



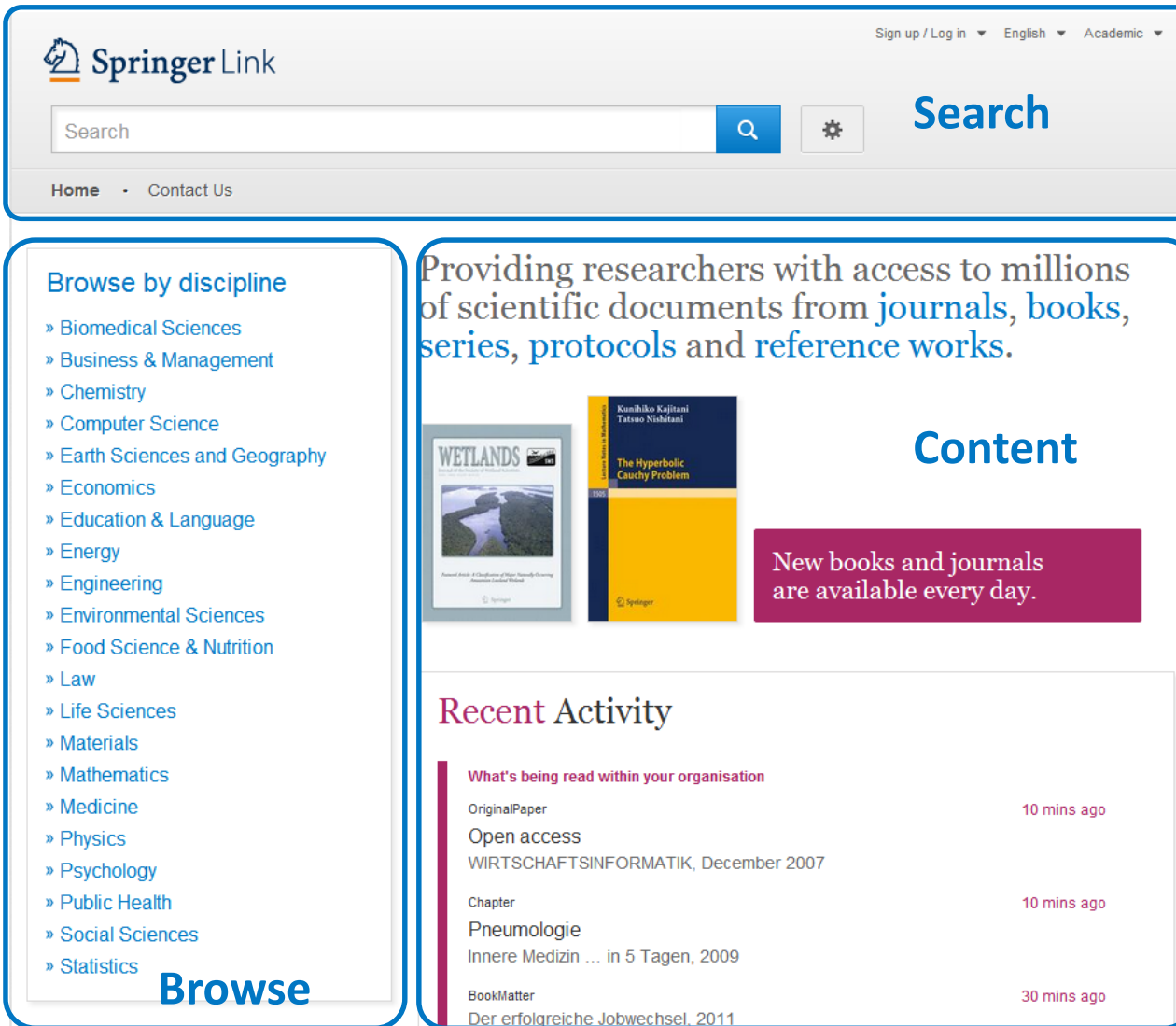
SpringerLink

Training guide for the new SpringerLink

Homepage

<http://link.springer.com>

Homepage



The screenshot shows the SpringerLink homepage layout. At the top is a navigation bar with the SpringerLink logo, a search bar, and links for 'Sign up / Log in', 'English', and 'Academic'. Below the navigation bar is a 'Home' link and a 'Contact Us' link. The main content area is divided into three sections: 'Browse by discipline', 'Content', and 'Recent Activity'.

