

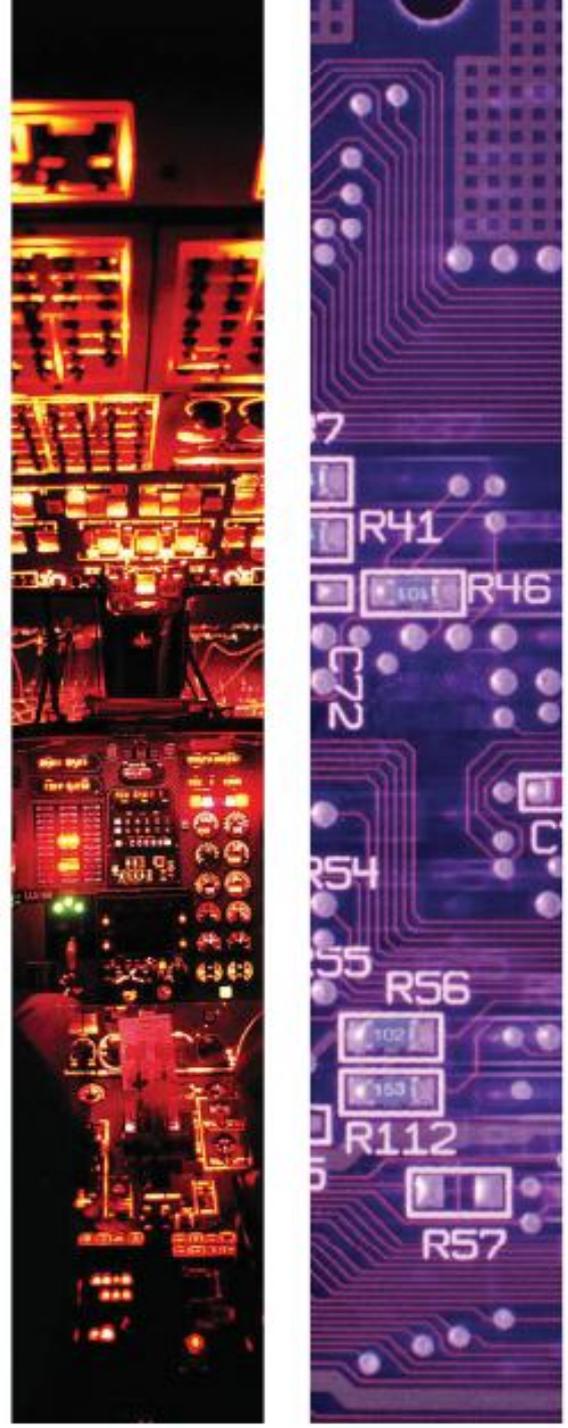
# IET(IEE)学术出版新进展

2012年5月16日

和剑伟

IET(IEE)英国工程技术学会

[www.theiet.org/inspec](http://www.theiet.org/inspec)



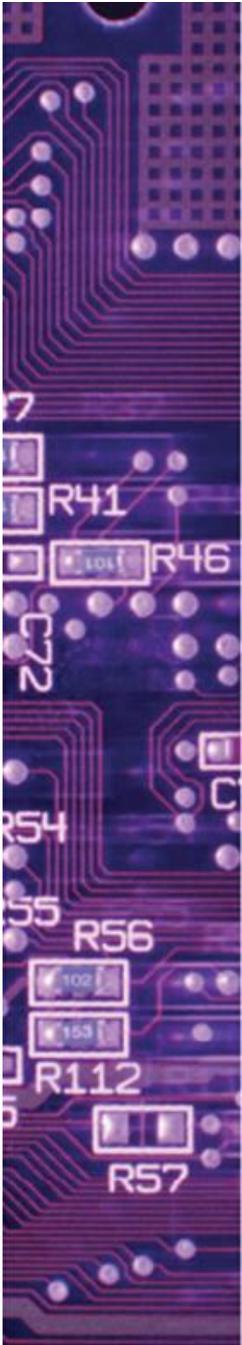
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# 内容概述

