspec的收录期刊列表[active journals in Inspec](#)）。
- Inspec的主题专家对Inspec中包含的每个记录进行人工索引。
- Inspec可在供应商的平台上使用，如Web of Science，Engineering Village等平台，为用户提供一站式的文献检索服务。

# Inspec收录内容概览（学科、文献类型等）



**1969 to date**  
**25 million**  
records

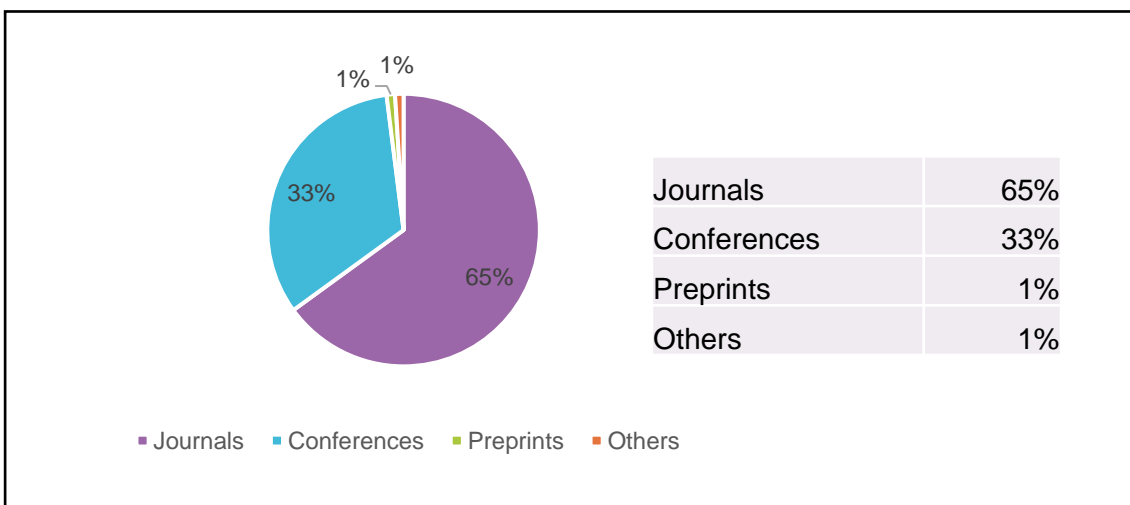
or **1898** with the Archive optional archive adds another **873,701** records

**Preprints**  
**420,000+**  
arXiv records

**4,500+**  
journals

**3500+**  
conferences

Since 2017, over **35%**  
Open Access



**25M+文章**，包含来自：**4,500+** 本期刊、**3,500+**会议论文集、**420K**预印本等，每周更新约**50K**条新记录。

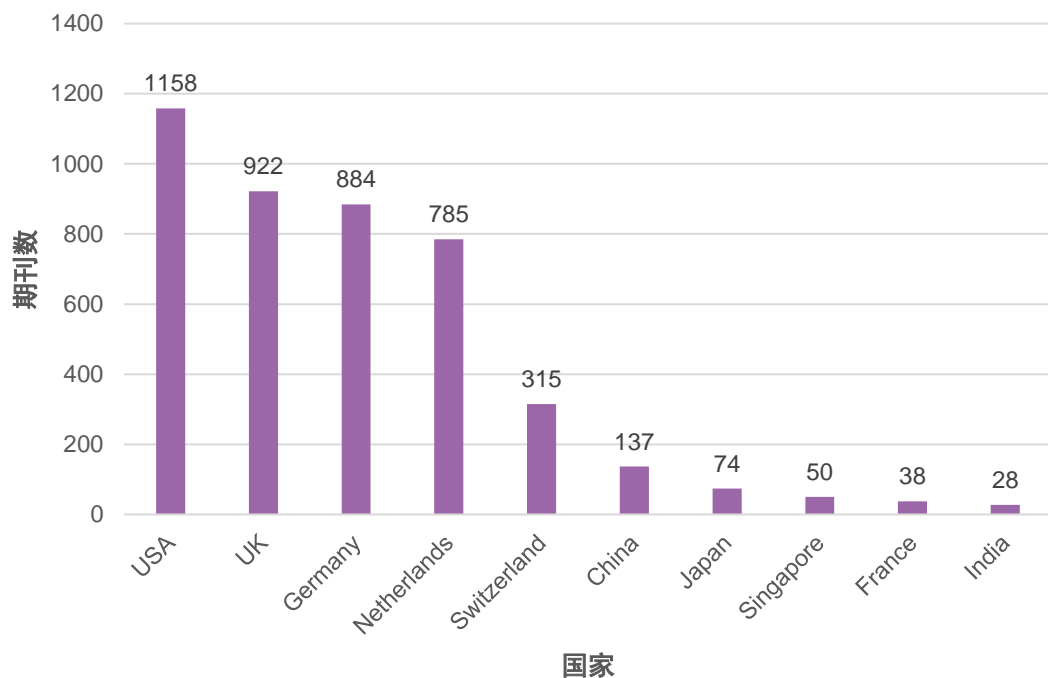
**Inspec Archive**中额外包含约**88万**条文献记录。



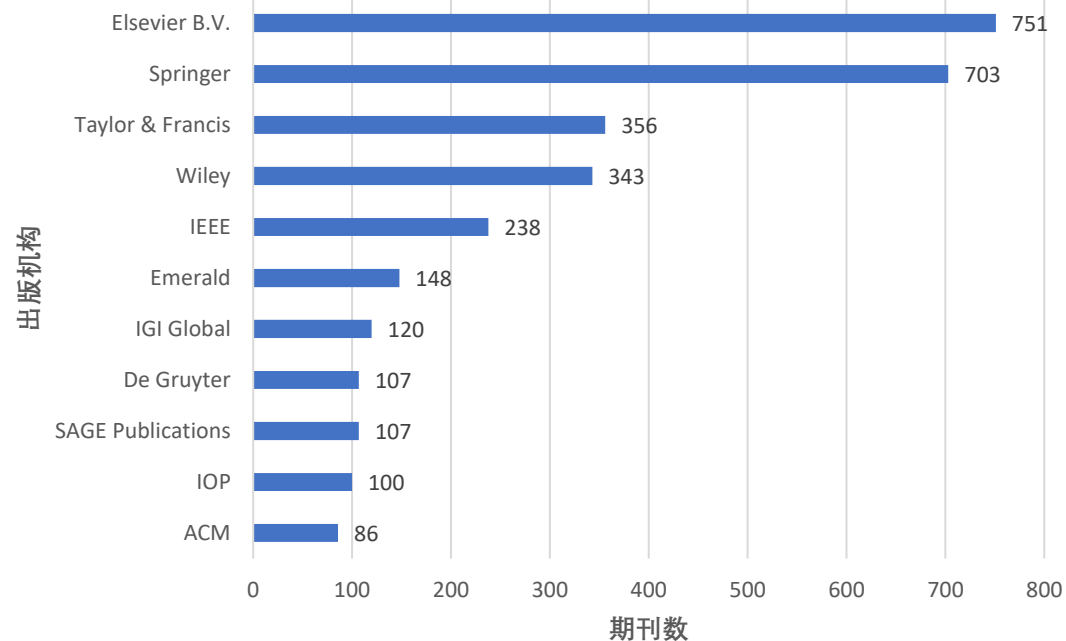
# Inspec收录期刊来源国、出版机构等介绍

(来自45+ 国家/地区 & 500+ 出版机构)

Inspec收录期刊来源国分布



Inspec收录期刊出版社分布



预印本内容

- ❖ 收录**42**万多条预印本内容, 其中包括:
  - **21.9**万条涉及物理学科的记录  
(物理是工程、技术的基础, 获取物理领域最新动态)
  - **23.2**万条涉及计算机科学的记录

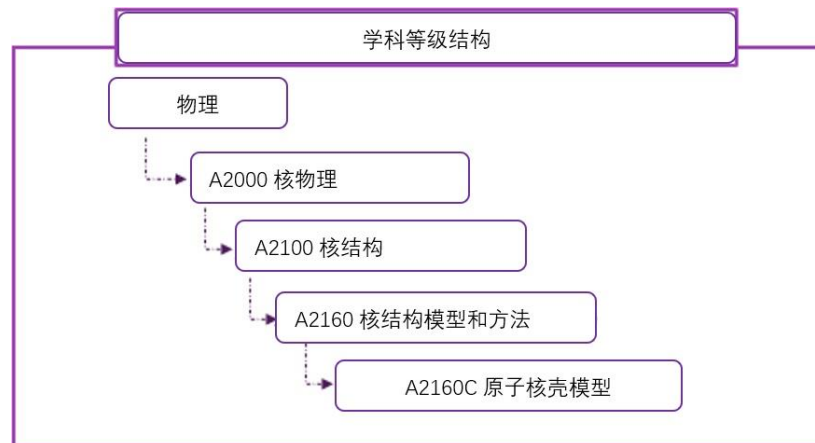
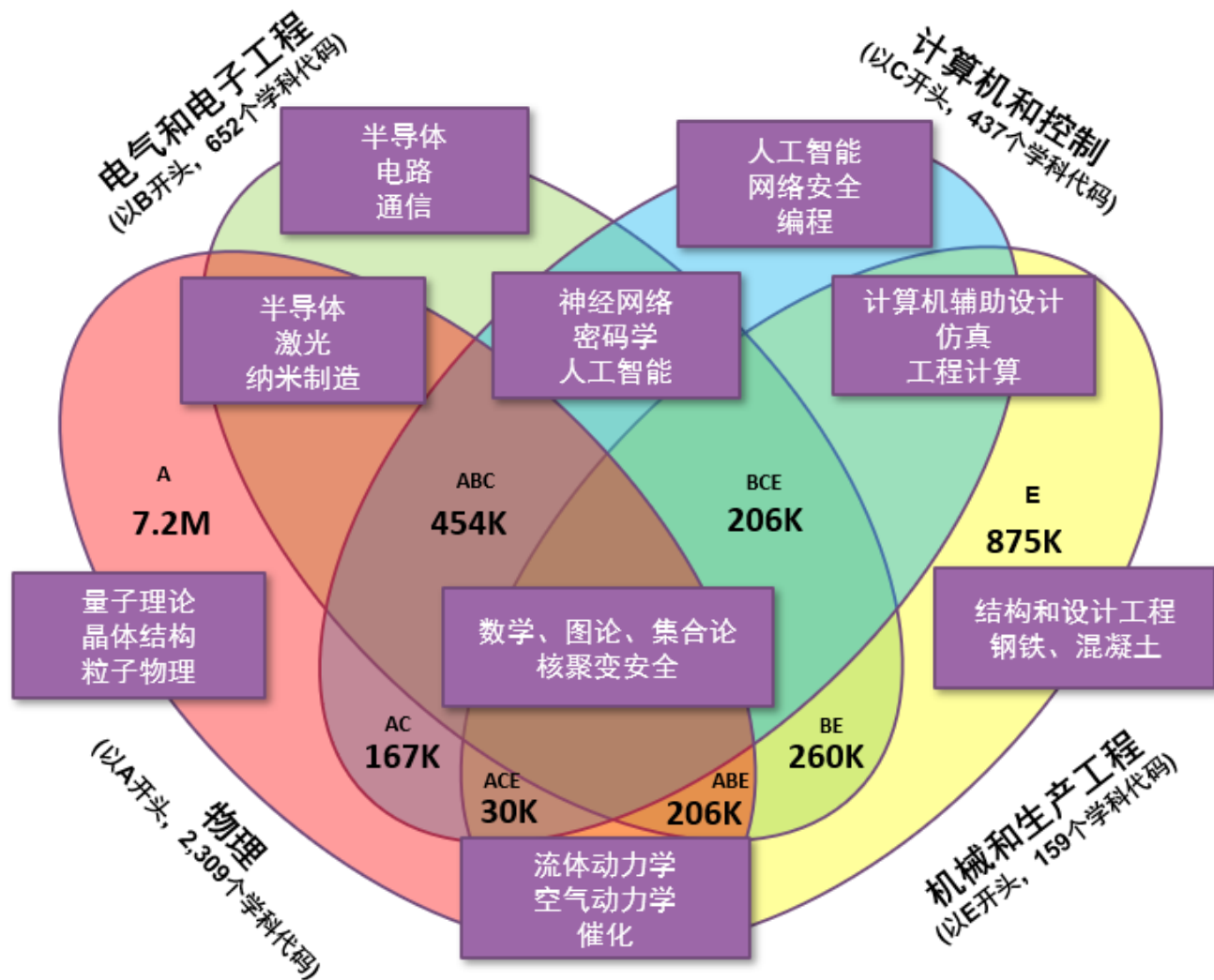
非英语内容

- ❖ **82**万条中文记录
- ❖ **21**万条俄语记录
- ❖ **19**万条德语记录
- ❖ **17**万条日语记录
- ❖ **9**万条法语记录
- ❖ 总计: **170**多万条非英语内容



