

Springer 为您的科研事业助跑

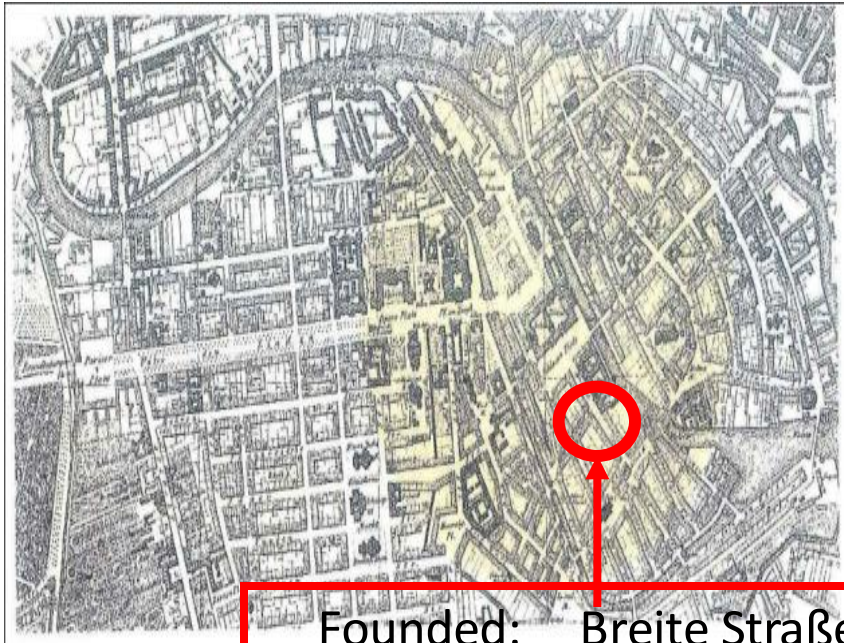
——专注科学，贡献科学



张文瑾
华东、东北地区销售主管

- Springer公司介绍
- Springer电子期刊
- SpringerLink新平台
- Springer电子图书

Springer 于1842年始建于柏林，拥有171年的历史.....



Founded: Breite Straße
Today: Heidelberger Platz



Springer 收购: Current Medicine Group, Humana Press, Bohn Stafleu van Loghum 和 BioMed Central.

2005-2010

施普林格与Kluwer合并成立 Springer Science + Business Media

2004

被Cinven及Candover收购 2003
被贝塔斯曼收购大部分股权 1999
成立香港及巴黎办事处 1986
在东京成立办事处 1983
收购日本的EBS 1978
伦敦办事处成立 1973
纽约办事处成立 1964

2003 被Cinven及Candover收购
1998 收购 Plenum及Chapman & Hall
1978 Kluwer Academic Publishers成立
1970s 收购 Martinus Nijhoff 及D. Reidel

海德堡办公楼启用 1946

维也纳办事处成立 1924

施普林格公司在柏林成立 1842

A.E. Kluwer在荷兰成立出版社

1889





- 全球领先的科技出版商，通过创新的信息产品和服务为客户提供高品质的内容
- 全球最大的科学、技术和医学类图书出版商和顶尖的学术期刊出版商
- 在全球20多个国家或地区设立了60余家分支机构
- 全球员工超过5,500名

追求卓越-Springer出版社与诺贝尔奖、费尔兹奖获得者 Springer

与Springer合作出版的诺贝尔奖

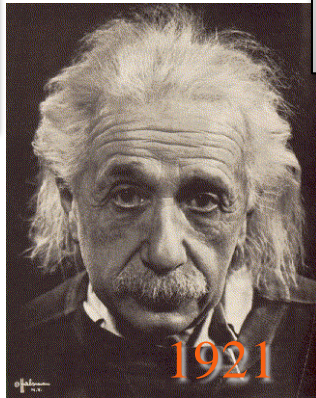
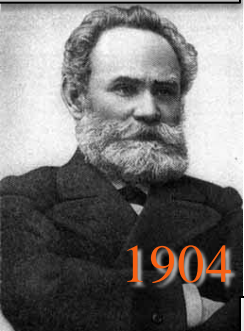
得主人数： 190余位

2011年度诺贝尔化学、经济学、医学和物理学奖的全部九名获奖者在Springer的期刊上发表文章或者出版图书专著

与Springer合作出版的费尔兹奖得主
人数：

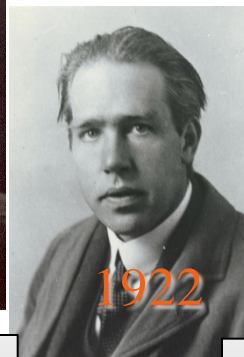
51位（自1936年以来的全部该奖得主）

巴普洛夫
(条件反射)
J.P. Pavlov
Medicine



爱因斯坦(相对论)
)
Albert Einstein
Physics

玻尔(量子力学)
Niels H. de Bohr
Physics



哈恩(原子弹之父)
Otto Hahn
Chemistry

第尔斯(发现双烯合成)
Otto P. Diels
Chemistry



朱尔·A·奥夫曼
Jules A. Hoffmann



高锟(光纤之父)
Charles K. Kao



Springer在2008年5月和国家科技图书文献中心（NSTL）签署了OAC的全国购买协议

- NSTL购买Springer回溯文献（OAC）裸数据全国授权（限非营利性机构）
- Springer回溯数据（OAC）：收录主要期刊的创刊期-1996年全文，
- 1996年以前出版的丛书的电子版（如果有的话）亦收录其中（计14种丛书）
- 受惠单位：中国大陆目前全部SpringerLink现刊数据库的现用户（限非营利性机构）及未来的被授权用户。



- 2008年，施普林格与中国知网（CNKI）签约合作。施普林格向中国知网（CNKI）免费提供SpringerLink电子出版物发布平台上各类资源（电子期刊、电子图书、丛书、工具书等）的题录摘要数据。CNKI利用成熟的关联技术和关键词自动翻译功能，使用户免费看到丰富的施普林格出版物双语题录摘要。



Springer资源—— 电子期刊

- Springer SLCC电子期刊有1570多种
- 60%以上被SCI和SSCI收录
- 随时出版，随时更新
- IP控制，无并发用户限制
- 与Springer所有电子资源整合，充分实现链接功能
- 涵盖11个学科，一些期刊在相关学科有较高排名

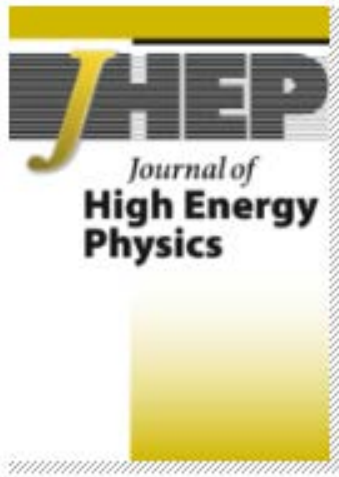
学科组合	子学科
Science, Technology and Engineering 科学, 技术和工程	Mathematics 数学
	Chemistry & Materials Science 化学和材料科学
	Computer Science 计算机科学
	Earth & Environment Science 地球环境科学
	Engineering 工程学
	Physics & Astronomy 物理学和天文学
Medicine & Life Science 医学和生命科学	Medicine 医学
	Biomedical & Life Science 生物医学和生命科学
Social Science and Humanity 社会科学和人文科学	Behavioral Science 行为科学
	Business & Economics 商学和经济 学
	Humanities, Social Science & Law 人文社科和法律



ANALYTICAL & BIOANALYTICAL CHEMISTRY

2012使用量
1,807,153

《分析化学和生物分析化学》刊载分析化学方面的研究论文、文摘、简讯、书评以及会议与展览消息等。



2011年被引用次数
45,573

Journal of High Energy Physics — A journal by scientists for scientists

Matches the pace of research in high energy physics with rapid publication of high quality research across a range of relevant topics

Offers high quality research in high energy physics and a range of related topics

- Covers general relativity and gravitation; supersymmetry; mathematical methods of physics and much more
- Presented in cooperation with the International School for Advanced Studies (SISSA - Trieste, Italy)



2011年影响因子
11.526

Astronomy and Astrophysics Review

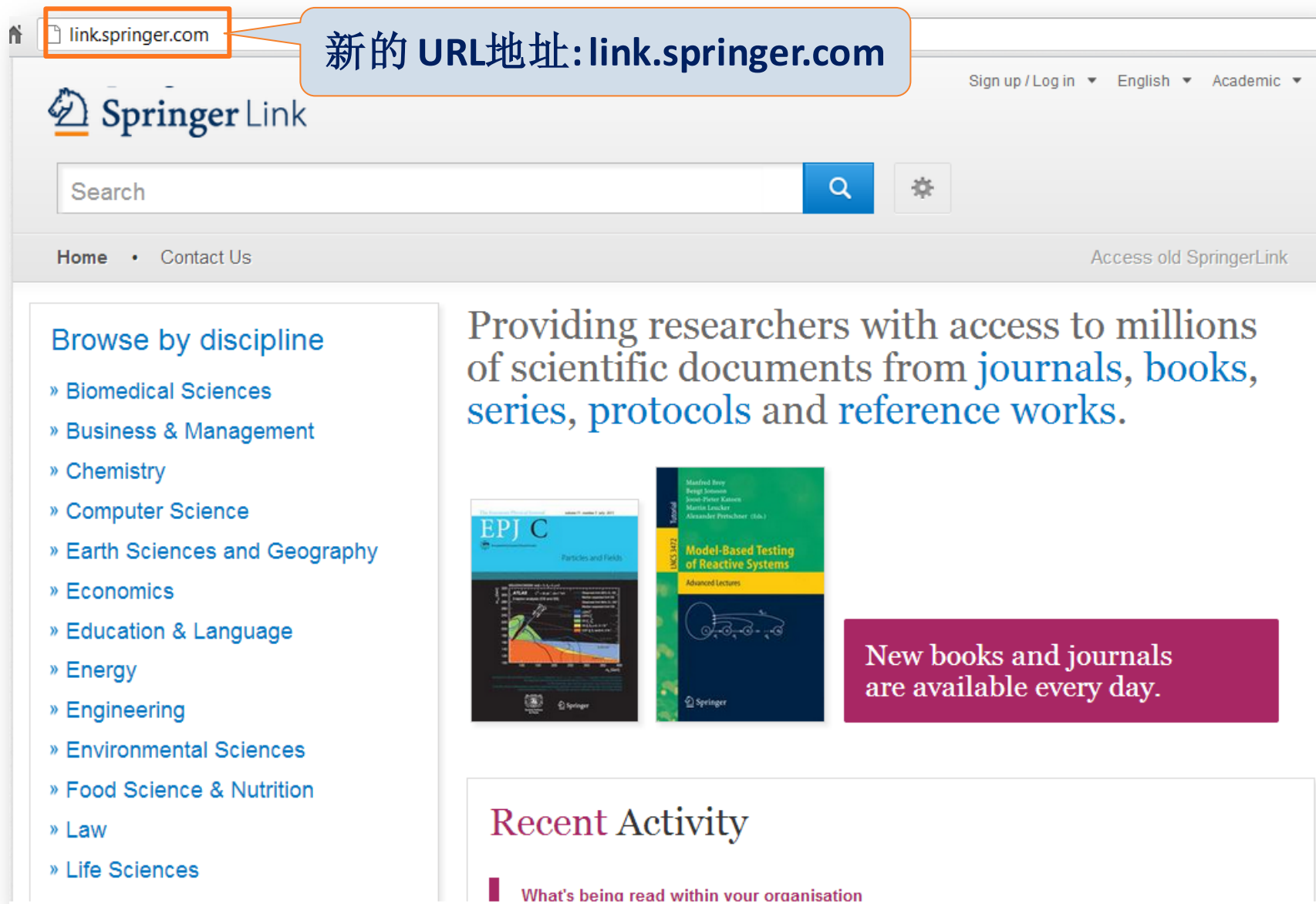
- Publishes invited reviews by leading experts from around the world
- Covers the full range of topics in astronomy and astrophysics
- Topics include cosmic ray physics; solar system studies; astrobiology; relevant progress in laboratory or particle physics; instrumentation and more
- Articles are chosen both for content and readability

SpringerLink新平台



丁小毅
华中、上海地区销售主管

- 新平台的改进
- 新平台的整合检索
- 在新平台浏览期刊



link.springer.com

新的 URL地址: link.springer.com

Springer Link

Sign up / Log in | English | Academic

Search

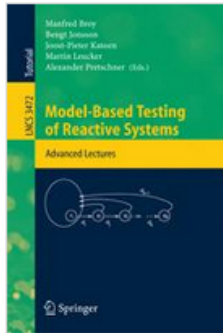

Home • Contact Us

Access old SpringerLink

Browse by discipline

- » Biomedical Sciences
- » Business & Management
- » Chemistry
- » Computer Science
- » Earth Sciences and Geography
- » Economics
- » Education & Language
- » Energy
- » Engineering
- » Environmental Sciences
- » Food Science & Nutrition
- » Law
- » Life Sciences

Providing researchers with access to millions of scientific documents from journals, books, series, protocols and reference works.



New books and journals are available every day.

Recent Activity

What's being read within your organisation

Avg. Page Load Time (sec)	Pageviews	Page Load Sample	Bounce Rate
10.04 Site Avg: 10.04 (0.00%)	51,261,199 % of Total: 100.00% (51,261,199)	275,878 % of Total: 100.00% (275,878)	61.38% Site Avg: 61.38% (0.00%)

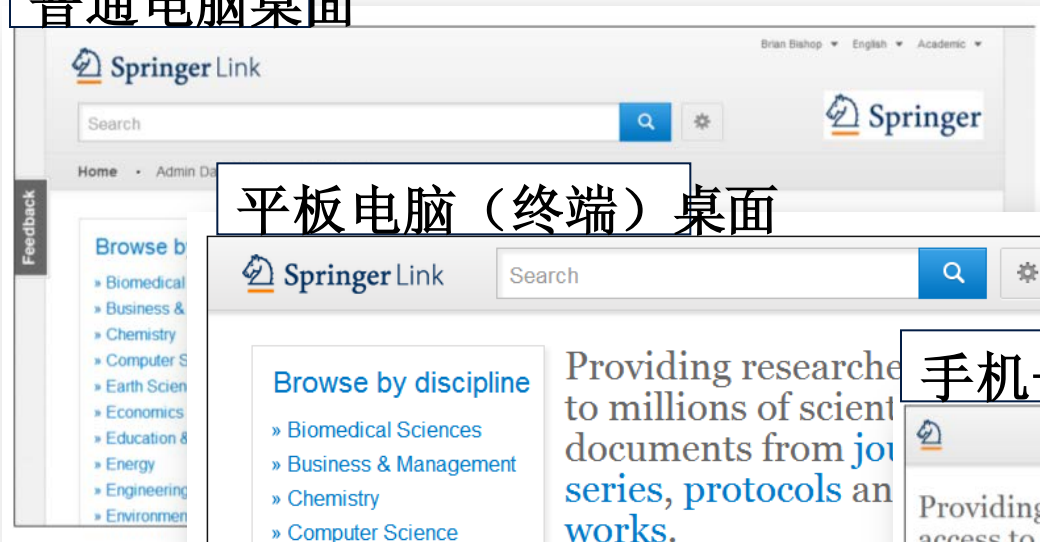
页面平均下载
时间

Avg. Page Load Time (sec)	Pageviews	Page Load Sample	Bounce Rate
5.15 Site Avg: 5.15 (0.00%)	309,919 % of Total: 100.00% (309,919)	1,653 % of Total: 100.00% (1,653)	58.90% Site Avg: 58.90% (0.00%)

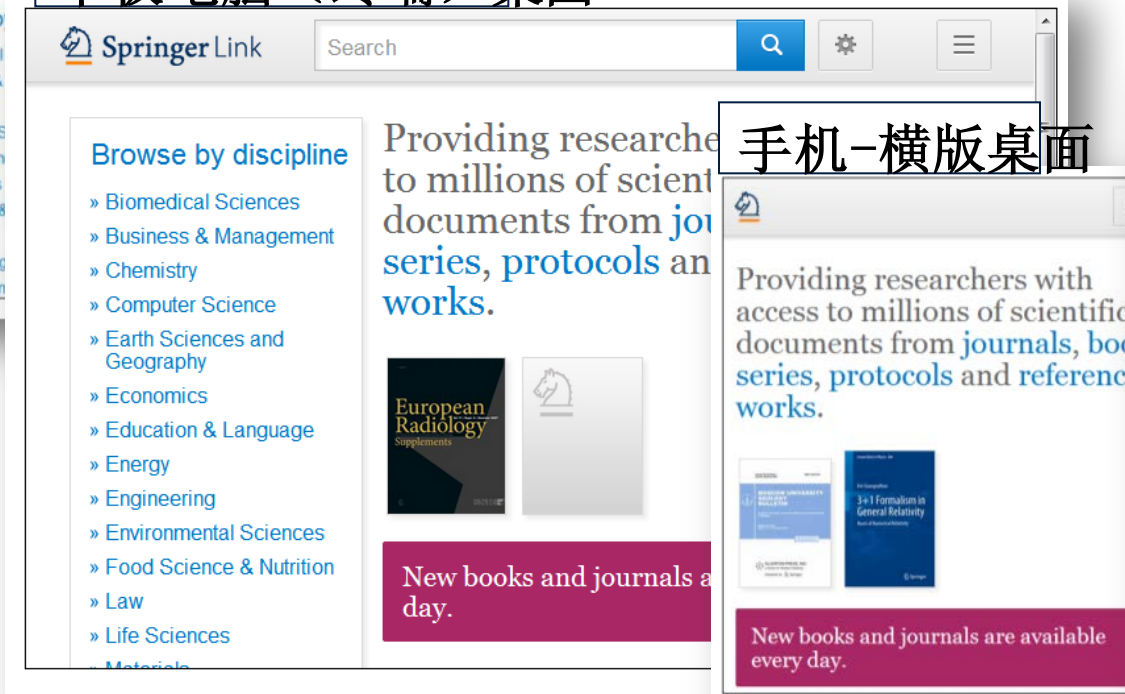
页面平均下载
时间

- 网络响应设计让所有移动设备具有最佳视觉效果

普通电脑桌面



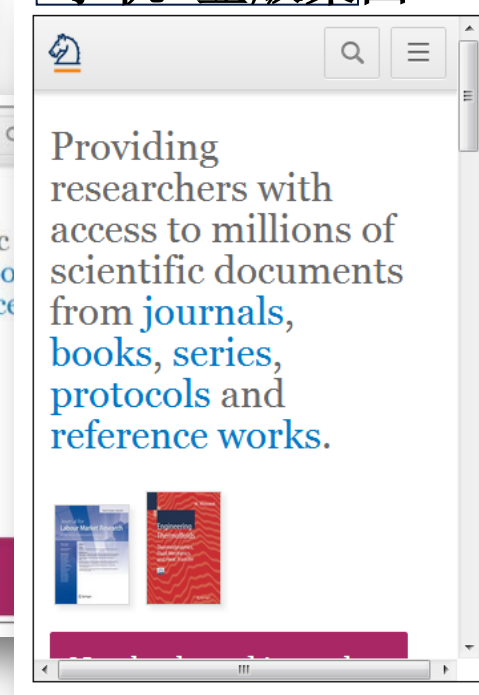
平板电脑（终端）桌面



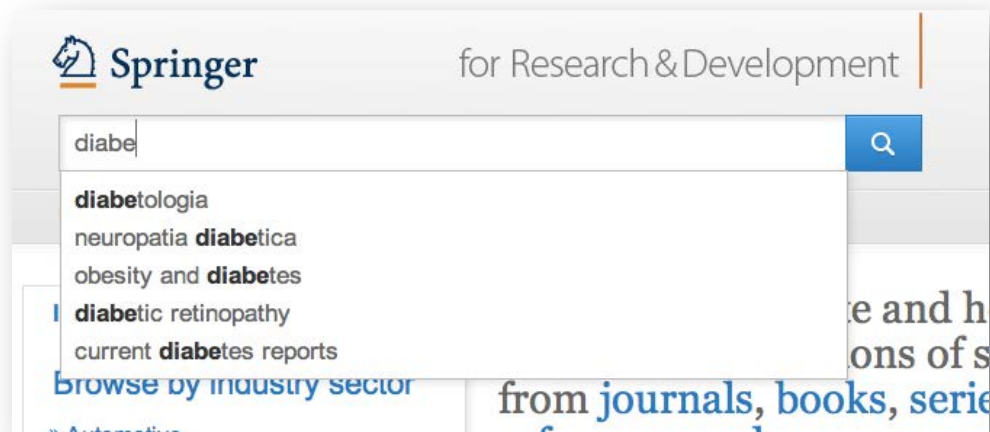
手机-横版桌面



手机-竖版桌面



搜索时自动建议功能（以Google关键字数据为准）



每个文件可以预览两页（不仅限于浏览图书章节）

- 简单搜索
- 高级检索
- 检索显示
- 结果聚类
- 权限识别



Home • Contact Us

Browse by discipline

- » Architecture & Design
- » Astronomy
- » Biomedical Sciences
- » Business & Management
- » Chemistry
- » Computer Science
- » Earth Sciences and Geography
- » Economics
- » Education & Language
- » Energy
- » Engineering
- » Environmental Sciences
- » Food Science & Nutrition
- » Law
- » Life Sciences
- » Materials
- » Mathematics
- » Medicine
- » Philosophy
- » Physics
- » Psychology
- » Public Health
- » Social Sciences
- » Statistics

Providing researchers with access to millions of scientific documents from journals, books, series, protocols and reference works.