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
- » Materials
- » Mathematics
- » Medicine
- » Physics
- » Psychology
- » Public Health
- » Social Sciences
- » Statistics

Content

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	10 mins ago
Open access	
WIRTSCHAFTSINFORMATIK, December 2007	
Chapter	10 mins ago
Pneumologie	
Innere Medizin ... in 5 Tagen, 2009	
BookMatter	30 mins ago
Der erfolgreiche Jobwechsel, 2011	

Homepage

Divided into 3 parts:

- **Search** functionality
- **Browse** functionality
- **Content** offered according to your profile

Homepage



Recent Activity

What's being read within your organisation

OriginalPaper

10 mins ago

Open access

WIRTSCHAFTSINFORMATIK, December 2007

Chapter

10 mins ago

Pneumologie

Innere Medizin ... in 5 Tagen, 2009

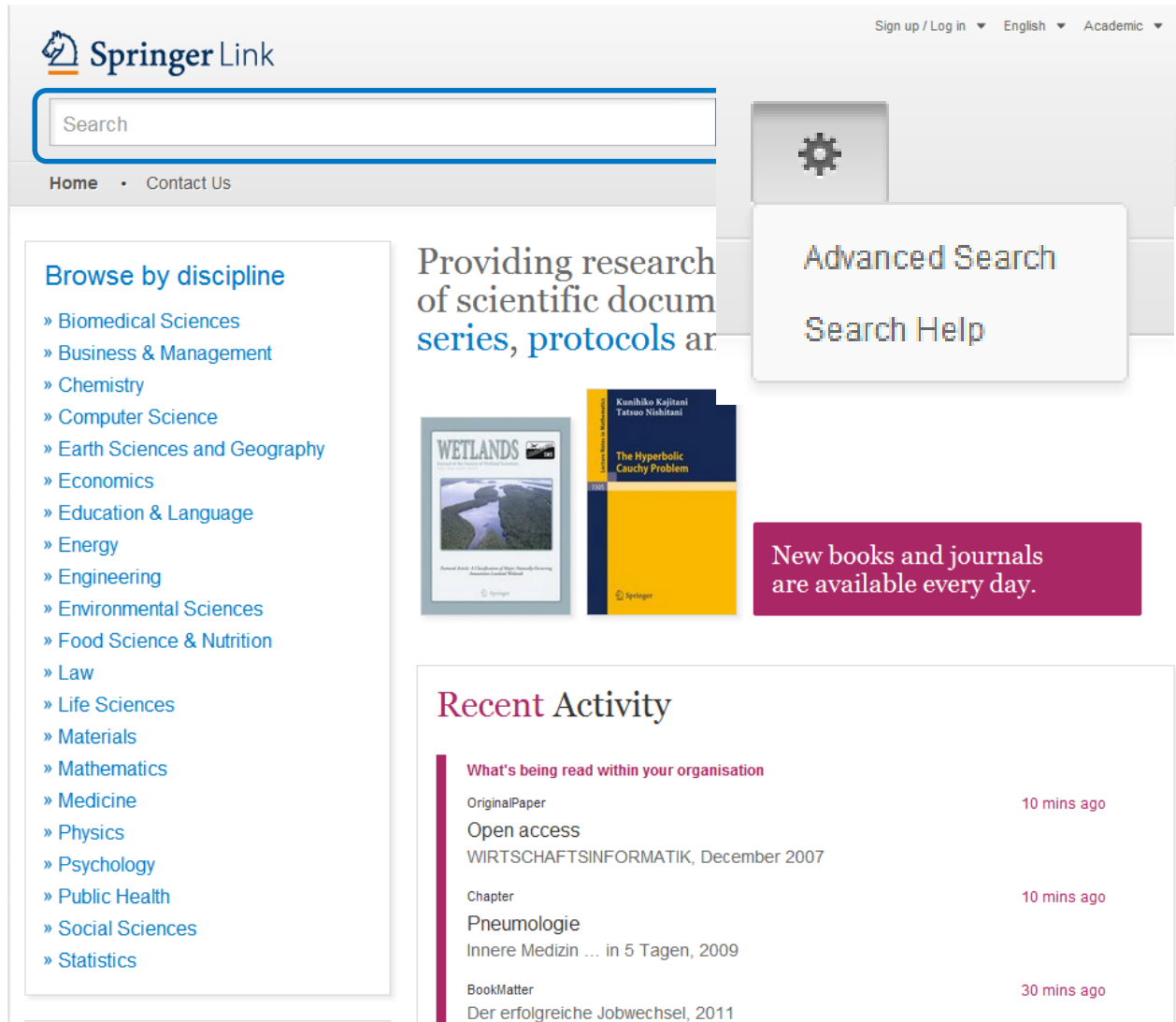
BookMatter

30 mins ago

Der erfolgreiche Jobwechsel, 2011

In this area you get the
**most recent downloads
within your organization**
listed.