# Inspec数据库的学科分类

## 5级学科分类及学科分类代码标引

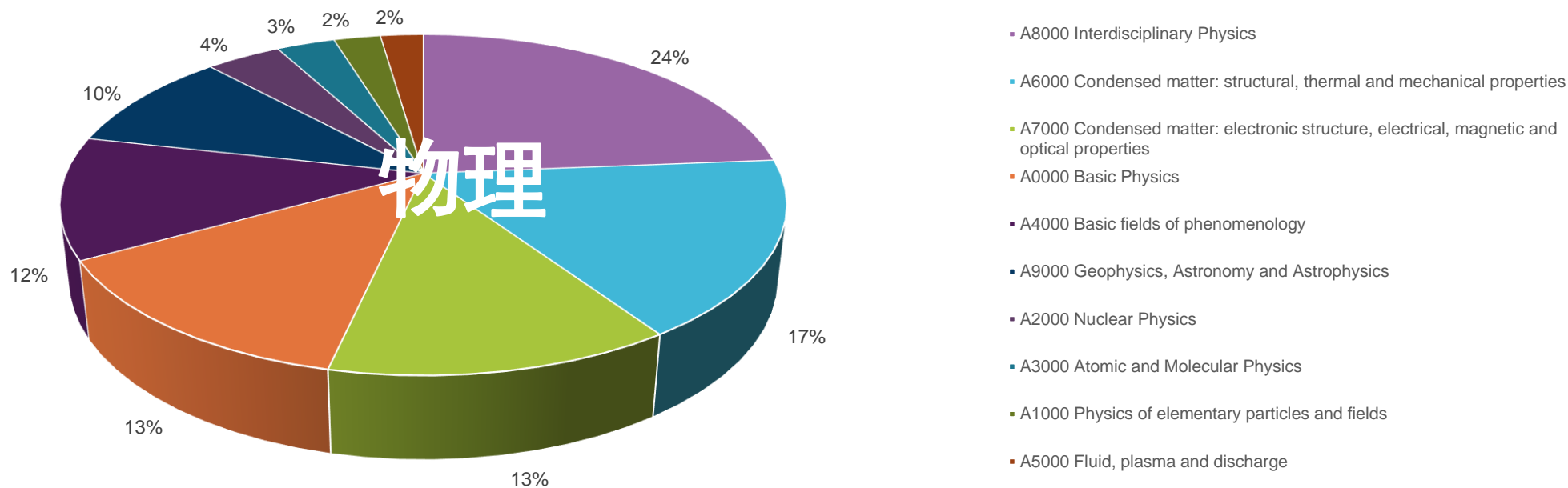


3,601个精准学科类别

学科代码通常表示如: A2160C, 其中

- A = 数据库的区域, 即物理
- 2 = 分类的最高或最通用的级别, 即核物理
- 1 = 第二级分类, 即核结构
- 60 = 第三级分类, 即核结构模型和方法
- C = 第四或最具体的分类级别

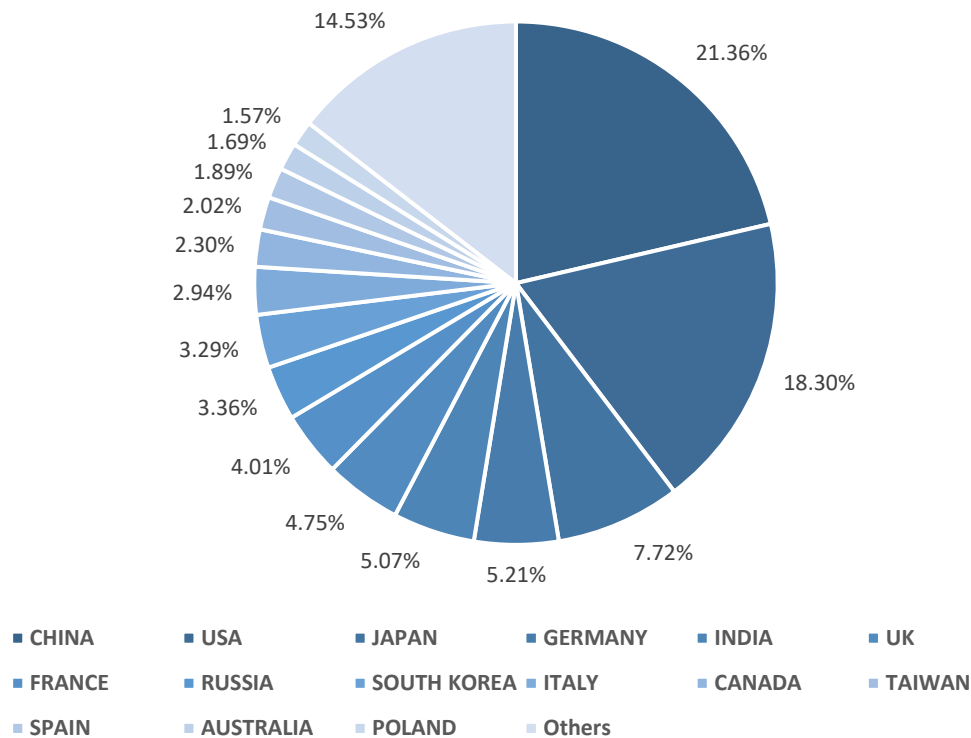
(注: 并不是所有学科代码都有第四级分类)



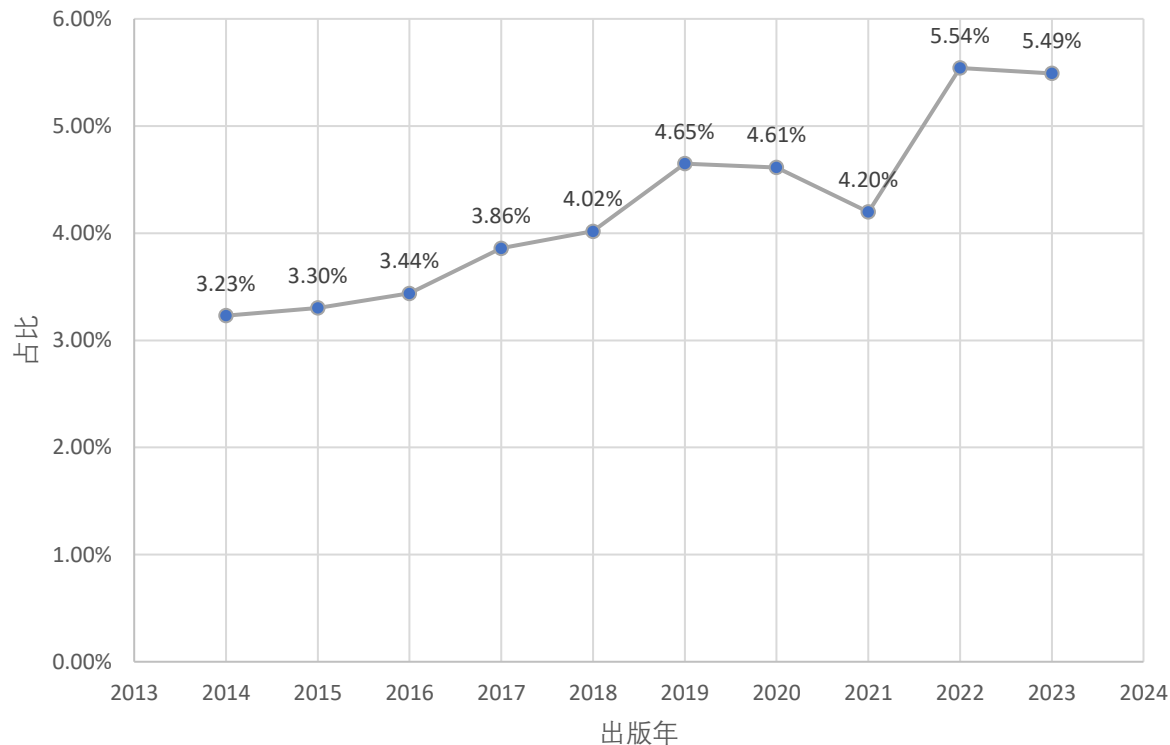
- Inspec索引了超**1300万**条物理学记录，以支持用户在科学、技术、工程等领域的研究。
- 覆盖物理学科内容最全面的文摘索引（A&I）数据库。
- 索引了IOP、AIP和APS等物理学会出版的所有物理相关期刊。
- 涵盖了来自Elsevier、IEEE、Springer Nature、Wiley、T&F等众多出版商的大量物理学内容。
- 数据库中可检索到Arxiv.org的物理领域预印本内容。
- 最早收录并标引《物理学报》的文摘数据库。
- 涵盖了来自中国、日本、韩国和欧洲国家的物理学会（中国物理学会、日本物理学会、欧洲物理学会等）期刊。

# Inspec收录标引超800万条微电子领域相关记录

## 微电子领域发文来源国/地区分布（发文量前15）



## 微电子领域发文量随出版年变化趋势（近10年）



在微电子领域，Inspec收录了除期刊、会议论文外，大量的来自微电子、半导体领域企业的企业评论等内容，

如：TOSHIBA REVIEW, PHILIPS RESEARCH REPORTS, SIEMENS REVIEW等。）

➤ 微电子、半导体相关领域的发文来源国集中，前5名占比超50%。

➤ 近10年，发文量总体逐年上升（疫情期间有下降）。

注：Inspec收录范围内，数据截止2024年4月。

## Inspec收录超580万条电力领域相关记录

电力领域学术期刊的360多万条记录，其中19%的文章可以通过数据库中的DOI链接来免费获取全文。

自1969年起共计约200万篇，占电力领域总收录量的**30%**左右。除收录了来自IEEE的全部会议外，还覆盖了诸多来自独立组织，机构的电力领域核心学术会议。

会议标题	简称
International Symposium on High Voltage Engineering	ISH
International Conference on Developments in Power System Protection	DPSP
European Photovoltaic Solar Energy Conference and Exhibition	EU PVSEC
International Conference on Renewable Power Generation	RPG
International Conference and Exhibition on ELECTRICITY DISTRIBUTION	CIRED
International Council on Large Electric Systems	CIGRE
International Conference on Electricity Distribution	ICED
International Conference on Lightning Protection	ICLP
Power Electronics & Drives: Systems and Technologies Conference	PEDSTC
International Conference on Smart Grid and Energy Systems	SGES
Asia Conference on Power and Electrical Engineering	ACPEE
International Conference on Electrical Machines and Systems	ICEMS
Asia-Pacific Power and Energy Engineering Conference	APPEEC
International Conference on Power Generation Systems and Renewable Energy Technologies	PGSRET
European Conference on Power Electronics and Applications	ECCE Europe

Inspec数据库独家  
收录的会议标题

# Inspec在电气工程，微电子，通信领域的内容覆盖宣传海报

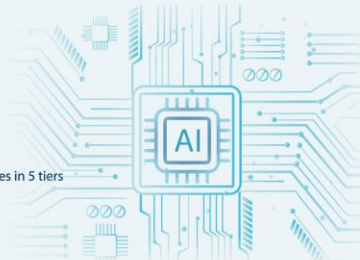
**IET** The Institution of Engineering and Technology Index Since 1898, Records Updated Weekly

## IET INSPEC

The World's Largest A&I Database for Microelectronics Studies

### Extensive Coverage

- 8.3M+ Microelectronics research records
- 520K+ non-English research records
- 64K+ selective preprints
- Fine-granular indexing via 3,640 subject codes in 5 tiers




### Precise Navigation

- Consistent thesaurus maintained by subject experts for over 50 years
- Chemical, numerical index, patent classification...and more!

**60% - 90%+ less retrieval noise**

The **ONLY** non-patent literature database indexing IPC & CPC patent classification codes to the records

Trusted content and expert indexing to support enhanced discovery and precision analytics

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\*Data as of March 2024


**IET** The Institution of Engineering and Technology Index Since 1898, Records Updated Weekly

## IET INSPEC

The World's Largest A&I Database for Electrical Engineering Studies

### Extensive Coverage

- 7.7M+ Electrical Engineering research records
- 539K+ non-English research records
- 117K+ selective preprints
- Fine-granular indexing via 3,392 subject codes in 5 tiers




### Precise Navigation

- Consistent thesaurus maintained by subject experts for over 50 years
- Chemical, numerical index, patent classification...and more!

**60% - 90%+ less retrieval noise**

The **ONLY** non-patent literature database indexing IPC & CPC patent classification codes to the records

Trusted content and expert indexing to support enhanced discovery and precision analytics

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**IET** The Institution of Engineering and Technology Index Since 1898, Records Updated Weekly

## IET INSPEC

The World's Renowned A&I Database for Communications Studies

### Extensive Coverage

- 1.6M+ Communications research records
- 93K+ non-English research records
- 25K+ selective preprints
- Fine-granular indexing via 2,905 subject codes in 5 tiers



### Precise Navigation

- Consistent thesaurus maintained by subject experts for over 50 years
- Chemical, numerical index, patent classification...and more!