New books and journals are available every day.

Recent Activity

What's being read within your organisation

OriginalPaper 1 min ago

Prevalence of 1-aminocyclopropane-1-carboxylate deaminase in *Rhizobium* spp.

Antonie van Leeuwenhoek, 05-2003

Research Article 1 min ago

Facile synthesis of porous carbon nitride spheres with hierarchical three-dimensional mesostructures for CO₂ capture

主页分成三个部分:

● 搜索

● 浏览

● 内容

本单位最新阅读文献

Advanced Search

Find Resources

with **all** of the words

with the **exact phrase**

with **at least one** of the words

without the words

where the **title** contains

e.g., "Cassini at Saturn" or Saturn

where the **author / editor** is

e.g., "H.G.Kennedy" or Elvis Morrison

Show documents published

between and

Include Preview-Only content

Search

出版时间设定
权限范围设定



Springer Link

Library

Home • Contact Us

Browse 7,372,524 resources

Articles	4,730,745
Chapters	2,324,138
Reference Work Entries	286,453
Protocols	31,188

- 1 排序（默认相关性）
- 2 时间设定
- 3 RSS订阅
- 4 CSV格式输出



3,396 Result(s) for 'bird flu'

Sort By 1

Show documents published between and 2

3   4

Article
Scientific Intelligence
The Dublin Journal of Medical and Chemical Science (1832)
• Download PDF (2995 KB)

Article
Reviews and bibliographical notices
The Dublin Quarterly Journal of Medical Science (1850)
• Download PDF (5382 KB)

检索速度平均3倍于旧平台

Include Preview-Only content

Refine Your Search

Content Type	
Article	1,869
Chapter	1,469
Reference Work Entry	47
Protocol	11

Discipline	see all
Life Sciences	1,224
Medicine	1,113
Biomedical Sciences	858
Chemistry	339
Environmental Sciences	316

Subdiscipline	see all
Internal	484
Ecology	446
Animal Sciences	414
Evolutionary & Developmental Biology	271
Plant Sciences	244

Published In	see all
Journal für Ornithologie	149
Archives of Virology	33
Virology Journal	29
Virus Genes	27
Pflügers Archiv	20

Language	
English	2,990
German	392
French	9

3,396 Result(s) for 'bird flu'

Sort By: Relevance | Date Published | Page 1 of 170

Reference Work Entry
Bird Flu
Encyclopedia of Public Health (2008)
» Download PDF (2859 KB) » View Reference Work Entry

Article
Bird flu vax approved in China.
Inpharma Weekly (2008)
» Get Access

Article
Whole-virus bird flu vaccines could increase supply
Inpharma Weekly (2006)
» Get Access

Article
Bird flu vaccine nearer to take off
Inpharma Weekly (2006)
» Get Access

Article
Bird flu vaccine egged on by calcium phosphate adjuvant
Inpharma Weekly (2006)
» Get Access

Article
Bird flu vaccine flying high
Inpharma Weekly (2008)
» Get Access

Article
Could cytotoxic chemotherapy help control killer bird flu?
Inpharma Weekly (2006)

聚类选项包括：

- 全文权限
- 内容类型
- 学科 (24)
- 子学科 (220)
- 作者
- 语种

[Browse Volumes & Issues](#)
[Look Inside](#)
[Get Access](#)

(1) Analytical and Bioanalytical Chemistry (3)

(4) ISSN: 1618-2642 (Print) 1618-2650 (Online)

(5) Description

Analytical and Bioanalytical Chemistry (ABC) is a truly international journal with a mission to publish excellent research papers from all areas of analytical and bioanalytical science. Author Benefits

- Online publication in 30 days from acceptance
- No submission fee for full-color illustrations of accepted articles
- Book discount for contributing authors
- Open Choice, offers authors to have their (6) articles made available ... [show all](#)

405 Volumes 2,332 Issues 95,418 Articles available from 1862 - 2013

Find your Volume or Issue

[Browse Volumes & Issues](#)

(7) From Volume 128 (1947) to Volume 335 (1989), this journal was published as *Fresenius Zeitschrift für Analytische Chemie*. From Volume 1 (1862) to volume 127 (1944), this journal was

(8)



Share



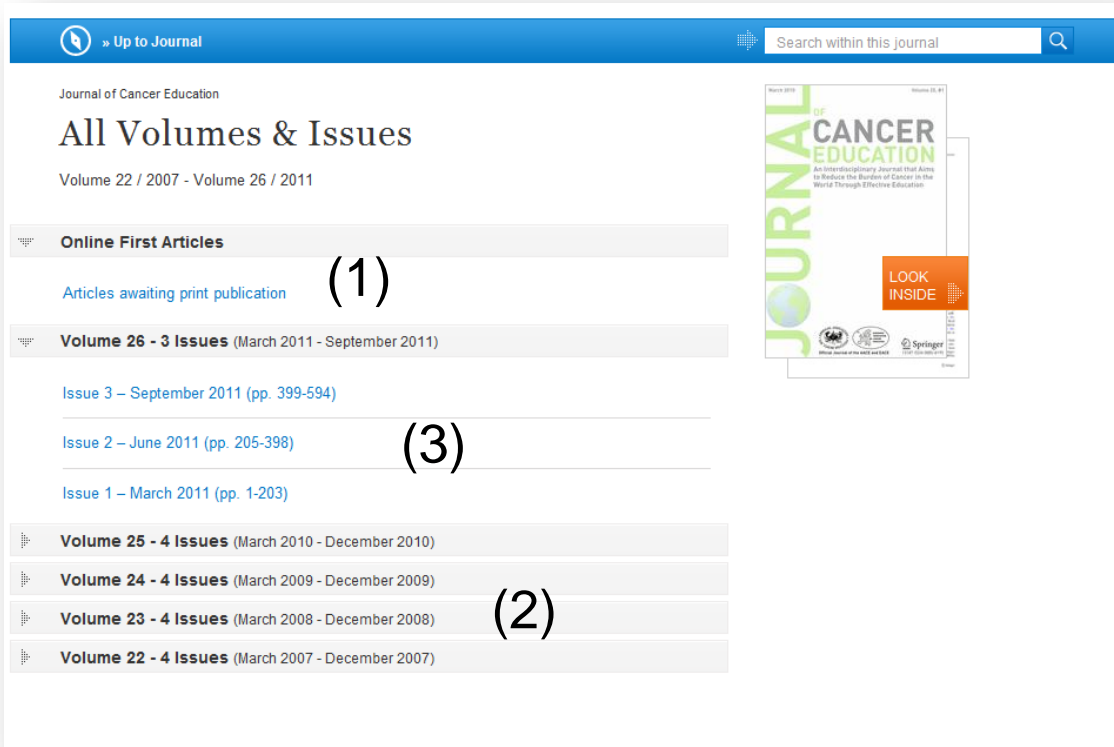
Other actions

- » [Register for Journal Updates](#)
- » [About This Journal](#)

功能概述:



1. 浏览卷和期
2. 在此期刊内搜索
3. 期刊标题
4. 期刊 ISSN
5. 期刊描述
6. 卷和期的导航
7. 最新文章列表
8. 期刊封面
9. 查看内容



Journal of Cancer Education

All Volumes & Issues

Volume 22 / 2007 - Volume 26 / 2011

Online First Articles

[Articles awaiting print publication](#) (1)

Volume 26 - 3 Issues (March 2011 - September 2011)

[Issue 3 - September 2011 \(pp. 399-594\)](#)

[Issue 2 - June 2011 \(pp. 205-398\)](#) (3)

[Issue 1 - March 2011 \(pp. 1-203\)](#)

Volume 25 - 4 Issues (March 2010 - December 2010)

Volume 24 - 4 Issues (March 2009 - December 2009)

Volume 23 - 4 Issues (March 2008 - December 2008) (2)

Volume 22 - 4 Issues (March 2007 - December 2007)

所有的卷和期

1. 在页面上方，您可以看到最新的内容链接
2. 过往期刊将会以灰色显示
3. 点击此卷显示条，您可以看到该卷的内容

功能概述

(1) Download PDF (740 KB) (2) View Article

(3) Arthritis Res Ther (4) March 2003, 5:120 (5) Degeneration of the intervertebral disc

(6) Jill PG Urban, Sally Roberts

(7) Download PDF (740 KB) (8) View Article

(9) Abstract

The intervertebral disc is a cartilaginous structure that resembles articular cartilage in its biochemistry, but morphologically it is clearly different. It shows degenerative and ageing changes earlier than does any other connective tissue in the body. It is believed to be important clinically because there is an association of disc degeneration with back pain. Current treatments are predominantly conservative or, less commonly, surgical; in many cases there is no clear diagnosis and therapy is considered inadequate. New developments, such as genetic and biological approaches, may allow better diagnosis and treatments in the future.

(10) (11) LOOK INSIDE

(12) Within this Article:

- Introduction
- Disc morphology
- Biochemistry
- Effect of degenerative changes on disc function and pathology
- Aetiology of disc degeneration
- New therapies
- Conclusion
- References

(13) Other actions

- Export citations
- Register for Journal Updates
- About This Journal

(14) Related Content

(15) Supplementary Material (0)

(16) References (133)

(17) About this Article

1. 下载PDF
2. 浏览(HTML) 文章
3. 期刊标题
4. 出版年限
5. 文章标题
6. 作者
7. 下载PDF
8. 浏览(HTML) 文章
9. 摘要
10. 期刊封面
11. 内容查看(预览) (Look Inside)
12. 在此期刊内的链接 (Within this Article Links)
13. 导出参考文献
14. 相关文章
15. 补充材料
16. 参考文献
17. 有关此文章

 » View Article

Mechanical properties a evolution in ultrafine-gr processed by severe plas

Jitka Vrátná¹, Miloš Janeček¹ , Jakub Čížek², Dong Jur

- (1) Department of Physics of Materials, Faculty of Mathema Czech Republic
- (2) Department of Low Temperature Physics, Faculty of Ma Prague, Czech Republic
- (3) Department of Materials Science and Engineering, POS

 **Miloš Janeček**
Email: janecek@met.mff.cuni.cz

Received: 10 November 2012

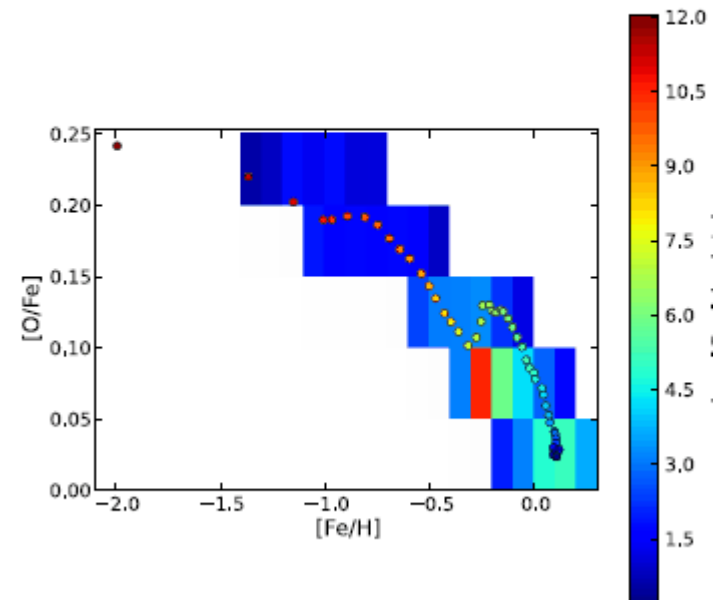
Accepted: 9 January 2013


Published online: 24 January 2013

Abstract

Commercial [MgAlZn alloy AZ31](#) was processed by two te extrusion followed by equal channel angular pressing (EX Processing by ECAP was conducted at elevated tempera HPT was applied at room temperature, and the specimen turns ($N = \frac{1}{4} - 15$) were prepared. Mechanical properties and HPT were investigated by [Vickers](#) microhardness me

Way-like galaxy from Stinson et al. (2013), where each par subsets in the simulations, sorted by their age: there is a cl 'young, thin, extended'



 » View Article

References

1. Capua I, Alexander DJ: **Avian influenza: recent developments.** *Avian Pathol* 2004, **4**:393–404.

[CrossRef](#)

2. Capua I, Alexander DJ: **The challenge of avian influenza.**

[CrossRef](#)

3. Alexander DJ: **An overview of the epidemiology of avian influenza.**

[CrossRef](#)

4. Alexander DJ: **A review of avian influenza in different bird species.**

[PubMed](#) [CrossRef](#)

5. Olsen B, Munster VJ, Wallensten A, Waldenström J, Osterholm M, Hayashi K, et al: **Global patterns of influenza A virus in wild birds.**

J Virol 2006, **57**:384–388.

[CrossRef](#)

6. Humberd J, Guan Y, Webster RG: **Comparison of influenza A viruses in wild and domestic birds.** *J Virol* 2006, **5**:2151–2161.

[CrossRef](#)

7. Perez DR, Webby RJ, Hoffmann E, Webster RG: **Influenza A viruses.** *Avian Dis* 2003, **47**(3 Suppl):1114–1117.

[PubMed](#) [CrossRef](#)

8. Perkins LE, Swayne DE: **Pathobiology of Avian influenza viruses.** *Avian Pathol* 2001, **2**:149–164.

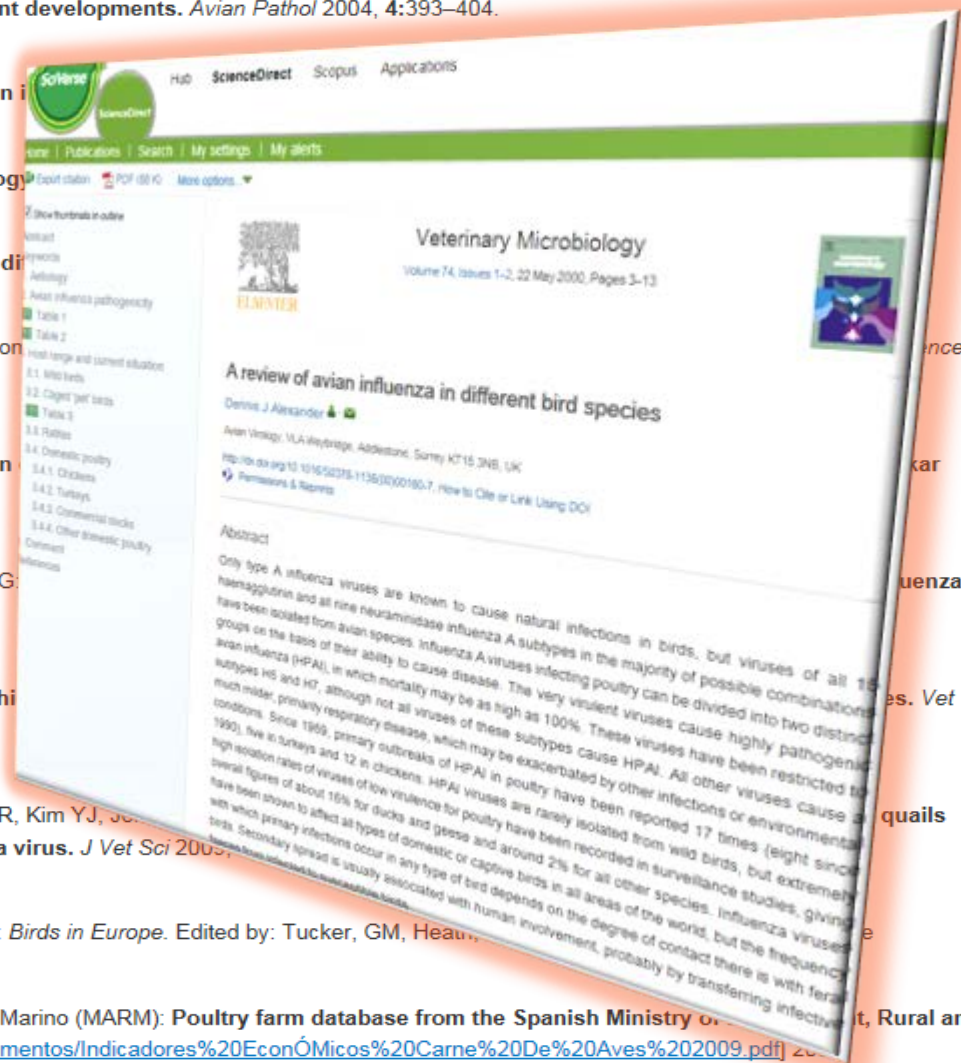
[CrossRef](#)

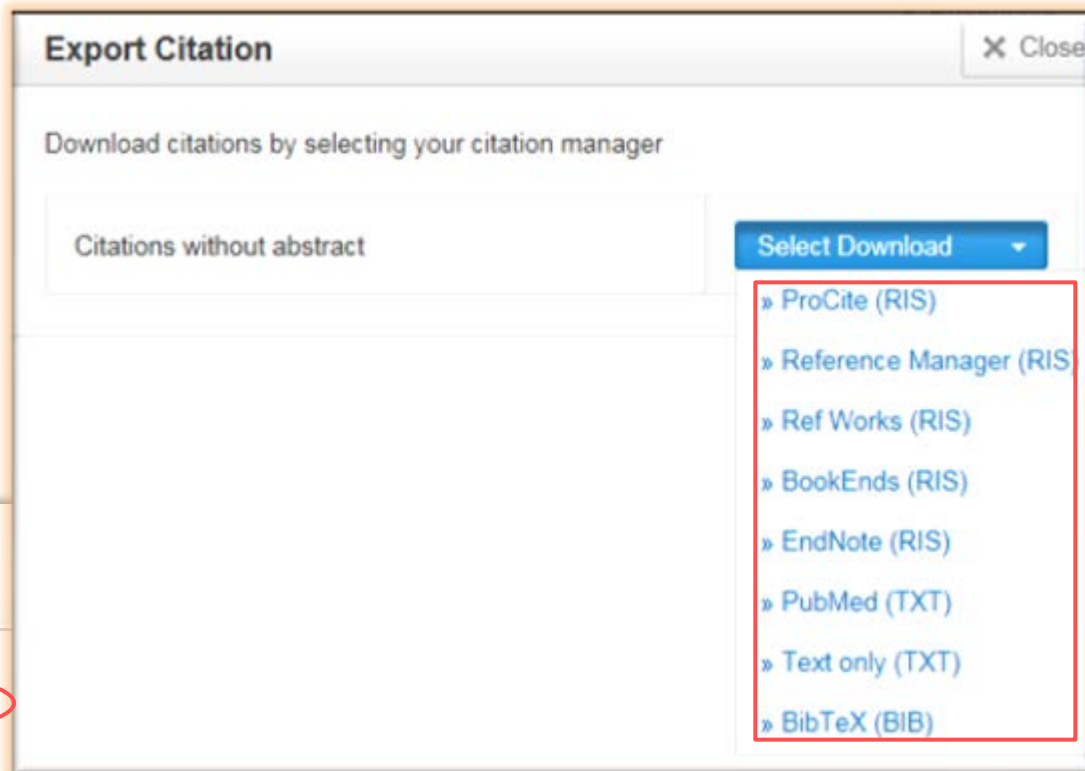
9. Jeong OM, Kim MC, Kim MJ, Kang HM, Kim HR, Kim YJ, et al: **Isolation and characterization of influenza A viruses from wild birds with the highly pathogenic H5N1 avian influenza virus.** *J Vet Sci* 2005, **17**:101–106.