Homepage



The screenshot shows the SpringerLink homepage. At the top, there is a navigation bar with the SpringerLink logo, a search bar, and links for 'Sign up / Log in', 'English', and 'Academic'. Below the search bar, there are links for 'Home' and 'Contact Us'. The main content area is divided into several sections:

- Browse by discipline:** A list of disciplines with links to explore them: 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, Physics, Psychology, Public Health, Social Sciences, and Statistics.
- Providing research of scientific documents, series, protocols and more:** A section highlighting the types of content available.
- Advanced Search and Search Help:** A callout box with a gear icon and links to 'Advanced Search' and 'Search Help'.
- New books and journals are available every day:** A purple banner with text and images of book covers, including 'WETLANDS' and 'The Hyperbolic Cauchy Problem'.
- Recent Activity:** A section titled 'Recent Activity' showing a list of recent reads within the organization, including 'OriginalPaper', 'Open access', 'Chapter', 'Pneumologie', and 'BookMatter', with timestamps like '10 mins ago' and '30 mins ago'.


Search

Most users access our content through the **search** functionality.

Therefore the search is the biggest and most prominent element on the page.

Advanced search and help functionality can be accessed by clicking the 'settings wheel'

Homepage



The screenshot shows the SpringerLink homepage. At the top, there is a navigation bar with the SpringerLink logo, a search bar, and links for 'Sign up / Log in', 'English', and 'Academic'. Below the navigation bar, there is a 'Home' link and a 'Contact Us' link. The main content area is divided into several sections. On the left, there is a 'Browse by discipline' section with a list of disciplines. In the center, there is a large banner with the text 'Providing researchers with access to millions of scientific documents from journals, books, series, protocols and reference works.' Below this banner, there are two book covers: 'WETLANDS' and 'The Hyperbolic Cauchy Problem'. To the right of the book covers, there is a purple box with the text 'New books and journals are available every day.' Below the banner, there is a 'Recent Activity' section with a list of recent reads and their timestamps.

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
- » Materials
- » Mathematics
- » Medicine
- » 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	Timestamp
OriginalPaper	10 mins ago
Open access	
WIRTSCHAFTSINFORMATIK, December 2007	
Chapter	10 mins ago
Pneumologie	
Innere Medizin ... in 5 Tagen, 2009	
BookMatter	30 mins ago
Der erfolgreiche Jobwechsel, 2011	

Browse

You can also access our content through browsing. If you click on the topic of your choice you will end up on the search results page, showing all entries for this **scientific discipline**.

Sub disciplines can be chosen on the search results page as filter.

Homepage

- » Physics
- » Psychology
- » Public Health
- » Social Sciences
- » Statistics

Browse 5,769,405 resources

Articles	4,316,203
Chapters	1,158,467
Reference Work Entries	266,078
Protocols	28,657

Browse by type of content (1)

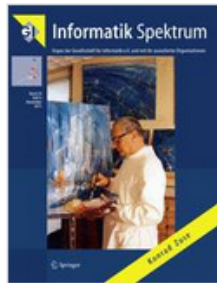
Below the sector of industry navigation you find a list of **smallest content types**:

- (Journal) Articles
- (Book) Chapters
- References Work Entries
- Protocols

If you click into “Articles” you will end up on a **search result list** of all articles.
You will find more **filter options** there.

Homepage

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.