**60% - 90%+ less retrieval noise**

The **ONLY** non-patent literature database indexing IPC & CPC patent classification codes to the records

Trusted content and expert indexing to support enhanced discovery and precision analytics

[theiet.org/inspec](http://theiet.org/inspec)  [Infoap@theiet.org](mailto:Infoap@theiet.org)

\*Data as of March 2024

## 2. 精准发现—Inspec底层索引字段

- 超过50年被广泛认可的Inspec专家叙词表体系（物理和工程学词表）
- 控词和非控词
- Inspec细颗粒度学科分类
- 快速构建学科范围内或围绕研究主题的知识框架



❖ 叙词表-控词和非控词索引  
-1969年开始标引

❖ 学科分类代码索引  
-1969年开始标引

❖ 文档处理类型索引  
-1969年开始标引



❖ 数值索引  
-1987年开始标引

❖ 化学索引  
-1987年开始标引

❖ 天文学索引  
-1995年开始标引

❖ IPC国际专利分类号  
-2010年开始标引  
❖ CPC联合专利分类号  
-2023年开始标引

### Bibliographic Record (书目记录)

- Title (标题)
- Abstract (摘要)
- Other Bibliographic Information (其他书目信息)
- (Author, Source, etc.) (作者、作者关键词、出版物标题等)

出版社  
元数据

### Subject Terms (学科术语)

- Consistent thesaurus maintained by subject experts for over 50 years (学科专家50年来维护的一致性的叙词表)
- Controlled Index – 5 levels of subject classification and >10k controlled terms (1万多受控关键词)
  - Uncontrolled Index – curated by expert indexers (标引专家挑选的非受控关键词)

INSPEC  
人工数据专家  
添加的  
底层数据  
字段

### Special Indexes (特殊索引)

- Classification Codes (学科分类)
- Treatment Codes (文档处理类型)
- Chemical Indexing (化学索引)
- Numerical Data Indexing (数值索引)
- Astronomical Object Indexing (天文学物体对象索引)
- Patent Classification Codes (专利分类代码)

Inspec 标引专家:  
Dr. Christopher Marker

- UCL (伦敦大学学院) 物理学博士
- 超20年的数据分析和处理经验



工程叙词表（Engineering Thesaurus）是一种专门用于工程领域的标准化词汇表。

## 1. 叙词表是什么？

主题分析的一种实用方法。主题分析是指辨识论文的知识内涵，分析其特点，使用规范化的词汇描述其主题。叙词表种包含特定学科领域的词汇，并以特定的结构排列，以显示出词汇之间关系。词汇之间存在语义或者从属上的关系。

## 2. 主题分析的种类？

主题分析可分为系统主题法和字顺主题法。系统主题法又被称为分类法，用逻辑方式建立学科体系的分类表。字顺主题法是通过词汇来描述论文主题，索引专家先建立控制词汇，让使用者通过受控词汇来检索相关论文。

## 3. 叙词表的作用？

将文献中的自然语言转化（译）成规范的，标准化的系统语言，以达到控制词汇的目的。

叙词表通常由专业组织或图书馆编制，它们为了确保信息的准确传递和有效管理，而在专业领域内推广使用统一的术语。作为工程技术领域内全球知名的专业组织，英国工程技术学会(The Institution of Engineering & Technology, 简称IET)旗下的Inspec数据库是工程、物理以及计算机科学领域最权威的数据库之一，拥有历经50多年广受认可的Inspec专家编写叙词表体系。



# 什么是Inspec叙词表(Thesaurus)?

## Inspec Thesaurus

### 控词 & 非控词

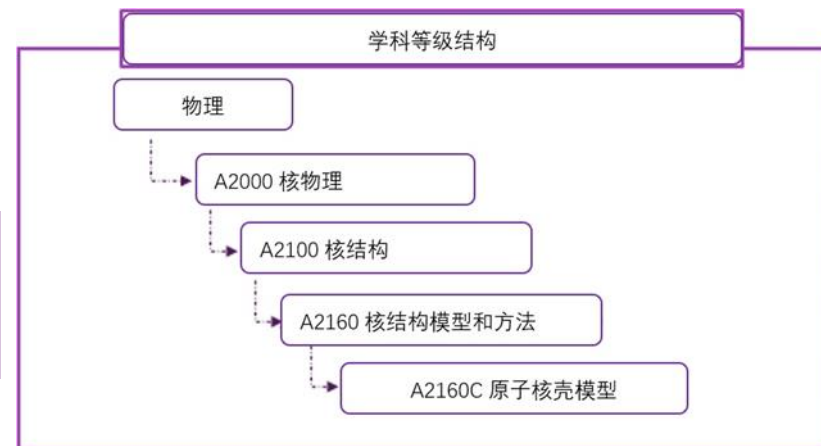
控词是一种通过专家标引系统对学术术语等加以规范化标引，以便后续进行精准检索的实用标签。控制词表强制要求所有Inspec收录的数据采用这些经过专家标引系统标引且权威认定的术语，保证Inspec数据的一致性和可被精准检索到。

Inspec的数百万非控词源自作者在标题和摘要中使用的学术语言表述，可高效、及时地揭示新兴学术概念或重要学术表述等。Inspec引入了非控词概念，每周更新，保证Inspec对文献记录全面、精准的发现性。

### 学科分类

Inspec数据库将收录的四大学科进行3600多个细分学科的细分，建立5级学科分类及层级体系，最大化学科分类的细颗粒度。

5级学科分类及学科分类代码标引



# 在 Web of Science 平台如何查看 Inspec Thesaurus

The screenshot shows the 'Inspec' database interface. At the top, there are two tabs: '文献' (Literature) and '研究人员' (Researchers). The '文献' tab is active. Below the tabs, there is a dropdown menu for '选择数据库: Inspec®'. A callout box points to a '主题' (Subject) dropdown menu, with the text '2. 下拉并选择controlled Terms (控词)'. The '主题' dropdown is open, showing a list of search options: '检索', '天文学对象', '作者标识符', '所有化学特征描述', '学科分类代码', '受控与非受控词表' (highlighted), '受控词表', '文献类型', '编者', and '识别码'. To the right of the dropdown is a search input field containing '示例: Radioactive Decay'. Below the dropdown, there is a section titled '受控与非受控词表' (Controlled and Uncontrolled Terms) with a description: '检索受控与非受控索引词。非受控索引是 Inspec 索引人员分配的自由语言词表和短语, 以提供对来源文献的更详尽描述。' and a note: '您可以从叙词中选择词表 (位于检索字段下方的链接)'. Below this is an example: '示例: Glaciology AND hydrology Protocols'. At the bottom right, there is a '登录以访问' (Log in to access) button.

文献

研究人员

选择数据库: Inspec®

文献

2. 下拉并选择controlled Terms (控词)

主题 ^ 示例: Radioactive Decay

检索

天文学对象

作者标识符

所有化学特征描述

学科分类代码

受控与非受控词表

受控词表

文献类型

编者

识别码

受控与非受控词表

检索受控与非受控索引词。非受控索引是 Inspec 索引人员分配的自由语言词表和短语, 以提供对来源文献的更详尽描述。

您可以从叙词中选择词表 (位于检索字段下方的链接)

示例: Glaciology AND hydrology Protocols

清除 检索

登录以访问

# 在WoS平台如何查看Inspec Thesaurus

文献 研究人员

选择数据库: Inspec® ▾

文献

1. 下拉并选择controlled Terms (控词)

2. 点击控词结构图

受控与非受控词表 ^

示例: radiowave propagation

检索

所有化学特征描述

学科分类代码

受控与非受控词表

受控词表

受控与非受控词表

检索受控与非受控索引词。非受控索引是 Inspec 索引人员分配的自由语言词表和短语，以提供对来源文献的更详尽描述。

您可以从叙词中选择词表 (位于检索字段下方的链接)

× 清除 检索

# 在WoS平台如何查看Inspec Thesaurus

< 返回检索

添加检索词以生成检索式

semiconductor × 重设 查找

336 条结果: "semiconductor" 1 / 7

1. 输入感兴趣的检索词

- 添加 acoustoelectric effects ?
- 添加 amorphous semiconductors ?
- 添加 amplifiers ?
- 添加 avalanche breakdown ?
- 添加 avalanche diodes ?
- 添加 BARITT diodes ?
- 添加 bipolar transistor switches ?
- 添加 buffer layers ?

3. 点击? 来查询相关检索词详细信息

2. 下拉找到相关的检索词

4. 点击控词等级结构图

amorphous semiconductors ×

Broader Term(s)

- 添加 amorphous state Ⓜ
- 添加 semiconductor materials Ⓜ
- 添加 semiconductors Ⓜ

Narrow Term(s)

- 添加 chalcogenide glasses Ⓜ

Prior Term(s)

- 添加 amorphous state Ⓜ
- 添加 semiconductor materials Ⓜ

6. 该控词的上位控词

7. 该控词的下位控词

8. 该控词的先前检索词

5. 下拉查询相关学科信息

× 清除

添加到检索式



# 在WoS平台，用Inspec Thesaurus查看检索词的层级、学科代码

< 返回检索

semiconductor

× 重设

查找

< 向前

"amorphous semiconductors" in hierarchy view [跳至检索词](#)

查看条目  1  2  3

- 添加 semiconductors ?
- 添加 heavily doped semiconductors ?
- 添加 narrow band gap semiconductors ?
- 添加 semiconductor quantum dots ?
- > 添加 polar semiconductors ?
- > 添加 degenerate semiconductors ?
- 添加 semiconductor nanotubes ?
- > 添加 **amorphous semiconductors** ?
- > 添加 magnetic semiconductors ?

14. 添加控词到检索框

13. 该控词的结构图

Related Term(s)

9. 该控词的相关检索词

- 添加 semiconductor thin films

(H)

Top Term(s)

10. 该控词的顶级检索词

- 添加 materials (H)

- 添加 semiconductors (H)

- 添加 solids (H)

Used For

11. 该控词的替代词

- semiconductor glasses

Date of Input

- January 1973

Related Classification Code(s)

12. 该控词的相关学科代码

- A6140

× 清除

添加到检索式

# 在Engineering Village平台使用Inspec Thesaurus



Engineering Village

Search ▾

Search history ▾ <sup>50</sup>

Alerts <sup>0</sup>

Selected records <sup>0</sup>

More ▾

? ▾ <sup>2</sup>



EN

Exact term results ▾

62,729 records found in Inspec for 1884-2024: ((({autonomous aerial vehicles} WN CV)))

1 of 2,510 pages >

Create alert

Save search

Share search

RSS feed

Sort by: Relevance ▾

## Refine

By physical property ▾

Filter results by physical properties such as size, temperature, pressure and many more [↗](#).

By category

Download all [↓](#) [↑](#)

Limit to

Exclude

Add a term

Controlled vocabulary [🔊](#) [↓](#) [↑](#)

- Autonomous Aerial Vehicles** (62,729)
- Mobile Robots (15,269)
- Remotely Operated Vehicles (10,860)
- Aircraft Control (7,614)
- Helicopters (7,230)

[View more >](#)

Author [🔊](#) [↓](#) [↑](#)

- Wang, Y. (448)

[?](#) Preprint articles are included in these search results. To exclude them, please filter by document type. [Learn more](#) [✕](#)



Display: 25 [▾](#) results per page

- Robust Nonlinear Control for the Fully Actuated Hexa-Rotor: Theory and Experiments**  
**Flores, G.** (Laboratorio de Percepcion y Robotica, Center for Research in Optics, Mexico); **Montes De oca, A.; Flores, A.** **Source:** IEEE Control Systems Letters, v 7, p 277-82, 2023  
**Database:** Inspec  
**Document type:** Journal article (JA)  
**Show preview** ▾ **Cited by in Scopus (13)** **Full text** [↗](#)
- Toward Blue Skies: City-Scale Air Pollution Monitoring Using UAVs**  
**Motlagh, N.H.** (University of Helsinki, Finland); **Irjala, M.; Zuniga, A.; Lagerspetz, E.; Rantala, V.; Flores, H.; Nurmi, P.; Tarkoma, S.** **Source:** IEEE Consumer Electronics Magazine, v 12, n 1, p 21-31, 2023  
**Database:** Inspec  
**Document type:** Journal article (JA)  
**Show preview** ▾ **Cited by in Scopus (2)** **Full text** [↗](#)
- Climate Change: Evaluation of a Failed Roadway Embankment with Expansive Soils Using Unmanned Aerial Vehicle (UAV) Inspection**  
**Congress, S.S.C.** (North Dakota State University, Department of Civil, Fargo, ND 58108-6050, United States); **Ulloa, O.; Kumar, P.; Jafari, N.H.; Yu, X.** **Source:** Trends on Construction in the Digital Era: Proceedings of ISIC 2022. Lecture Notes in Civil Engineering (306), p 454-65, 2023

Feedback [🗨](#)

# Inspec Thesaurus Details (clarivate.com)



Web of Science Help

Search



产品更新

系统要求

注册和登录

管理您的帐户设置

Web of Science 合集

wos-core-collection

Arabic Citation Index

Biological Abstracts

BIOSIS Citation Index

BIOSIS Previews

CABI: CAB Abstracts 和 Global Health

中国科学引文数据库

Current Contents Connect

Data Citation Index

Derwent Innovations Index

**FSTA The Food Service Resource 资源帮助**

inspec

inspec-classification-details

“高级检索”字段标识

Inspec 期刊列表详细信息























**Inspec 叙词详细信息**

## 一 叙词详细信息

在 Inspec 叙词中，单击查看叙词详细信息图标可查看叙词中任何检索词的详细信息。叙词详细信息可能包含以下任何或全部字段，具体视检索词而定。

字段	说明
叙词检索词	显示经认证叙词检索词的完整名称。叙词检索词是在 Inspec 叙词中输入索引的受控检索词（或关键词）。
状态	显示检索词现在是否仍在使用中。如果当前正在使用，则该字段不显示。如果不在使用，则该字段显示单词“停止”，后跟使用该检索词索引最后一次记录的年份。
替代词	非首选检索词。用叙词检索词代替这些检索词。您无法在叙词中选择这些检索词。
Use (用途)	显示用于停止的叙词检索词的检索词。
下义词	位于叙词分层结构的下一较低层次的受控检索词。它们通常是比叙词检索词的范围更加具体的检索词。例如，digital computers 是 computer 的下义检索词，而后者是上义叙词检索词。
上义词	位于叙词分层结构的下一较高层次的受控检索词。它们的范围更广。例如，computers 是上义词而 digital computers 和 hybrid computers 是下义叙词检索词。
首选检索词	用于代替叙词检索词的受控检索词。
相关检索词	指与叙词检索词相关的受控检索词，但它们不属于下义词或上义词类别。例如，digital circuits 是相关检索词 - digital computers 是叙词检索词。
顶级检索词	位于叙词分层结构中最高层次的受控检索词。叙词检索词从属于这些检索词。
相关分类代码	与叙词检索词相关的 Inspec 分类代码。
输入日期	叙词检索词的输入日期。可用于所有叙词检索词。
先前检索词	在叙词检索词输入日期之前使用（可能仍在使用）的与叙词检索词相关的受控检索词。
覆盖范围说明	叙词的覆盖范围说明和/或历史注释。覆盖范围说明指示叙词检索词涵盖的概念和未涵盖的概念。它们通常指示检索词的含义或其特定用法。