[CrossRef](#)




10. Aebischer NJ, Potts GR, Red-legged partridge: *Birds in Europe*. Edited by: Tucker, GM, Heathcote, J. Cambridge University Press, Cambridge, UK; 1994:214–215.

11. Ministerio de Medio Ambiente, Medio Rural y Marino (MARM): **Poultry farm database from the Spanish Ministry of Agriculture, Food and Rural Affairs.** [<http://www.mapa.es/app/Sch/documentos/Indicadores%20Económicos%20Carnes%20De%20Aves%202009.pdf>] accessed 2009-10-10.





Other actions

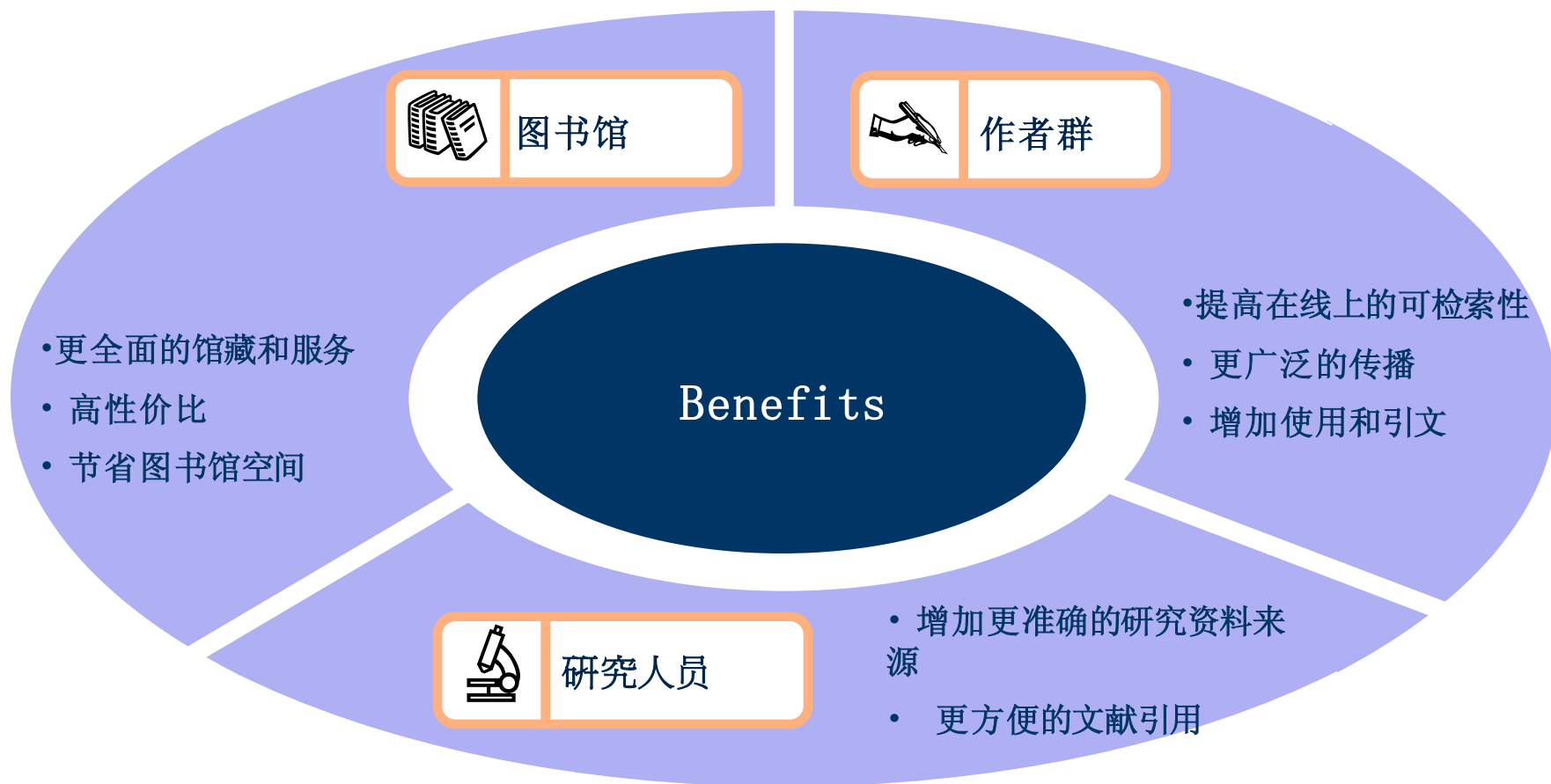
- » [Export citations](#)
- » [Register for Journal Updates](#) 
- » [About This Journal](#) 
- » [Reprints and Permissions](#) 

Springer电子图书



丁小毅
华中、上海地区销售主管

- 电子图书促进科研活动
- Springer 电子图书
- SpringerLink 图书页面



- 2007年，与清华大学图书馆组织Springer电子图书集团采购
- 中国大陆地区最大的外文电子图书数据库集团
- 200余家高校客户
- 包含中国科学院、中国医学科学院、中国农业科学院、国家图书馆等中国顶尖科研机构 and 公共图书馆

● 内容优势

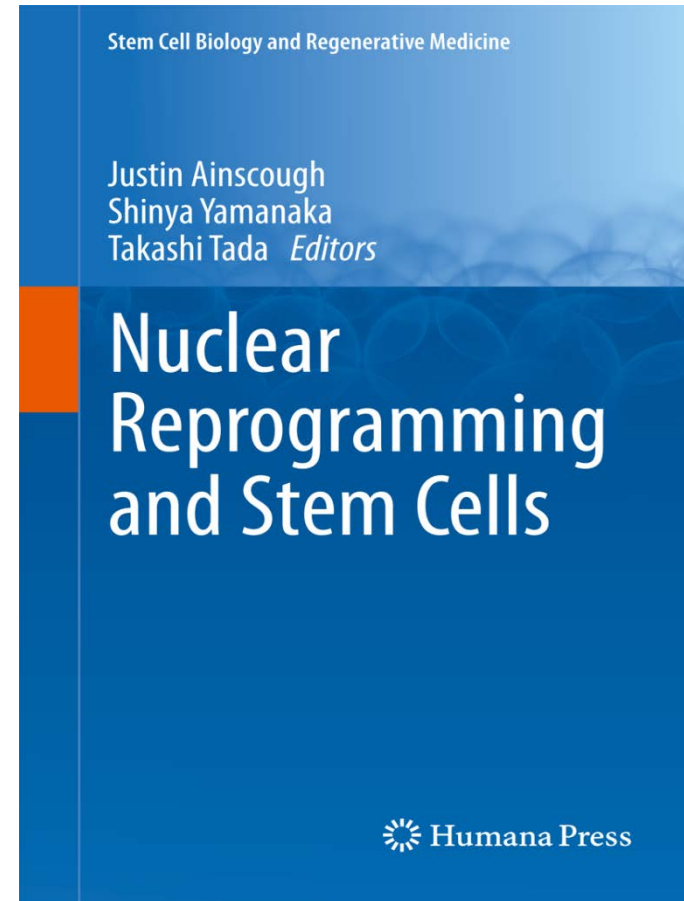
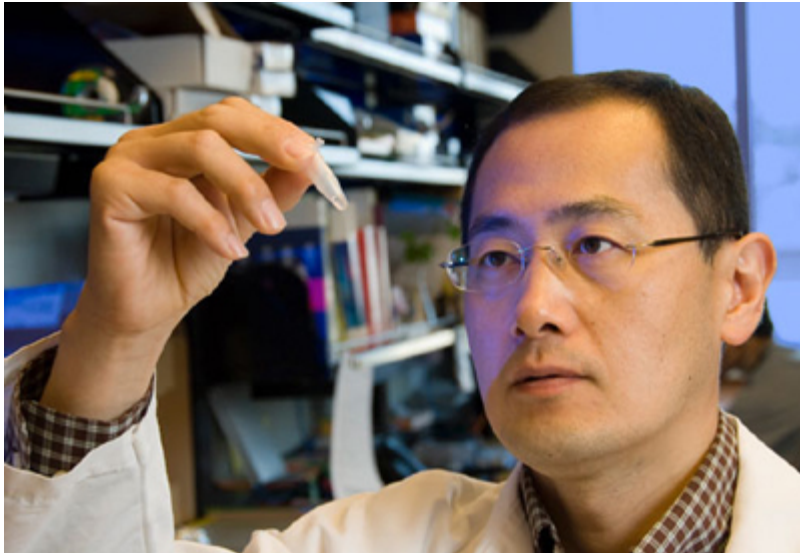
- 超过56,000种电子图书，并每年递增多达7000种
- 包括13个学科，组成了理想的跨学科电子书数据库
- 图书作者来自有影响力的科研人士

● 功能优势

- IP控制，无并发用户限制，最大程度鼓励用户的自由使用
- 可进行章节级别检索，实现全文索引功能
- 与Springer所有电子资源整合，充分实现链接功能
- 提供MARC数据和完整的使用统计

	学科
1	Behavioral Science 行为科学
2	Business & Economics 商学和经济学
3	Humanities, Social Science & Law 人文科学，社会科学与法律
4	Chemistry & Material Science 化学和材料科学
5	Computer Science 计算机科学
6	Professional Computing and Applied Computing 计算机职业技术与专业计算机应用
7	Earth & Environmental Science 地球与环境科学
8	Engineering 工程学
9	Mathematics and Statistics 数学与统计学
10	Energy 能源
11	Physics & Astronomy 物理和天文学
12	Biomedical & Life Science 生物医学和生命科学
13	Medicine 医学

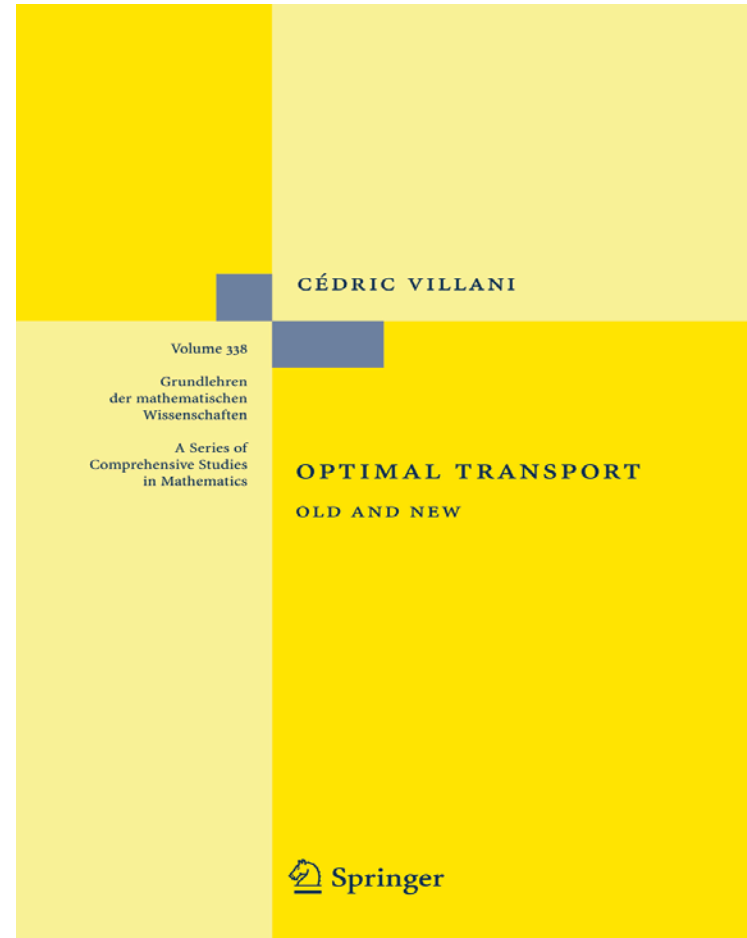
- 医学领域2012年诺贝尔奖获奖者在Springer的著作
- Nuclear Reprogramming and Stem Cells

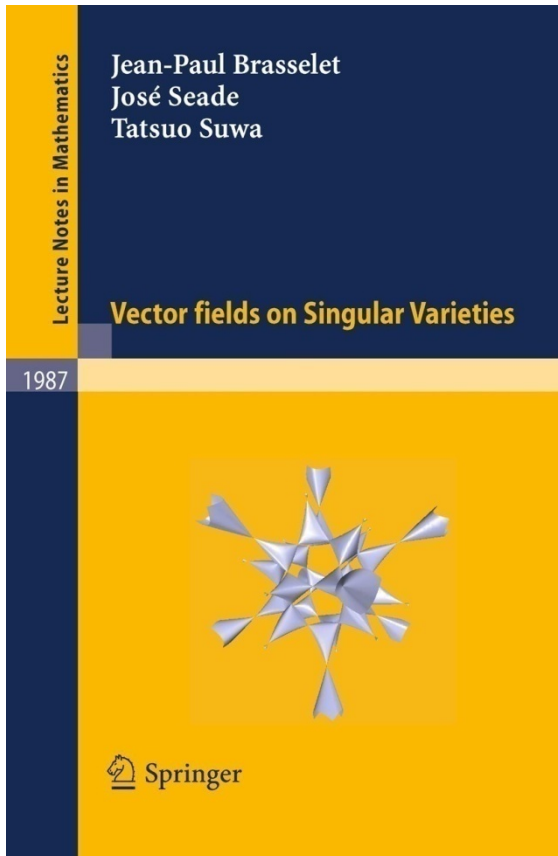


- 物理学领域2012年诺贝尔奖获奖者在Springer的著作
- Quantum Decoherence
- Decoherence, Entanglement and Information Protection in Complex Quantum System
- Quantum Communication, Computing, and Measurement 3
- Quantum Future From Volta and Como to the Present and Beyond
- Fundamentals of Quantum Optics
- High-Resolution Laser Spectroscopy



- 数学领域菲尔兹奖获奖者在Springer的著作
- Perspectives in Analysis, Optimal Transport Old and New



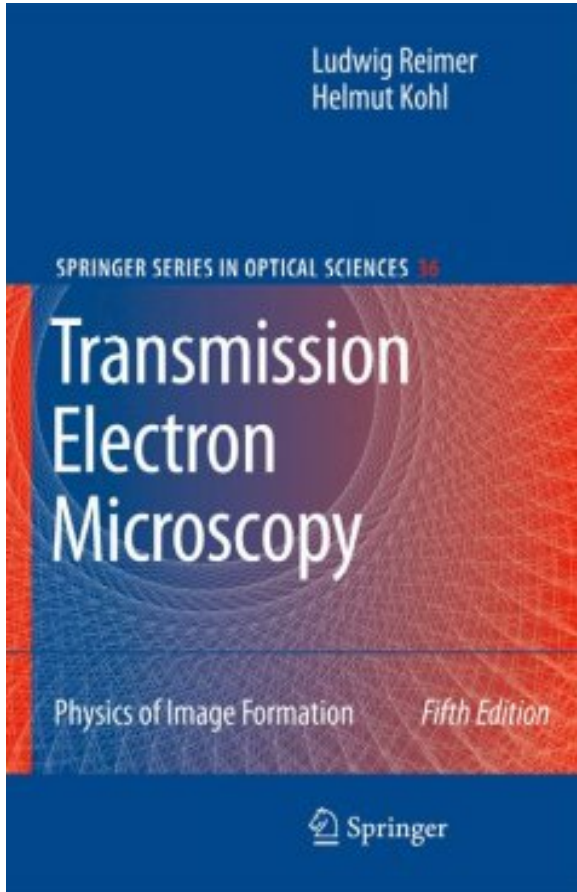


Lecture Notes in Mathematics

- Started 1964
- More than 2000 volumes published
- All volumes from vol. 1750 (2000) online (SpringerLINK)

**Digitisation of back volumes
1-1749 complete**

- 平均每年出版20卷



- **Transmission Electron Microscopy**
- 透射电子显微学
- 透射电镜巨著。美国最畅销的教材之一。
- 从基本概念，衍射理论，成像原理及能谱分析4大部分阐述。在电子显微学研究中最为基本的理论是衍射理论，因而该书利用相当大的篇幅介绍衍射理论以及与其紧密相关的晶体结构，这些知识是材料学专业的重要基础理论之一。

