课程签到码

Inspec索引:精确检索以获取深度洞察

IET工程技术学会　刘闯
2020年10月

课程签到码

信息获取，文献检索数据库的现状

全文数据库

- 直接，得到全文
- 分散，查阅不便
- 数量，急剧增长

文摘数据库

- 对全文数据进行精选、提炼、浓缩和加工,标引出文献的主题，编制成具有多种检索途径的检索工具

课程签到码

Inspec能做什么？

高效的检索机制

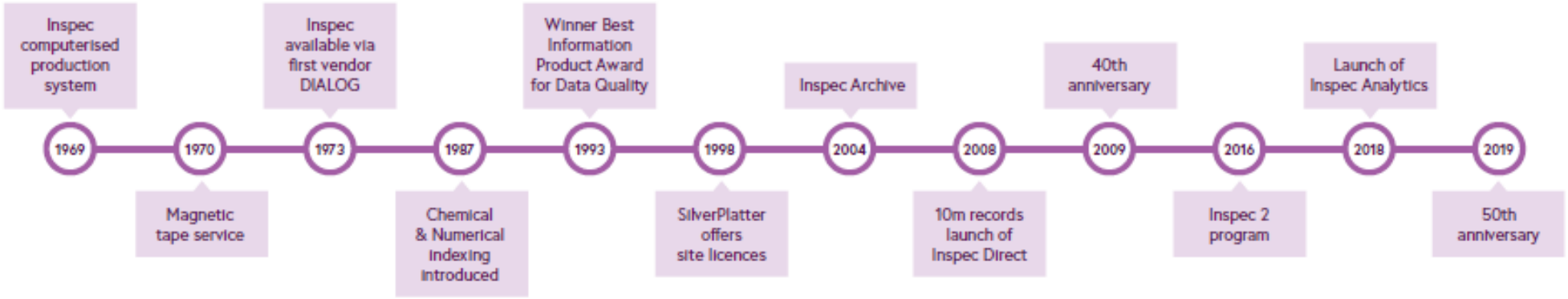
- 共有多达28个字段可供检索，除了各种直观检索字段外，还提供由相关领域专家择选的可以极大提高效率的检索字段：

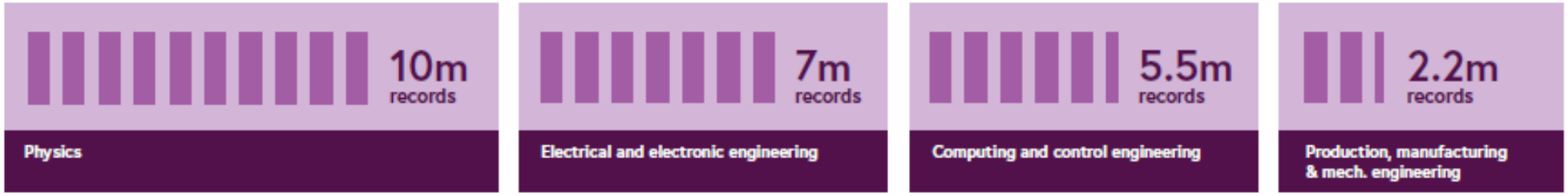
控制词
非控制词
化学索引
天体物理标识索引
……

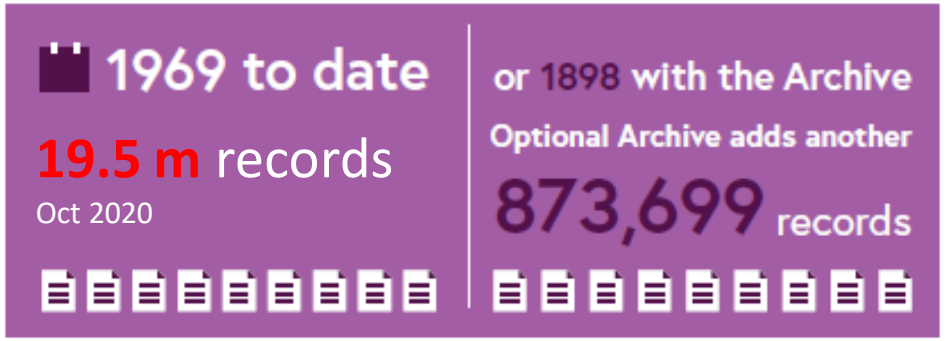
分类代码
处理编码
数值索引
IPC专利代码索引

课程签到码

IET Inspec







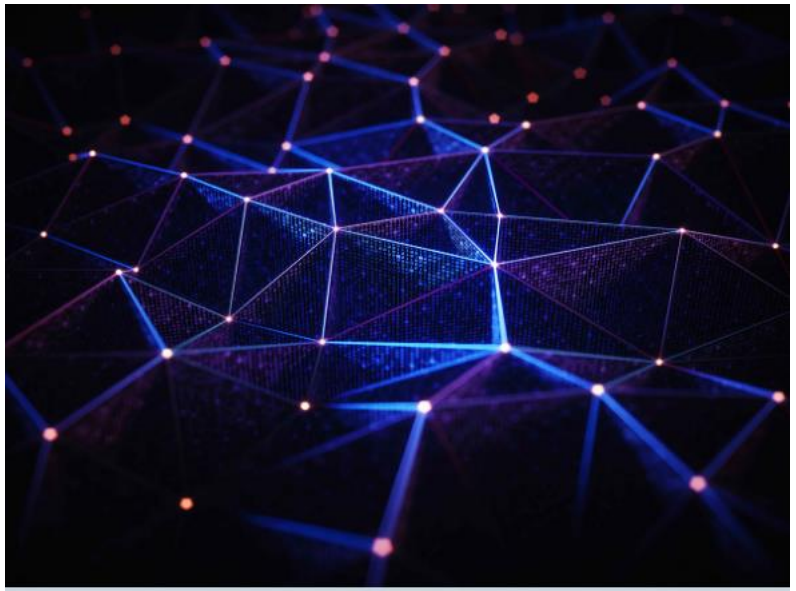
- 最早可追溯至1898年
- 每周数据更新
- 电子图书、会议录、学位论文、预印本

inspec-analytics.theiet.org

Inspec的基础-叙词表

课程签到码

控制词



9,967

Controlled terms

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

Search controlled terms

学科分类

3,521

Subject classifications

Explore our subject classifications to identify global trends for high-level research areas or niche fields.

Search subject classifications

叙词表

1. Inspec的叙词表是很有价值的搜索工具，可以帮助您优化搜索结果
2. Inspec叙词包含超过9,980个控制词索引并且是基于术语的主题索引，同时包括10000多种非控制词和学科分类
3. 控制词及非控制词本身相互关联，以便您可以找到最精确的术语来添加到您的搜索中，或使用其他术语扩展搜索范围
4. 学科分类是一个包含分类代码的主题分类方案，仅在物理和工程两个学科领域，Inspec就将索引内容细分至3500多个学科

学科分类代码例子：

- C6000 Computer software
  - C6100 Software techniques and systems
    - C6110 Systems analysis and programming
      - C6110B Software engineering techniques