## 《物理学报》与《Physical Review Letters》标引的Inspec控制词对比 ——结合同时间段诺贝尔奖获奖领域进行分析

期刊发文INSPEC受控关键词 ( Top10 )	发文时间段		
	1990-1999	2000-2009	2010-2019
《物理学报》 1	High Temperature Superconductors ( 1987 ) 	Chaos ( 1991 )	Numerical Analysis
《Physical Review Letters》 1	High Temperature Superconductors ( 1987 ) 	Ab Initio Calculations	Quantum Entanglement ( 2022 ) 
《物理学报》 2	Silicon 	X Ray Diffraction	Density Functional Theory ( 2012 、 2022 ) 
《Physical Review Letters》 2	Chaos ( 1991 ) 	Density Functional Theory ( 2012 、 2022 ) 	Ab Initio Calculations
《物理学报》 3	X Ray Diffraction Examination Of Materials	Iii V Semiconductors ( 2014 )	Ab Initio Calculations
《Physical Review Letters》 3	Elemental Semiconductors	Quantum Optics ( 2009 ) 	Quantum Theory ( 2022 ) 
《物理学报》 4	Elemental Semiconductors	Wide Band Gap Semiconductors	Wide Band Gap Semiconductors
《Physical Review Letters》 4	Silicon	Ferromagnetic Materials ( 2017 ) 	Ground States
《物理学报》 5	Barium Compounds	Density Functional Theory	Chaos ( 1991 ) 
《Physical Review Letters》 5	Iii V Semiconductors ( 2014 ) 	High Temperature Superconductors ( 1987 ) 	Fermion Systems
《物理学报》 6	Quantum Optics	Photoluminescence	X Ray Diffraction
《Physical Review Letters》 6	Monte Carlo Methods	Bose Einstein Condensation ( 2001 ) 	Quantum Computing ( 2022 ) 
《物理学报》 7	Iii V Semiconductors ( 2014 )	Semiconductor Thin Films	Energy Gap
《Physical Review Letters》 7	Quantum Theory ( 2022 ) 	Monte Carlo Methods	Quantum Optics ( 2009 ) 
《物理学报》 8	Yttrium Compounds	Annealing	Iii V Semiconductors ( 2014 )
《Physical Review Letters》 8	Gallium Arsenide	Nanostructured Materials ( 2010 ) 	Density Functional Theory ( 2012 、 2022 ) 
《物理学报》 9	Iron Alloys	Silicon	Crystal Structure
《Physical Review Letters》 9	Barium Compounds	Iii V Semiconductors ( 2014 ) 	Spin Orbit Interactions
《物理学报》 10	Gallium Arsenide	Nanostructured Materials	Laser Beams ( 2018 )
《Physical Review Letters》 10	Quantum Optics ( 2009 ) 	Organic Compounds	Fluctuations ( 2021 ) 
对比总结	1. 美国《Physical Review Letters》和《物理学报》发文主要都涉及高温超导，3、5族半导体	1. 美国《Physical Review Letters》主要发文领域与《物理学报》出现了较大的差异。	1. 美国《Physical Review Letters》在这一时期的发文领域主要涉及的领域与2022年诺贝尔物理学奖获奖领域出现较大重叠。

使用Inspec叙词表进行期刊发文主题分析和对比，聚焦期刊出版范围内的核心主题、热点领域

# Inspec叙词表让检索获得多洞察

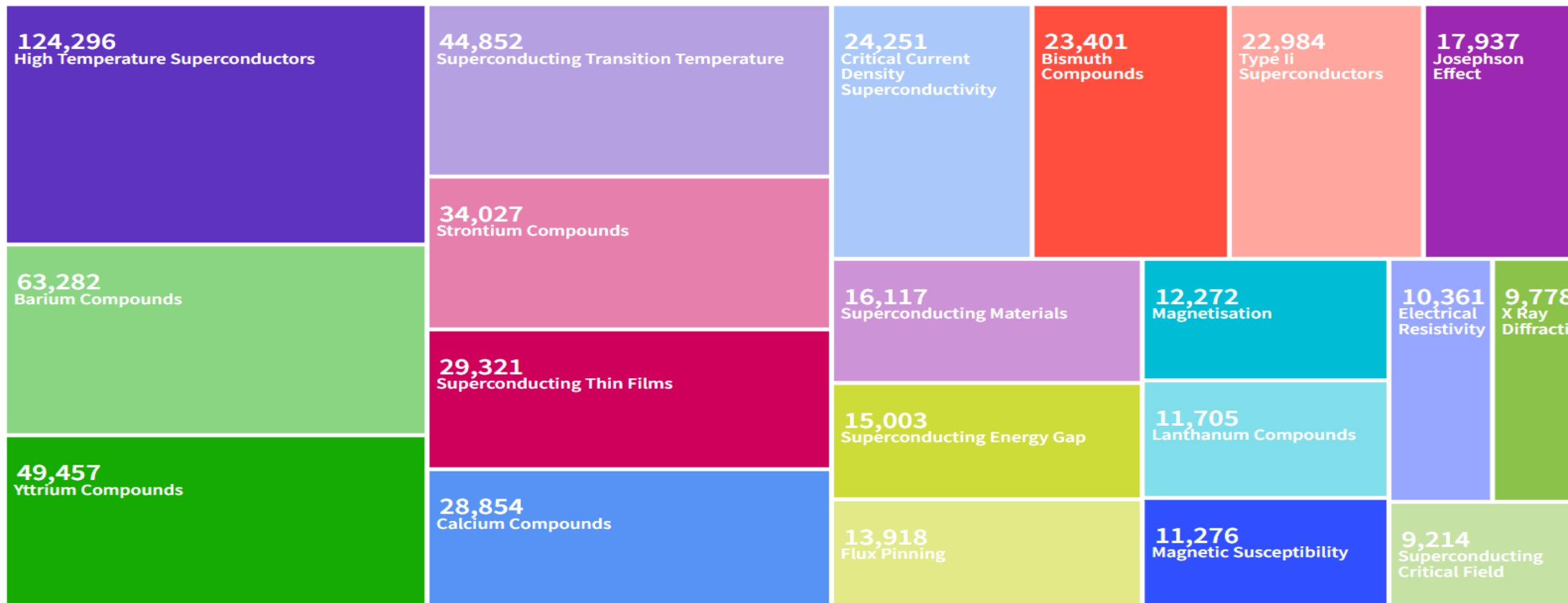
Search > Results for superconductor... > Results for superconductor... > Results for superconductor (Topic)

225,701 results from Inspec® for:

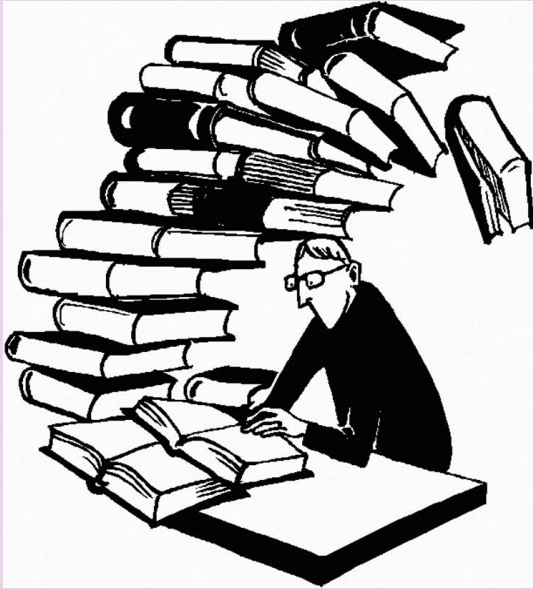
Q superconductor (Topic)

Analyze Results Create Alert

Publications You may also like... Copy query link



# Inspec叙词表在科研场景中的作用



[图片来源: [Mmix The Millions](#)]

## 场景 1:

帮助科研“新手”快速进入某个研究领域，了解该领域规范的学术关键词，构建全面的学术概念图谱。



[图片来源: [IET.ORG](#)]

## 场景 2:

帮助科研人员从一个研究领域出发，去探索延伸、交叉领域，及时发现发文量快速增长的新兴领域。



[图片来源: [igroups.oist.jp](#)]

## 场景 3:

帮助毕业生进行文献检索，完成开题前的课题文献综述报告。

# 3. 基于受控词和学科的学科分析工具

## —Inspec Analytics

机构、学科、受控词三个分析维度

—键获取行业内全部相关信息：

1. 研究领域内，最被认可的学术关键词
2. 本领域最重要的期刊
3. 本领域最重要的学术会议
4. 本领域内的基金资助来源
5. 本领域的主要研究机构和发文作者
6. 基于语义的相关关键词，并发关键词

发文分析，交叉学科发文趋势

1. 发文量变化趋势
2. “小同行”引用频次、篇均被引、引用水平值（CLS）



# Inspec Analytics

多维度

搜索&分析工具

物理&工程

机构

34,631 机构

学科分类

3,601 学科分类

受控关键词

10,125 控制词



# Inspec Analytics Plus介绍

## 揭示对全球研究影响的更深层次的洞悉

Inspec Analytics Plus为Inspec Analytics增加了有价值的新数据集和功能，提供了完整的引用度量和加强对数千个组织和科学概念的协作分析。



### 引文指标

加深你对全球科学趋势的理解。引用指标数以千计的科学概念让你比较和对比新兴全球研究趋势的影响。

### 资助来源

集中你的努力来加速你的资金搜索。评估在你所选择的学科中，哪些组织资助了最多的研究，以及随着时间的推移，这些资助在哪些方面有所增加。

### 被高度引用的主题和组织

将研究项目的范围定义为最大化你的影响力。  
将项目规划为使他们对研究的贡献最大化。  
社区通过探索高引用主题，合作者和出版机会。

### 组织科研绩效

评估你的组织的影响。深入了解组织的绩效。  
在特定的研究领域内，以全球景观为基准。

### 协作分析

评估合作伙伴关系和知识转让举措的成功情况。监测和比较  
为非政府组织建立合作伙伴关系和项目  
25,000个组织。

# 机构: Tianjin University

## Tianjin University [view online](#)

Tianjin, China  
academic

Report generated from year 2013 to 2023

### Rank & Articles published

Rank 10 of 34665 organisations by article output, based upon 51803 articles published from 2013 - 2023

### Articles published % change

Between 2013 - 2022 article output increased 178.01%

### Times cited

Articles published at this Organisation between 2013 - 2023 have been cited 345041 times, with an average of 6.66 citations per article

#### Rank & Articles

Rank

10 of 34,665

organisations by article output, based upon

51,803

articles published from  
2013 - 2023

[Show articles](#)

#### Articles published % change

Between

2013 - 2022

article output increased

178.01% 

#### Times cited

Articles published at this Organisation  
between 2013 - 2023 have been cited

345,041

times, with an average of

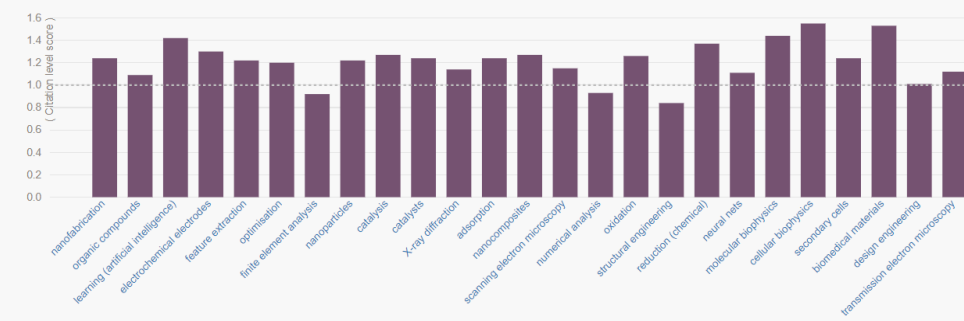
6.66

citations per article

#### Subject classifications

Subject Classification	Coverage	Articles	Global rank (Rank applicable from 2013 - 2023)
A - Physics	69.7%	28177	14 of 28756
B - Electrical engineering and electronics	90.2%	24064	14 of 26412
C - Computers and control	83.8%	17666	17 of 27713
E - Mechanical and production engineering	96.9%	14923	8 of 23909

#### Controlled term citation level score



#### Collaborations

Organisation	Collaborations
1. Nankai University Tianjin, China academic	978
2. State Grid Corporation of China Beijing, China corporate	964
3. Tianjin University of Technology Tianjin, China academic	863
4. Tsinghua University Beijing, China academic	847

Total collaborating organisations : 2806

#### Top controlled terms

Controlled term	Articles	Global rank (Rank applicable from 2013 - 2023)
1. nanofabrication	3719	8 of 11710
2. organic compounds	2823	3 of 12456
3. learning (artificial intelligence)	2777	23 of 14398
4. electrochemical electrodes	2343	6 of 7774
5. feature extraction	2339	15 of 11310
6. optimisation	2056	16 of 11706
7. finite element analysis	2021	14 of 9432
8. nanoparticles	1977	10 of 11217

Total terms : 7031

# 学科: A8240P - Flames, combustion, and explosions

## A8240P - Flames, combustion, and explosions

[view online](#)

Report generated from year 2013 to 2023

### Articles published

51100 articles published with this Subject classification between 2013 - 2023

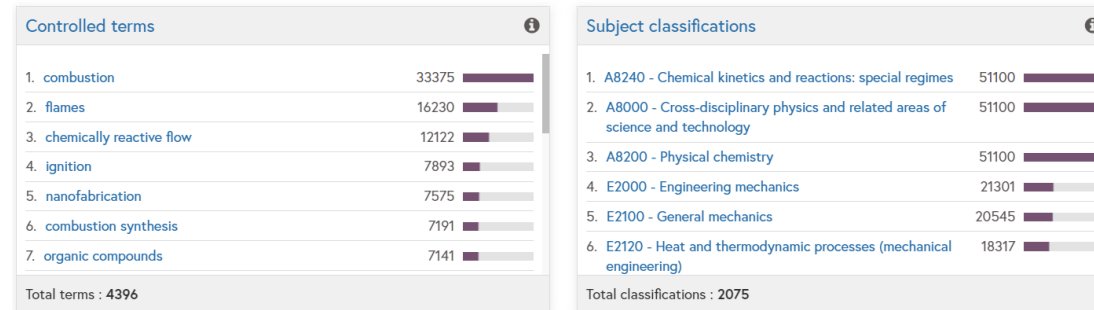
### Articles published % change

Between 2013 - 2022 article output increased 147.26%

### Times cited

Articles published with this Subject classification between 2013 - 2023 have been cited 260488 times, with an average of 5.10 citations per article