Nancy H. Hornberger
General Editor

SPRINGER
REFERENCE

Encyclopedia of Language and Education

SECOND EDITION

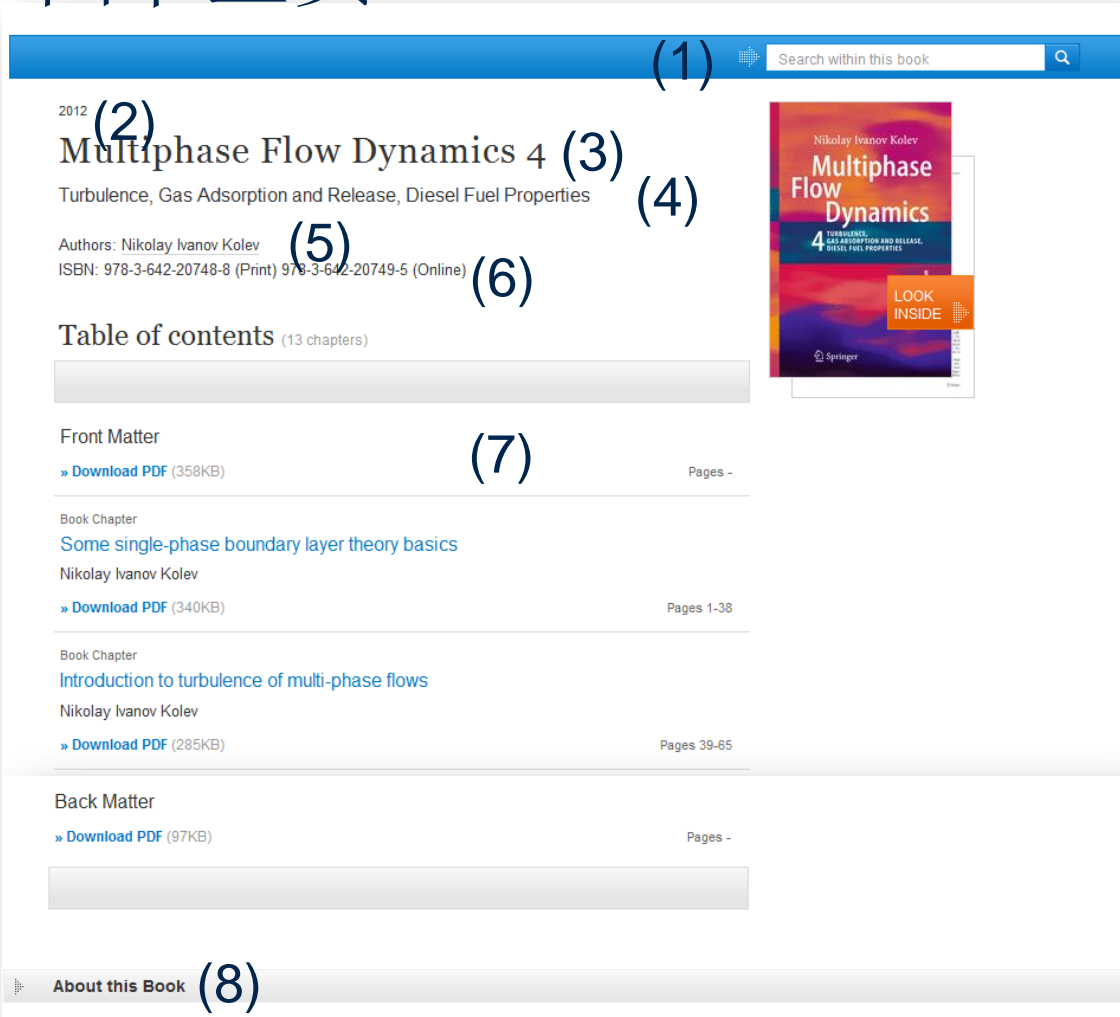
 Springer

- **Encyclopedia of Language and Education**
- 语言与教育百科全书
- 本书涵盖了语言和教育领域的整个历史发展进程。每一卷从全球的视角集中探讨一个主题，并由这一领域最权威的专家撰写，包含了其最新的学术观点；作者分别来自世界41个国家，在语言、文化以及学术思想方面具有极大的国际性和多元性。

SpringerLink的产品内容

- 如何查找图书

图书主页



(1) Search within this book

2012 (2)
Multiphase Flow Dynamics 4 (3)
 Turbulence, Gas Adsorption and Release, Diesel Fuel Properties (4)

Authors: Nikolay Ivanov Kolev (5)
 ISBN: 978-3-642-20748-8 (Print) 978-3-642-20749-5 (Online) (6)

Table of contents (13 chapters)

Front Matter (7)
 » Download PDF (358KB) Pages -

Book Chapter
 Some single-phase boundary layer theory basics
 Nikolay Ivanov Kolev
 » Download PDF (340KB) Pages 1-38

Book Chapter
 Introduction to turbulence of multi-phase flows
 Nikolay Ivanov Kolev
 » Download PDF (285KB) Pages 39-65

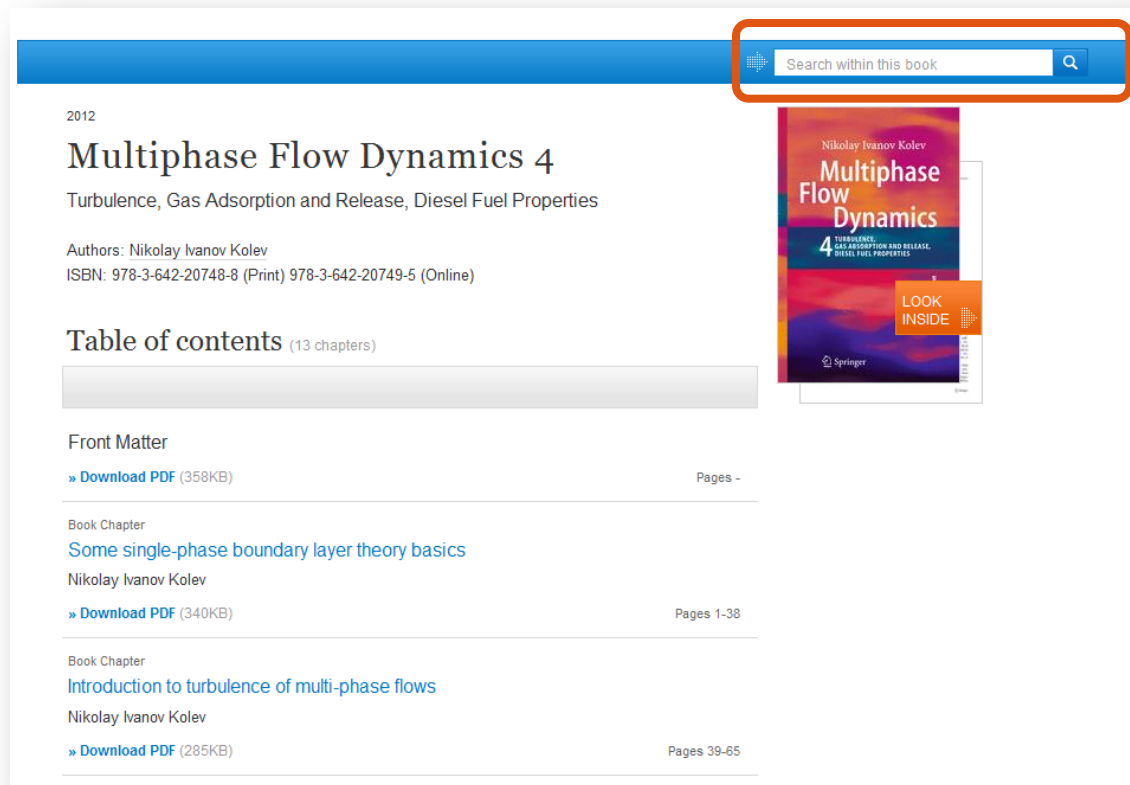
Back Matter
 » Download PDF (97KB) Pages -

About this Book (8)

功能概述

1. 在本书内搜索
2. 出版年限
3. 图书标题
4. 图书子标题
5. 作者
6. ISBN
7. 图书章节列表
8. 关于本书

图书主页



2012

Multiphase Flow Dynamics 4

Turbulence, Gas Adsorption and Release, Diesel Fuel Properties

Authors: Nikolay Ivanov Kolev
ISBN: 978-3-642-20748-8 (Print) 978-3-642-20749-5 (Online)

Table of contents (13 chapters)

Section	Download PDF (Size)	Pages
Front Matter	» Download PDF (358KB)	Pages -
Book Chapter		
Some single-phase boundary layer theory basics		
Nikolay Ivanov Kolev	» Download PDF (340KB)	Pages 1-38
Book Chapter		
Introduction to turbulence of multi-phase flows		
Nikolay Ivanov Kolev	» Download PDF (285KB)	Pages 39-65

在本书内搜索

如果您需要搜索特定的关键词，您可以使用页面上方的“在本书内搜索”（search within this book）

搜索结果将跳转到新的页面

图书主页

Back Matter

[» Download PDF \(97KB\)](#) Pages -

About this Book

<p>(1) Book Title Multiphase Flow Dynamics 4</p> <hr/> <p>Book Subtitle Turbulence, Gas Adsorption and Release, Diesel Fuel Properties</p> <hr/> <p>Copyright 2012</p> <hr/> <p>DOI 10.1007/978-3-642-20749-5</p> <hr/> <p>Print ISBN 978-3-642-20748-8</p> <hr/> <p>Online ISBN 978-3-642-20749-5</p> <hr/> <p>Publisher Springer Berlin Heidelberg</p> <hr/> <p>Copyright Holder Springer-Verlag Berlin Heidelberg</p>	<p>(3) Topics</p> <ul style="list-style-type: none"> » Engineering Fluid Dynamics » Engineering Thermodynamics, Heat and Mass Transfer » Fluid- and Aerodynamics » Thermodynamics 	<p>(4) Authors Nikolay Ivanov Kolev ✉ ⁽¹⁾</p> <hr/> <p>Author Affiliations 1. Framatome-ANP, Möhrendorferstr. 7, 91074, Herzogenaurach, Germany</p>
--	--	--

(2) Additional Links
[» About this Book](#) [✉](#)

关于本书

在页面下方，您会看到关于本书的相关信息，包括：

1. 在页面左侧，您可以看到书目信息
2. springer.com网站上提供的信息和服务以额外链接形式呈现在页面下方
3. “主题”（Topics）这些链接指向相关主题的搜索结果列表
4. 在页面右侧您可以看到作者信息和所属单位或机构信息

图书章节

(1) [Download PDF \(343 KB\)](#)

Theoretical Computer Science
Lecture Notes in Computer Science Volume 2202, 2001, pp 17-37


Filter Models and Easy Terms

Fabio Alessi, Mariangiola Dezani-Ciancaglini, Furio Honsell

(1) [Download PDF \(343 KB\)](#)

Abstract (3)

We illustrate the use of intersection types as a tool for synthesizing λ -models which exhibit special purpose features. We focus on semantical proofs of *easiness*. This allows us to prove that the class of λ -theories induced by graph models is strictly included in the class of λ -theories induced by non-extensionsal filter models.



(2)

Other actions (4)
[Export citations](#)

- ▶ Related (5) (5)
- ▶ Supplementary Material (0) (6)
- ▶ References (33) (7)
- ▶ About this Chapter (8)

功能概述

1. 下载 PDF
2. 内容查看(预览)
3. 摘要
4. 导出文献
5. 相关内容
6. 补充材料
7. 参考文献
8. 关于本章节

本网页结构和期刊网页结构类似

感谢您对Springer的支持

谢谢！

施普林格亚洲有限公司北京代表处
中国北京海淀区北四环西路58号
理想国际大厦409-411室，100080

电话：0086 10 82670211
传真：0086 10 82670212

www.springer.com



SpringerProtocols 实验室指南数据库

崔丽丽
华北、西南销售主管

- SpringerProtocols介绍



Place the cheese in
a bowl, add egg,
salt, onions,
parsley, chilly
peppers, and the
capers.
Stir with a fork until well
mixed.



- 主要用于生命科学
- 一步一步的指示，帮助研究人员进行实验
- 经过验证的书面程序，用于设计和实施实验：
 - 背景资料
 - 材料
 - 仪器
 - 实验方法
 - 数据样本
 - 技巧提示/疑难解决方案
 - 来源文献

Contents of this article

1 Introduction

2 Materials

- 2.1 miRDeep
- 2.2 miRNAkey
- 2.3 UEAsRNAtoolkit
- 2.4 miRanalyzer
- 2.5 SeqBuster
- 2.6 DSAP
- 2.7 mirTools
- 2.8 E-miR
- 2.9 SigTerms

3 Methods

- 3.1 miRDeep
- 3.2 miReduce
- 3.3 miRNAkey
- 3.4 UEA sRNAtoolkit
- 3.5 miRanalyzer
- 3.6 SeqBuster
- 3.7 DSAP
- 3.8 mirTools
- 3.9 E-miR
- 3.10 SigTerms
- 3.11 Small RNA Workbench

4 Notes

- 4.1 How to Use SigTerms?
- 4.2 FindSignificantTerms
- 4.3 CountTermToGene
- 4.4 DoSimulation-Testing

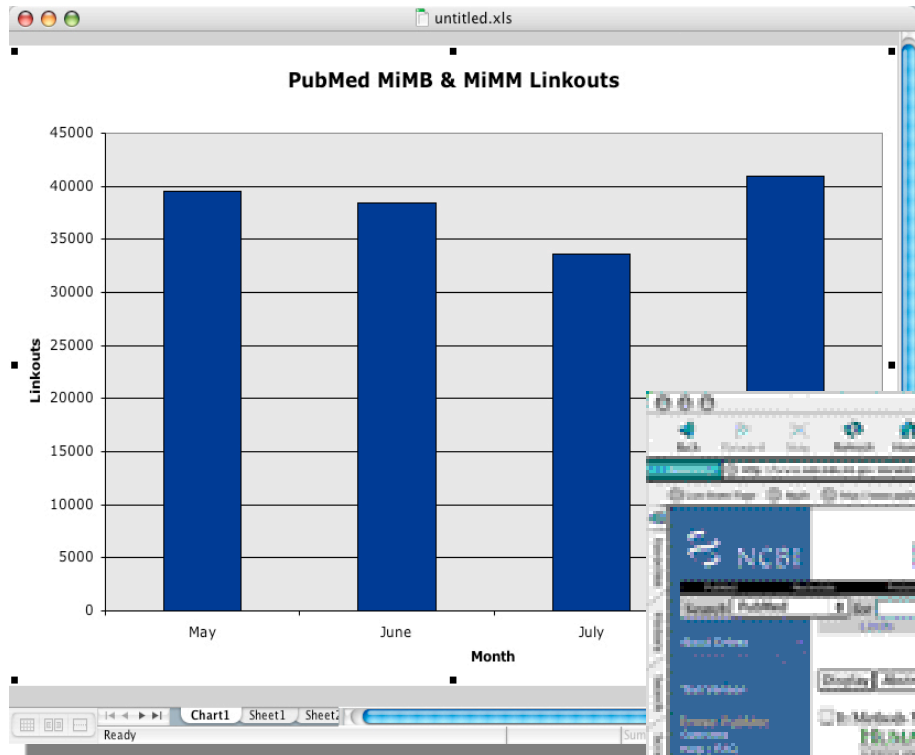
References

全球最大的在线实验室指南数据库 皆经同行评审

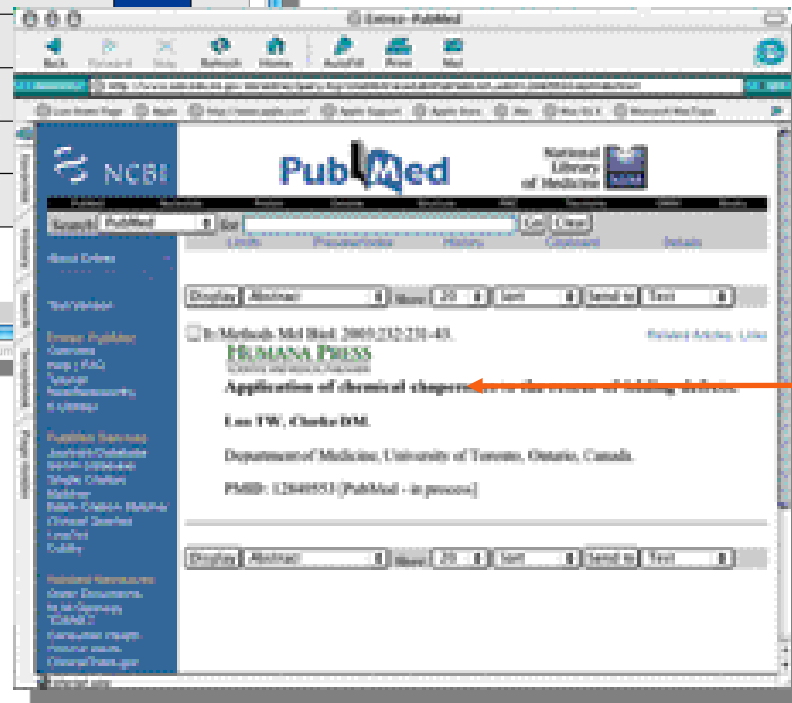
- 全球最大的在线实验室指南数据库
- 皆经同行评审
- SpringerProtocols.com为研究员和科学家提供易于访问、内容全面且更新迅速的实验室指南数据库，实验室指南来自于著名系列：分子生物方法 (*Methods in Molecular Biology* Series) 和分子医学方法 (*Methods in Molecular Medicine* series)
- Springer Protocol 由 Protocol的鼻祖 John M. Walker博士担任主编



The screenshot displays the SpringerProtocols.com website. At the top, there is a navigation bar with the Springer logo, a search bar, and links for 'ABOUT US', 'RSS', and 'HELP'. Below the navigation bar, a welcome message reads 'Welcome. Sign in here. New user? Register here.' The main content area is divided into several sections: 'Upload a Protocol' (with a sub-section for 'Protocol Alert'), 'Video Protocols', 'Comments', 'Favorites', and 'RSS Feeds'. A central 'Search Protocols' box contains a search input field and a 'Search' button. Below the search box is a 'Browse by Subject' section with a grid of subject categories including Biochemistry, Biotechnology, Cell Biology, Imaging/Radiology, Infectious Diseases, Molecular Medicine, Pharmacology/Toxicology, Protein Science, Bioinformatics, Cancer Research, Genetics/Genomics, Immunology, Microbiology, Neuroscience, and Plant Sciences. To the right, there are two sidebars: 'Inside Springer Protocols' with links for 'New Protocols', 'Free Protocols', 'Popular Protocols', 'Tour', 'For Contributors/Editors', and 'For Library Administrators'; and 'Most Popular Searches' listing terms like 'mass spectrometry', 'biotin', 'fluorescence', 'microarray', and 'plant'. At the bottom right, there is a 'Humana Press' logo and a tagline: 'A reliable source for research on the application of molecular biology. Molecular'.