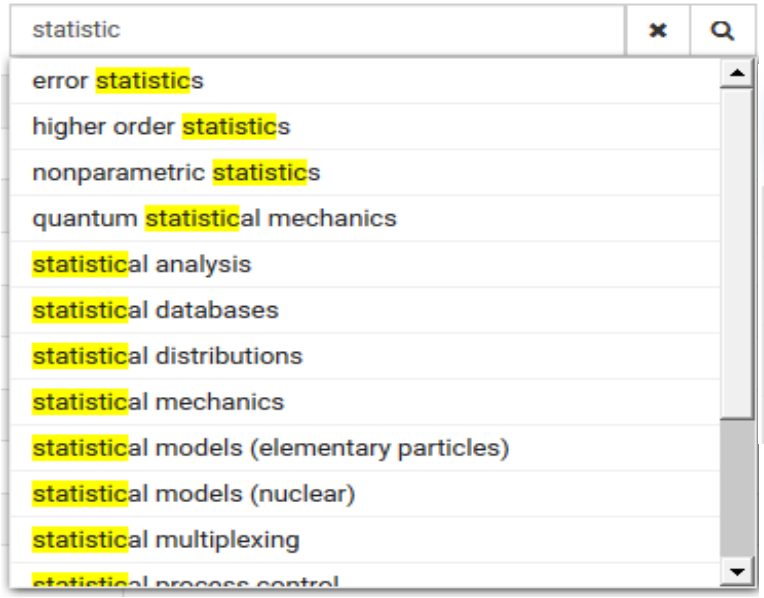
课程签到码

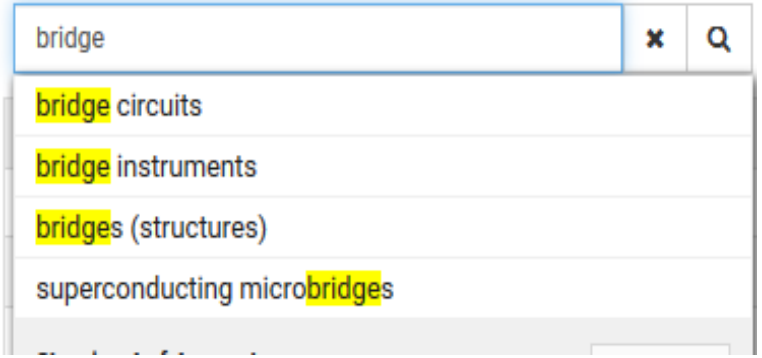
控制词表的创建

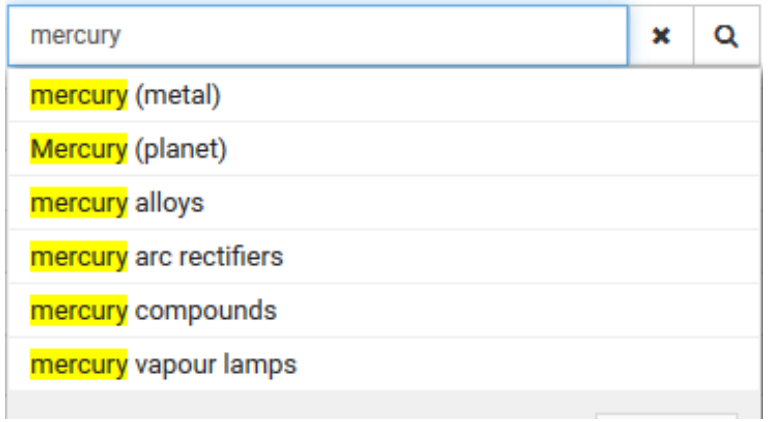
- Inspec叙词表中包含了近10,000个可被检索的控制词，以及数量大体一致的引导词(同义词、替换拼写、首字母缩写或控制词的子集)，这些引导词可帮助用户找到最适合其检索范围的术语
- 控词表由Inspec的学科专家生成，这些学科专家具备相关的inspec覆盖的专业知识，以此选择最相关的控词。
- 叙词是一种一致性很强的系统化机器语言，可以有效地区别于作者的日常用语
- 我们的人工标引团队运用叙词表对每一篇文献进行最为科学和细致的分级设置
- 叙词表每年对术语进行更新，涵盖最新研究领域，保持与原术语的一致性。同样，如果现有术语与所描述的研究领域不再相关，那么它们也会被停用

人工标引

- 独特的视角:
- 与其他自动机器标引不同，Inspec采取人工标引技术。正如下面图例所示，类似的术语在不同的研究领域甚至不同的上下文中其含义完全不同。Inspec的索引团队拥有工程技术领域背景，他们的专业知识确保了Inspec是最高质量的索引，为用户提供可以信任的准确见解。