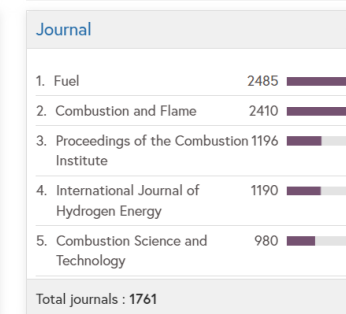
### Co-occurring concepts



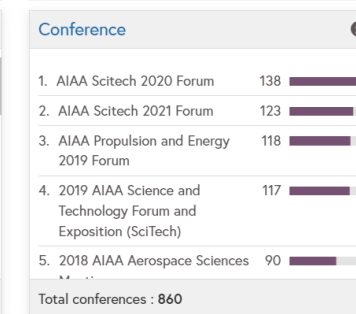
### Top organisations



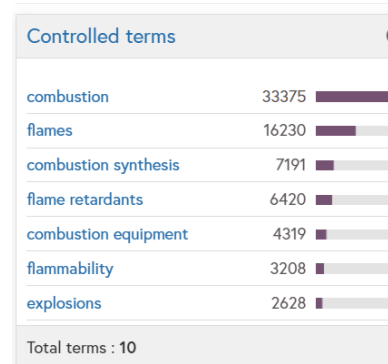
### Journals



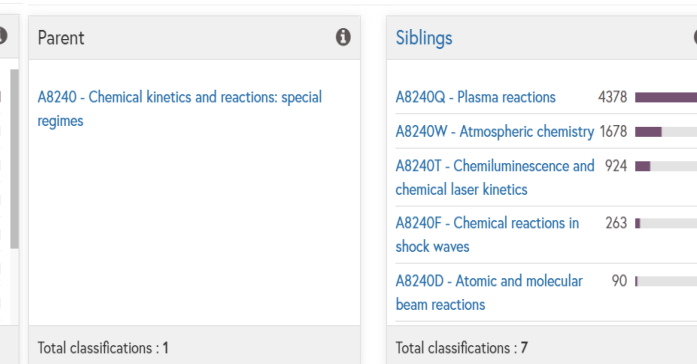
### Conferences



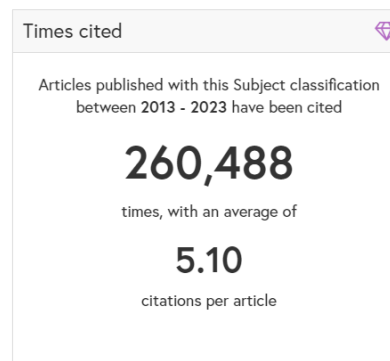
### Related controlled terms



### Related subject classifications



## Articles



# 控词: combustion

## combustion

[view online](#)

Report generated from year 2013 to 2023

### Articles published

64690 articles published with this Controlled term between 2013 - 2023

### Articles published % change

Between 2013 - 2022 article output increased 210.02%

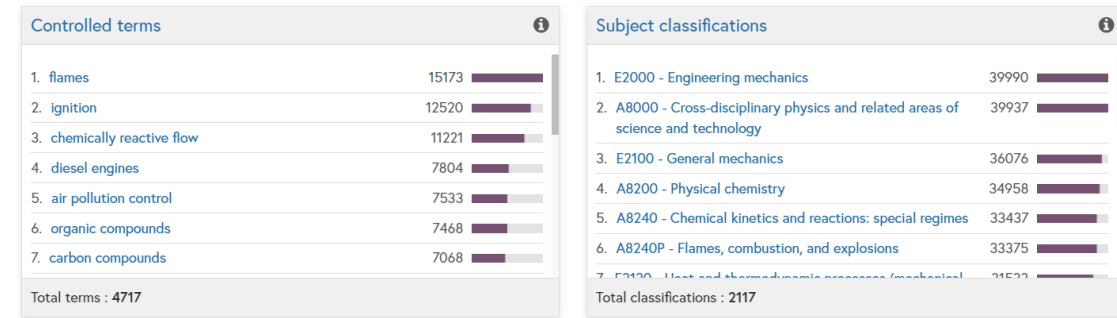
### Times cited

Articles published with this controlled term between 2013 - 2023 have been cited 329030 times, with an average of 5.09 citations per article

## Articles



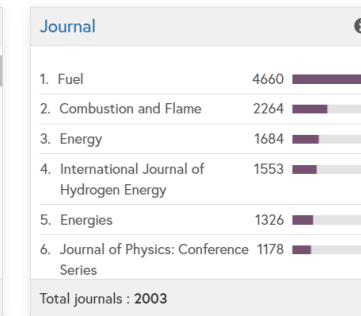
## Co-occurring concepts



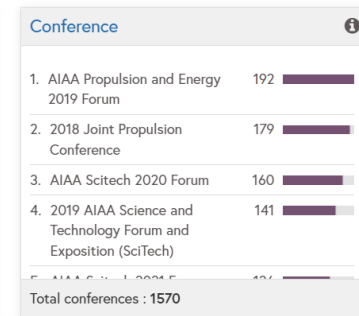
## Top organisations



## Journals



## Conferences



## Related Subject classifications Top funders



## 4. 精准发现—Inspec底层索引字段

- Inspec数据库的数值与化学索引，专利分类、文档处理代码等标引
- 唯一将科技论文与专利分类代码(IPC&CPC)关联的非专利文献数据库
- 滤除60%-90%+检索噪音

- 数值检索字段包含文献中涉及物理量参数。可使用科学计数法（如2.65E+10Hz）和普通计数法(如26500000000Hz)进行数值输入，较大数值建议使用科学计数法，以保证准确。每一个数值索引字段格式包含：

物理量	数值	单位
-----	----	----

- 检索设置规则:

- ❖ 如果在左侧检索框中输入一个数值，而右侧空缺，表示检索范围为大于或等于左侧输入数值。
- ❖ 如果在右侧检索框中输入一个数值，而左侧空缺，表示检索范围为小于或等于右侧输入数值。
- ❖ 如果在左侧和右侧输入相等的数值，表示检索范围为等于输入数值。
- ❖ 如果两侧输入不同的数据，则表示搜索范围在两者之间。

Inspec – 数值索引包含的物理量及单位		
• 年龄 (年)	• 电子伏特能量 (电子伏特)	• 辐射吸收剂量 (戈雷)
• 海拔 (米)	• 能量 (焦耳)	• 辐射剂量当量 (西弗)
• 视在功率 (伏安)	• 频率 (赫兹)	• 辐射暴露 (库仑每公斤)
• 带宽 (赫兹)	• 增益 (分贝)	• 放射性 (贝克勒尔)
• 比特率 (每秒字节数)	• 银河距离 (秒差距)	• 无功功率 (乏)
• 字节率 (每秒字节数)	• 地心距离 (米)	• 电阻 (欧姆)
• 电容 (法拉)	• 日心距离 (天文单位)	• 尺寸 (米)
• 计算机执行率 (每秒指令数)	• 损失 (分贝)	• 恒星质量 (太阳质量)
• 计算机速度 (每秒浮点运算次数)	• 磁通密度 (特斯拉)	• 存储容量 (字节)
• 电导 (西门子)	• 质量 (公斤)	• 温度 (开尔文)
• 电流 (安培)	• 内存大小 (字节)	• 时间 (秒)
• 深度 (米)	• 噪声系数 (分贝)	• 速度 (米每秒)
• 距离 (米)	• 图片尺寸 (图片元素)	• 电压 (伏特)
• 效率 (百分比)	• 功率 (瓦特)	• 波长 (米)
• 电导率 (西门子每米)	• 压力 (帕斯卡)	• 字长 (字节)
• 电阻率 (欧姆·米)	• 打印机速度 (每秒字符数)	

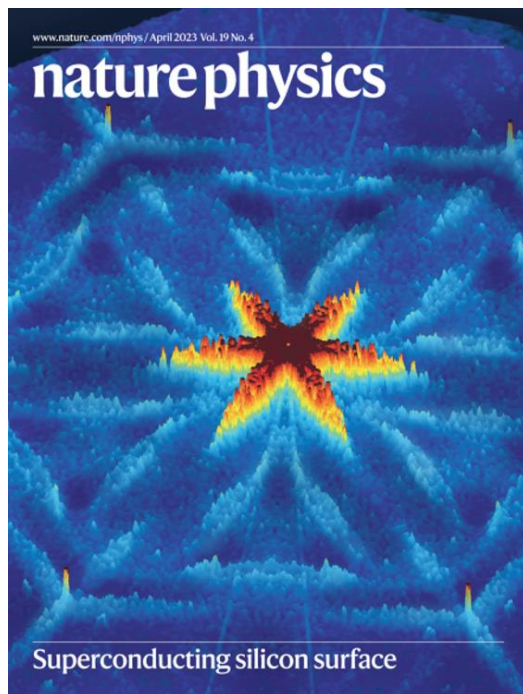


图1: Nature Physics杂志2023年4月期封面, 展示的是超导的硅111表面稀疏晶格的准粒子散射图, 中间的六角星结构是区分系统具有手性拓扑超导的关键证据之一。

中科大电子与信息工程学院 (微电子学院) **明方飞副教授**与南方科技大学王克东课题组、美国田纳西大学Weitering课题组等合作, 在硅基拓扑超导研究方面取得重要进展, 相关成果以《Evidence for chiral superconductivity on a silicon surface》为题, 近期以封面文章形式发表于物理学顶级刊物 (Nature Physics 19, 500, 2023)



(Stock image of a superconducting material over a neodymium magnet)



检索课题: 如何高效检索在环境压力下, 临界温度( $T_c$ )大于77开尔文 (Kelvin) 超导材料研究论文?

131,305 results from Inspec® for:  
Q "high-temperature superconductor\$" (Topic) [Analyze Results] [Create Alert]

Topic "high-temperature superconductor\$" [Clear] [Search]

+ Add row + Add date range Advanced search

23,330 results from Inspec® for:  
Q "high-temperature superconductor\$" (Topic) and GTE 77 (Temperature (Kelvin)) [Create Alert]

656 results from Inspec® for:  
Q "high-temperature superconductor\$" (Topic) and GTE 77 (Temperature (Kelvin)) and LTE 101325 (Pressure (Pascal)) [Analyze Results] [Create Alert]

Topic "high-temperature superconductor\$"

And Temperature (Kelvin) 77 to 1.9E+03

And Pressure (Pascal) 1.0E+03 to 101325

一键消除超99%的检索噪音



Expert search:

((((("high temperature superconductors") WN ALL)) AND ((NU\_TEMPERATURE GTE 77 K))) AND ((NU\_PRESSURE LTE 101325 Pa)))



Reset form

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

Inspec

697 records found in Inspec for 1884-2024: [\(\("high temperature superconductors"\) WN ALL\)](#) × + [\(NU\\_TEMPERATURE GTE 77 K\)](#) × + [\(NU\\_PRESSURE LTE 101325 Pa\)](#) ×

1 of 28 pages >

[Create alert](#) [Save search](#) [Share search](#)

Sort by: [Relevance](#) ▾

## Refine

By physical property ▾

Filter results by physical properties such as size, temperature, pressure and [many more](#) ↗.

By category

[Download all](#) ⬇ ^

[Limit to](#) [Exclude](#)

Controlled vocabulary ^

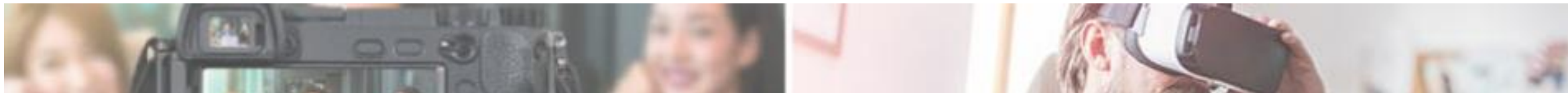
- High-Temperature Superconductors 684
- Barium Compounds 505
- Yttrium Compounds 379

▾ ▾

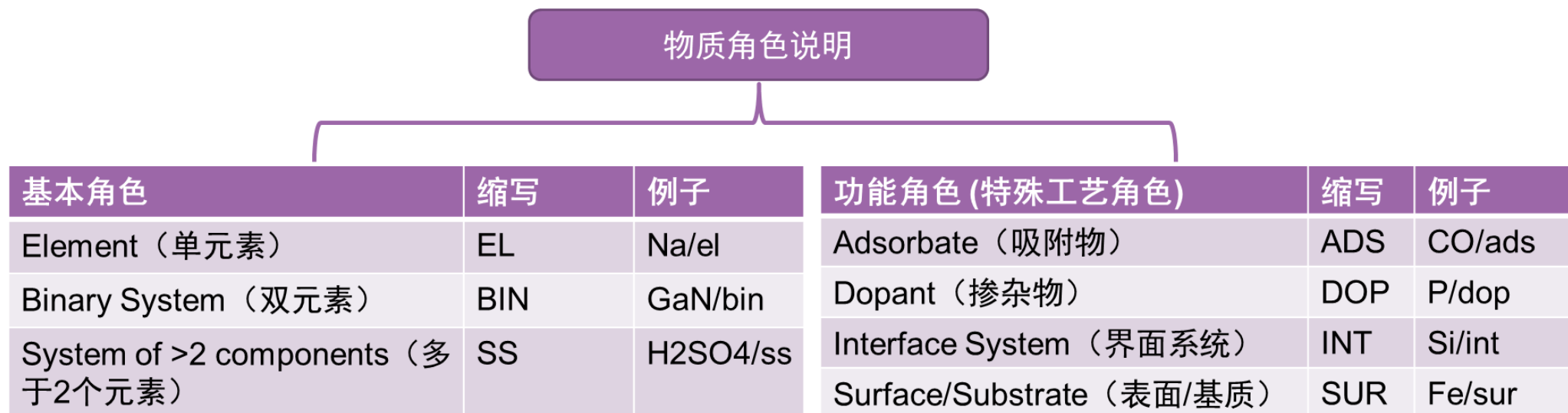
Display: [25](#) ▾ results per page

1.  [AC Breakdown Strength of Parallel Cylindrical Conductor Arrangements in LN<sub>2</sub>](#)  
 Schmid, A. (TH Köln - University of Applied Sciences, Laboratory of High Voltage Engineering, Germany); Humpert, C. Source: *IEEE Transactions on Applied Superconductivity*, v 34, n 3, p 5400905 (5 pp.), 2024  
 Database: Inspec  
 Document type: Journal article (JA)  
[Show preview](#) ▾ [Full text](#) ↗
2.  [Prediction of pressure-induced superconductivity in the ternary systems YScH<sub>2n</sub> \(n=3-6\)](#)  
 Shi, L.-T. (Chinese Academy of Sciences, Institute of High Energy Physics, China); Si, J.-G.; Turnbull, R.; Liang, A.; Liu, P.-F.; Wang, B.-T. Source: *Physical Review B*, v 109, n 5, p 054512 (9 pp.), 2024  
 Database: Inspec  
 Document type: Journal article (JA)  
[Show preview](#) ▾ [Cited by in Scopus \(1\)](#) [Full text](#) ↗