每个月，访问 SpringerProtocols.com 的用户有 40000 多位来自 PubMed



同时 SpringerProtocols 也被 Embase.com, Scopus, Web of Science 等数据库收录

Springer实验室指南包含以下15个学科分类：

- 生物化学
- 生物信息学
- 生物工艺学
- 癌症研究
- 细胞生物学
- 遗传/基因
- 成像/ 放射医学
- 免疫学
- 传染性疾病
- 微生物学
- 分子医学
- 神经系统科学
- 药理学/毒物学
- 植物科学
- 蛋白质科学

生命科学

- 蛋白质组学
- 基因组学
- 生物信息学
- 神经学
- 免疫化学
- 植物科学
- 微生物学

分子医学

- 癌症
- 传染病
- 疫苗
- 基因疗法

生物技术

- 纳米生物技术
- 药物研发/制造
- 病原体研究
- 酶的生产
- 营养学
- 生物修复

SpringerProtocols高质量内容：实验室指南皆经同行评议

- 系列图书

- *Methods in Molecular Biology*
Editor: Dr. John M. Walker
- *Methods in Molecular Medicine*
- *Methods in Biotechnology*
- *Methods in Pharmacology and Toxicology*
- *NeuroMethods*

- 期刊

Full source list available from

<http://bit.ly/springerprotocolsbooks>

<http://bit.ly/springerprotocolsjournals>

- 手册

- *The Protein Protocols Handbook*
 - *Molecular Biomethods Handbook*
- And many more...



- 标准、规范、数据可靠

- Protocol鼻祖亲历亲为 (Springerprotocols的主编是全球Protocol标准的创建人)
- 出版500余本广受欢迎及经同行评议的书籍；这些书籍曾在过去20年被全球100+万研究人员使用

- 收藏内容丰富

- SpringerProtocol为全球最大的在线Protocol数据库，所有内容皆经同行评议。每周更新内容，目前约30000条，每年增加2000条。
- 涵盖数年Protocol数据，不仅适用最新设备，使用老设备亦能得到同样的实验结果。
- 新增video 的protocol!

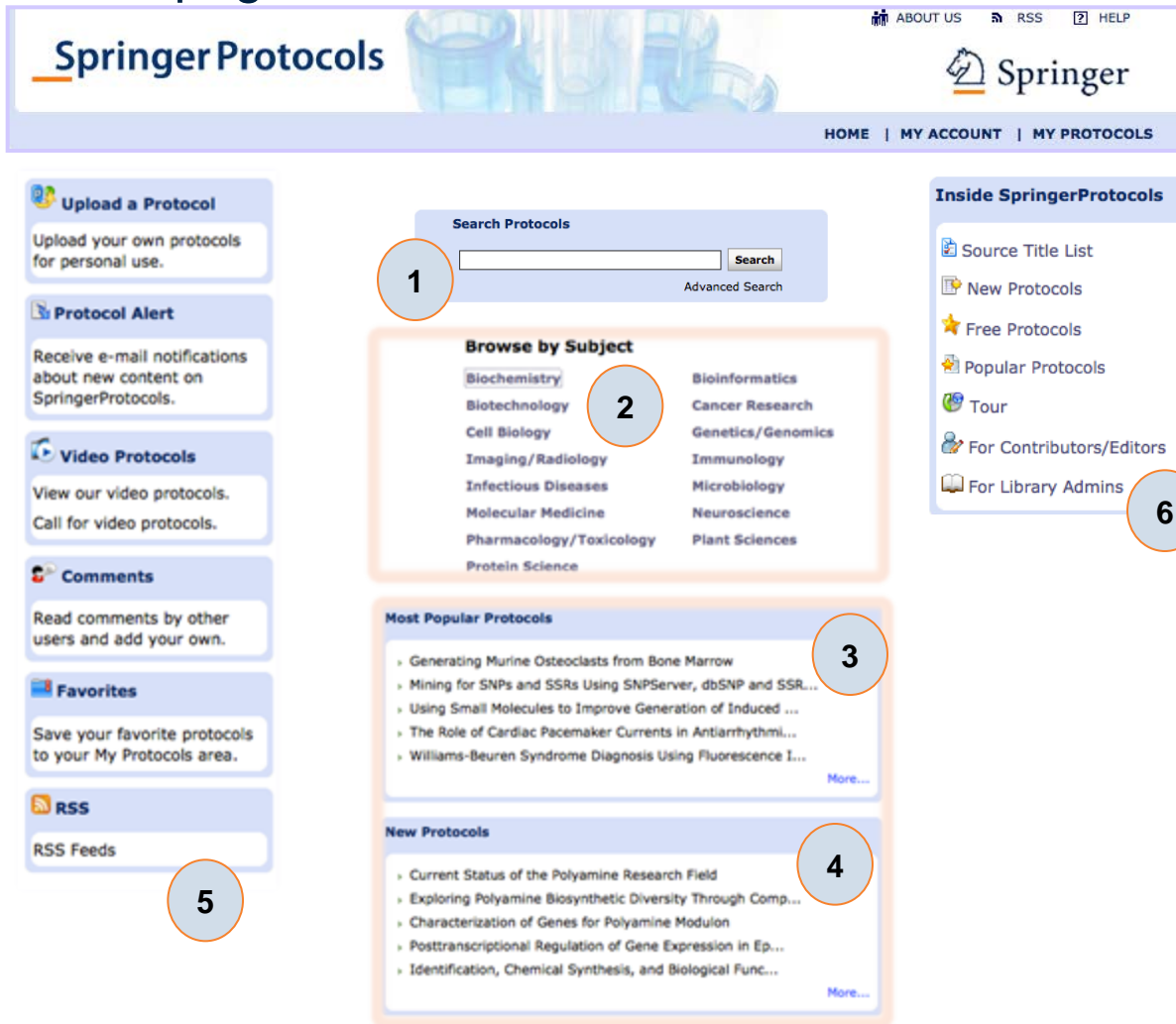
- 所有指南皆被PubMed/Medline索引，提供摘要
 - 极大地方便广大读者检索实验室指南
- SpringerProtocol功能强大的平台
 - 最全面且最大量的有线实验指南集合
 - 设有提醒功能，让您随时捕捉最新动态
 - Web 2.0功能令搜寻和浏览变得更方便、更轻松
 - 移动版网页适用于任何苹果，安卓和黑莓系统移动设备
 - 数据——用户可以随时下载符合COUNTER标准的使用统计



Springer Protocols 的使用

(springerprotocols.com平台)

– Homepage



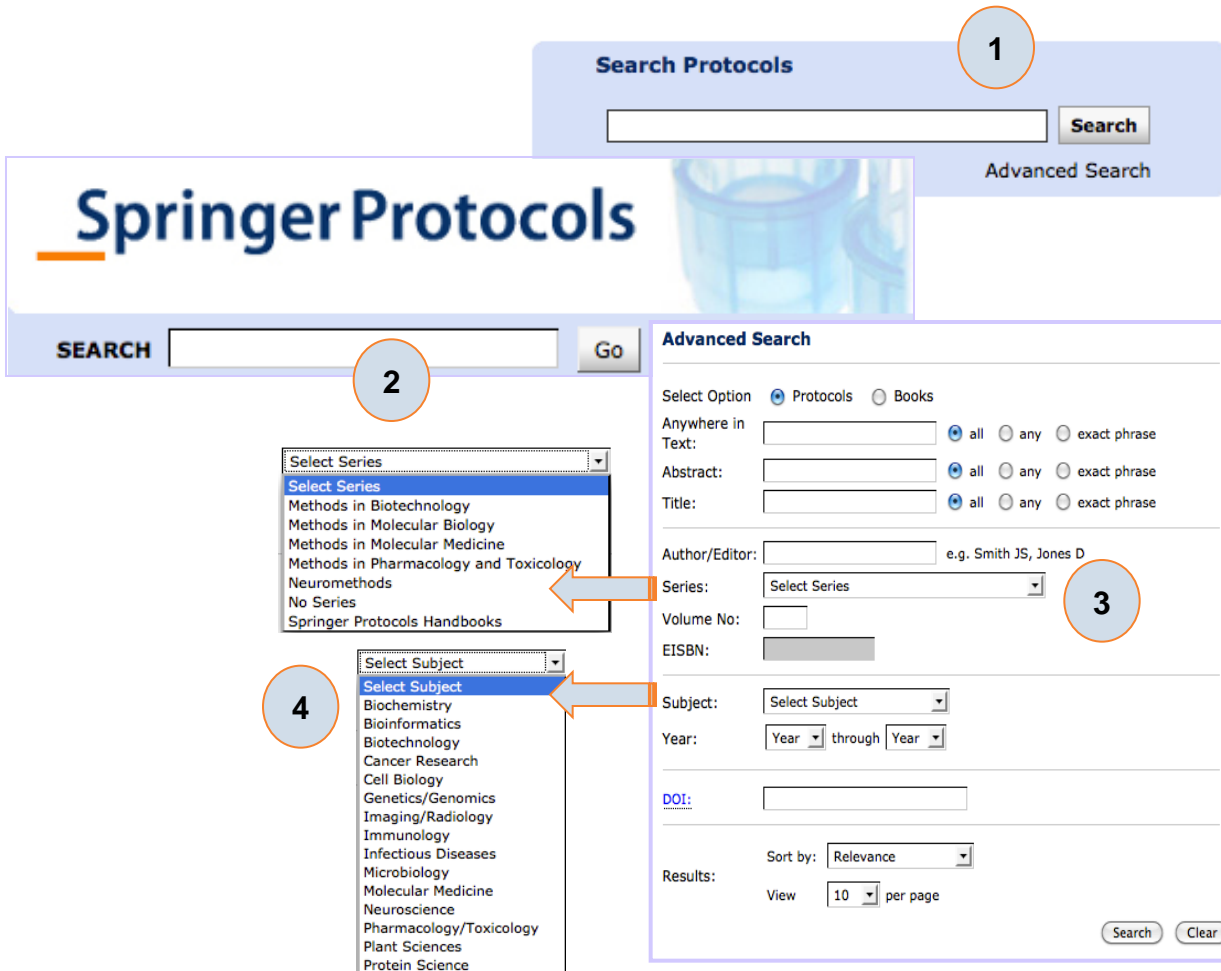
The screenshot shows the SpringerProtocols homepage layout. At the top is a navigation bar with the SpringerProtocols logo, a search bar, and links for ABOUT US, RSS, and HELP. Below the navigation bar are several main sections:

- Upload a Protocol:** A box for uploading personal protocols.
- Protocol Alert:** A box for receiving email notifications.
- Video Protocols:** A box for viewing video protocols.
- Comments:** A box for reading and adding comments.
- Favorites:** A box for saving favorite protocols.
- RSS:** A box for RSS feeds.
- Search Protocols:** A search bar with a "Search" button and "Advanced Search" link.
- Browse by Subject:** A grid of subject categories including Biochemistry, Biotechnology, Cell Biology, Imaging/Radiology, Infectious Diseases, Molecular Medicine, Pharmacology/Toxicology, Protein Science, Bioinformatics, Cancer Research, Genetics/Genomics, Immunology, Microbiology, Neuroscience, and Plant Sciences.
- Most Popular Protocols:** A list of popular protocols with titles like "Generating Murine Osteoclasts from Bone Marrow" and "Mining for SNPs and SSRs Using SNPServer, dbSNP and SSR...".
- New Protocols:** A list of newly added protocols with titles like "Current Status of the Polyamine Research Field" and "Exploring Polyamine Biosynthetic Diversity Through Comp...".
- Inside SpringerProtocols:** A sidebar menu with links for Source Title List, New Protocols, Free Protocols, Popular Protocols, Tour, For Contributors/Editors, and For Library Admins.

Numbered callouts (1-6) highlight the following features:

1. Search Protocols (Search bar)
2. Browse by Subject (Subject categories)
3. Most Popular Protocols (List of popular protocols)
4. New Protocols (List of new protocols)
5. RSS (RSS Feeds)
6. Inside SpringerProtocols (Sidebar menu)

1. 搜索/高级搜索
2. 浏览学科
3. 热门搜索
4. 最新上传的protocols
5. 互动工具
6. Inside SpringerProtocols

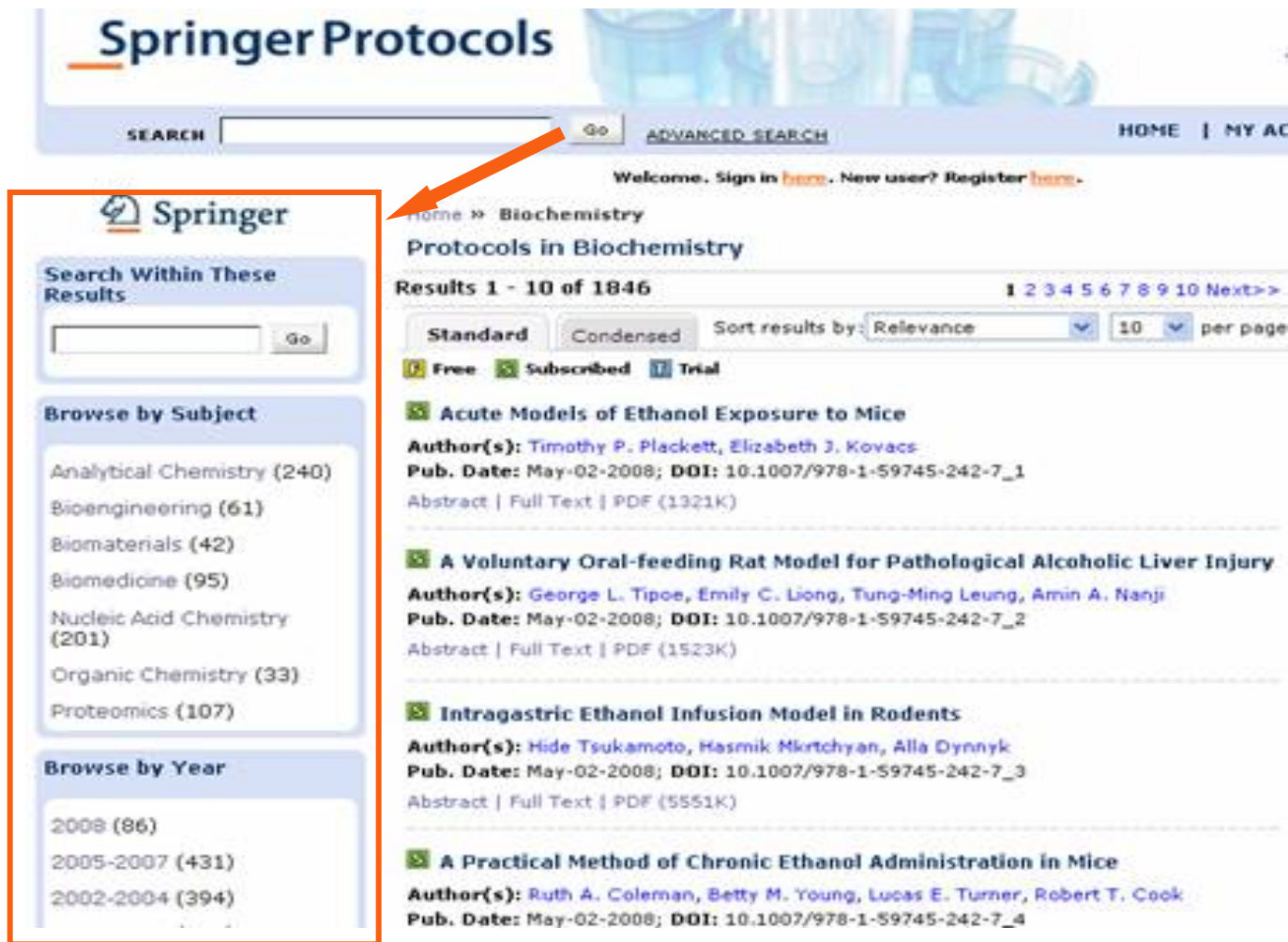


The screenshot shows the SpringerProtocols search interface. At the top, there is a 'Search Protocols' section with a search bar and a 'Search' button, labeled with a circled '1'. Below this is the main 'SpringerProtocols' header with a 'SEARCH' bar and a 'Go' button, labeled with a circled '2'. To the right is the 'Advanced Search' section, which includes options for 'Protocols' or 'Books', search criteria like 'Anywhere in Text', 'Abstract', and 'Title', and fields for 'Author/Editor', 'Series', 'Volume No.', 'EISBN', 'Subject', and 'Year'. The 'Series' dropdown is labeled with a circled '3', and the 'Subject' dropdown is labeled with a circled '4'. Both dropdowns are open, showing a list of options. At the bottom right of the 'Advanced Search' section are 'Search' and 'Clear' buttons.

1. 输入想要搜索的内容，点击search.
2. 搜索栏会一直在SpringerProtocols标志的下面，任何时候您都可以浏览Protocols.
3. 点击“高级搜索”将显示更详细的搜索领域.
4. SpringerProtocols允许您通过系列图书和学科筛选您的研究.


SpringerProtocols的检索

点击页面左侧导航栏，进一步根据二次检索、子学科和出版年限定浏览结果



The screenshot displays the SpringerProtocols website interface. The main header includes the Springer logo, a search bar, and navigation links like 'HOME' and 'MY ACCOUNT'. Below the header, there's a 'Welcome' message and a breadcrumb trail: 'Home > Biochemistry'. The main content area shows 'Protocols in Biochemistry' with 'Results 1 - 10 of 1846'. It includes filters for 'Standard' and 'Condensed' views, a 'Sort results by' dropdown set to 'Relevance', and a '10 per page' option. There are also checkboxes for 'Free', 'Subscribed', and 'Trial' content. The results list includes three entries, each with a green checkmark icon, the title, author(s), publication date, DOI, and options for 'Abstract', 'Full Text', and 'PDF'. The left sidebar is highlighted with an orange box and contains three sections: 'Search Within These Results' with a search input and 'Go' button; 'Browse by Subject' with a list of subjects and their counts (e.g., Analytical Chemistry (240), Bioengineering (61), etc.); and 'Browse by Year' with a list of years and counts (e.g., 2008 (86), 2005-2007 (431), etc.). An orange arrow points from the 'Biochemistry' link in the breadcrumb trail to the 'Browse by Subject' section in the sidebar.

Contents of this article

1. Introduction
 2. Materials
 - 2.1. Solution Recipes and E...
 - 2.2. Membranes
 - 2.3. Common PrP Antibodies ...
 3. Methods
 - 3.1. Western Blot
 - 3.2. Dot Blot and PK Digest...
 - 3.3. Immunoprecipitation of...
 - 3.4. Blot Storage Procedure...
 4. Notes
- References 

Browse by Subject

- Biochemistry (3253)
- Bioinformatics (527)
- Biotechnology (686)
- Cancer Research (1302)
- Cell Biology (1706)

Artes expression systems for the production of recombinant proteins in microbial systems www.artes-biotechnology.com

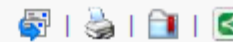
AdChoices 

3. Immunodetection of PrP^{Sc} Using Western and Slot Blotting Techniques

By: [Hanna Gyllberg¹](#), [Kajsa Löfgren¹](#)

Abstract

[Full Text](#) | [Download PDF \(715K\)](#)



Prion infectivity is often linked to presence of the protease-resistant isoform of prion protein (PrP), PrP^{res}; therefore, it is of highest interest to have convenient methods for rapid detection of PrP^{res} in the research laboratory. For detection of PrP^{res} in model systems to confirm infectivity, there are several methods that can be applied. This chapter focuses on detection of PrP^{res} by proteinase K digestion followed by Western blot, which is the only method that is both quantitative and qualitative. For large-scale screening of PrP^{res} content in samples, the dot blot method offers a great advantage for detecting PrP^{res}, and this method is also thoroughly described in this chapter.