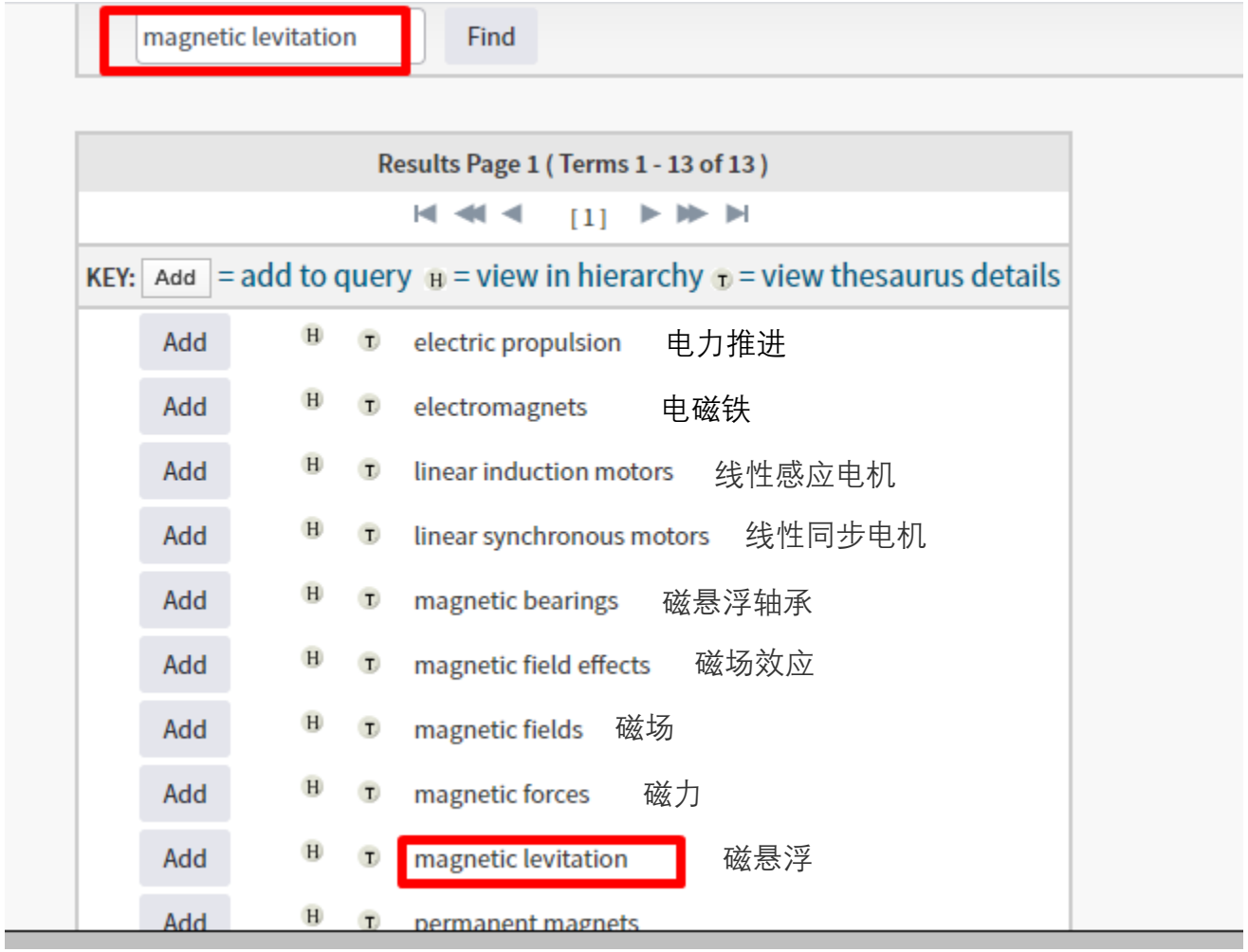






控制词推荐

磁悬浮



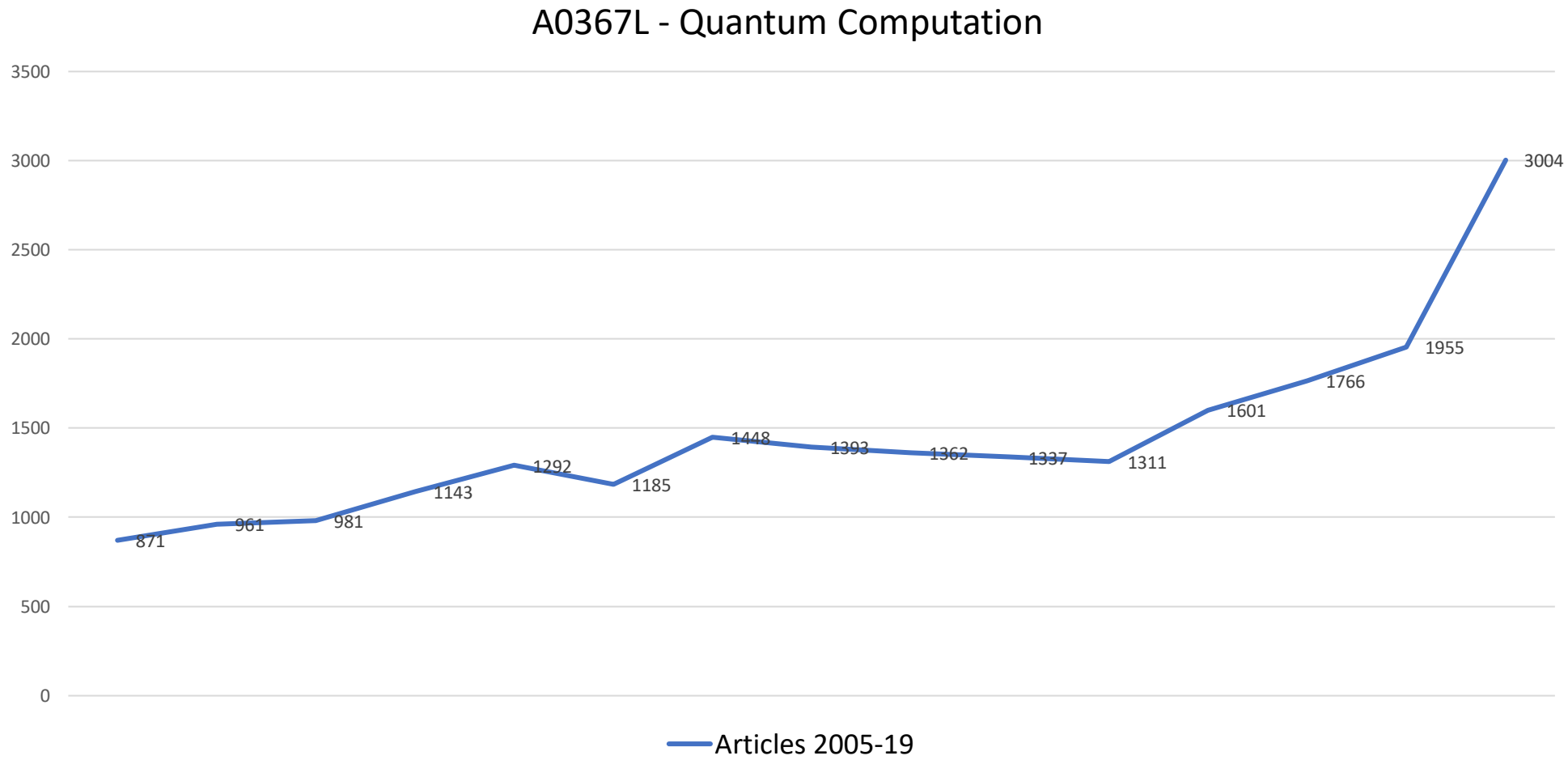
课程签到码

运用非控制词提高检索精确度

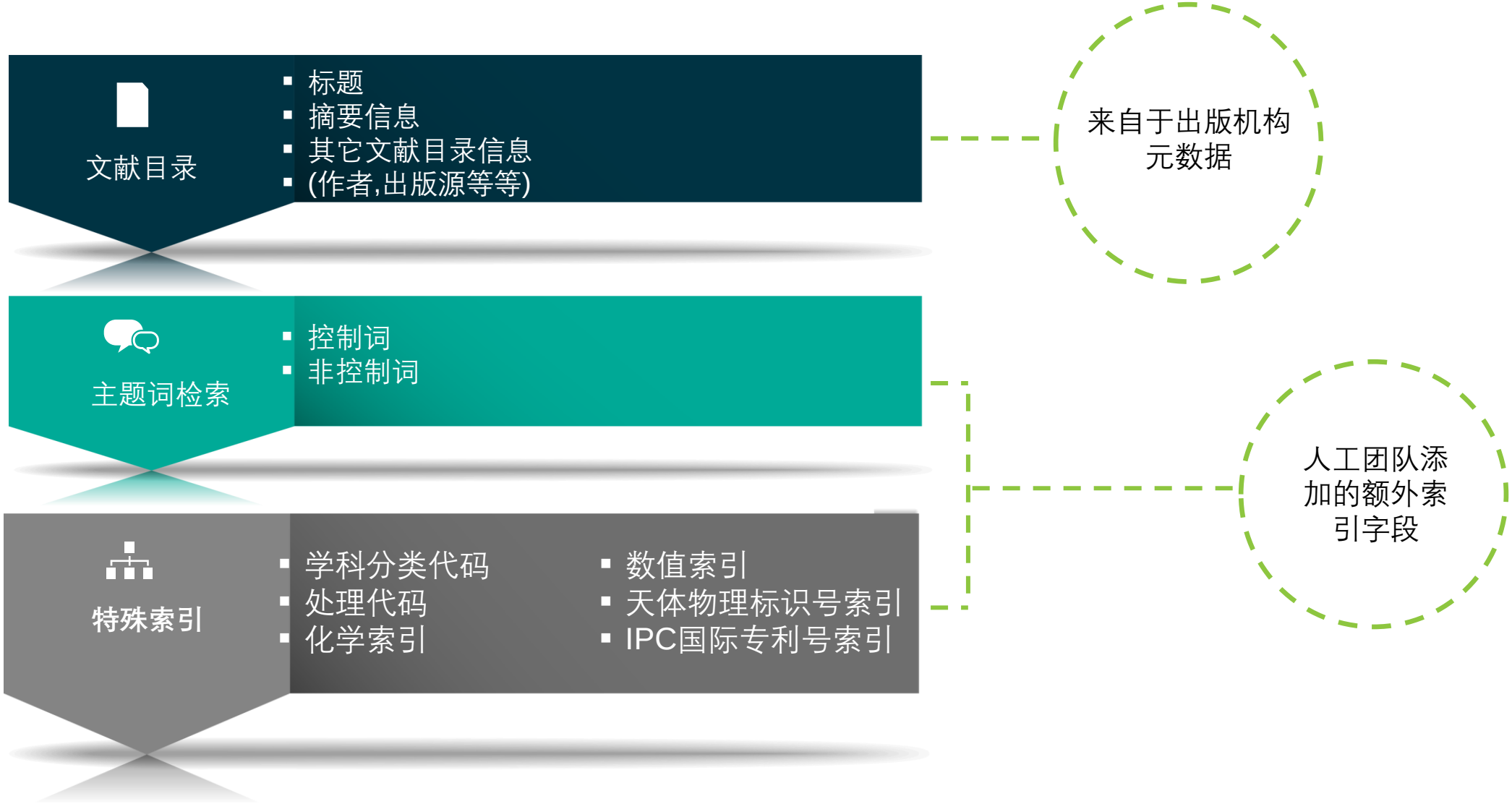
- 用来表明文章、论文或其他索引项目关键概念的额外术语
- 允许标引人员记录最重要的概念
- 没有授权的术语列表或固定格式
- 提供另一个有价值的检索项来帮助检索
- 用于那些新兴的，还未在正式叙词表中被创建定义的科学和技术研究领域，保证差全查准
- 每条记录可拥有多个非控词术语，从而更为广泛的被检索和发现

Identify Research Trends
确定科研趋势

课程签到码



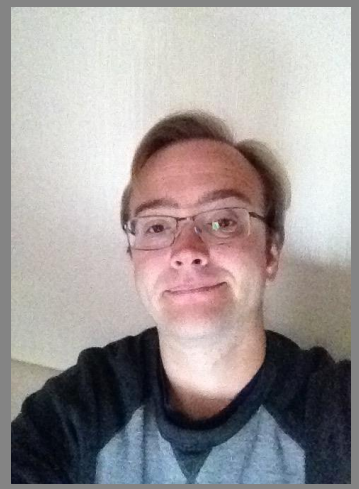
Inspec标引信息


文献目录
标题
摘要信息
其它文献目录信息
(作者,出版源等等)
主题词检索
控制词
非控制词
特殊索引
学科分类代码
处理代码
化学索引
数值索引
天体物理标识号索引
IPC国际专利号索引
来自于出版机构元数据
人工团队添加的额外索引字段

课程签到码

由科学家创建，为科学家服务

- 自然科学和
- 数十年探索
- 突出每一条
- 专家标引团
  - 遴选其
  - 赋予精
  - 评估内
  - 叙词表
  - 确定新兴的研究领域和科研趋势



Inspec数据专家：
Dr. Christopher Marker

- 物理学博士学位
- 超过20年的Inspec数据分析经验

内容进行收录

叙词表及分类代码
IPC国际专利号索引
化学索引
数值索引

Solid Electrolytes for Li-S Batteries: Solid Solutions of Poly(ethylene oxide) with Li_xPON- and Li_xSiPON-Based Polymers

By: Temeche, E.; Xinyu Zhang; Lain
View Web of Science ResearcherID

ACS Applied Materials & Interfaces
Volume: 12 **Issue:** 27 **Pages:** 30
DOI: 10.1021/acsami.0c06196
Published: 8 July 2020
Document Type: Journal Paper

Abstract

We report here efforts to synthesiz
dissolution of poly(ethylene oxide)
transparent, solid-solution films 25
ambient. These values are much hi
degC; (2) offer activation energies
mAh/cm^2. Galvanostatic cycling of
0.25C and 800 mAh/gsulfur at 1C w

Author Information

Author Address: Temeche, E.; Xiny

Publisher

American Chemical Society, USA

Categories / Classification

Research Areas: Energy & Fuels; Electrochemistry (provided by Clarivate Analytics)