[Feedback](#)

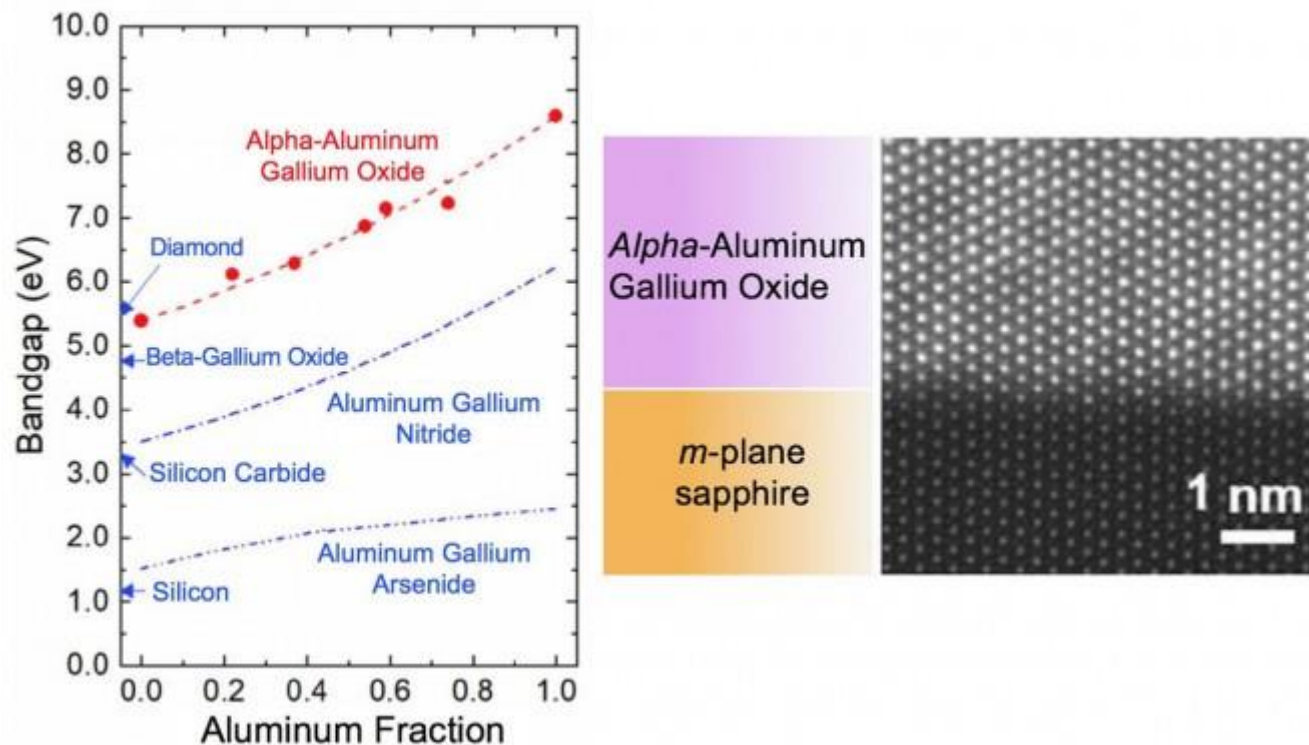


分析方法—化学索引介绍：Inspec数据库将文献中讨论的物质和材料系统的信息进行标引。总体可分为两种角色类型：基本角色和功能角色。基本角色是对物质涉及化学信息的基本描述，即物质本身是由几种元素组成。功能角色是对物质涉及的材料工艺进行描述，即物质之间的相互关系，如掺杂、基质等。



(图3: Inspec“化学标引”简介, 来源: Inspec)

详情参考: <https://www.theiet.org/media/5239/chemical-indexing-updated-jan-2020.pdf>



[source: [https://news.cornell.edu/Ultrawide bandgap gives material high-power potential](https://news.cornell.edu/Ultrawide%20bandgap%20gives%20material%20high-power%20potential), By David Nutt]



检索课题: 如何检索在基质材料蓝宝石 ( $Al_2O_3$ )上使用MOCVD外延生长超宽带隙半导体氧化镓 ( $Ga_2O_3$ ) 的文献?

**149,044 results from Inspec® for:**

Q "epitaxial growth" (Topic) Analyze Results Create Alert

Topic  "epitaxial growth" ×

+ Add row + Add date range Advanced search

× Clear Search

**9,183 results from Inspec® for:**

Q "epitaxial growth" (Topic) Results Create Alert

Refined By: Controlled Terms: Mocvd × Clear all

**26 results from Inspec® for:**

Q "epitaxial growth" (Topic) and Ga2O3/bin (All Chemical Roles) and Al2O3/sur (All Chemical Roles) Analyze Results Create Alert

Topic  "epitaxial growth" ×

And   Ga2O3/bin ×

And   Al2O3/sur ×

一键消除超**99%**  
的检索噪音

Engineering Village Search ▾ Search history ▾<sup>37</sup> Alerts<sup>0</sup> Selected records<sup>0</sup> More ▾ ? ▾ EN

Quick search: All fields ▾ for "epitaxial growth"

Turn off AutoSuggest | + Add search field | Reset form

Databases ▾ Date ▾ Language ▾ Document type ▾ Sort by ▾ Browse indexes ▾ Autostemming ▾ Discipline ▾ Treatment ▾

**111,568 records** found in Inspec for 1896-2024: (("epitaxial growth") WN ALL) 1 of 4,463 pages >

Engineering Village Search ▾ Search history ▾<sup>39</sup> Alerts<sup>0</sup> Selected records<sup>0</sup> More ▾ ? ▾ EN

Expert search: (((("epitaxial growth") WN ALL)) AND (({mocvd} WN CV)) AND (Al2O3/sur AND Ga2O3/bin) WN CI)

Databases ▾ Date ▾ Sort by ▾ Autostemming ▾ Search codes ▾ Browse indexes ▾

Database	Code = Field	Code = Field
i = Inspec	AB = Abstract (i)	PEC = CPC code (i)
	AN = Accession number (i)	PID = IPC Code (i)
	AF = Affiliation/Assignee (i)	BN = ISBN (i)
	ALL = All fields (i)	SN = ISSN (i)
	AI = Astronomical indexing (i)	SU = Issue (i)
	AU = Author/Inventor (i)	LA = Language (i)
	FIRSTAU = First author (i)	MI = Material identity number (i)
	CI = Chemical indexing (i)	NU = see Numerical Data Codes (i)
	CL = Classification code (i)	NI = Numerical indexing (i)

Codes displayed will depend on your current database selection

**23 records** found in Inspec for 1896-2024: (((("epitaxial growth") WN ALL)) AND (({mocvd} WN CV)) AND (Al2O3/sur AND Ga2O3/bin) WN CI)

1 of 1 pages

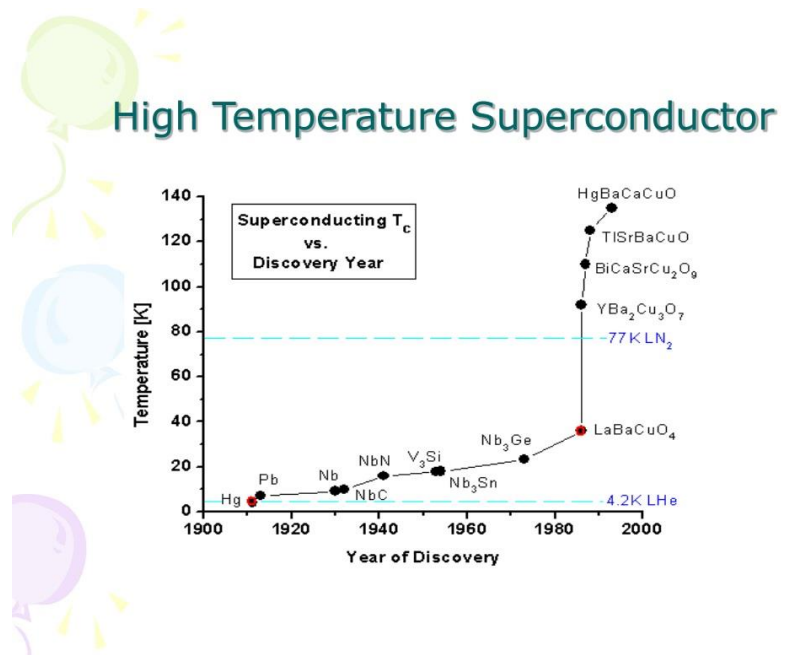
Sort by: Relevance ▾

## 独有的人工数据标引字段—Inspec文档处理类型索引

(对文章中采取的研究方法进行类型标引)

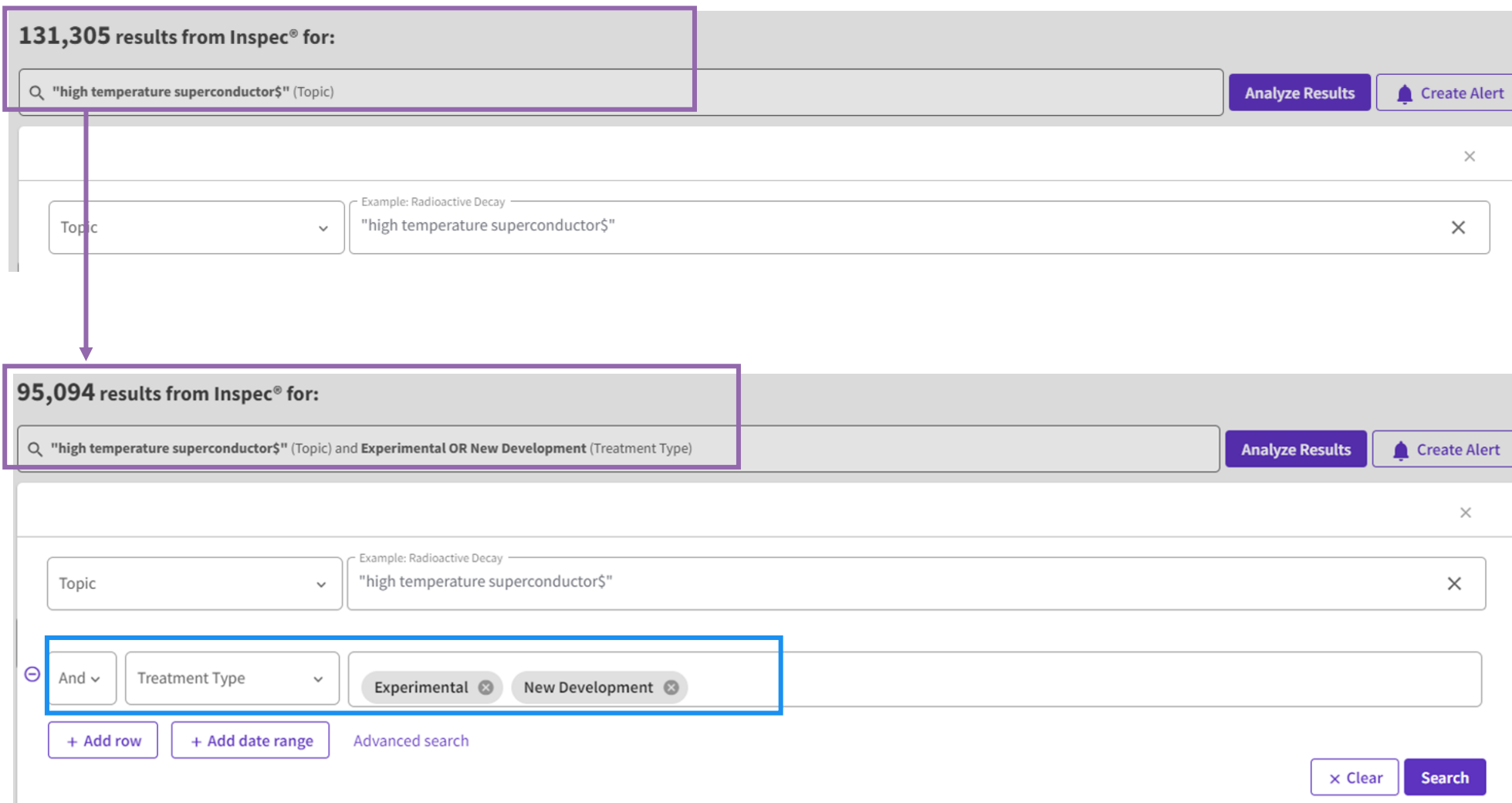
处理类型	解释
Applications (a) /应用型	源文件中描述仪器、设备等的使用，涉及应用场景
Bibliography or Literature Survey (b) 书目或文献调查	参考文献超过50种的文章
Economic Aspects or Market Survey (e) 经济因素或市场调查	源文件涉及经济或商业方面，如成本、定价、市场预测等
General or Review Article (g) 综述文章	对某领域发展的的总回顾和总结，包含方法、最前沿的评论、概述等。对于想要对不熟悉主题领域进行研究的科研人员很有价值
New Developments (n) 新进展	专利意义上的任何新的或新颖的内容，或者可能产生某些专利的文章（查看文献时注意出版时间）
Practical Aspects (p)/实践型	实际使用和手工操作相关
Product Review (r) 产品评述	上述实践型的子集，包括产品规格和使用指南等
Theoretical Aspects or Mathematical Treatment (t)/理论型或数学解析	理论和数学分析方法，分析事实及其相互关系
Experimental Aspects (x)/试验型	涉及测试、试验、试程序或政策的内容