Affiliation(s): (1) Department of Biochemistry and Biophysics, Stockholm University, Stockholm, Sweden

Book Title: [Prion Protein Protocols](#)








Series: Methods in Molecular Biology | **Volume:** 459 | **Pub. Date:** Jun-04-2008 | **Page Range:** 35-48 | **DOI:** 10.1007/978-1-59745-234-2_3

Subject: [Protein Science](#)








Key Words: [Dot blot](#) - [guanidinium thiocyanate](#) - [immunoprecipitation](#) - [nitrocellulose membrane](#) - [proteinase K digestion](#) - [PrP antibodies](#) - [PVDF membrane](#) - [reprobing](#) - [Western blot](#)

E-mail Bookmark

Inside SpringerProtocols

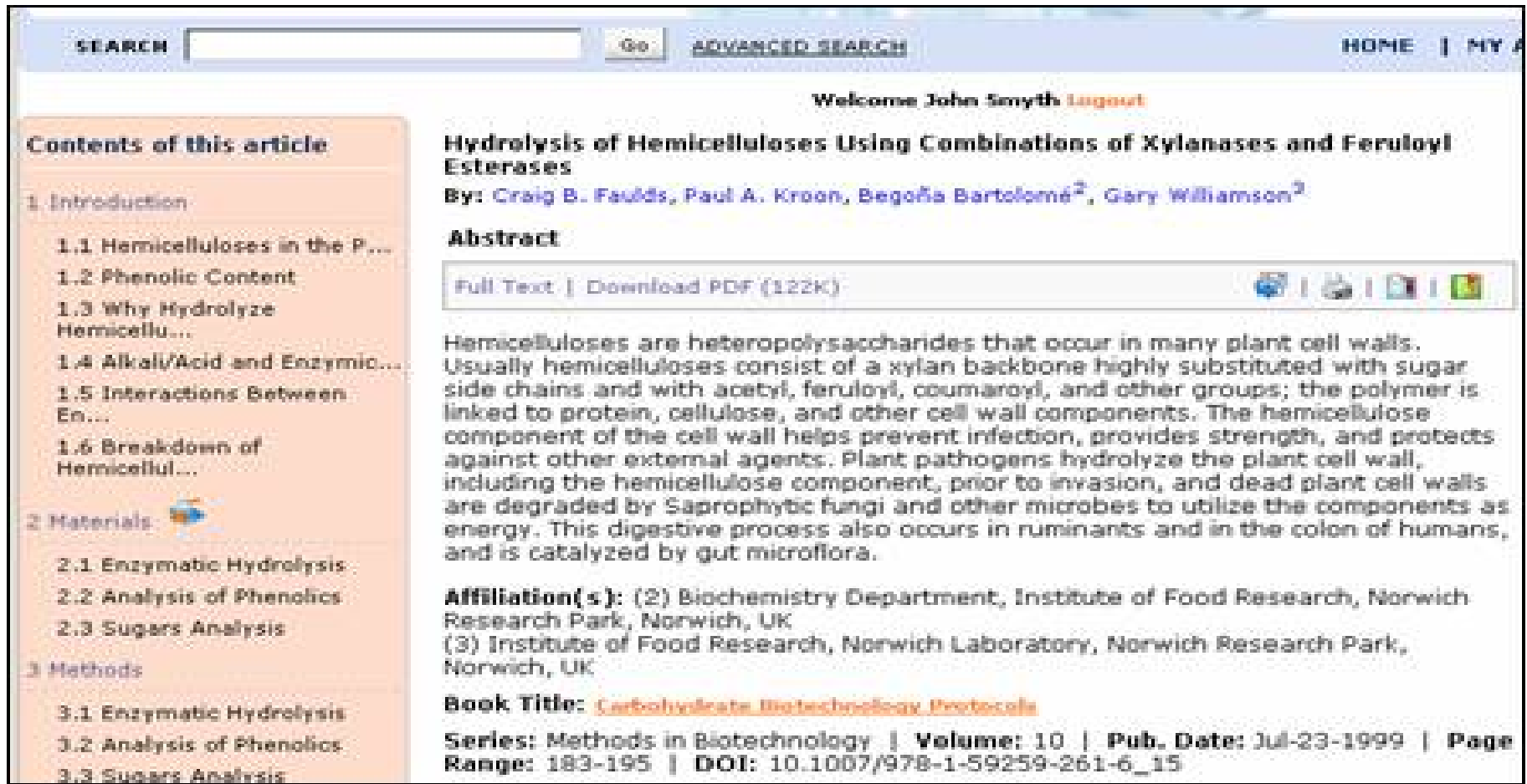
-  [Source Title List](#)
-  [New Protocols](#)
-  [Free Protocols](#)
-  [Popular Protocols](#)
-  [Tour](#)
-  [For Contributors/Editors](#)
-  [For Library Admins](#)

Useful Tools

- Post to [citeulike](#) 
-  [Related Books](#)
-  [Similar Protocols](#)
-  [Export Citation](#)
-  [Comment](#)
-  [Recommend to your library administrator](#)
-  [View This Article on SpringerLink](#)

My Protocols 个性化功能——

在浏览网页时，如果您想把某篇文章单独挑出来，或者是想以后继续浏览此文章，只要您点击一下鼠标，就可以把这边文章添加入My Protocols区。这样以后您将不用再通过检索或浏览即可以轻松的找到之前感兴趣的文章。




The screenshot displays a Springer article page with a search bar at the top left and navigation links for 'HOME' and 'MY A'. The article title is 'Hydrolysis of Hemicelluloses Using Combinations of Xylanases and Feruloyl Esterases' by Craig B. Faulds, Paul A. Kroon, Begonia Bartolomé², and Gary Williamson². The abstract describes hemicelluloses as heteropolysaccharides in plant cell walls, used for energy in ruminants and humans. The page includes a table of contents on the left, an abstract section, and a 'Full Text | Download PDF (122K)' button. The 'My Protocols' feature is highlighted in the top right corner.

SEARCH Go [ADVANCED SEARCH](#) [HOME](#) | [MY A](#)

Welcome John Smyth [Logout](#)


Contents of this article

- 1 Introduction
 - 1.1 Hemicelluloses in the P...
 - 1.2 Phenolic Content
 - 1.3 Why Hydrolyze Hemicellu...
 - 1.4 Alkali/Acid and Enzymic...
 - 1.5 Interactions Between En...
 - 1.6 Breakdown of Hemicellul...
- 2 Materials 
 - 2.1 Enzymatic Hydrolysis
 - 2.2 Analysis of Phenolics
 - 2.3 Sugars Analysis
- 3 Methods
 - 3.1 Enzymatic Hydrolysis
 - 3.2 Analysis of Phenolics
 - 3.3 Sugars Analysis

Hydrolysis of Hemicelluloses Using Combinations of Xylanases and Feruloyl Esterases

By: Craig B. Faulds, Paul A. Kroon, Begonia Bartolomé², Gary Williamson²

Abstract

[Full Text](#) | [Download PDF \(122K\)](#) 

Hemicelluloses are heteropolysaccharides that occur in many plant cell walls. Usually hemicelluloses consist of a xylan backbone highly substituted with sugar side chains and with acetyl, feruloyl, coumaroyl, and other groups; the polymer is linked to protein, cellulose, and other cell wall components. The hemicellulose component of the cell wall helps prevent infection, provides strength, and protects against other external agents. Plant pathogens hydrolyze the plant cell wall, including the hemicellulose component, prior to invasion, and dead plant cell walls are degraded by Saprophytic fungi and other microbes to utilize the components as energy. This digestive process also occurs in ruminants and in the colon of humans, and is catalyzed by gut microflora.

Affiliation(s): (2) Biochemistry Department, Institute of Food Research, Norwich Research Park, Norwich, UK
(3) Institute of Food Research, Norwich Laboratory, Norwich Research Park, Norwich, UK

Book Title: [Carbohydrate Biotechnology Protocols](#)

Series: Methods in Biotechnology | **Volume:** 10 | **Pub. Date:** Jul-23-1999 | **Page Range:** 183-195 | **DOI:** 10.1007/978-1-59259-261-6_15

3.2 个性化服务— 管理提醒服务

管理提醒服务 (Manage Alerts) 介绍:

只需要点击Manage Alerts并选择感兴趣学科, 这样您将会定期收到相关邮件。

Alerts

Keep yourself on the cutting-edge! Receive email notifications about new content on Springer Protocols. Email updates include a hyperlinked table of contents, allowing you to browse and access new content right from your inbox. * required

E-Mail

First Name

Last Name

Subjects*

<input checked="" type="checkbox"/> Biochemistry	<input type="checkbox"/> Bioinformatics
<input type="checkbox"/> Biotechnology	<input type="checkbox"/> Cancer Research
<input checked="" type="checkbox"/> Cell Biology	<input checked="" type="checkbox"/> Genetics/Genomics
<input type="checkbox"/> Imaging/Radiology	<input type="checkbox"/> Immunology
<input type="checkbox"/> Infectious Diseases	<input type="checkbox"/> Microbiology
<input type="checkbox"/> Molecular Medicine	<input type="checkbox"/> Neuroscience
<input type="checkbox"/> Pharmacology/Toxicology	<input type="checkbox"/> Plant Sciences
<input type="checkbox"/> Protein Science	

I do not wish to receive alerts.

E-mail Format*

HTML Text-Only


We prefer to send our customers HTML formatted emails whenever possible. HTML formatted emails provide you with improved design and readability. For the purposes of data protection legislation, submitting this page will indicate you have opted-in, and provided direct consent to receive the e-alerts you have selected. To find out more about our commitment to confidentiality and data protection, please see our [privacy policy](#).

3.2 个性化服务— RSS介绍








RSS介绍：使用RSS可以使您持续得到最新的Springer Protocols！您通过RSS选择一个或多个主题，当所选主题的最新内容出现时您将被通知，在阅读器中找到题目和文摘。如果希望使用RSS，您必须选择一款阅读软件，这个软件可以将网站中的相关信息合成。关于这个软件，您可在我们的RSS清单中选择，也可使用已有的。

RSS Feeds

Use RSS (really simple syndication) feeds to keep up to date with the latest Springer Protocols content! By choosing an RSS feed for one or more of our subject collections, you can be notified when new content is posted to the site for that particular collection. You will find the title and abstract in your news aggregator or reader. To use RSS, you must choose a news aggregator or a reader, a software application that can collect information from many Web sites. If you do not have one, you can choose from one listed on our RSS page or you may choose one of your own. We do not recommend any specific reader/aggregator, but provide a short list for convenience. RSS feeds are convenient because, since you can have feeds from multiple Web sites going into one reader/aggregator on your computer, you can view samples of this content without having to visit so many Web sites. Springer Protocols RSS feeds are part of the Springer Protocols Web site. By using any or all of these feeds, you consent to be bound by our [terms of use](#).

 [New Protocols](#)







Web feed by Subject Collection

-  [Biochemistry](#)
-  [Bioinformatics](#)
-  [Biotechnology](#)
-  [Cancer Research](#)
-  [Cell Biology](#)
-  [Genetics/Genomics](#)
-  [Imaging/Radiology](#)

Inside Springer Protocols

- [New Protocols](#)
- [Free Protocols](#)
- [Popular Protocols](#)
- [Tour](#)
- [For Contributors/Editors](#)
- [For Library Administrators](#)

RSS Aggregators

-  [Sharp Reader](#)
-  [Google Reader](#)
-  [Omea Reader](#)
-  [NewsCrawler](#)
-  [Safari \(Mac OS\)](#)
-  [RSS Owl](#)

- Springer向用户提供Springer Protocols Marc 数据：
 - 符合Marc21标准，使用Springer元数据并提供856等众多通用字段，可以方便结合用户本地OPAC使用
 - Springer Protocols Marc包含所有学科分类
 - Springer Protocols Marc同时支持SpringerProtocols.com和SpringerLink.com平台中的实验室指南
 - 免费下载，易于使用

请访问 www.springer.com/marc , 获得最新Springer Protocols Marc 数据

- Life & Environmental Science
- Engineering
- Humanities, Social Sciences & Law
- Mathematics
- Medicine
- Physics & Astronomy
- Professional and Applied Computing

[English / international collections](#)

Springer bookseries

- LNCS, Lecture Notes in Computer Science
- LNM, Lecture Notes in Mathematics
- LNP, Lecture Notes in Physics

[Book Series](#)

German language collection (incl. GWV)

- Entire collection
- Medicine / Medizin
- Engineering / Technik & Informatik
- Management / Wirtschaftswissenschaften
- Social Sciences / Geistes-, Sozial- & Rechtswissenschaften (incl. Psychology / Psychologie)
- GWV

[German collections](#)



eBook Resources

[eBook Title Lists](#)

[eBook FAQs for Librarians](#)
(pdf, 52 Kb)



Questions on MARC?

For additional information
email:

marc@springer.com
or

contact your Springer
representative...

[In Europe, Asia, Africa](#)

[In the Americas](#)

Springer Protocols MARC records

Introducing the world's most comprehensive collection of peer-reviewed life sciences protocols:

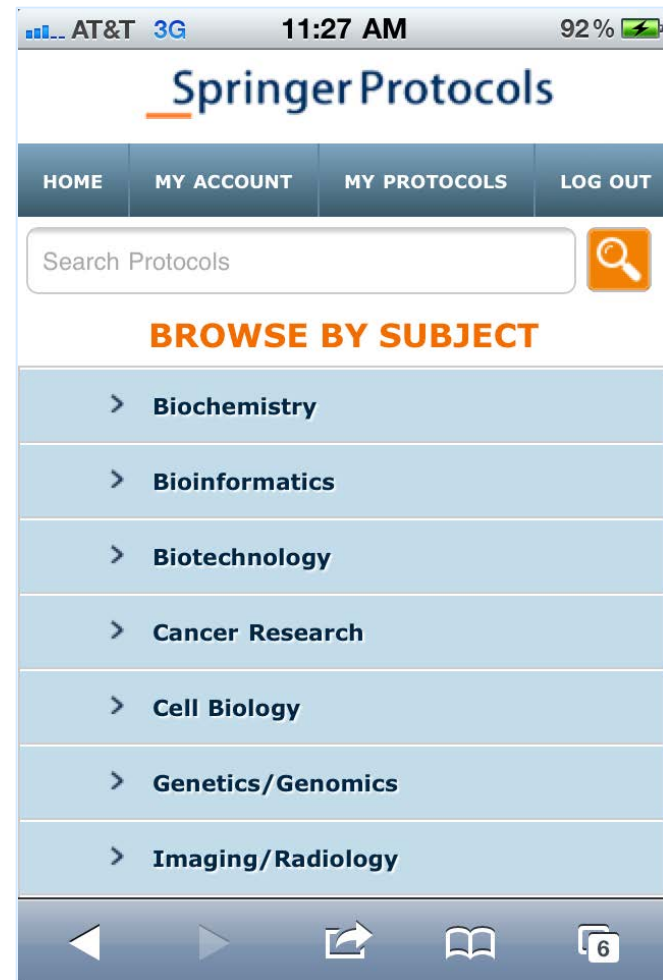
- More than 18,000 protocols with an additional 2,000 added each year
- Based on tried and tested resources including Methods in Molecular Biology

[Springer Protocols - Complete Collection August 2008 \(zip, 84 Kb\)](#)

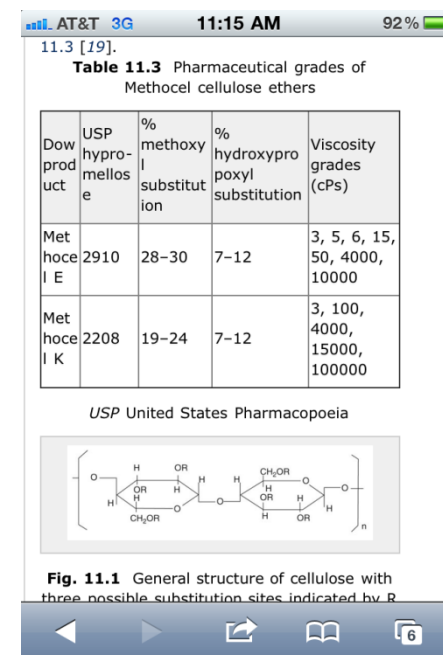
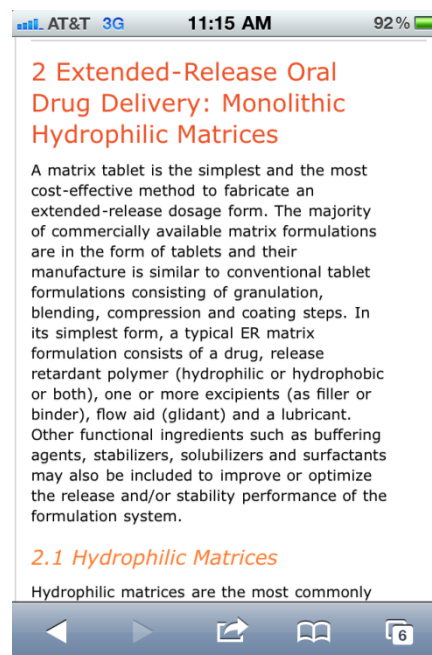
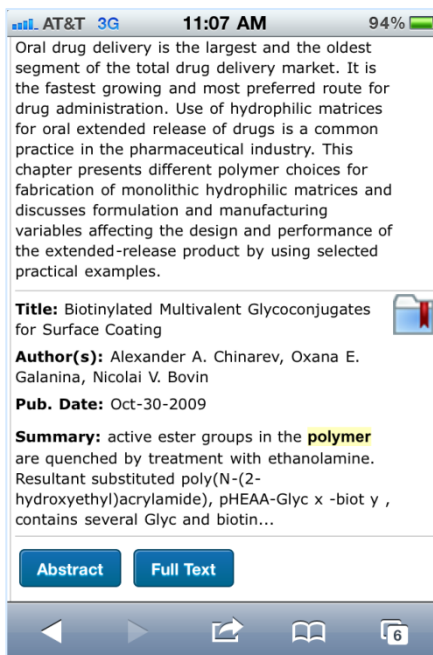
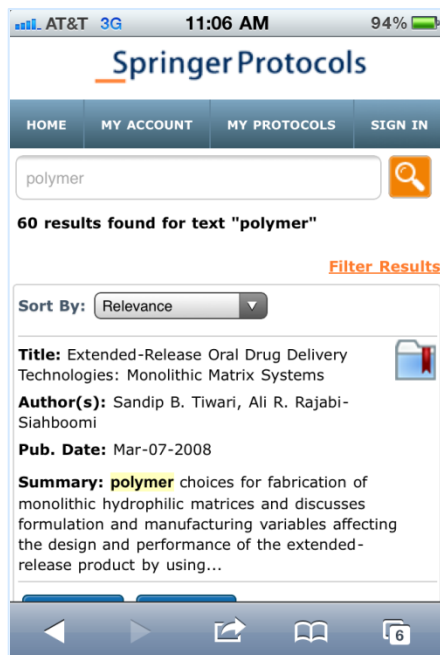


Marc文件包

- Web 的应用程序
能在Apple, Android及Blackberry运行。
- 在您的移动设备上，简单地浏览到
springerprotocols.com，移动版即自动
显示。