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在此次交流中，您将会了解到：

- IET 简介
  - IET电子书简介
  - Inspec简介
- 



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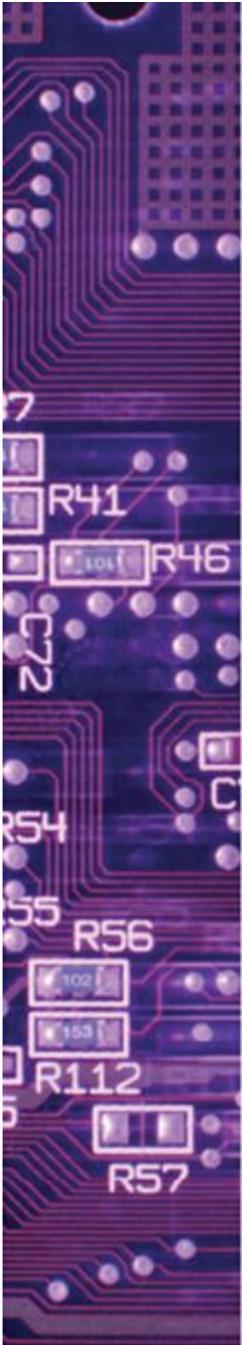
# IET简介

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IET (IEE):英国工程技术学会，1871年由法拉第在英国成立，全球范围内15万会员，是专业领域内欧洲最大的学会组织。

## IET提供：

- 出版及信息服务
- 会员服务
- 本地分会服务
- 会议服务



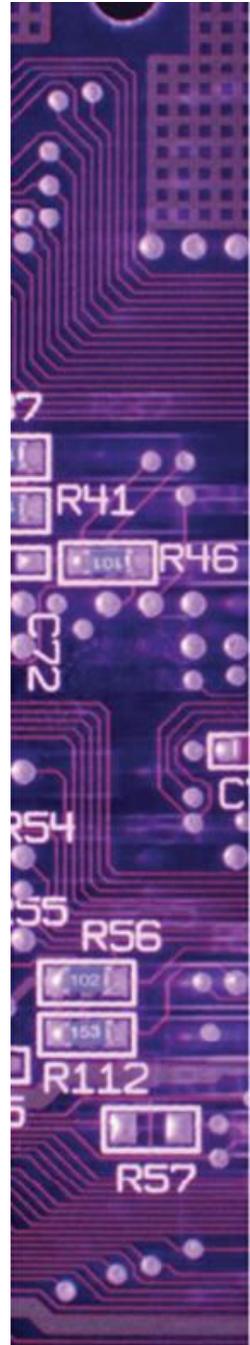
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# IET电子书简介

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2011年，IET将其出版的广受专业领域赞誉的图书全部电子化。电子图书涵盖12个专业系列，覆盖工程技术关键领域，工程专业人员可以获得超过310多种图书。这些技术和研究学术专著为工程技术人员提供了工程科技领域新兴课题的新视角和新发展。

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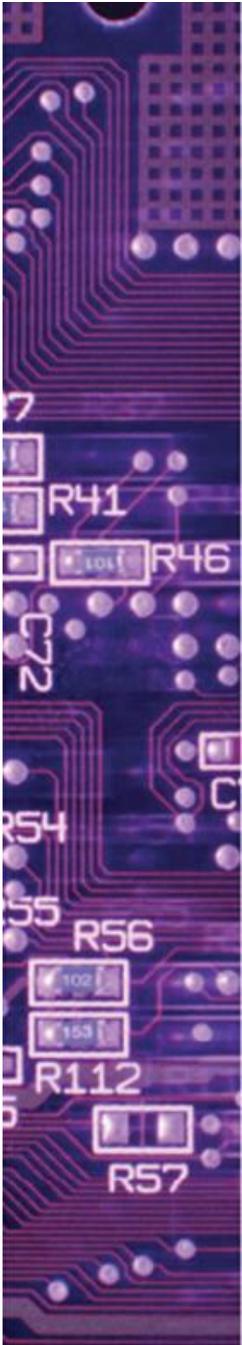
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# IET电子书简介

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## IET电子书特色

- 超过310本图书，并以每年20余册的速度增加
- 书籍名，章节，及全文均可被检索
- 一次购买，永久使用
- 提供RSS服务以及引文下载等服务
- 无数字版权加密保护(DRM Free)
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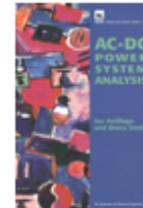
# IET电子书简介