Browse by type of content (2)

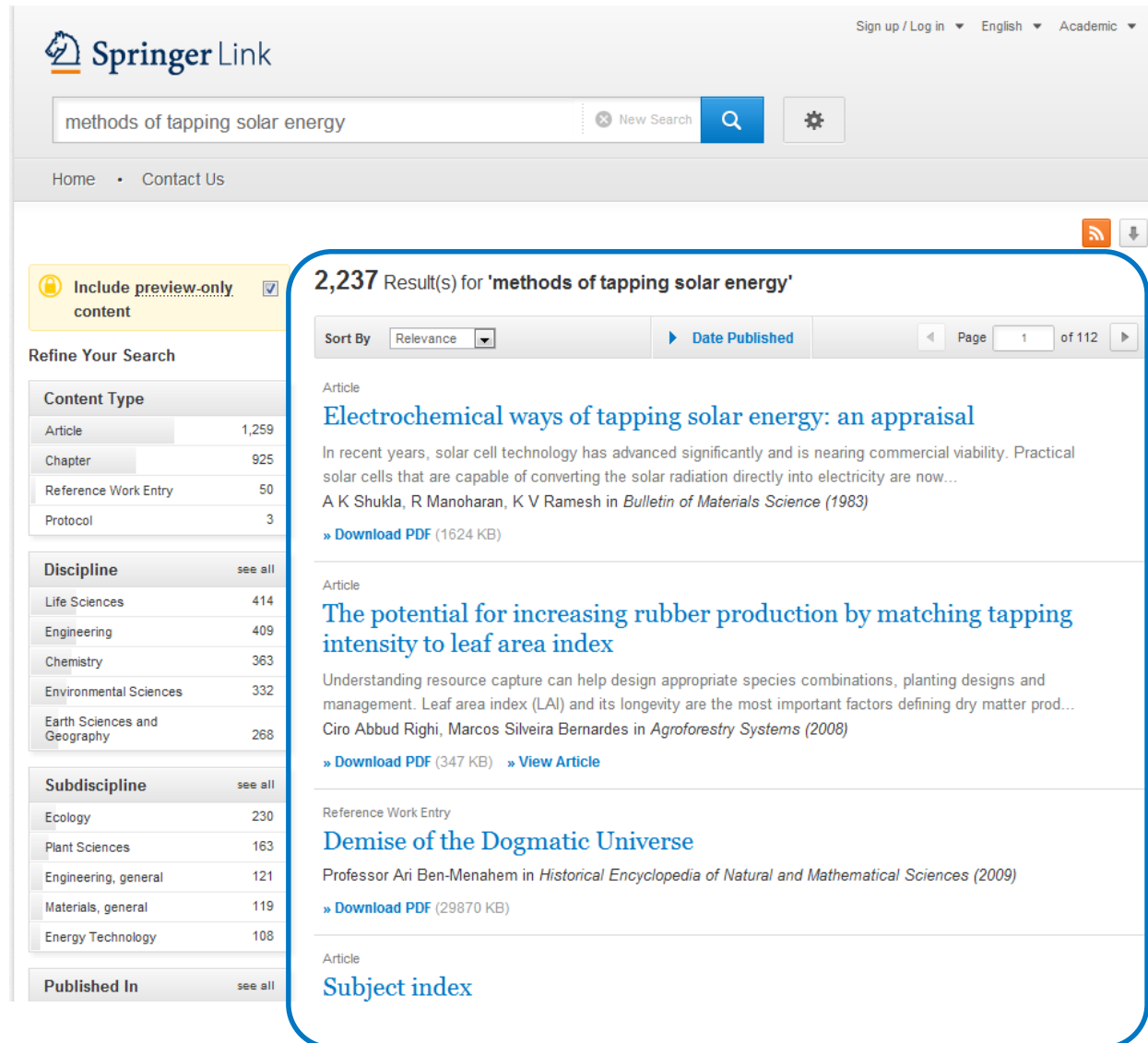
On top of the content area you find an introduction text with bigger content units listed.

- Journals
- Books
- Series
- Protocols
- Reference works

If you click into “Journals” you will end up on a **search result list** of all journals.

You will find more **filter options** there.

Search Result Page



The screenshot shows the SpringerLink search results page. The search query is 'methods of tapping solar energy'. The results are sorted by Relevance, showing 2,237 results. The left sidebar contains filters for Content Type, Discipline, Subdiscipline, and Published In. The main results list includes three items: an article on electrochemical ways of tapping solar energy, an article on rubber production, and a reference work entry on the demise of the Dogmatic Universe.