动起智能手机，随时随地搜索你的实验指南或翻阅已保存的protocols！



Springer Materials



全球最大和最主要的
材料学物理及化学数据库
并拥有强大的搜索引擎

www.springermaterials.com

1. Landolt-Börnstein

2. 数据库:

– Inorganic
Solid Phases

无机固体相图

– Thermophysical
Properties

热物理性质

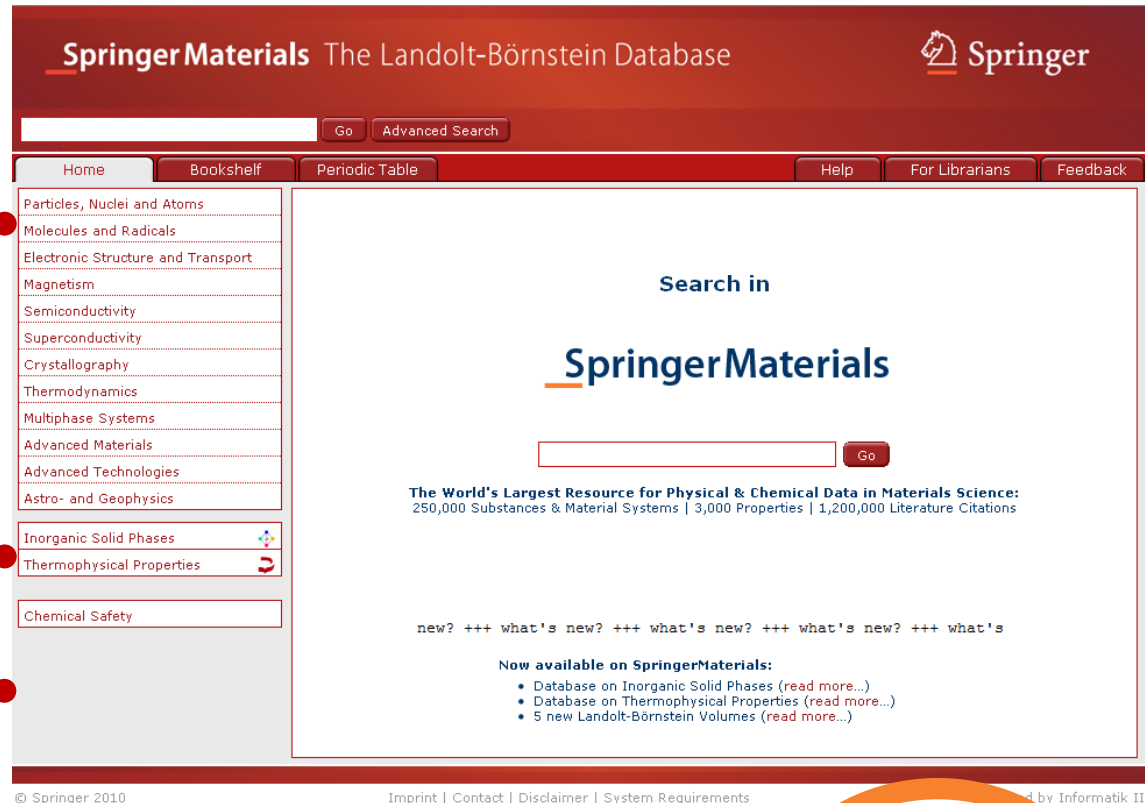
3. 化工安全文献:

– REACH

– GHS

– RoHS, WEEE

4. 更多文献即将加入...
(季度更新)



The screenshot shows the SpringerMaterials website interface. At the top, it reads "SpringerMaterials The Landolt-Börnstein Database" with the Springer logo. Below this is a search bar with "Go" and "Advanced Search" buttons. A navigation menu includes "Home", "Bookshelf", "Periodic Table", "Help", "For Librarians", and "Feedback". A sidebar on the left lists various categories: "Particles, Nuclei and Atoms", "Molecules and Radicals", "Electronic Structure and Transport", "Magnetism", "Semiconductivity", "Superconductivity", "Crystallography", "Thermodynamics", "Multiphase Systems", "Advanced Materials", "Advanced Technologies", "Astro- and Geophysics", "Inorganic Solid Phases", "Thermophysical Properties", and "Chemical Safety". The main content area features a "Search in SpringerMaterials" section with a search bar and "Go" button. Below this, it states "The World's Largest Resource for Physical & Chemical Data in Materials Science: 250,000 Substances & Material Systems | 3,000 Properties | 1,200,000 Literature Citations". There are also links for "new? +++ what's new? +++ what's new? +++ what's new? +++ what's" and a section titled "Now available on SpringerMaterials:" with three bullet points: "Database on Inorganic Solid Phases (read more...)", "Database on Thermophysical Properties (read more...)", and "5 new Landolt-Börnstein Volumes (read more...)". The footer contains "© Springer 2010", "Imprint | Contact | Disclaimer | System Requirements", and "by Informatik II".

每季
更新!

- **Landolt Börnstein 新丛书系列**

- 涵盖250,000多种化学物质与材料的物理和化学数据

- 粒子、核子和原子

- 分子和自由基

- 电子结构与传输

- 磁学

- 半导体

- 超导体

- 结晶学

- 热力学

- 多相系统

- 先进材料

- 先进技术

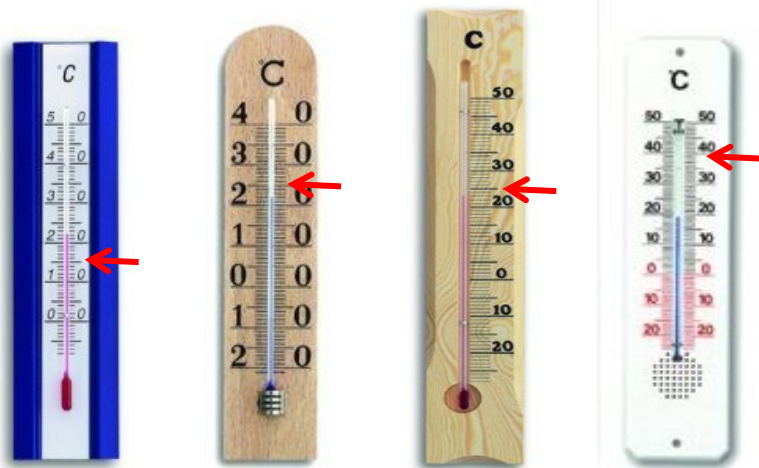
- 天体和地球物理学

- 400多印刷本，超过120万的参考文献

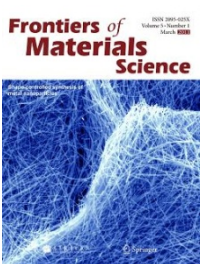
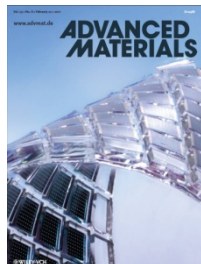
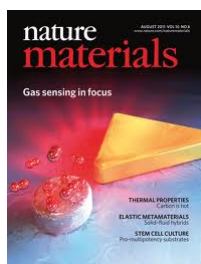
- 来自全球各领域的数千多名专家负责对8,000多种经同行评审的期刊原文进行审阅，评估和筛选，然后将最有效的信息整齐排列和收录。

温度测量

数千多名各领域的专家（作者与编辑）



- 挑选最准确，最可靠的数据
- 描述最佳实验设置和最佳做法
- 提供背景资料



Ref. p. 411		3 Two ring systems with bridging group		379
No.	Ref.	Range	Thematic expression [%]	Ref.
System 3.108 4,4'-disubstituted N-phenyl-2,2,6,6-tetramethylpiperidine				
1	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, O, B, C, O, A, A, N, S, I, 800	1 800
2	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, A, B, B, A, B, N, S, I, 800	1 800
3	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, O, N, A, I, 763	1 763
System 3.109 4,4'-disubstituted N-phenyl-2,2,6,6-tetramethylpiperidine				
1	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, A, N, A, I, 763	1 763
System 3.107 3,3',4,4'-tetrasubstituted N-phenyl-2,2,6,6-tetramethylpiperidine				
1	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
2	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
System 3.106 3,3',4,4'-tetrasubstituted N-phenyl-2,2,6,6-tetramethylpiperidine				
1	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
2	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
System 3.105 3,3',4,4'-tetrasubstituted N-phenyl-2,2,6,6-tetramethylpiperidine				
1	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
2	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
3	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
4	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
5	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
Comments				
*) O, N, 800 (2000) (2000) (2000) (2000) (2000)				
**) O, N, 800 (2000) (2000) (2000) (2000) (2000)				
***) O, N, 800 (2000) (2000) (2000) (2000) (2000)				
****) O, N, 800 (2000) (2000) (2000) (2000) (2000)				
*****) O, N, 800 (2000) (2000) (2000) (2000) (2000)				
20	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
21	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
22	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
23	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
24	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
25	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
26	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
27	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
28	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
29	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
Landolt-Börnstein				

Ref. p. 411		3 Two ring systems with bridging group		379
No.	Ref.	Range	Thematic expression [%]	Ref.
System 3.108 4,4'-disubstituted N-phenyl-2,2,6,6-tetramethylpiperidine				
1	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, O, B, C, O, A, A, N, S, I, 800	1 800
2	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, A, B, B, A, B, N, S, I, 800	1 800
3	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, O, N, A, I, 763	1 763
System 3.109 4,4'-disubstituted N-phenyl-2,2,6,6-tetramethylpiperidine				
1	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, A, N, A, I, 763	1 763
System 3.107 3,3',4,4'-tetrasubstituted N-phenyl-2,2,6,6-tetramethylpiperidine				
1	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
2	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
System 3.106 3,3',4,4'-tetrasubstituted N-phenyl-2,2,6,6-tetramethylpiperidine				
1	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
2	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
Comments				
*) O, N, 800 (2000) (2000) (2000) (2000) (2000)				
**) O, N, 800 (2000) (2000) (2000) (2000) (2000)				
***) O, N, 800 (2000) (2000) (2000) (2000) (2000)				
****) O, N, 800 (2000) (2000) (2000) (2000) (2000)				
*****) O, N, 800 (2000) (2000) (2000) (2000) (2000)				
20	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
21	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
22	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
23	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
24	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
25	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
26	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
27	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
28	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
29	C ₁₀ H ₁₀ O	<C ₁₀ H ₁₀ O	O, N, 800	1 800
Landolt-Börnstein				





Advanced Search

Home

Bookshelf

Periodic Table

Help

For Librarians

Feedback

Particles, Nuclei and Atoms
Molecules and Radicals
Electronic Structure and Transport
Magnetism
Semiconductivity
Superconductivity
Crystallography
Thermodynamics
Multiphase Systems
Advanced Materials
Advanced Technologies
Astro- and Geophysics



Search in

SpringerMaterials



Go

具备“快速键入”功能，可以实现术语联想功能

The World's Largest Resource for Physical & Chemical Data in Materials Science:
250,000 Substances & Material Systems | 3,000 Properties | 1,200,000 Literature Citations

+++ what's new +++ what's new +++ what's new +++ what's new +++ what's new +++ what's new +++

Available September 30, 2011

- Learn how to use SpringerMaterials: SpringerMaterials Tutorial ([more ...](#))
- Database on Thermophysical Properties: New Data and New Properties Added ([more ...](#))
- 2 Landolt-Börnstein Volumes ([more ...](#))

[News archive](#)

Chemical Safety



[Go](#) [Advanced Search](#)[Home](#)[Bookshelf](#)[Periodic Table](#)[Help](#)[For Librarians](#)[Feedback](#)

Landolt-Börnstein Bookshelf

There's no dust on this electronic bookshelf. Browse the volumes of The Landolt-Börnstein New Book Series.



Group I	Elementary Particles, Nuclei and Atoms
Group II	Molecules and Radicals
Group III	Condensed Matter
Group IV	Physical Chemistry
Group V	Geophysics
Group VI	Astronomy and Astrophysics
Group VII	Biophysics
Group VIII	Advanced Materials and Technologies

[Home](#)[Bookshelf](#)[Periodic Table](#)[Help](#)[For Librarians](#)[Feedback](#)

> [Group IV: Physical Chemistry](#)

Group IV: Physical Chemistry

- IV/1a** Mechanical Properties · Densities of Liquid Systems · Nonaqueous Systems and Ternary Aqueous Systems
- IV/1b** Mechanical Properties · Densities of Liquid Systems · Densities of Binary Aqueous Systems and Heat Capacities of Liquid Systems
- IV/2** Thermodynamic Properties · Heats of Mixing and Solution
- IV/3** Thermodynamic Properties · Thermodynamic Equilibria of Boiling Mixtures
- IV/4** Thermodynamic Properties · High-Pressure Properties of Matter
- IV/5a** Thermodynamic Properties · Phase Equilibria, Crystallographic and Thermodynamic Data of Binary Alloys · Ac-Au - Au-Zr
- IV/5b** Thermodynamic Properties · Phase Equilibria, Crystallographic and Thermodynamic Data of Binary Alloys · B-Ba - C-Zr
- IV/5c** Thermodynamic Properties · Phase Equilibria, Crystallographic and Thermodynamic Data of Binary Alloys · Ca-Cd - Co-Zr
- IV/5d** Thermodynamic Properties · Phase Equilibria, Crystallographic and Thermodynamic Data of Binary Alloys · Cr-Cs - Cu-Zr
- IV/5e** Thermodynamic Properties · Phase Equilibria, Crystallographic and Thermodynamic Data of Binary Alloys · Dy-Er - Fr-Mo
- IV/5f** Thermodynamic Properties · Phase Equilibria, Crystallographic and Thermodynamic Data of Binary Alloys · Ga-Gd - Hf-Zr
- IV/5g** Thermodynamic Properties · Phase Equilibria, Crystallographic and Thermodynamic Data of Binary Alloys · Hg-Ho - La-Zr
- IV/5h** Thermodynamic Properties · Phase Equilibria, Crystallographic and Thermodynamic Data of Binary Alloys · Li-Mg - Nd-Zr
- IV/5i** Thermodynamic Properties · Phase Equilibria, Crystallographic and Thermodynamic Data of Binary Alloys · Ni-Np - Pt-Zr

- Group I Elementary Particles, Nuclei and Atoms
- Group II Molecules and Radicals
- Group III Condensed Matter
- Group IV Physical Chemistry
- Group V Geophysics
- Group VI Astronomy and Astrophysics
- Group VII Biophysics
- Group VIII Advanced Materials and Technologies

No elements selected

Search for Element Systems

	1 IA	2 IIA	3 IIIB	4 IVB	5 VB	6 VIB	7 VIIB	8 VIII B	9 VIII B	10 VIII B	11 IB	12 IIB	13 IIIA	14 IVA	15 VA	16 VIA	17 VIIA	18 VIII A	
1	1 H	1 D	1 T															2 He	K
2	3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne	L
3	11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar	M
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr	N
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe	O
6	55 Cs	56 Ba	*	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn	P
7	87 Fr	88 Ra	**	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113	114	115	116	117	118	Q
	*	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu			
	**	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr			

Select elements by clicking on the symbols.
Deselect elements by clicking a second time.

Your Selection

高级检索功能支持布尔运算符和通配符搜索 SpringerMaterials The Landolt-Börnstein Database



Substances, Properties, ...

3D Molecules

Bibliographic References

Help

Close

Your Query

Go

Clear

Search for ... **分子式**
通用名

CAS登记号

Substances / Molecular Formulas / Element Systems / CAS Registry Numbers

Properties

Search in ...

- Particles, Nuclei and Atoms
- Molecules and Radicals
- Electronic Structure and Transport
- Magnetism
- Semiconductivity
- Superconductivity
- Crystallography
- Thermodynamics
- Multiphase Systems
- Advanced Materials
- Advanced Technologies
- Astro- and Geophysics

Search for ...

... all of these words

... one or more of these words

... exactly this phrase

... but none of these words

Inorganic Solid Phases

Thermophysical Properties

Help

For Librarians

Feedback

Expanded View

Clear

Refine

Linear dielectric susceptibilities > Data on crystals

Registry Number: 25617-97-4 ... Metadata - Molecular
length: λ [μm] 1.80 1.90 2.0 ... and doping) [76Ka2]: Change in

Compounds > Electronic Transport and Optical

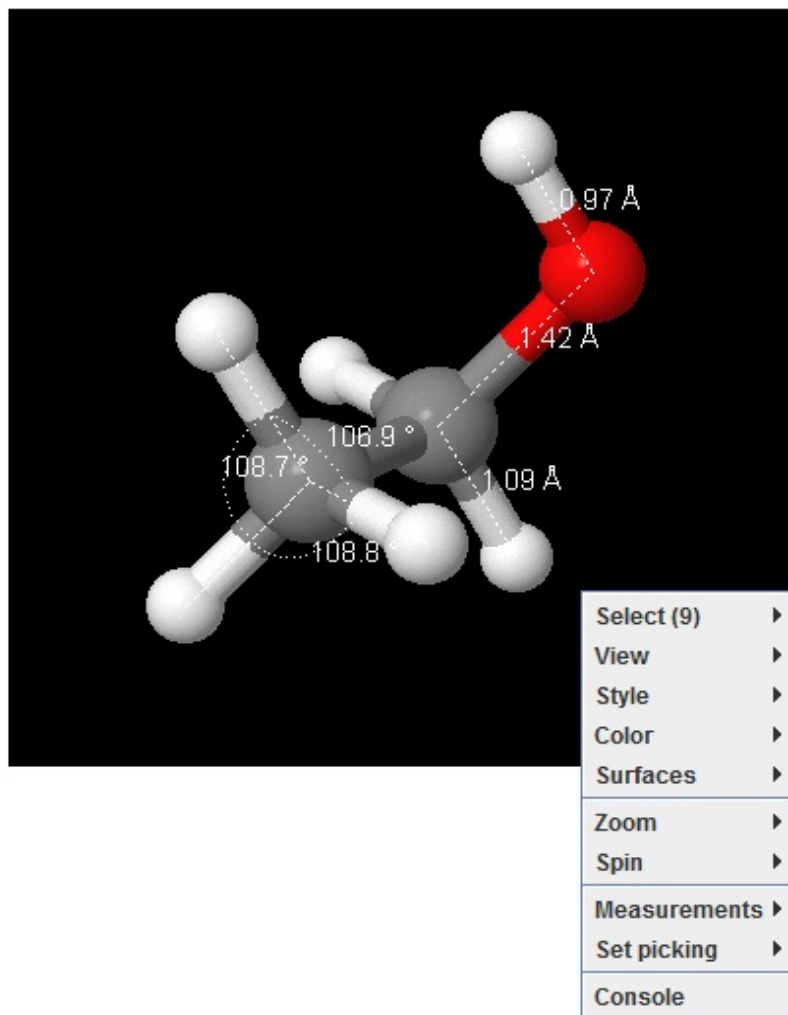
refractive index ... Metadata - CAS Registry Number:
GaN) property: optical properties, ... of the absorption

Molecular Formula: GaN ... Fulltext: GaN, physical properties
State Commun. (1992) 81, 23-26. ... localization of as-grown

Compounds > Lattice Properties > Gallium nitride

Registry Number: 25617-97-4 ... Metadata - Molecular
... 70M ϵ [(∞) 5.24(23) extrapolation of refractive index 71E

Ethanol



Name	Ethanol
Molecular Formula	C_2H_6O
Element system	C-H-O
CAS-RN	64-17-5, 8000-16-6, 8024-45-1, 121182-78-3

Search for Ethanol

Synonyms

ethyl alcohol; Ethylalkohol; Alkohol; absoluter Alkohol; Weingeist; Brennsprit; Äthanol; 100C.NPA; Alcare Hand Degermer; Alcohol; Alcohol anhydrous; Algrain; Anhydrol; Anhydrol PM 4085; Desinfektol EL; Duplicating Fluid 100C.NPA; Esumiru WK 88; Ethicap; Ethyl hydrate; Ethyl hydroxide; Hinetoless; IMS 99; Jaysol; Jaysol S; Methylcarbinol; Molasses alcohol; Potato alcohol; SDA 3A; SDA 40-2; SY Fresh M; Synasol; Tecsol; Tecsol C; Alcohol, Ethyl; Absolute ethanol; Aethanol; Aethylalkohol; Alcohol, anhydrous; Alcohol, dehydrated; Alcohol, diluted; Alcohols; Alkohol; Cologne spirit; Ethanol 200 proof; Ethyl alc; Ethyl alcohol, anhydrous; EtOH; Fermentation alcohol; Grain alcohol; NCI-C03134; Spirits of wine; Spirt; SD Alchol 23-hydrogen; Thanol; Ethanol, wasserfrei; Ethanol vergällt; Methylcabinol; Spiritus; Ethyl alcohol, denatured; Alcohol Absolute; Ethanol absolut; Ethanol wasserfrei; absoluter Alkohol; Äthanol; C_2H_6O (ethanol); C_2H_5OH ; $C_2H_5(OH)$; Ethylhydroxid

SpringerMaterials Documents:

Thermodynamics > Thermodynamical Properties > Binary Fluid Systems > Vapor-Liquid Equilibrium in Mixtures and Solutions > Organic systems > Siloxanes and Primary linear-alkyl monoalcohols > Hexamethyldisiloxane $C_6H_{18}OSi_2$ and C_2H_6O Ethanol

Property Type EVLM1131  

Chemical Safety:

European regulations regarding Ethanol (C2H6O)



Substances, Properties, ...