International Patent Classification: B01F1/00 Dissolving; C25B11/00 Electrodes; Manufacture thereof not otherwise provided for; C25D17/10 Electrodes; H01M4/00 Electrodes; H01M10/00 Secondary cells; Manufacture thereof

Chemical Indexing: Li/el; Mn/el; Li-S/int Li/int S/int Li/el S/el

Classification Code(s): A8630F Secondary cells; A8245 Electrochemistry and electrophoresis; B8410E Secondary cells

Controlled Indexing: composite materials; current density; dendrites; dissolving; electrochemical electrodes; ionic conductivity; lithium; lithium compounds; polymer electrolytes; secondary cells; solid electrolytes; sulphur compounds

Uncontrolled Indexing: solid electrolytes; lithium-sulphur batteries; solid solutions; dry polymer electrolytes; superior ionic conductivities; polymer systems; solid-solution films; PEO crystallinity; solid-solution polymer electrolytes; poly(ethylene oxide); lithium anodes; galvanostatic cycling; coulumbic efficiency; temperature 100.0 degC; temperature 900.0 K; size 25.0 mum to 50.0 mum; electrical conductivity 3.0 S/cm to 10.0 S/cm; electron volt energy 0.2 eV to 0.5 eV; Li^+; Mn; Li-S

Document Information

Language: English

Accession Number: INSPEC:19785171

ISSN: 1944-8244

Number of References: 70

Other Information

Treatment: Practical, Experimental

Numerical Data Indexing: electrical conductivity 3.0E+02 to 1.0E+03 S/m; electron volt energy 2.0E-01 to 5.0E-01 eV; size 2.5E-05 to 5.0E-05 m; temperature 3.7315E+02 K; temperature 9.0E+02 K

Chemical index
化学索引

课程签到码

- Inspec于1987年引入
- 为无机化合物和材料物质相关研究所建立的控制索引
- 高效检索化学元素和化合物相关的文献
  - 可以检索与某一化学元素或化合物相关的所有文献
  - 可以检索某一化学元素作为简单物质、掺杂物（添加物）的相关文献
  - 可以检索某一化合物或合金的组成成分、界面物质的所有文献

化学物质的标注方法

化合物成分采用如下标注方法

- Element(/el) 单一元素
- Binary(/bin) 双元素
- System(/ss) 三个以上元素

材料特殊用途标注方法

- Dopant (/dop) 掺杂物（添加物）
- Interface (/int) 界面物质
- Surface/Substrate (/sur) 表面物质
- Adsorbate (/ads) 吸附物

标注方法

课程签到码

- Cobalt (element) 标注方式:

  Co/el （元素/el）

  Searched as: **CO-EL.CH.**

- Carbon monoxide (binary) 标注方式:

  CO/bin C/bin O/bin （二元系-恰好包含两种元素的化学物质）

  Searched as: **(C/BIN ADJ5 5 O/BIN).CH.**

- Vanadium oxide (binary) 标注方式:

  V2O3/bin V2/bin O3/bin V/bin O/bin （3种或更多成分的化学物质）

- Sulphuric acid (system) 标注方式:

  H2SO4/ss H2/ss SO4/ss H/ss S/ss O4/ss O/ss

  Searched as: **H2SO4-SS.CH.**

Numerical Indexing
数值索引

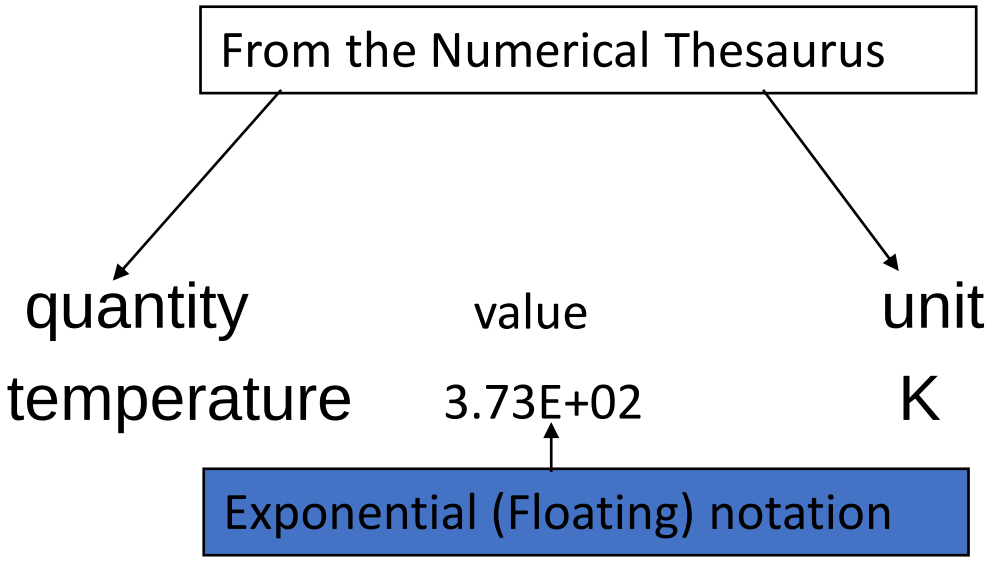
- Inspec于1987年引入
- 关于数值索引
  - 为文献中的涉及数值数据研究所建立的标准化索引
  - 检索某一物理性质的特定数值或范围（如Effciency 20%-30%）
  - 数值按科学记数法表示:
    - 1.8E+01 等于18000
    - 9.5E-01 等于0.95
  - 物理性质（最多47种）
    - 如：频率、温度、功率、长度等
  - 单位应用SI标准单位
    - 如：赫兹、卡、瓦特、米等

课程签到码

数值索引格式

(a) Exact value

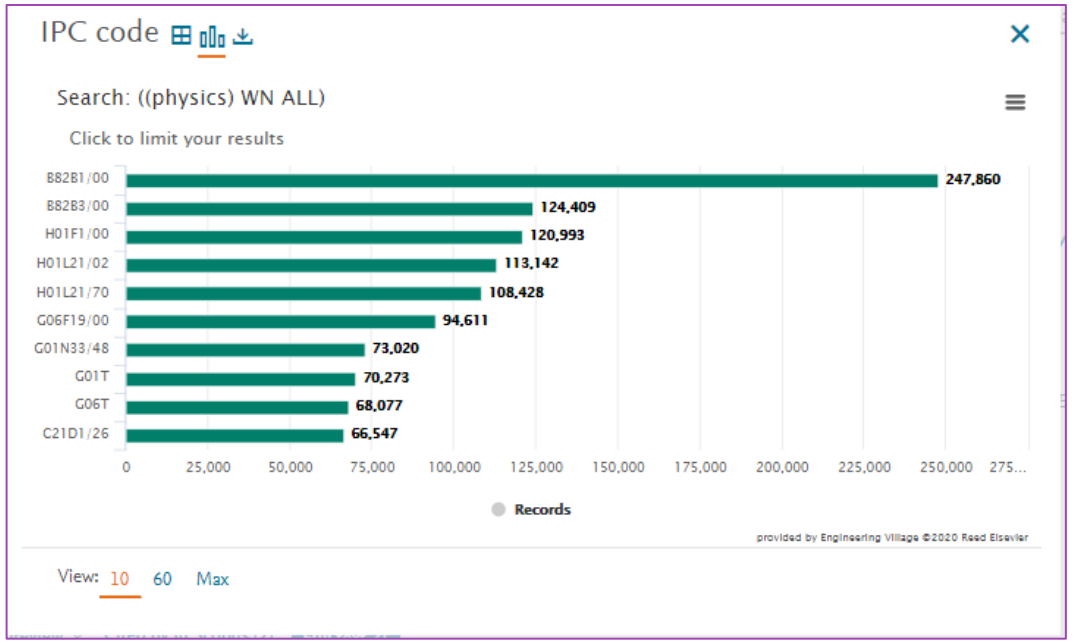
Search example: temperature of 100 ºC



天体物理识别号索引

- International Astronomical Union国际天文学联合会提供命名指南
- 基于名称的首字母缩写及其后列出的编目流水号、位置信息等
- 如： SN1006

国际专利号（IPC）检索



Treatment Codes
处理代码

- Applications 应用
- Bibliography 参考文献
- Economic 经济
- Experimental 实验
- General or review 概述或评论
- New developments 新进展，专利角度
- Practical 实用型
- Product Review 产品评论
- Theoretical or Mathematical 理论或数理

Inspec被广泛认可的价值，除了大学之外的用户

- 专利审核： 美国国家专利局，英国，澳洲， 中国国家专利局，荷兰国家专利局，挪威，西班牙，瑞典。丹麦，瑞士，瑞典，葡萄牙，芬兰..