Springer Link Sign up / Log in English Academic

methods of tapping solar energy New Search

Home Contact Us

Include preview-only content ☒

Refine Your Search

Content Type

Article	1,259
Chapter	925
Reference Work Entry	50
Protocol	3

Discipline [see all](#)

Life Sciences	414
Engineering	409
Chemistry	363
Environmental Sciences	332
Earth Sciences and Geography	268

Subdiscipline [see all](#)

Ecology	230
Plant Sciences	163
Engineering, general	121
Materials, general	119
Energy Technology	108

Published In [see all](#)

2,237 Result(s) for 'methods of tapping solar energy'

Sort By **Relevance** Page 1 of 112

Article
Electrochemical ways of tapping solar energy: an appraisal
 In recent years, solar cell technology has advanced significantly and is nearing commercial viability. Practical solar cells that are capable of converting the solar radiation directly into electricity are now...
 A K Shukla, R Manoharan, K V Ramesh in *Bulletin of Materials Science* (1983)
[» Download PDF](#) (1624 KB)

Article
The potential for increasing rubber production by matching tapping intensity to leaf area index
 Understanding resource capture can help design appropriate species combinations, planting designs and management. Leaf area index (LAI) and its longevity are the most important factors defining dry matter prod...
 Ciro Abbud Righi, Marcos Silveira Bernardes in *Agroforestry Systems* (2008)
[» Download PDF](#) (347 KB) [» View Article](#)

Reference Work Entry
Demise of the Dogmatic Universe
 Professor Ari Ben-Menahem in *Historical Encyclopedia of Natural and Mathematical Sciences* (2009)
[» Download PDF](#) (29870 KB)

Article
Subject index

Search Results

To the right you get your search results listed.

By default you get **all results** displayed, i.e. content you have licensed and **preview-only** content.

Search Result Page



2,102 Result(s) for 'methods of tapping solar energy'

Sort By: Relevance Date Published Page 1 of 106

Include preview-only content

Refine Your Search

Content Type	
Article	1,146
Chapter	906
Reference Work Entry	47
Protocol	3

Discipline	
Life Sciences	411
Engineering	408
Chemistry	360

Your search also matched **135** preview-only results, e.g.
[Energy distribution and biological productivity in Korean pine plantation](#)
[» Include preview-only content](#)

Article
Electrochemical ways of tapping solar energy: an appraisal
In recent years, solar cell technology has advanced significantly and is nearing commercial viability. Practical solar cells that are capable of converting the solar radiation directly into electricity are now...
A K Shukla, R Manoharan, K V Ramesh in *Bulletin of Materials Science* (1983)
[» Download PDF](#) (1624 KB)

Only see licensed content

If you like to see only content you are entitled to, you have to **uncheck** the **yellow box** above the **search result filter options** to the right.

Then only search results you have full-text access to will be listed.

Search Result Page

(2)

 Include preview-only content ☒

Refine Your Search

Content Type

Article	1,259
Chapter	925
Reference Work Entry	50
Protocol	3

Discipline see all

Life Sciences	414
Engineering	409
Chemistry	363
Environmental Sciences	332
Earth Sciences and Geography	268

Subdiscipline see all

Ecology	230
---------	-----

2,237 Result(s) for 'methods of tapping solar energy'

Sort By Relevance

▶ Date Published

Page 2 of 112

 Article

A Fast Model for the Reconstruction of Spectral Solar Irradiance in the Near- and Mid-Ultraviolet

We present a model for the reconstruction of spectral solar irradiance between 200 and 400 nm. This model is an extension of the total solar irradiance (TSI) model of Crouch et al. (Astrophys. J. C. Bolduc, P. Charbonneau, V. Dumoulin, M. S. Bourqui, A. D. Crouch in *Solar Physics* (2012)

» Look Inside
» Get Access

 Article

Emerging technologies to power next generation mobile electronic devices using solar energy

Mobile electronic devices such as MP3, mobile phones, and wearable or implanted medical devices have already or will soon become a necessity in peoples' lives. However, the further development of these devices...

Dewei Jia, Yubo Duan, Jing Liu in *Frontiers of Energy and Power Engineering in China* (2009)

» Look Inside
» Get Access

(1)

Preview-only content

Preview-only results are displayed with the color **yellow** in the background (1).

If you only want to see only results you have access to, uncheck the yellow box above the search filters (2).

Search Result Page

Chapter (1)

(2) **Solar Energy**

This paper is subdivided into three main paragraphs: basic principles of solar radiation, main applications, and (3)

a case ... first paragraph will introduce the basic principles of solar energy, highlighting the ad...

Roberto Barile in *Sustainable Development and Environmental Management* (2008) (5)

» [Download PDF](#) (1005 KB) (6)

Chapter

Solar Energy

Enthusiasts for solar power need to be reminded that, through ... Sun is already our primary source of renewable energy. Or to put it another way solar photons convert naturally into chemical fuel and...1...Photo...