3D Molecules

Bibliographic References

Help

Close

Your Query

Go

Clear

Search for ...

Substances / Molecular Formulas / Element Systems / CAS Registry Numbers

Properties

Search in ...

- Particles, Nuclei and Atoms
- Molecules and Radicals
- Electronic Structure and Transport
- Magnetism
- Semiconductivity
- Superconductivity
- Crystallography
- Thermodynamics
- Multiphase Systems
- Advanced Materials
- Advanced Technologies
- Astro- and Geophysics

Search for ...

... all of these words

... one or more of these words

... exactly this phrase

... but none of these words

Inorganic Solid Phases

Thermophysical Properties

Help

For Librarians

Feedback

Expanded View

Clear

Refine

Linear dielectric susceptibilities > Data on crystals

CAS Registry Number: 25617-97-4 ... Metadata - Molecular
Length: λ [μm] 1.80 1.90 2.0 ... and doping) [76Ka2]: Change in

Compounds > Electronic Transport and Optical

refractive index ... Metadata - CAS Registry Number:
GaN) property: optical properties, ... of the absorption

Molecular Formula: GaN ... Fulltext: GaN, physical properties
State Commun. (1992) 81, 23-26. ... localization of as-grown

Compounds > Lattice Properties > Gallium nitride

CAS Registry Number: 25617-97-4 ... Metadata - Molecular
... 70M ϵ [(∞) 5.24(23) extrapolation of refractive index 71E

Substances, Properties, ...

3D Molecules

Bibliographic References

Help

Close

Search for ...

Bibliographic References

ethanol

Go

Barker, J.A.; Brown, I.; Smith, F. Thermodynamic properties of alcohol solutions. The system **ethanol** + carbon tetrachloride. *Discuss. Faraday Soc.* 1953, 15, 142-150.

Belaribi-Boukais, G.; Ait-Kaci, A.; Delepine, H.; Jose, J. Total vapor pressures between 263.15 K and 353.15 K and excess enthalpies at 303.15 K of binary mixtures of hex-2-yne + methanol, + **ethanol**, or + butan-1-ol. *ELDATA Int. Electron. J. Phys.-Chem. Data* 1997, 3, 109-118.

Belaribi-Boukais, G.; Ait-Kaci, A.; Mokbel, I.; Jose, J. Total vapor pressures between 253 K and 363 K of binary mixtures of hex-1-yne + methanol, + **ethanol**, or + butan-1-ol and excess enthalpies at 298.15 K of binary mixtures of hex-1-yne + methanol or + butan-1-ol. *ELDATA Int. Electron. J. Phys.-Chem. Data* 1997, 3, 173-182.

Belaribi-Boukais, G.; Ait-Kaci, A.; Mokbel, I.; Jose, J. Total vapor pressures between 263 K and 353 K and excess enthalpies at 298.15 K of binary mixtures of hex-3-yne + methanol, + **ethanol**, or + butan-1-ol. *ELDATA Int. Electron. J. Phys.-Chem. Data* 1997, 3, 205-214.

Berg, Ch.: F.O. Licht's international molasses and alcohol report and world **ethanol** markets, analysis and outlook, UK, October 2001.

Brown, I.; Fock, W.; Smith, F. Thermodynamic properties of alcohol solutions. II. **Ethanol** and isopropanol systems. *Australian Journal of Chemistry* 1956, 9, 364-372.

Brown, I.; Smith, F. Liquid-vapor equilibria. IV. The system **ethanol** - benzene at 45 degreeC. *Australian Journal of Chemistry* 1954, 7, 264-268.

Conti, G.; Gianni, P.; Matteoli, E. Excess enthalpies and excess heat capacities of the ternary system **ethanol** + tetrahydrofuran + cyclohexane at 298.15 K. *Thermochim. Acta* 1994, 247, 293-313.

Cordray, D.R.; Izatt, R.M.; Christensen, J.J.; Oscarson, J.L. The excess enthalpies of (carbon dioxide + **ethanol**) at 308.15, 325.15, 373.15, 413.15, and 473.15 K from 5.00 to 14.91 MPa. *J. Chem. Thermodyn.* 1988, 20, 655-663.

Easteal, A.I., Woolf, L.A.: Measurements of (p, V, x) for (**ethanol** + trichloromethane) at 298.15 K. *J. Chem. Thermodyn.* 16 (1984) 391-398.

French, H.T.; Richards, A.; Stokes, R.H. Thermodynamics of the partially miscible system **ethanol** + hexadecane. *J. Chem.*

Help

For Librarians

Feedback

Expanded View

Clear

Refine

Organic semiconductors

nschweig: Vieweg, 1981. 81K Kao, K. C., Hwang,

- 内容:

- 来源: 经同行评审的期刊的数据与信息
- 数字和图表是最准确及备受材料工业肯定
- 内容定期更新, 以跟上科学与技术发展的进度
- 互动式3D分子结构库提供直接可视化和测量
- 集成引文工具方便导出PDF, CSV和RIS文件

substance: boron nitride (BN)
property: properties of wurtzite-type

For crystal structure see Fig. 1.

w-BN is generally produced in very small quantities. Thus, the measurement of its properties is difficult.

Electronic properties

band structure: Fig. 2

All recent calculations yield indirect band structure.

energy gap

$E_{g,ind}(\Gamma-K)$	5.81 eV
$E_{g,dir}(\Gamma)$	8.0 eV
$E_{g,dir}(M)$	9.3 eV
$E_{g,dir}(L)$	10.7 eV
$E_{g,dir}(A)$	10.6 eV
$E_{g,dir}(H)$	12.8 eV
$E_{g,dir}(K)$	11.7 eV

structure of valence band

$E_{v,max} - E_{v,min}$	21.0 eV
E_{π}	11.76 eV
E_{σ}	6.28 eV
$E_{g,\sigma\pi}$	2.93 eV

Fig. 1. Crystal structures of four modifications of boron nitride.

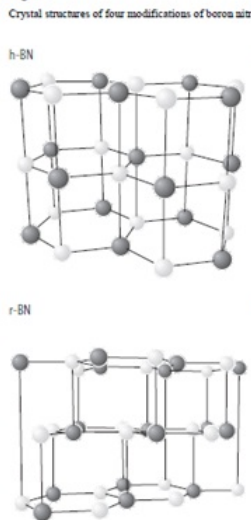
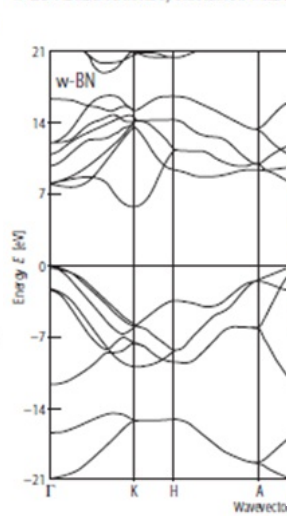
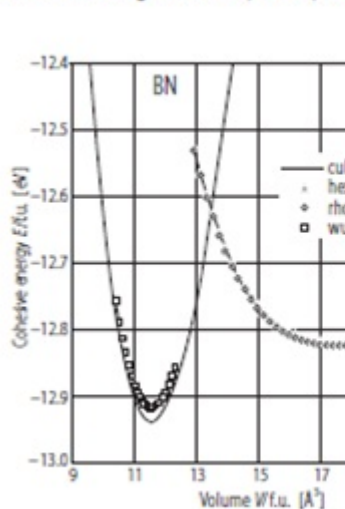


Fig. 2. w-BN. Band structure, calculated with the pseudopotential method.



Cohesive energies of c-BN, w-BN, h-BN



Further properties

cohesive energy

see Fig. 9

ΔE_0	0.011 eV/atom	difference to E_0 of c-BN
--------------	---------------	-----------------------------

density

d	3.473 g cm ⁻³	standard conditions	X-ray diffraction
	3.49 g cm ⁻³	at 25 °C	
	3.470 g cm ⁻³	at 25 °C	

Debye temperature

Θ_D	1594(2) K	$T = 300$ K	calorimetry
	(1760 ± 60) K	$T = 50$ K	
	(1460 ± 70) K		

Temperature dependence of Debye temperature: see Fig. 10.

entropy, enthalpy, heat capacity

$S_{298.15}^0$	(7.239 ± 0.017) J mol ⁻¹ K ⁻¹	
$H_{298.15}^0 - H_0^0$	(1541 ± 3) J mol ⁻¹	
$C_p(298.15)$	(16.45 ± 0.02) J mol ⁻¹ K ⁻¹	
$C_p^0(T)$	$48.351(T^2/(T^2 - 8.369T + 68306.334))^2$ J mol ⁻¹ K ⁻¹	
	$T = 420...980$ K	calorimetry

For low temperature values of C_p see Fig. 11.

飞机设计师需要更高强度
新型合金制作飞机小翼：
例如, **Al-Fe-Ti**



SpringerMaterials

典型案例 情景再现

SpringerMaterials The Landolt-Börnstein Database

Go Advanced Search

Home Bookshelf Periodic Table Help For Librarians Feedback

Search for Element Systems

Select elements by clicking on the symbols.
Deselect elements by clicking a second time.

Your Selection
Al-Fe-Ti

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IA	IIA	IIIB	IVB	VB	VIB	VIIb	VIIIb	VIIIb	VIIIb	IB	IIB	IIIA	IVA	VA	VIA	VIIA	VIIIA
1 H	2 D	3 T										5 B	6 C	7 N	8 O	9 F	10 He
2 Li	4 Be											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
3 Na	12 Mg																
4 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
6 Cs	Ba	**	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
7 Fr	Ra	**	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn						
	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu		
	**	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr	

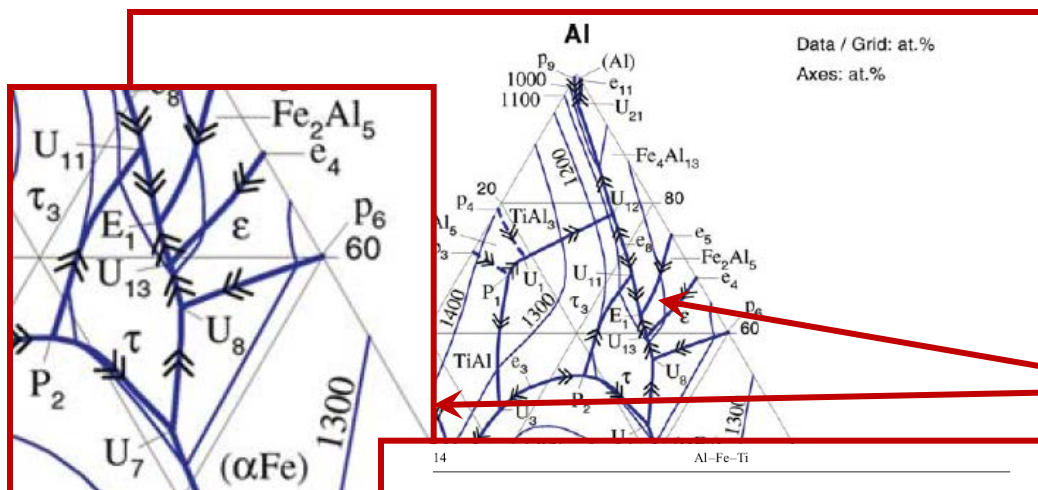
1. 从化学元素周期表中
选择相应元素
2. 所有可生成化合物将
显示在左侧

飞机设计师需要更高强度
新型合金制作飞机小翼：
例如, Al-Fe-Ti



SpringerMaterials

典型案例 情景再现



1. 打开合金相位图数据页面
2. 选择期望的相位图
3. 获得期望的合金材料特性数据

14 Al-Fe-Ti

Phase/ Temperature Range [°C]	Pearson Symbol/ Space Group/ Prototype	Lattice Parameters [pm]	Comments/References
		$a = 496.61$ $c = 806.28$	[2006Yan], $Ti_{33.3}Fe_{33.3}Al_{33.4}$ annealed at 1000°C
		$a = 503.66$ $c = 819.71$	[2006Yan], as-cast $Ti_{34}Fe_{17}Al_{49}$
TiFe ≤ 1317	$cP2$ $Pm\bar{3}m$ $CsCl$	$a = 297.6$	solid solubility ranges from 49.8 to 51.8 at.% Ti [V-C]
* τ_1 , TiFe ₂ Al	$cF16$ $Fm\bar{3}m$ Cu_2AlMn	$a = 587.9$	[1983Bus], annealed at 900°C for 14 days
* τ_2	cF^* $F\bar{4}3m$	$a = 1211.0$ $a = 1209.59$	[1995Pal], at $Ti_{50.9}Fe_{24.5}Al_{24.6}$ [2006Gry], $Ti_{43}Fe_{23}Al_{33}$ annealed at 900°C; both X-ray and neutron diffraction data
* τ_2'	$cF116$ $Fm\bar{3}m$ Th_6Mn_{23}	$a = 1199.0$ $a = 1182.0$ $a = 1203.8$ $a = 1207.6$ $a = 1209.9$ $a = 1211.0$ $a = 1189.0$	[1967Mar, 2000Mab] [1981Sei] [1995Pal], at $Ti_{30.8}Fe_{21.4}Al_{47.8}$ [1999Gor], at $Ti_{38.4}Fe_{23}Al_{38.6}$ [1999Gor], at $Ti_{42.2}Fe_{23.1}Al_{34.7}$ [1999Lev] [2003Gry] at $Ti_{20.3}Fe_{23.7}Al_{56}$
filled Th_6Mn_{23}		$a = 1209.2$	[2003Gry] at $Ti_{42}Fe_{23.3}Al_{34.7}$
filled Th_6Mn_{23}		$a = 1199.44$	[2006Gry], $Ti_{22}Fe_{23}Al_{55}$ annealed at 900°C; neutron diffraction data

平台首页帮助栏 (Help) 具有演示和分布

Home

Bookshelf

Periodic Table

Help

For Librarians

Feedback

- User Guide
- Search Help
- Sample Searches
- Tutorial
- Demo Video

Search in

SpringerMaterials

The World's Largest Resource for Physical & Chemical Data in Materials Science:
250,000 Substances & Material Systems | 3,000 Properties | 1,200,000 Literature Citations



+++ what's new +++ what's new +++ what's new +++ what's new +++ what's new +++ what's new +++

Available September 30, 2011

- Learn how to use SpringerMaterials: SpringerMaterials Tutorial ([more ...](#))
- Database on Thermophysical Properties: New Data and New Properties Added ([more ...](#))
- 2 Landolt-Börnstein Volumes ([more ...](#))

[News archive](#)

- Particles, Nuclei and Atoms
- Molecules and Radicals
- Electronic Structure and Transport
- Magnetism
- Semiconductivity
- Superconductivity
- Crystallography
- Thermodynamics
- Multiphase Systems
- Advanced Materials
- Advanced Technologies
- Astro- and Geophysics

- Inorganic Solid Phases 
- Thermophysical Properties 

Chemical Safety

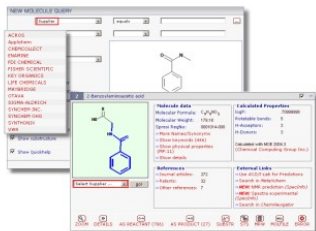


Home	Password Login	IP Login	<input type="checkbox"/> use SSL	Free Demo Account	What's New	FAQ	About InfoChem	Contact	Imprint
------	----------------	----------	----------------------------------	-------------------	------------	-----	----------------	---------	---------

Welcome to InfoChem's SPRESI^{web}
A new dimension in integrating scientific chemical databases

New: Database Refresh

With version 2.12 SPRESI^{web} reprises the original concept of only including structures abstracted from the literature and retains only the catalog data and supplier links for these structures. The benefit of this refresh is improved content, focused on chemistry from organic synthesis journals.



The user can identify which substances contained in his hit lists are commercially available directly during the search and order them right away through the hyperlink to **homepage/online catalogs of the particular supplier**.

Get your demo account now!

Test now! The SPRESI^{web} 2.12 version developed by InfoChem is an integrated scientific database containing over

- 5.52 million molecules abstracted from literature
- 4.26 million reactions
- 675,000 references
- 164,000 patents

covering the years 1974 - 2011.
SPRESI^{web} offers links to several document delivery services as:

- Subito and CISTI
- patent offices:
 - Espacenet
 - US Patent & Trademark Office and
 - MicroPatent

and to other databases like:

- SpringerMaterials

© 2013 InfoChem GmbH

InfoChem Gesellschaft für chemische Information mbH
Landsberger Straße 408
D-81241 München
Germany

Phone +49 (89) 58 30 02
Fax +49 (89) 580 38 39
WWW www.infochem.de
E-Mail Contact us
Webmaster Contact Webmaster

- 通过Springer Materials可以链接到化学反应数据库SPRESI, 用户可以在SPRESI中寻查有机化合物和有机金属化合物的合成路径。
- 欢迎访问www.spresi.com

感谢您对Springer的支持

谢谢！

施普林格亚洲有限公司北京代表处
中国北京海淀区北四环西路58号
理想国际大厦408-412室，100080

电话：0086 10 82670211

传真：0086 10 82670212

www.springer.com

link.springer.com