12个系列:

Circuits, Devices and Systems  
Control Engineering  
Electrical Technology  
Electromagnetic Waves  
History of Technology  
Manufacturing  
Management of Technology  
Power and Energy  
Professional Applications of  
Computing  
Radar, Sonar, Navigation and Avionics  
Renewable Energy  
Telecommunications

## Browse by Title

### A



**AC-DC Power System Analysis**  
Author(s): Jos Arillaga, Bruce Smith  
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Pages: 408  
eISBN: 9781849194396  
Print ISBN13: 9780852969342  
Book ID: PO027E



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Editor(s): Osman Tokhi, Sandor Veres  
Published: 2002  
Pages: 448  
eISBN: 9781849191845  
Print ISBN13: 9780852960387  
Book ID: CE062E



**Adaptive Array Principles**  
Author(s): J. E. Hudson  
Published: 1981  
Pages: 268  
eISBN: 9781849193740  
Print ISBN13: 9780863412479  
Book ID: EW011E



**Adaptive Prediction and Predictive Control**  
Author(s): P. P. Kanjilal  
Published: 1995  
Pages: 536  
eISBN: 9781849193481  
Print ISBN13: 9780863411939  
Book ID: CE052E

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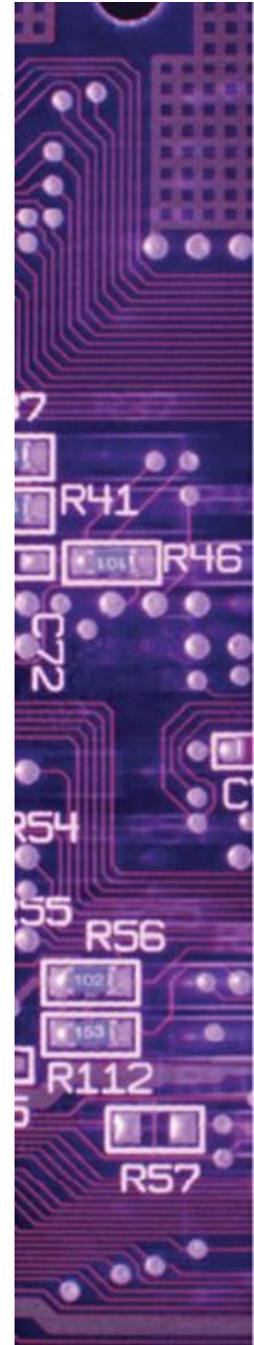
# Inspec简介