详情参考：<https://www.theiet.org/media/5816/treatment-codes.pdf>



[source: High Temperature Superconductivity. Huan Yang]

查新目标: 如何查找高温超导领域涉及实验方法并具有新颖性（新发展）的论文？



**131,305 results from Inspec® for:**

Q "high temperature superconductor\$" (Topic) Analyze Results Create Alert

Topic Example: Radioactive Decay  
"high temperature superconductor\$" ×

**95,094 results from Inspec® for:**

Q "high temperature superconductor\$" (Topic) and **Experimental OR New Development** (Treatment Type) Analyze Results Create Alert

Topic Example: Radioactive Decay  
"high temperature superconductor\$" ×

And Treatment Type  
Experimental × New Development ×

+ Add row + Add date range Advanced search

× Clear Search





Engineering Village

Search ▼ Search history ▼ <sup>41</sup> Alerts ▼ <sup>0</sup> Selected records ▼ <sup>0</sup> More ▼ ? ▼ ▼ EN



Expert search:

(((("high-temperature superconductors") WN ALL)) AND ((2024 OR 2023 OR 2022 OR 2021 OR 2020 OR 2019) WN YR))



Reset form

Databases ▼ Date ▼ Sort by ▼ Autostemming ▼ Search codes ▼ Browse indexes ^

Assignee ↗

Author ↗

Author affiliation ↗

Classification code ↗

Controlled term ↗

Discipline ↗

Document type ↗

ICS code ↗

IPC Code ↗

Inventor ↗

Language ↗

Publisher ↗

Source title ↗

Treatment ↗

Selected index: Treatment type ▼

11,032 records found in Inspec for 1896-2024: (((("high-temperature superconductors") WN ALL)) AND ((2024 OR 2023 OR 2022 OR 2021 OR 2020 OR 2019) WN YR))

Create alert

Save search

Share search

Select terms below to add to search

Connect terms with:  AND  OR

- APP - Applications (Inspec)
- BIB - Bibliography (Inspec)
- ECO - Economic (Inspec)
- EXP - Experimental (Inspec)
- GEN - General review (Inspec)
- NEW - New development (Inspec)
- PRA - Practical (Inspec)
- PRO - Product review (Inspec)
- THR - Theoretical (Inspec)

# 近五年高温超导研究论文文档处理类型分布

文档处理类型	记录数量
Product Review (r)/产品评述	9
Applications (a) /应用型	10
Economic Aspects or Market Survey (e)/经济因素或市场调查	21
New Developments (n)/新进展	80
General or Review Article (g)/综述文章	174
Bibliography or Literature Survey (b)/书目或文献调查	1,083
Practical Aspects (p)/实践型	3,383
Theoretical Aspects or Mathematical Treatment (t)/理论型或数学解析	5,964
Experimental Aspects (x)/试验型	6,150

These codes are used with the kind permission of the World Intellectual Property Organization

## Inspec是唯一标引IPC代码的A&I数据库

### 支持非专利文献检索

国际专利分类（IPC）

欧洲专利分类号(ECLA)

美国专利分类号（CCL）

日本的分类法（FI/F-term）

联合专利分类（CPC）

...

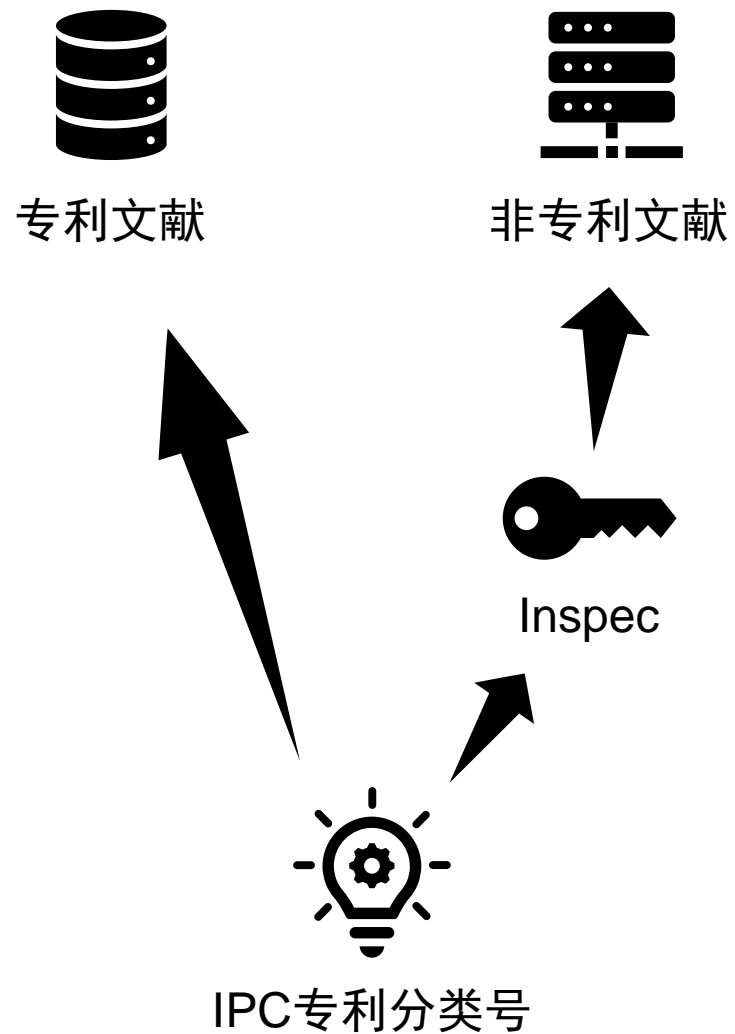
- A部—人类生活必需（农、轻、医）
- B部—作业、运输
- C部—化学、冶金
- D部—纺织、造纸
- E部—固定建筑物（建筑、采矿）
- F部—机械工程
- G部—物理
- H部—电学

\*全面覆盖，红色为Inspec重点覆盖领域

\*随着CPC分类的更多应用，Inspec已经将CPC引入底层数据标引中（目前覆盖2023年出版的论文）

# 非专利文献检索

- 《国际专利分类表》（IPC分类）是根据1971年签订的《国际专利分类斯特拉斯堡协定》编制的，是唯一国际通用的专利文献分类和检索工具，为世界各国所必备，用来对大量专利文献进行分类。
- 在传统的专利文献检索中，有诸多的专利文献数据库进行支持，同时，专利文献检索技巧也较为成熟，能够通过IPC、CPC等分类方案快速完成检索
- 而在**非专利文献检索**领域，往往能够运用的数据库和检索方法很少，在**Inspec**底层数据中所标引的IPC国际专利分类，能够填补非专利文献检索领域的空白，可以保证专利相关学者、技术人员在查找文献时有足够的文献支持，同时配合Inspec独特的叙词、数值、化工检索等字段，能够快速准确定位相关文献



# 天津大学学术发文 (Inspec收录范围) 涉及的国际专利分类号 (IPC) 的分布

Engineering Village  
ELSEVIER

Quick search: Author affiliation for

Databases Date Language Document type Sort by Browse indexes Autostemming

85,410 records found in Inspec for 1896-2024: ((Tianjin University) WN AF)

Create alert Save search Share search

Refine

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

By category  
Download all

Limit to Exclude

Add a term

IPC code

<input type="checkbox"/>	G06T	8,662
<input type="checkbox"/>	B82B1/00	7,721
<input type="checkbox"/>	G06N20/00	6,240
<input type="checkbox"/>	B82B3/00	6,122
<input type="checkbox"/>	B01J	3,586

View more >

1.  **3D Brain Tumor Image Classification Based on Deep Learning**  
Li, Q. (Tianjin University, School of Microelectronics and Information Technology)  
Database: Inspec  
Document type: Journal article (JA)  
Show preview [Full text](#)

2.  **Multifunctional agents based on 3D-printed porous microspheres for COVID-19 diagnosis, gene delivery and photothermal therapy**  
Zhu, N. (Tianjin University, Department of Chemical Engineering)  
Database: Inspec  
Document type: Journal article (JA)  
Show preview [Full text](#)

3.  **Recurrent neural networks with fine-grained attention for brain tumor segmentation**  
Zhan, Z. (Tianjin University, College of Science)  
Database: Inspec  
Document type: Journal article (JA)  
Show preview [Full text](#)

4.  **A nitrogen-doped porous carbon with hierarchical structure for supercapacitor**  
Zhang, R. (Tianjin University, School of Microelectronics and Information Technology)  
Database: Inspec  
Document type: Journal article (JA)  
Show preview [Full text](#)

IPC code

<input type="checkbox"/>	G06T	8,662
<input type="checkbox"/>	B82B1/00	7,721
<input type="checkbox"/>	G06N20/00	6,240
<input type="checkbox"/>	B82B3/00	6,122
<input type="checkbox"/>	B01J	3,586

View more >

CPC code

<input type="checkbox"/>	B82B1/00	722
<input type="checkbox"/>	B82B3/00	704
<input type="checkbox"/>	G06N20/00	650
<input type="checkbox"/>	G06N3/02	624
<input type="checkbox"/>	G06T	537

View more >

IPC code

<input type="checkbox"/>	G06T	8,662
<input type="checkbox"/>	B82B1/00	7,721
<input type="checkbox"/>	G06N20/00	6,240
<input type="checkbox"/>	B82B3/00	6,122
<input type="checkbox"/>	B01J	3,586
<input type="checkbox"/>	G01N33/48	3,380
<input type="checkbox"/>	C25B11/00	3,304
<input type="checkbox"/>	C25D17/10	3,304
<input type="checkbox"/>	H01M4/00	3,304
<input type="checkbox"/>	G16B	3,194
<input type="checkbox"/>	F15D	3,097
<input type="checkbox"/>	G06N3/02	2,959
<input type="checkbox"/>	G06F7/00	2,628
<input type="checkbox"/>	C01B32/00	2,617
<input type="checkbox"/>	G06N5/04	2,577
<input type="checkbox"/>	C12	2,333
<input type="checkbox"/>	H04B7/00	2,044
<input type="checkbox"/>	G05D1/00	2,026
<input type="checkbox"/>	H04W	1,887
<input type="checkbox"/>	G05D3/00	1,790
<input type="checkbox"/>	G06F9/44	1,786
<input type="checkbox"/>	G01J3/00	1,308
<input type="checkbox"/>	B01D9/00	1,281
<input type="checkbox"/>	H02J3/00	1,259
<input type="checkbox"/>	H02S	1,187
<input type="checkbox"/>	C21D1/00	1,170
<input type="checkbox"/>	C02	1,151
<input type="checkbox"/>	H04L12/28	1,132
<input type="checkbox"/>	C01B32/182	1,119
<input type="checkbox"/>	H01L21/02	1,116
<input type="checkbox"/>	H01L21/70	1,083
<input type="checkbox"/>	H02J3/38	1,072
<input type="checkbox"/>	F23	1,048
<input type="checkbox"/>	C08F2/00	1,011
<input type="checkbox"/>	G06K9/00	992
<input type="checkbox"/>	F02B	987
<input type="checkbox"/>	G05F	980
<input type="checkbox"/>	F28	925
<input type="checkbox"/>	E04B1/04	889
<input type="checkbox"/>	E04B1/20	889
<input type="checkbox"/>	C30B31/00	882
<input type="checkbox"/>	G01B	842

View: 10 60 Max

Limit to Exclude

CPC code

<input type="checkbox"/>	B82B1/00	722
<input type="checkbox"/>	B82B3/00	704
<input type="checkbox"/>	G06N20/00	650
<input type="checkbox"/>	G06N3/02	624
<input type="checkbox"/>	G06T	537
<input type="checkbox"/>	C25B11/00	338
<input type="checkbox"/>	C25D17/10	338
<input type="checkbox"/>	H01M4/00	338
<input type="checkbox"/>	C01B32/00	310
<input type="checkbox"/>	F15D	266
<input type="checkbox"/>	C12	247
<input type="checkbox"/>	G01N33/48	247
<input type="checkbox"/>	G06F7/00	225
<input type="checkbox"/>	G16B	220
<input type="checkbox"/>	B01J	186
<input type="checkbox"/>	G01J3/00	180
<input type="checkbox"/>	H01M10/00	165
<input type="checkbox"/>	C04B	157
<input type="checkbox"/>	B82Y5/00	154
<input type="checkbox"/>	G05D1/00	146
<input type="checkbox"/>	G05D3/00	146
<input type="checkbox"/>	B01J35/00	102
<input type="checkbox"/>	C02	99
<input type="checkbox"/>	C22C21/00	98
<input type="checkbox"/>	F28	98
<input type="checkbox"/>	G06N5/00	98
<input type="checkbox"/>	C01B3/00	95
<input type="checkbox"/>	B09B3/00	93
<input type="checkbox"/>	G06F16/00	93
<input type="checkbox"/>	A61B5/00	91
<input type="checkbox"/>	A61P	89
<input type="checkbox"/>	E04B1/04	89
<input type="checkbox"/>	E04B1/20	89
<input type="checkbox"/>	H02J3/38	89
<input type="checkbox"/>	B82Y15/00	86
<input type="checkbox"/>	C23F	86
<input type="checkbox"/>	C23G	86
<input type="checkbox"/>	H02M	85
<input type="checkbox"/>	H02J3/00	79
<input type="checkbox"/>	C22C19/00	78
<input type="checkbox"/>	F25	77
<input type="checkbox"/>	C21D1/00	76

View: 10 60 Max

Limit to Exclude

1 of 3,417 pages >

Sort by: Relevance

Display: 25 results per page

Feedback

# Inspec在Web of Science平台的特点

1. **引文网络**适用于Inspec收录的所有记录，用户可查看记录的施引文献和参考文献，可通过引文网络查看来WoS自核心合集的文献对Inspec收录文献的引用。
2. **编辑高级检索式**，并保存或再次编辑，用于课题组组会上的快速查新。
3. **排序**（多种排序方式可选，如被引频次，使用次数，日期等）、可视化结果分析（包括Inspec独有的受控词，学科这两个分析维度）、导出结果（单次可导出1000条记录）和文献管理（EndNote等）...