- 制造公司：Simmens ， Sony， NTT，霍尼韦尔，ABB， Emerson，Boeing
- 医疗设备生厂商： 罗氏
- 汽车制造业： 大众， 沃尔沃
- 光学和检测公司： 卡蔡，佳能
- 能源公司：埃克森美孚
- 光刻机： 阿斯麦
- 芯片公司： Intel
- 互联网公司： Facebook，IBM，MS
- 国家机构：法国科技信息研究所，俄罗斯教育部。
- 欧洲宇航防务集团下属Astrium，日本宇航局，美国航天局， CIA，日本国防部，日本航天局

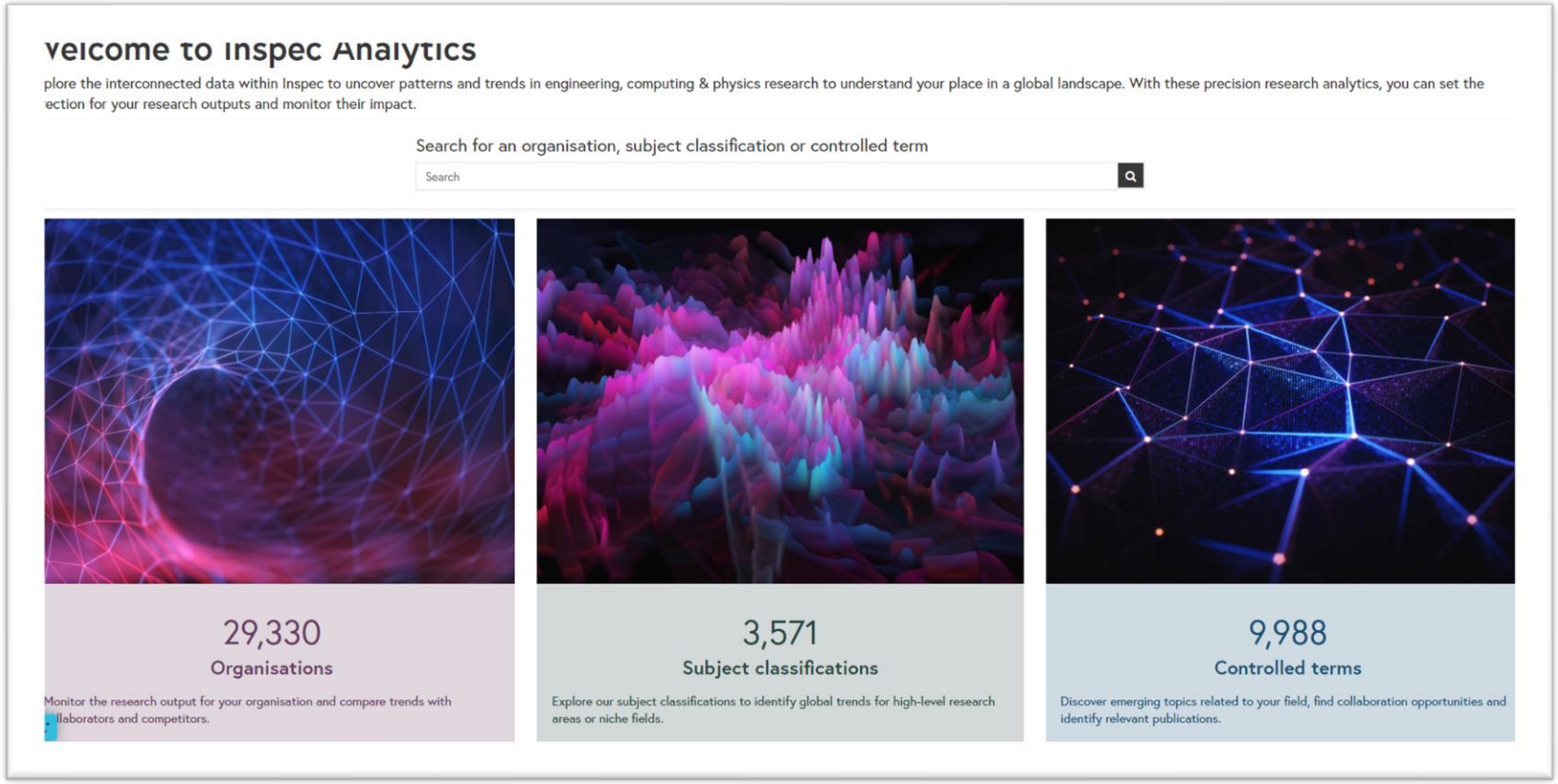
课程签到码

使用场景

- 通过inspec独有的控制词和非控制词准确检索所需科研资料
- 超过3500个学科分类可以保证追踪最详细的相关信息
- 通过inspec的独有IPC分类号，检索最新专利相关的成果和论文，以及潜在竞争
- 独有数值检索，化学检索，天体物理标识可以保证一步到位发现最相关信息
- 通过分析Inspec独有的底层数据，利用自己的系统和第三方产品进行可视化分析