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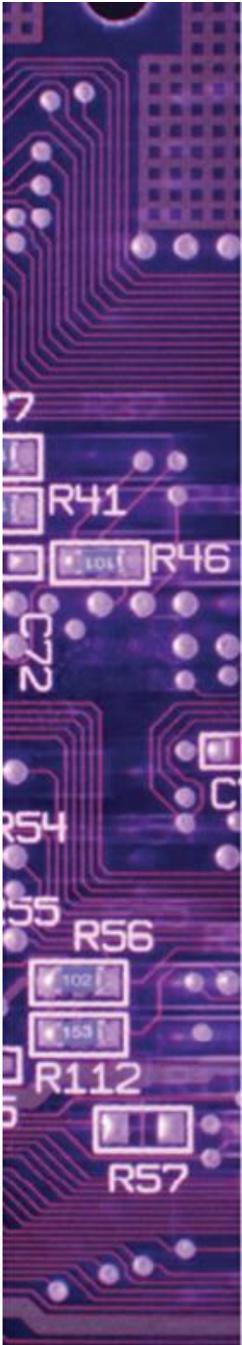
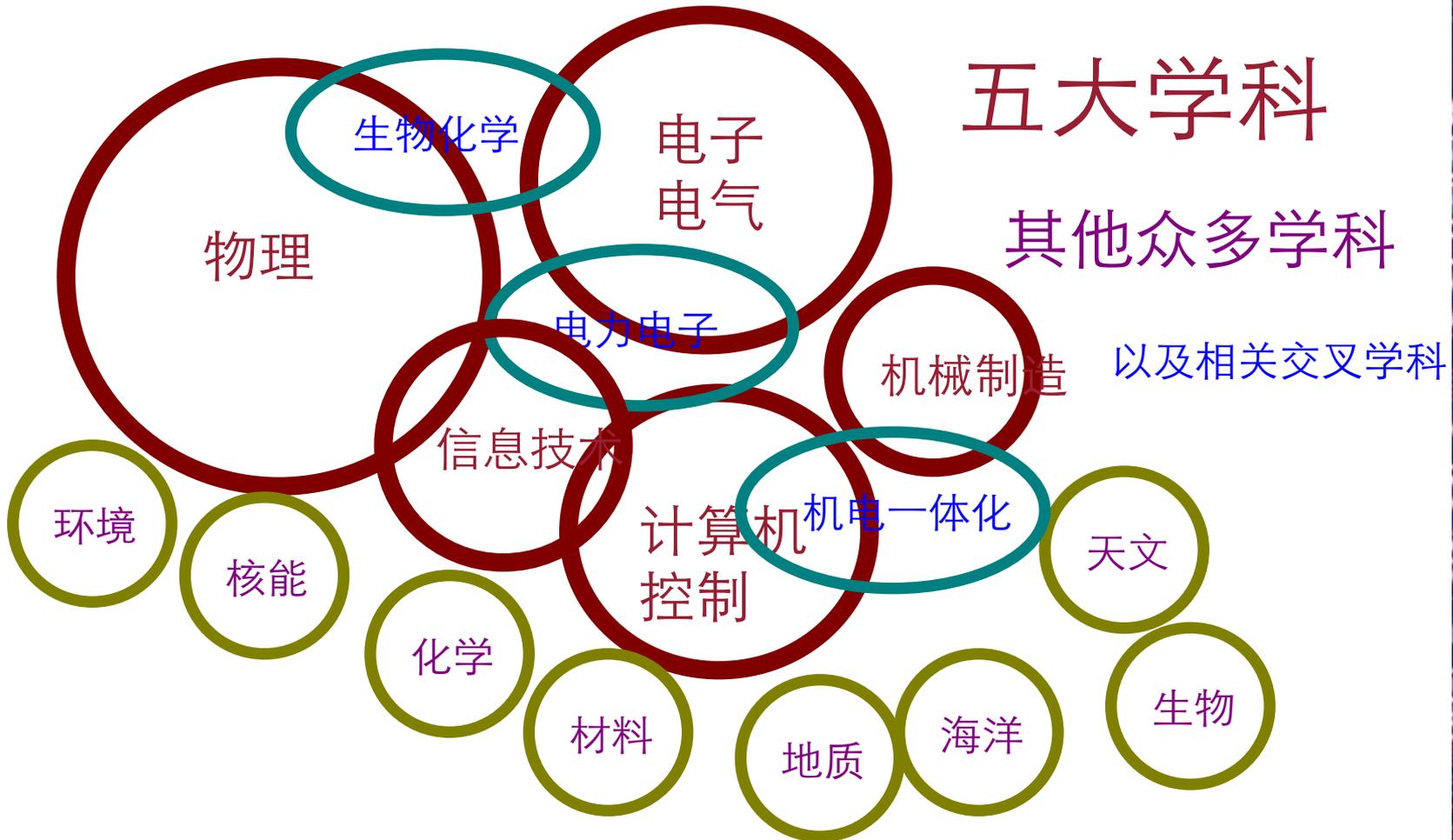
## 什么是Inspec?

Inspec是理工学科领域的权威数据库之一，前身科学文摘（Science Abstract）始于1898年，由IET（前IEE）出版。专业面覆盖物理、电子与电气工程、计算机与控制工程、信息技术、生产和制造工程等领域，并覆盖材料科学，海洋学，核工程，天文地理、生物医学工程、生物物理学等领域的内容。读者可访问自1969年以来的1200万条数据。

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# Inspec覆盖范围



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# Inspec简介

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## 广度:

1200万条文献(自1969年来)