Claudio Vita-Finzi in *The Sun* (2008)

» [Download PDF](#) (602 KB) » [View Chapter](#)

Journal

Applied Solar Energy

Volume 43 / 2007 - Volume 48 / 2012

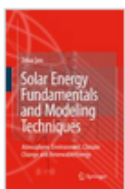


Book

Solar Energy Fundamentals and Modeling Techniques

Atmosphere, Environment, Climate Change and Renewable Energy

Zekai Şen (2008)



Structure of list items within a search result page

- Type of content (1)
- Title of list item (2)
- Description (3)
- Author of list item (4)
- Published in which product (5)
- Download (full-text) PDF (6)

Search Result Page

Chapter (1)

Solar Energy

This paper is subdivided into three main paragraphs: basic principles of **solar** radiation, main applications, and a case ... first paragraph will introduce the basic principles of **solar energy**, highlighting the ad...

Roberto Barile in *Sustainable Development and Environmental Management* (2008)

» [Download PDF](#) (1005 KB)

Chapter

Solar Energy

Enthusiasts for **solar** power need to be reminded that, through ... Sun is already our primary source of renewable **energy**. Or to put it another way **solar** photons convert naturally into chemical fuel and...1...Photo...

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Journal

Applied Solar Energy

Volume 43 / 2007 - Volume 48 / 2012

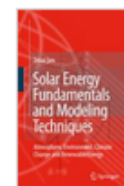


Book

Solar Energy Fundamentals and Modeling Techniques

Atmosphere, Environment, Climate Change and Renewable Energy

Zekai Şen (2008)



Type of content

The following types of content may be listed in a search result (1):