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出版年

2022 3

2021 1

2020 3

2019 1

分类

文献类型

Journal Paper 8

作者

受控词表

国家/地区

CHINA 7

INDIA 1

USA 1

Ternary-doped carbon electrodes for advanced aqueous solid-state **supercapacitors** based on a water-in-salt gel electrolyte

作者: Ziyang Song; Hui Duan; Da... ihua Gan

[查看 Web of Science Research](#)

Journal of Materials Chemist

卷: 7 期: 26 页: 15801-11

### 引文网络

来自 Web of Science 核心合集

113

### 引文网络

来自 Web of Science 核心合集

113 被引频次

 创建引文跟踪

3   Hierarchical structure N, O-co-doped porous carbon/carbon nanotube composite derived from coal for **supercapacitors** and CO2capture

[Jian Hao; Xiu Wang; \(...\); Yao Li](#)

2020 | [Nanoscale Advances](#) 2 (2), pp.878-87

... with for a new green energy source and develop energy storage and environmental restoration ...  
... ived from coal has attracted increasing attention in the energy storage and gas adsorption ...  
... nanotube composite was prepared by fu ... [显示更多](#)

OA标识, 没有paywall,  
免费点击DOI获取全文。

23 被引频次

56 参考文献

[相关记录](#)

4   A nitrogen-doped mesopore-dominated carbon electrode allied with anti-freezing EMIBF4-GBL electrolyte for superior low-temperature **supercapacitors**

[Jing Li; Yanan Zhou; \(...\); Wei Chu](#)

2020 | [Journal of Materials Chemistry A](#) 8 (20), pp.10386-94

Ionic liquids (ILs) show great promise to endow electric double-layer capacitors (EDLCs) with high energy density; however, their operation in practical deep-cold environments has been severely plagued by two major problems, namely (i) poor compatibility between the electrode material and the ILs and (ii) the ease of freezing of ILs. Here, we show that the combination of a nitrogen-doped mesopo ... [显示更多](#)

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15 被引频次

49 参考文献

[相关记录](#)

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**8 条来自 Inspec® 的结果:**

Q **supercapacitor\*** (主题) and **electrochemical electrodes** (受控与非受控词表) and **N/dop** (所有化学特征描述) and **A8640N** (学科分类代码) and **Experimental** (处理类型) and **223.15** (温度 (K)) 至 **273.15**

主题  示例: Radioactive Decay

AND  受控与非受控词表 示例: radiowave propagation

AND  所有化学特征描述 示例: Pd/el

AND  学科分类代码 示例: A2800

AND  处理类型

AND  温度 (K)  至

[+ 添加行](#) [+ 添加日期范围](#) [高级检索](#)

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检索式预览

TS=(supercapacitor\*) AND (CIX=(electrochemical electrodes) OR UI=(electrochemical electrodes)) AND CH=(N/dop) AND CL=(A8640N) AND TT=(X) AND TE=(223.15 273.15)

[+ 添加日期范围](#)

布尔运算符: AND, OR, NOT

字段标识:

- TS=主题
- TI=标题
- AU=[作者]
- AI=作者标识符
- ED=编者
- SO=[出版物标题]
- PY=出版年
- AD=地址
- CIX=[受控词表]
- UI=非受控词表
- CL=[学科分类代码]
- CH=所有化学特征描述
- AO=天文学对象
- MI=会议信息
- IC=识别码
- SU=研究方向
- IS= ISSN/ISBN
- UT=入藏号
- AB=摘要
- CU=国家/地区
- PMID=PubMed ID
- DT=文献类型
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# Inspec在Engineering Village平台的特点

1. **El Compendex+ Inspec**, 最全的物理和工程领域的文摘内容覆盖。
2. **Inspec Analytics**学科情报分析工具（文献检索第一课）集成在EV平台，用户可一键点击使用。
3. 用户可直接对国际专利分类（IPC）和联合专利分类（CPC）进行检索，查找对应的IPC和CPC的非专利文献。

# 在Engineering Village平台使用Inspec Analytics，“一网打尽”学科情报。



Engineering Village

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EN

## Inspec Analytics



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Explore the interconnected data within Inspec to uncover patterns and trends in engineering, computing & physics research to understand your place in a global landscape. With these precision research analytics, you can set the direction for your research outputs and monitor their impact.

Organisations

Controlled terms

Subject classifications

Search for an Organisation, Subject classification or Controlled term

Search



34,665

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Monitor the research output for your organisation and compare trends with collaborators and competitors.

3,601

Subject classifications

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10,125

Controlled terms

Discover emerging topics related to your field, find collaboration opportunities and identify relevant publications.

# 对国际专利分类号（IPC）和联合专利分类（CPC）进行检索



Engineering Village

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Alerts <sup>0</sup>

Selected records <sup>0</sup>

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IPC Code



for

G06N20/00



Suggested terms: ?

Learning (Artificial Intelligence)

Deep Learning (Artificial Intelligence)

Feature Extraction

Neural Nets

Pattern Classification

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Document type

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964,938 records found in Inspec for 1896-2024: ((G06N20/00) WN PID)

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266,458

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### 1. Research on the influencing factors of urban on-street parking demand based on ensemble learning and SHAP

Zhao, Z. (Chang'an University, China); Zhu, T.; Zhang, Y.; Zhao, Y. Source: Proceedings of SPIE, v 13018, p 130184G (7 pp.), 2024

Database: Inspec

Document type: Conference article (CA)

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### 2. Adaptive stochastic configuration network ensemble for structural reliability analysis

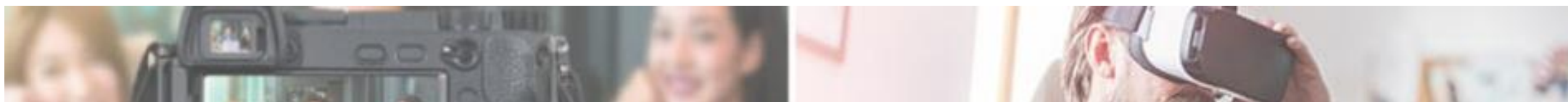
Liu, H. (Northeastern University, School of Mechanical Engineering and Automation, China); Li, S.; Huang, X.; Ding, P.; Jiang, Z. Source: Expert Systems With Applications, v 237, p 121633, 2024

Database: Inspec

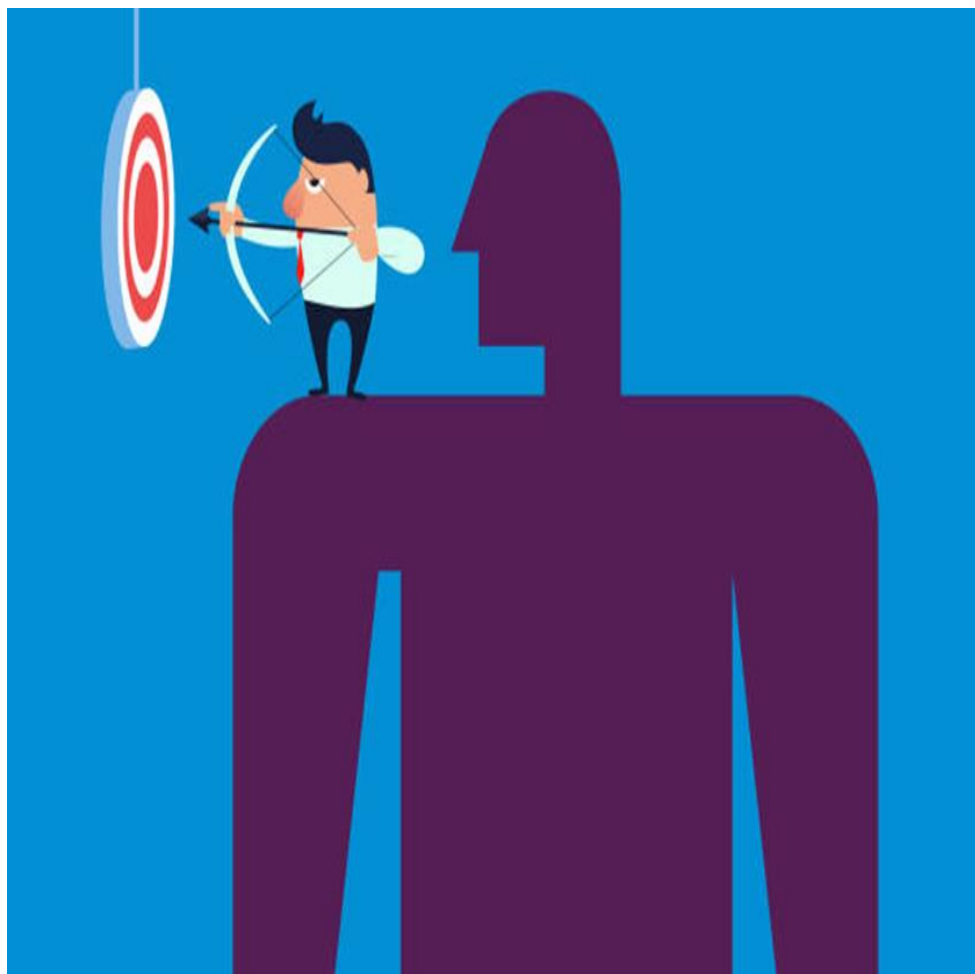
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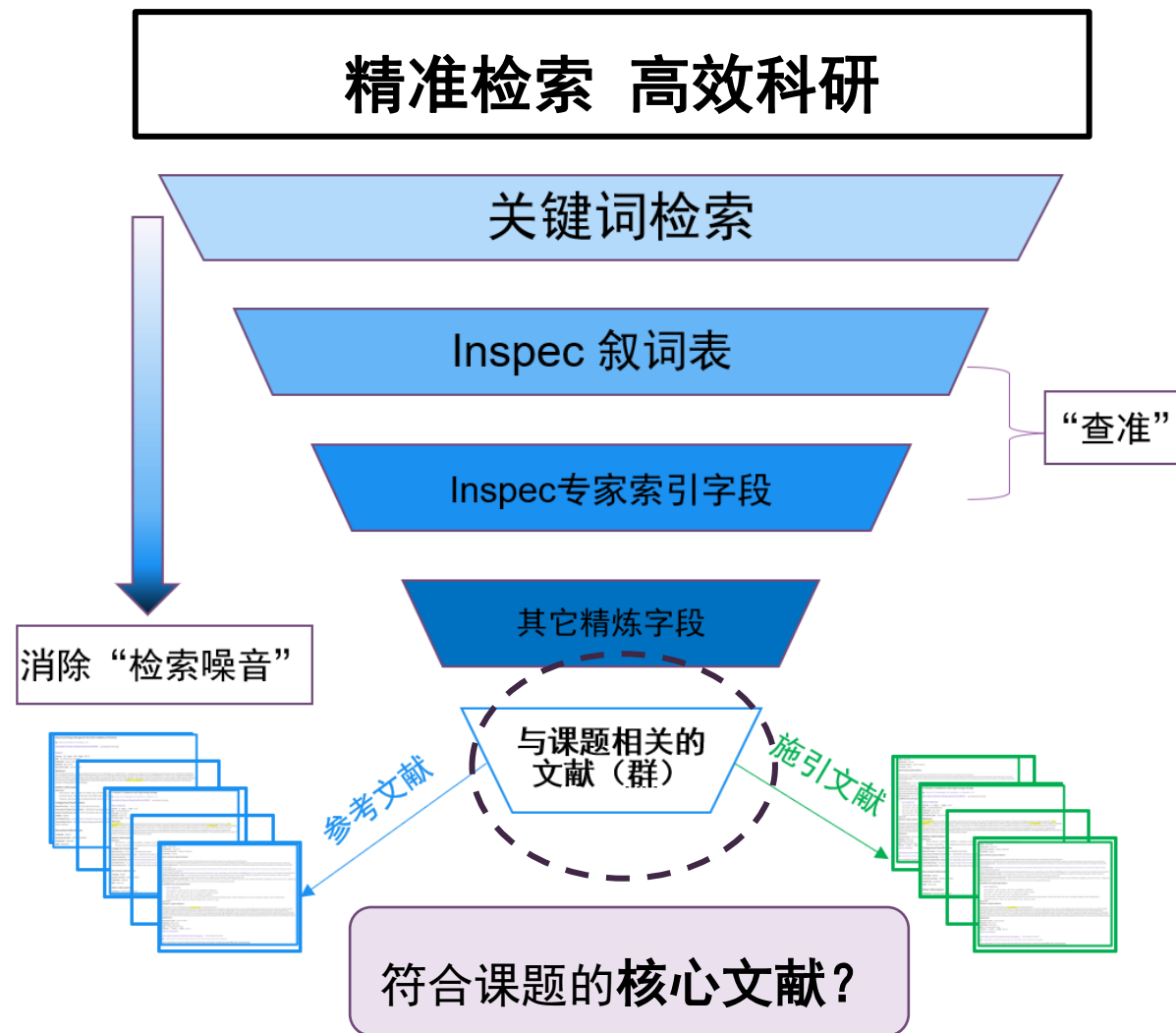
Feedback



## IET Inspec数据库—精准、高效地检索，锁定课题“核心文献”




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