5000余种期刊, 2500余种会议录

140余国家作者及90余个国家(地区)出版物

## 深度:

对相关学科的深层次涵盖

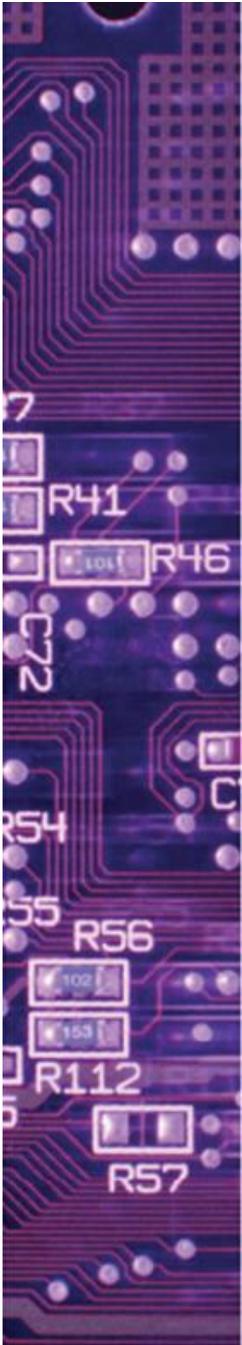
(例: 高能物理: 267种专业刊物, 以及众多会议录)

## 速度:

每周增加逾10,000条文献

每年增加逾70万条文献

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# Inspec新进展 – IPC国际专利分类代码

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将相同技术主题的专利文献归档,给予统一的标识。2011年  
Inspec加入IPC索引字段

## IPC分类:

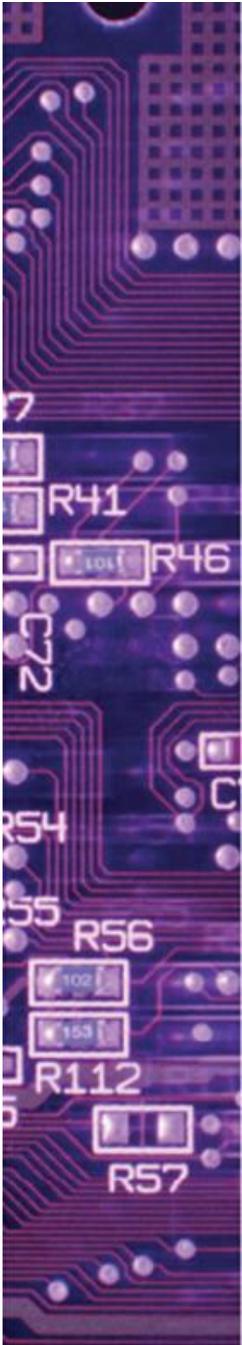
- A 人类生活必需
- B 作业;运输
- C 化学;冶金
- D 纺织;造纸
- E 固定建筑物
- F 机械工程;照明;加热;武器;爆破
- G 物理
- H 电学



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# Graphene anchored with nickel nanoparticles as a high-performance anode material for lithium ion batteries

Inspec新

加入IPC分类  
研产业化

**Author(s):** Mai, Y.J.; Tu, J.P.; Gu, C.D.; Wang, X.L.

**Source:** Journal of Power Sources **Volume:** 209 **Pages:** 1-6 **Published:** 1 July 2012 **DOI:** 10.1016/j.jpowsour.2012.02.073

**Abstract:** The surface of graphene is modified by nickel nanoparticles which are in-situ reduced from NiO nanoparticles by graphene. The nickel nanoparticles obtained are up to 10 nm in size and are strongly anchored on the surface of graphene sheets. As an anode material for lithium ion batteries, the graphene-Ni hybrid material delivers a reversible capacity of 675 mAh g<sup>-1</sup> after 35 discharge/charge cycles at a current density of 100 mA g<sup>-1</sup>, corresponding to 85% retention of the initial charge capacity. In addition, the graphene-Ni hybrid electrode exhibits much better rate capability compared to its pure counterpart operated at various rates between 200 and 800 mA g<sup>-1</sup>. Such enhanced lithium storage performance of the graphene-Ni hybrid electrode can be ascribed to the enhanced electronic transport and Li<sup>+</sup> migration through the solid electrolyte interphase (SEI) film as a consequence of that the anchored nickel nanoparticles increase the electronic conductivity and modify the structure of SEI film covering the surface of graphene. [All rights reserved Elsevier].