INSPEC Analytics

https://inspec-analytics-app.theiet.org



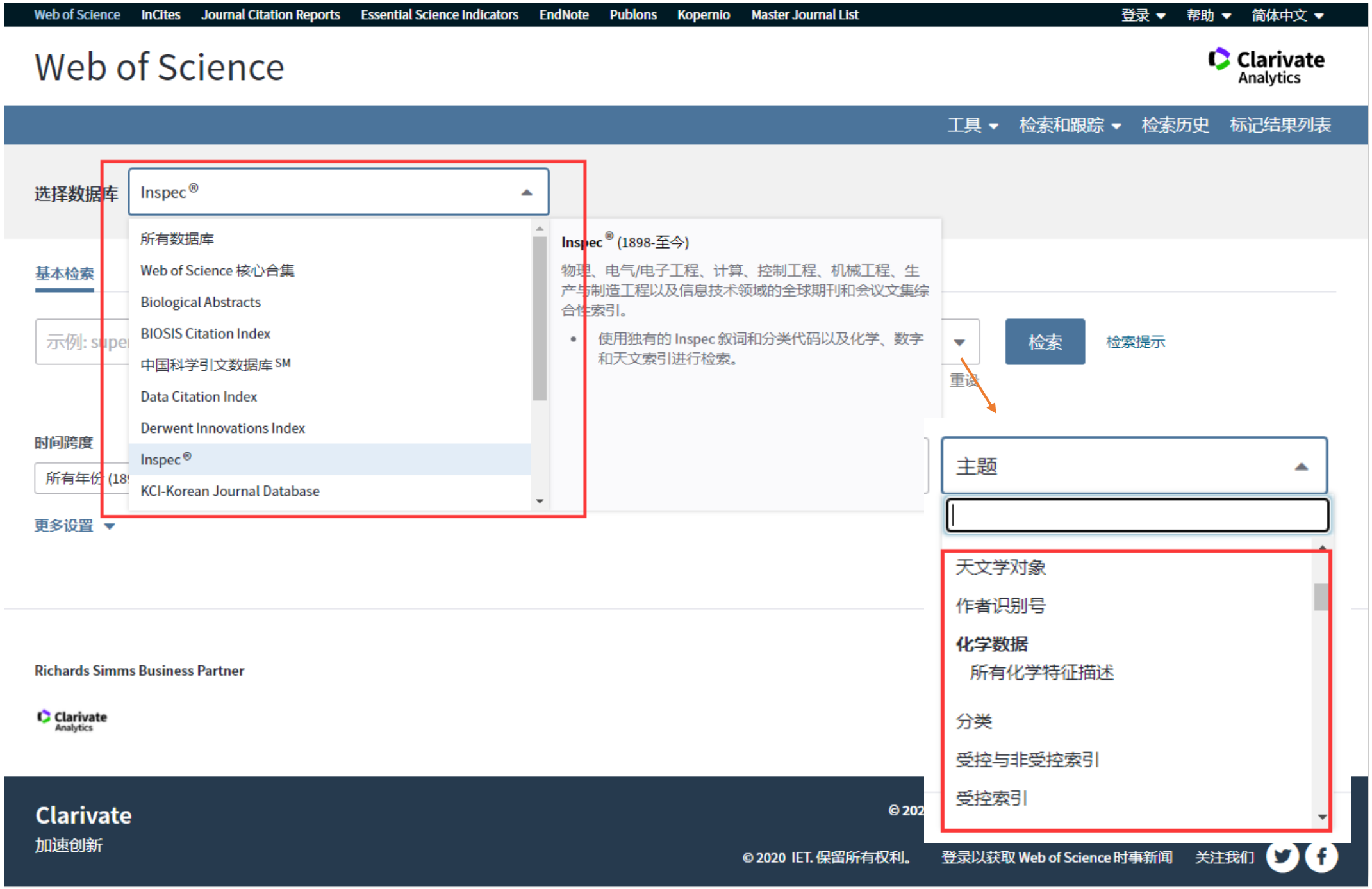
- 2107个机构来自中国
- 发文量前十名机构中，有7个来自中国的机构

发文总量及全球排名、发文量6年内变化情况、机构间合作信息、所有发文中包含控制词排名

- Organisations
- Controlled terms
- Subject classifications

Inspec Classification Counts

#	Subject classification	Articles				Co-occurring controlled terms	Co-occurring subject classifications	Organisations	Journals	Conferences
		Count	% Change 2013-2019	Times cited	Avg times cited					
1	A8000 - Cross-disciplinary physics and related areas of science and technology	1427342	14.37% ▲	4774863	3.35	8962	3264	19737	4678	11930
2	B6000 - Communications	956854	29.35% ▲	1041784	1.09	8267	2768	15277	4328	15229
3	C1000 - Systems and control theory	861434	47.31% ▲	1270999	1.48	8071	2747	15084	4798	15808
4	A6000 - Condensed matter: structure, thermal and mechanical properties	822212	1.95% ▲	3092412	3.76	7098	2888	12497	3005	2644
5	B0000 - General topics, engineering mathematics and materials science	818793	20.31% ▲	1339512	1.64	8948	3126	15073	4737	14855
6	E1000 - Manufacturing and production	776423	48.79% ▲	1683729	2.17	7889	2641	16019	4677	9232
7	C7000 - Computer applications	767773	50.77% ▲	898604	1.17	8575	3065	18870	5076	16234
8	C6000 - Computer software	746475	62.49% ▲	870516	1.17	7714	2753	15773	4476	16099
9	C6100 - Software techniques and systems	746475	62.49% ▲	870516	1.17	7714	2753	15773	4476	16099
10	B6100 - Information and communication theory	734053	37.65% ▲	841364	1.15	7970	2673	14097	4000	14445
11	A0000 - General	701115	49.61% ▲	2129815	3.04	9179	3428	15297	4681	10921
12	C5000 - Computer hardware	699789	57.47% ▲	846327	1.21	8318	2833	14581	4395	15537
13	C1100 - Mathematical techniques	695476	61.67% ▲	997193	1.43	7901	2693	14394	4672	15505
14	E0000 - General topics in manufacturing and production engineering	673489	55.66% ▲	1302277	1.93	7548	2469	16352	4929	10595
15	A8100 - Materials science	659105	-1.63% ▼	2485676	3.77	6817	2738	11775	2841	2617


Web of Science InCites Journal Citation Reports Essential Science Indicators EndNote Publons Kopernio Master Journal List
登录 帮助 简体中文
Web of Science
Clarivate Analytics
工具 检索和跟踪 检索历史 标记结果列表
选择数据库
Inspec®
所有数据库
Web of Science 核心合集
Biological Abstracts
BIOSIS Citation Index
中国科学引文数据库 SM
Data Citation Index
Derwent Innovations Index
Inspec®
KCI-Korean Journal Database
Inspec® (1898-至今)
物理、电气/电子工程、计算、控制工程、机械工程、生产与制造工程以及信息技术领域的全球期刊和会议文集综合性索引。
使用独有的 Inspec 叙词和分类代码以及化学、数字和天文索引进行检索。
基本检索
检索
检索提示
重设
时间跨度
所有年份
更多设置
主题
天文学对象
作者识别号
化学数据
所有化学特征描述
分类
受控与非受控索引
受控索引
Richards Simms Business Partner
Clarivate Analytics
Clarivate
加速创新
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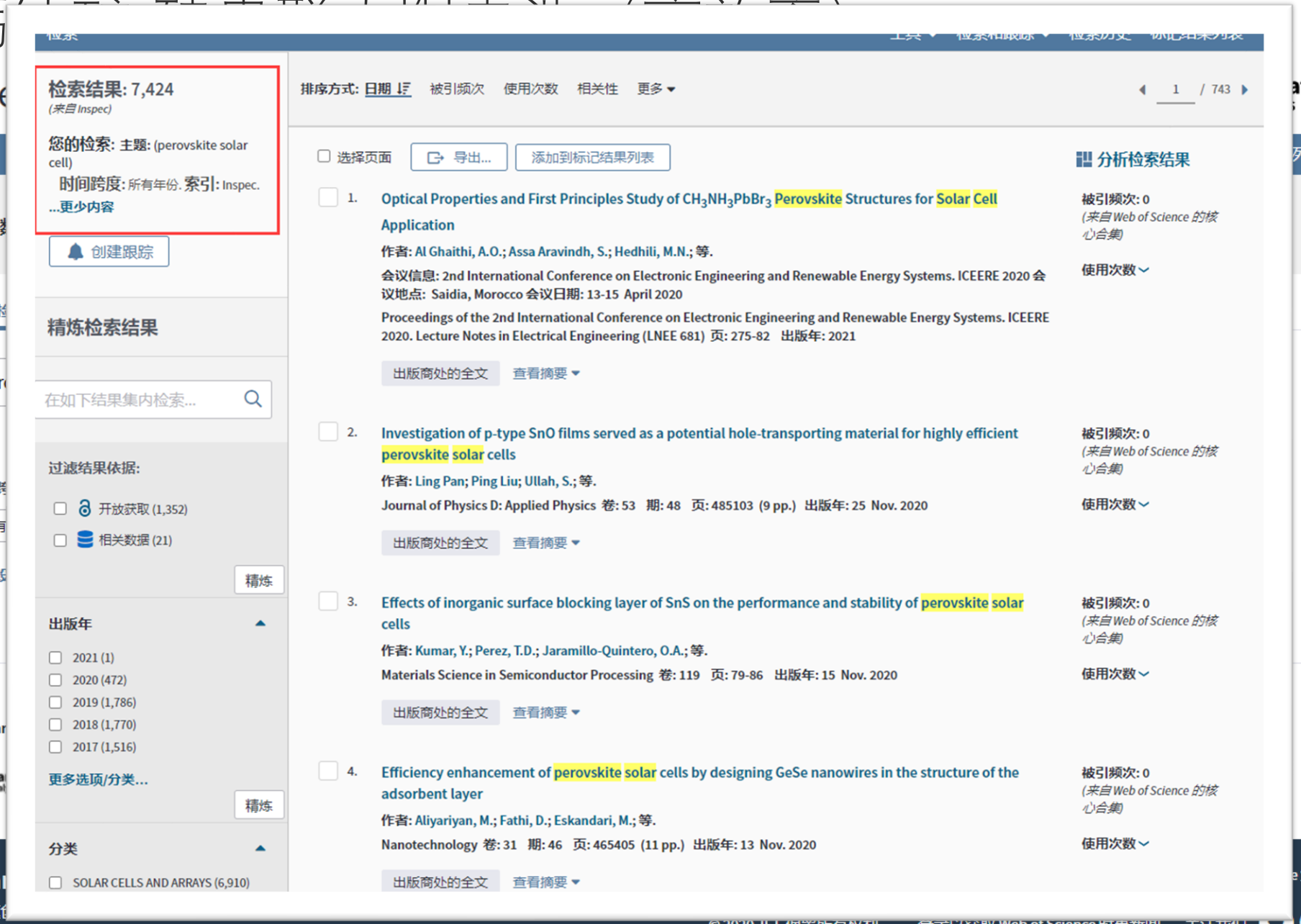
钙



检索结果: 7,424
(来自 Inspec)

您的检索: 主题: (perovskite solar cell)
时间跨度: 所有年份. 索引: Inspec.
...更少内容

创建跟踪

精炼检索结果

在如下结果集内检索...

过滤结果依据:

开放获取 (1,352)
相关数据 (21)

精炼

出版年

2021 (1)
2020 (472)
2019 (1,786)
2018 (1,770)
2017 (1,516)

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分类

SOLAR CELLS AND ARRAYS (6,910)

排序方式: 日期 被引频次 使用次数 相关性 更多

1 / 743

选择页面 导出... 添加到标记结果列表

分析检索结果

1. Optical Properties and First Principles Study of $CH_3NH_3PbBr_3$ Perovskite Structures for Solar Cell Application

作者: Al Ghaithi, A.O.; Assa Aravindh, S.; Hedhili, M.N.; 等.

会议信息: 2nd International Conference on Electronic Engineering and Renewable Energy Systems. ICEERE 2020 会议地点: Saidia, Morocco 会议日期: 13-15 April 2020

Proceedings of the 2nd International Conference on Electronic Engineering and Renewable Energy Systems. ICEERE 2020. Lecture Notes in Electrical Engineering (LNEE 681) 页: 275-82 出版年: 2021

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2. Investigation of p-type SnO films served as a potential hole-transporting material for highly efficient perovskite solar cells

作者: Ling Pan; Ping Liu; Ullah, S.; 等.