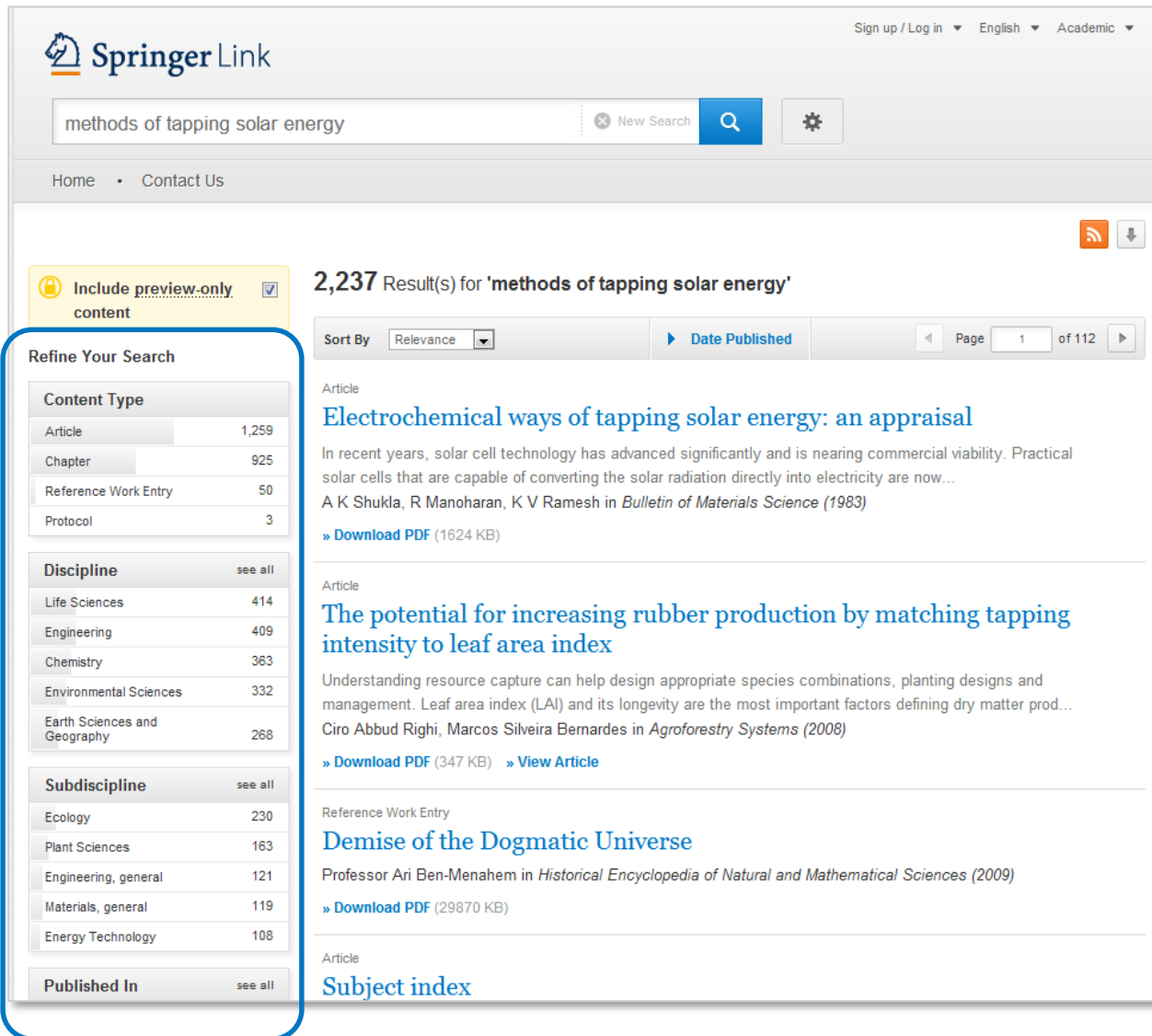
Bigger Units

- Series (of books)
- Book (of chapters or protocols)
- Journal (of articles)
- Reference Work (of reference work entries)

Smallest Units

- Chapter
- Protocol
- Article
- Reference Work Entry

Search Result Page



Springer Link

Sign up / Log in English Academic

methods of tapping solar energy

Home Contact Us

Include preview only content

2,237 Result(s) for 'methods of tapping solar energy'

Sort By Relevance Date Published

Page 1 of 112

Refine Your Search

Content Type

Article	1,259
Chapter	925
Reference Work Entry	50
Protocol	3

Discipline see all

Life Sciences	414
Engineering	409
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Environmental Sciences	332
Earth Sciences and Geography	268

Subdiscipline see all

Ecology	230
Plant Sciences	163
Engineering, general	121
Materials, general	119
Energy Technology	108

Published In see all

Article

Electrochemical ways of tapping solar energy: an appraisal

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A K Shukla, R Manoharan, K V Ramesh in *Bulletin of Materials Science* (1983)

» Download PDF (1624 KB)

Article

The potential for increasing rubber production by matching tapping intensity to leaf area index

Understanding resource capture can help design appropriate species combinations, planting designs and management. Leaf area index (LAI) and its longevity are the most important factors defining dry matter prod...

Ciro Abbud Righi, Marcos Silveira Bernardes in *Agroforestry Systems* (2008)

» Download PDF (347 KB) » View Article

Reference Work Entry

Demise of the Dogmatic Universe

Professor Ari Ben-Menahem in *Historical Encyclopedia of Natural and Mathematical Sciences* (2009)

» Download PDF (29870 KB)