**Accession Number:** 12670109

**Document Type:** Journal Paper

**Language:** English

**Treatment:** Practical, Experimental

**Controlled Indexing:** electrochemical electrodes; electrolytes; graphene; lithium; nanoparticles; nickel compounds; secondary cells; sheet materials

**Uncontrolled Indexing:** nickel nanoparticles; high-performance anode material; lithium ion batteries; graphene sheet surface; hybrid material; discharge-charge cycles; enhanced lithium storage performance; enhanced electronic transport; solid electrolyte interphase film; SEI film; anchored nickel nanoparticles; electronic conductivity; NiO; C; Li

**Classification Codes:** A8630F Secondary cells; A8245 Electrochemistry and electrophoresis; B8410E Secondary cells

**Chemical Indexing:** NiO/bin Ni/bin O/bin; C/el; Li/int Li/el

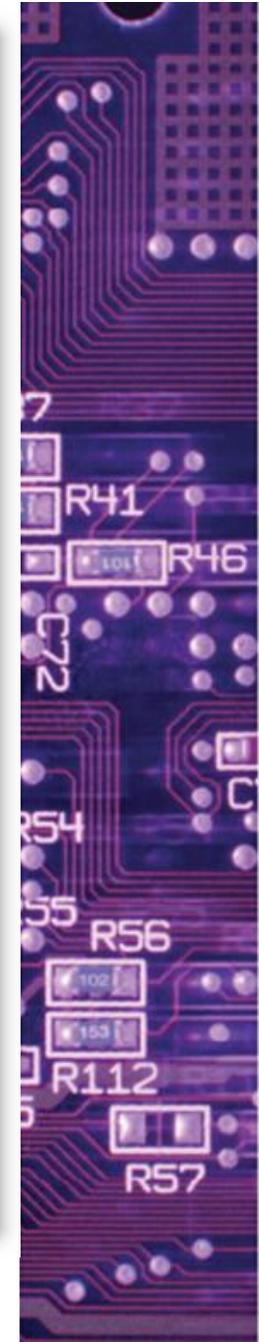
**International Patent Classification:** B82B1/00 Nano-structures; C25B11/00 Electrodes; Manufacture thereof not otherwise provided for; C25D17/10 Electrodes; F16S1/00 Sheets, panels, or other members of similar proportions; Constructions comprising assemblies of such members; H01M4/00 Electrodes; H01M10/00 Secondary cells; Manufacture thereof



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# Inspec附加值字段 – 控制词

概括文献内容的标准化关键词，提高检索相关性，滤除无关结果

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检索结果

主题=(graphene)

时间跨度=所有年份 数据库=Inspec.

词形还原=打开

注：检索词的替换形式（例如 tooth 和 teeth）可能已应用上的“词形还原”选项。

检索结果: **10,208**

Inspec®

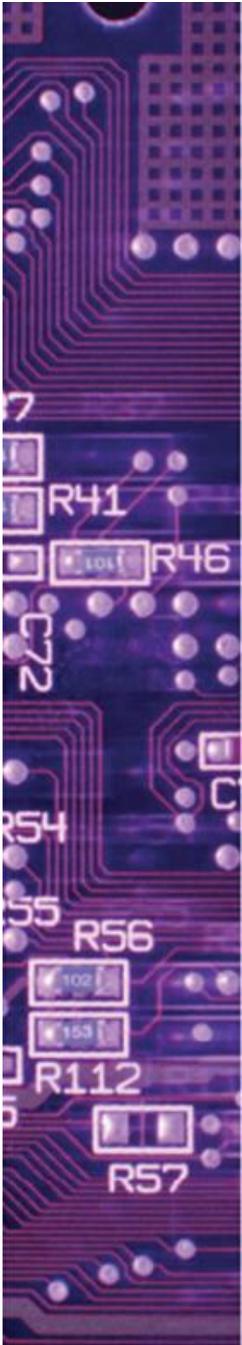
检索结果

受控索引=(graphene)

时间跨度=所有年份 数据库=Inspec.