Journal of Physics D: Applied Physics 卷: 53 期: 48 页: 485103 (9 pp.) 出版年: 25 Nov. 2020

出版商处的全文 查看摘要

被引频次: 0
(来自 Web of Science 的核心合集)

使用次数

3. Effects of inorganic surface blocking layer of SnS on the performance and stability of perovskite solar cells

作者: Kumar, Y.; Perez, T.D.; Jaramillo-Quintero, O.A.; 等.

Materials Science in Semiconductor Processing 卷: 119 页: 79-86 出版年: 15 Nov. 2020

出版商处的全文 查看摘要

被引频次: 0
(来自 Web of Science 的核心合集)

使用次数

4. Efficiency enhancement of perovskite solar cells by designing GeSe nanowires in the structure of the adsorbent layer

作者: Aliyariyan, M.; Fathi, D.; Eskandari, M.; 等.

Nanotechnology 卷: 31 期: 46 页: 465405 (11 pp.) 出版年: 13 Nov. 2020

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solar cells 查找

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添加	H S	A8630J	Photoelectric conversion; solar cells and arrays
添加	H S	B2560	Semiconductor devices
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elemental semiconductor 查找

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添加	H T	elemental semiconductors
添加	H T	microfabrication
添加	H T	semiconductor materials

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[1]

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elemental semiconductors

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分析检索结果

1. Device Simulation of Organic-Inorganic Halide Perovskite/Crystalline Silicon Four-Terminal Tandem Solar Cell With Various Antireflection Materials
作者: Peng Zhao; Man Yue; Chen Lei; 等.
IEEE Journal of Photovoltaics 卷: 8 期: 6 页: 1685-91 出版年: Nov. 2018
出版商处的全文 查看摘要
被引频次: 7 (来自 Web of Science 的核心合集)
使用次数

2. Large area efficient interface layer free monolithic perovskite/homo-junction-silicon tandem solar cell with over 20% efficiency
作者: Jianghui Zheng; Lau, C.F.J.; Mehrvarz, H.; 等.
Energy & Environmental Science 卷: 11 期: 9 页: 2432-43 出版年: 1 Sept. 2018
出版商处的免费全文 查看摘要
被引频次: 48 (来自 Web of Science 的核心合集)
使用次数

3. Strategies for high performance perovskite/crystalline silicon four-terminal tandem solar cells
作者: Ren, Z.; Jixiang Zhou; Yaokang Zhang; 等.
Solar Energy Materials & Solar Cells 卷: 179 页: 36-44 出版年: 1 June 2018
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被引频次: 8 (来自 Web of Science 的核心合集)
使用次数

4. Nanophotonic design of perovskite/silicon tandem solar cells
作者: Hossain, M.I.; Qarony, W.; Jovanov, V.; 等.
Journal of Materials Chemistry A 卷: 6 期: 8 页: 3625-33 出版年: 28 Feb. 2018
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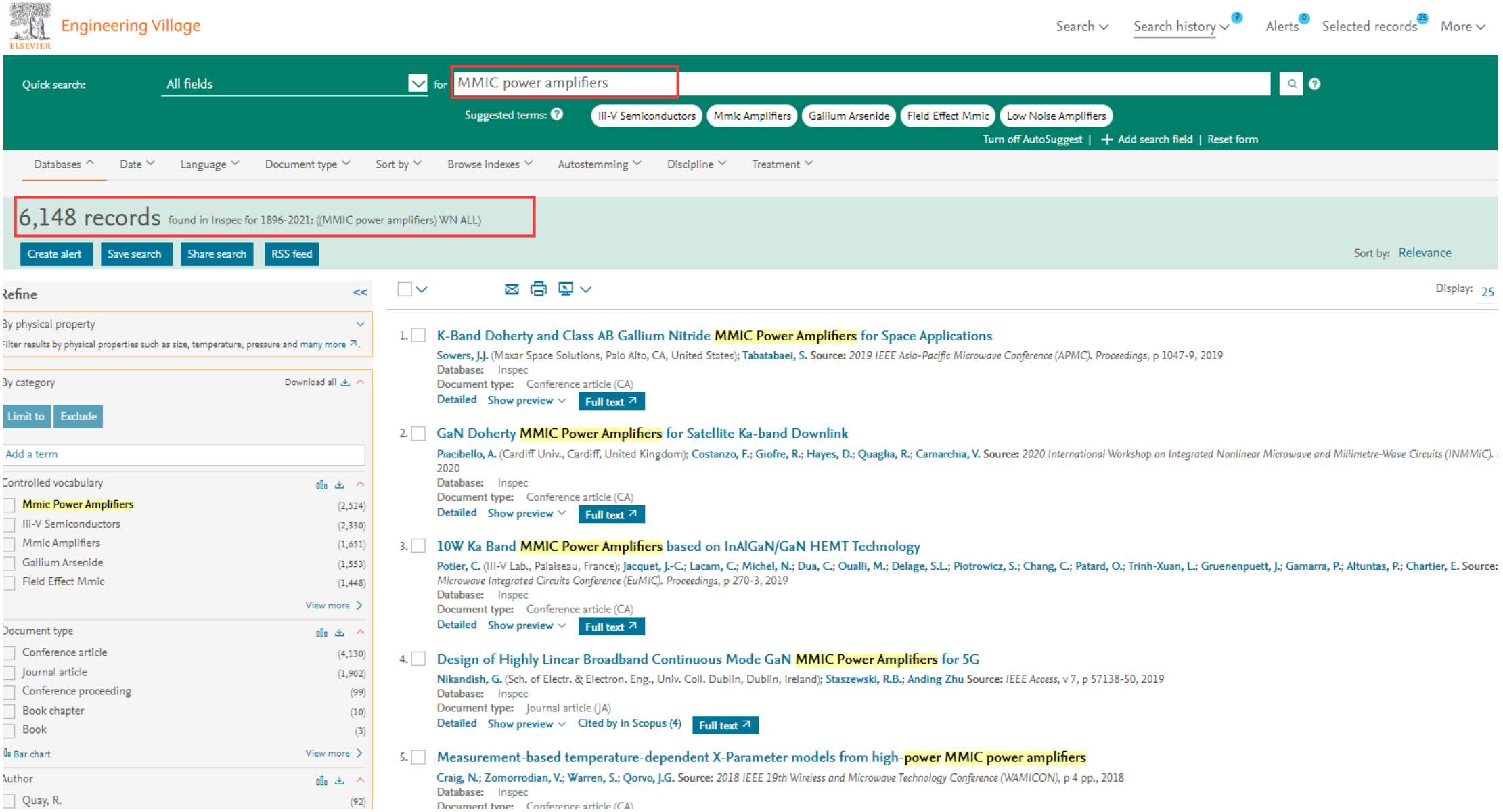

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Quick search: All fields for MMIC power amplifiers

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Controlled vocabulary

- Mmic Power Amplifiers (2,524)
- IIi-V Semiconductors (2,330)
- Mmic Amplifiers (1,651)
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- Field Effect Mmic (1,448)

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Document type

- Conference article (4,130)
- Journal article (1,902)
- Conference proceeding (99)
- Book chapter (10)
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Displ

1. **K-Band Doherty and Class AB Gallium Nitride MMIC Power Amplifiers for Space Applications**
   Sowers, J.J. (Maxar Space Solutions, Palo Alto, CA, United States); Tabatabaei, S. **Source:** *2019 IEEE Asia-Pacific Microwave Conference (APMC). Proceedings*, p 1047-9, 2019
   Database: Inspec
   Document type: Conference article (CA)
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2. **GaN Doherty MMIC Power Amplifiers for Satellite Ka-band Downlink**
   Piacibello, A. (Cardiff Univ., Cardiff, United Kingdom); Costanzo, F.; Giofre, R.; Hayes, D.; Quaglia, R.; Camarchia, V. **Source:** *2020 International Workshop on Integrated Nonlinear Microwave and Millimetre-Wave Circuits (IN* 2020
   Database: Inspec
   Document type: Conference article (CA)
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3. **10W Ka Band MMIC Power Amplifiers based on InAlGaN/GaN HEMT Technology**
   Potier, C. (III-V Lab., Palaiseau, France); Jacquet, J.-C.; Lacam, C.; Michel, N.; Dua, C.; Oualli, M.; Delage, S.L.; Piotrowicz, S.; Chang, C.; Patard, O.; Trinh-Xuan, L.; Gruenenpuett, J.; Gamarra, P.; Altuntas, P.; Chartier, E. *Microwave Integrated Circuits Conference (EuMIC). Proceedings*, p 270-3, 2019
   Database: Inspec
   Document type: Conference article (CA)
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4. **Design of Highly Linear Broadband Continuous Mode GaN MMIC Power Amplifiers for 5G**
   Nikandish, G. (Sch. of Electr. & Electron. Eng., Univ. Coll. Dublin, Dublin, Ireland); Staszewski, R.B.; Anding Zhu **Source:** *IEEE Access*, v 7, p 57138-50, 2019
   Database: Inspec
   Document type: Journal article (JA)
   Detailed | Show preview | Cited by in Scopus (4) | Full text