词形还原=打开

检索结果: **6,877**



# Inspec附加值字段 – 分类代码(PACC)

根据学科类别分类的代码，用于将检索限定在某一特定的研究领域里

PACC: 国际物理学分类代码

一级代码

*Computer software*

二级代码

*Software techniques and systems*

学科编码 → **C6110B**

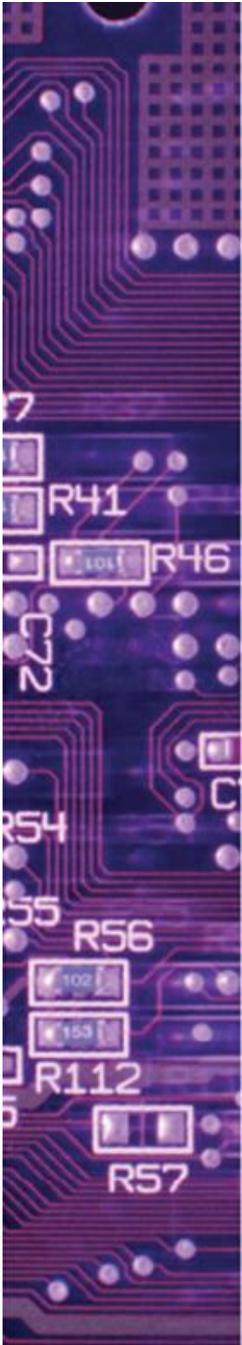
*Computers &  
Control*

三级代码

*Systems analysis and  
programming*

四级代码 (可选)

*Software engineering  
techniques*



# Inspec附加值字段 – 处理代码

说明文献的研究方法及所探讨主题的类型，用于细化检索在特定领域

**Inspec®**

**检索结果** 受控索引=(graphene)  
时间跨度=所有年份. 数据库=Inspec.  
词形还原=打开

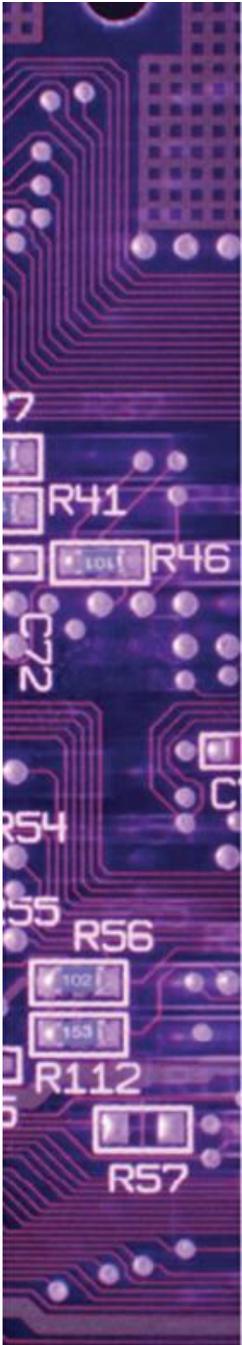
检索结果: **6,877**



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**检索结果** 受控索引=(graphene) AND 处理类型=(General or Review)  
时间跨度=所有年份. 数据库=Inspec.  
词形还原=打开

检索结果: **122**



# Inspec附加值字段 – 数值索引

为检索数值而设计的特色索引

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检索结果 **受控索引=(graphene)**  
时间跨度=所有年份. 数据库=Inspec.  
词形还原=打开

检索结果: **6,877**

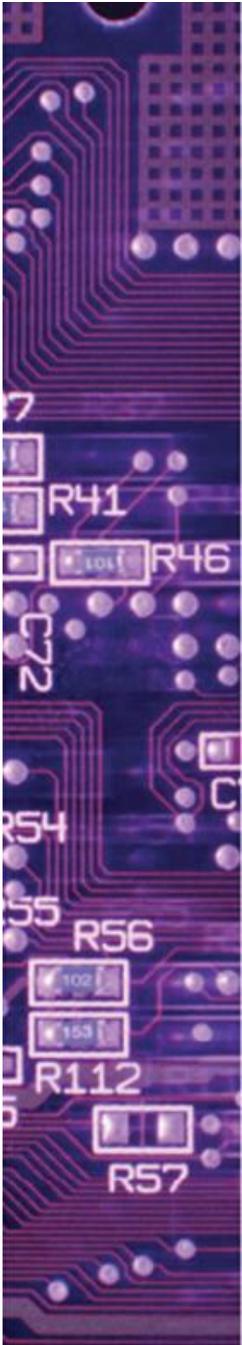


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检索结果 **Temperature=(7.73E+02 1.473E+03) AND 受控索引=(graphene)**  
时间跨度=所有年份. 数据库=Inspec.  
词形还原=打开

检索结果: **89**

第 1 页, 共 9 页 转至



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