5. **Measurement-based temperature-dependent X-Parameter models from high-power MMIC power amplifiers**
   Craig, N.; Zomorrodian, V.; Warren, S.; Qorvo, J.G. **Source:** *2018 IEEE 19th Wireless and Microwave Technology Conference (WAMICON)*, p 4 pp., 2018

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Expert search: (((((MMIC power amplifiers) WN ALL) AND ((B1350H) WN CL))) AND (((NU_FREQUENCY GTE 2.65E+10 Hz) AND (NU_FREQUENCY LTE 4E+10 Hz))))

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781 records found in Inspec for 1896-2021: (((MMIC power amplifiers) WN ALL) AND ((B1350H) WN CL)) + ((NU_FREQUENCY GTE 2.65E+10 Hz) AND (NU_FREQUENCY LTE 4E+10 Hz))

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Controlled vocabulary

- Mmic Power Amplifiers (388)
- Iii-V Semiconductors (317)
- Hemt Integrated Circuits (231)
- Field Effect Mmic (216)
- Mmic Amplifiers (210)

Display: 25

1. 10W Ka Band MMIC Power Amplifiers based on InAlGaN/GaN HEMT Technology

Potier, C. (III-V Lab., Palaiseau, France); Jacquet, J.-C.; Lacam, C.; Michel, N.; Dua, C.; Oualli, M.; Delage, S.L.; Piotrowicz, S.; Chang, C.; Patard, O.; Trinh-Xuan, L.; Gruenenpuett, J.; Gamarra, P.; Altuntas, P.; Chartier, E. Source: *Microwave Integrated Circuits Conference (EuMIC). Proceedings*, p 270-3, 2019

Database: Inspec

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2. 40 W Ka-Band Single and Dual Output GaN MMIC Power Amplifiers on SiC

Roberg, M. (Infrastruct. & Defense Products, Qorvo, Inc., Richardson, TX, United States); Thi Ri Mya Kywe; Irvine, M.; Marrufo, O.; Nayak, S. Source: *2018 IEEE BiCMOS and Compound Semiconductor Integrated Circuits and Technol (BCICTS)*, p 140-3, 2018

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3. First results on Ka band MMIC power amplifiers based on InAlGaN/GaN HEMT technology

Potier, C. (III-V Lab., Palaiseau, France); Piotrowicz, S.; Patard, O.; Gamarra, P.; Altuntas, P.; Chartier, E.; Dua, C.; Jacquet, J.C.; Lacam, C.; Michel, N.; Oualli, M.; Delage, S.L.; Chang, C.; Gruenenpuett, J. Source: *2018 Internationa*

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- Conference article (89)
- Journal article (19)

Author

- Quay, R. (23)
- Ambacher, O. (12)
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- Shiyong, Zhang (11)

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1. **10W Ka Band MMIC Power Amplifiers based on InAlGaN/GaN HEMT Technology**
   Potier, C. (III-V Lab., Palaiseau, France); Jacquet, J.-C.; Lacam, C.; Michel, N.; Dua, C.; Oualli, M.; Delage, S.L.; Piotrowicz, S.; Chang, C.; Patard, O.; Trinh-Xuan, L.; Gruenenpuett, J.; Gamarra, P.; Altuntas, P.; Chartier, E. **Source:** *Microwave Integrated Circuits Conference (EuMIC). Proceedings*, p 270-3, 2019
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2. **40 W Ka-Band Single and Dual Output GaN MMIC Power Amplifiers on SiC**
   Roberg, M. (Infrastruct. & Defense Products, Qorvo, Inc., Richardson, TX, United States); Thi Ri Mya Kywe; Irvine, M.; Marrufo, O.; Nayak, S. **Source:** *2018 IEEE BiCMOS and Compound Semiconductor Integrated Circuits and Techno (BCICTS)*, p 140-3, 2018
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3. **First results on Ka band MMIC power amplifiers based on InAlGaN/GaN HEMT technology**
   Potier, C. (III-V Lab., Palaiseau, France); Piotrowicz, S.; Patard, O.; Gamarra, P.; Altuntas, P.; Chartier, E.; Dua, C.; Jacquet, J.C.; Lacam, C.; Michel, N.; Oualli, M.; Delage, S.L.; Chang, C.; Gruenenpuett, J. **Source:** *2018 Internation Integrated Nonlinear Microwave and Millimetre-wave Circuits (INMMIC). Proceedings*, p 3 pp., 2018
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   Document type: Conference article (CA)
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4. **Q-Band MMIC High Power Amplifiers for High Throughput Satellites in GaN-on-Si Technology**
   Giofre, R. (Electron. Eng. Dept., Univ. of Rome Tor Vergata, Rome, Italy); Costanzo, F.; Limiti, E. **Source:** *2019 IEEE Asia-Pacific Microwave Conference (APMC). Proceedings*, p 1044-6, 2019
   Database: Inspec
   Document type: Conference article (CA)
   Detailed | Show preview | Full text

5. **Highly Efficient Ka-band (33 GHz - 36 GHz) GaN MMIC Power Amplifier with >58.5% PAE**
   Micovic, M. (HRL Labs. LLC, Malibu, CA, United States); Regan, D.; Wong, J.; Tai, J.; Sharifi, H. **Source:** *2019 IEEE BiCMOS and Compound semiconductor Integrated Circuits and Technology Symposium (BCICTS)*, p 3 pp., 2019
   Database: Inspec
   Document type: Conference article (CA)
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10W Ka Band MMIC Power Amplifiers based on InAlGaN/GaN HEMT Technology

Accession number: 19174010

Authors: Potier, C. [1] ✉; Jacquet, J.-C. [1]; Lacam, C. [1]; Michel, N. [1]; Dua, C. [1]; Oualli, M. [1]; Delage, S.L. [1]; Piotrowicz, S. [1]; Chang, C. [2]; Patard, O. [1]; Trinh-Xuan, L. [3]; Gruenenpuett, J. [3]; Gamarra, P. [1]; Altuntas, P. [1]; Chartier, E. [1]

Author affiliations : [1] III-V Lab., Palaiseau, France
[2] UMS S.A.S., Villebon-sur-Yvette, France
[3] UMS Gmbh, Ulm, Germany

Source: 2019 14th European Microwave Integrated Circuits Conference (EuMIC). Proceedings

Publication date: 2019

Pages: 270-3

Language: English

ISBN-13: 978-2-87487-056-9

Document type: Conference article (CA)

Conference name: 2019 14th European Microwave Integrated Circuits Conference (EuMIC)

Conference date: 30 Sept.-1 Oct. 2019

Conference location: Paris, France

Publisher: IEEE

Place of publication: Piscataway, NJ, USA

Material Identity Number: YXB9-1902-806

Abstract: This paper presents the measurement results of a **MMIC power amplifiers** (PA), based on InAlGaN/GaN HEMT technology, for Ka band applications. The three-stages **MMIC** is operating within a bandwidth of [25-31] GHz and demonstrate over this bandwidth a saturated output **power** of 40 dBm. Each stage uses 8 x 50mum gate width HEMTs fabricated with a 0.15 mum gate length on 70 mum thick SiC substrate.

Inspec controlled terms: gallium compounds - HEMT integrated circuits - III-V semiconductors - indium compounds - MMIC power amplifiers - silicon compounds - wide band gap semiconductors

Uncontrolled terms: Ka-band MMIC power amplifiers - saturated output power - HEMT technology - size 70.0 mum - size 15 mum - power 10 W - frequency 25 GHz to 31 GHz - InAlGaN-GaN - SiC

Inspec classification codes: B1350H Microwave integrated circuits - B2570H Other field effect integrated circuits - B1220 Amplifiers

Numerical data indexing: size 7.0E-05 m;size 1.5E-05 m;power 1.0E+01 W;frequency 2.5E+10 3.1E+10 Hz

Chemical indexing: InAlGaN-GaN/int InAlGaN/int GaN/int Al/int Ga/int In/int N/int InAlGaN/ss Al/ss Ga/ss In/ss N/ss GaN/bin Ga/bin N/bin;SiC/sur Si/sur C/sur SiC/bin Si/bin C/bin

Treatment: Practical (PRA)

Discipline: Electrical/Electronic engineering (B)

DOI: 10.23919/EuMIC.2019.8909443

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