Article

Subject index

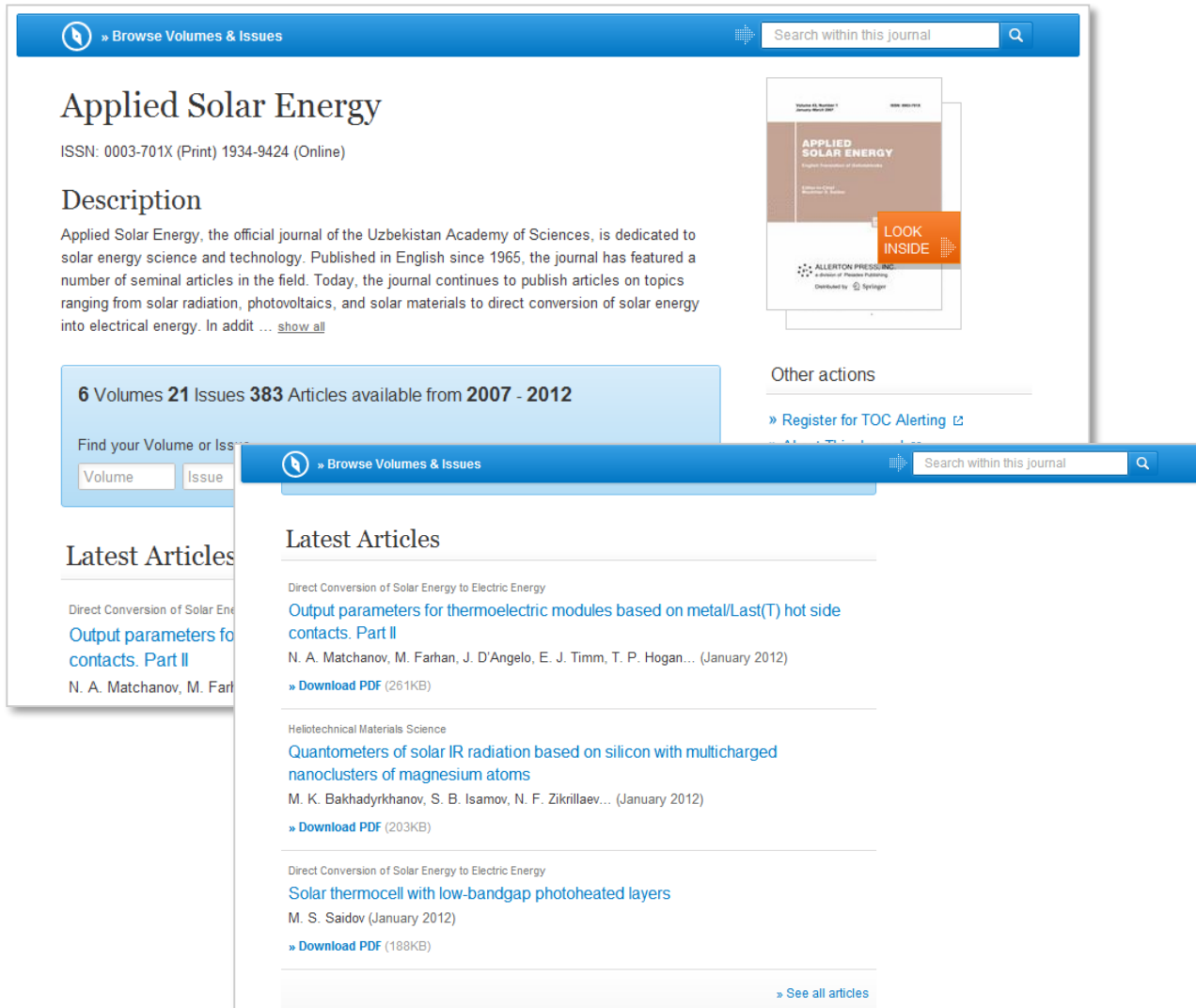
Filter Options

To the left you will find **predefined filter options** that help you to optimize your search result.

The following filter options are available:

- Content type
- Discipline
- Sub discipline
- Published in
- Language

Product Pages



[» Browse Volumes & Issues](#)

Applied Solar Energy

ISSN: 0003-701X (Print) 1934-9424 (Online)

Description

Applied Solar Energy, the official journal of the Uzbekistan Academy of Sciences, is dedicated to solar energy science and technology. Published in English since 1965, the journal has featured a number of seminal articles in the field. Today, the journal continues to publish articles on topics ranging from solar radiation, photovoltaics, and solar materials to direct conversion of solar energy into electrical energy. In addit ... [show all](#)

6 Volumes 21 Issues 383 Articles available from 2007 - 2012

Find your Volume or Issue

Volume Issue

Latest Articles

Direct Conversion of Solar Energy to Electric Energy
[Output parameters for thermoelectric modules based on metal/Last\(T\) hot side contacts. Part II](#)
 N. A. Matchanov, M. Farhan, J. D'Angelo, E. J. Timm, T. P. Hogan... (January 2012)
[» Download PDF \(261KB\)](#)

Heliochemical Materials Science
[Quantometers of solar IR radiation based on silicon with multicharged nanoclusters of magnesium atoms](#)
 M. K. Bakhadyrkhanov, S. B. Isamov, N. F. Zikrillayev... (January 2012)
[» Download PDF \(203KB\)](#)

Direct Conversion of Solar Energy to Electric Energy
[Solar thermocell with low-bandgap photoheated layers](#)
 M. S. Saidov (January 2012)
[» Download PDF \(188KB\)](#)

[» See all articles](#)

Blue bar

On top of every product page there is a blue bar which will **always be visible** even if you scroll down.

The functionality offered in this bar differs from page type to page type.

Product Pages



Look Inside

On every product page there is the option to browse the product with the so-called Look Inside function.

Recognized users can browse through the complete document.

Anonymous users will see the first 2 pages of the document.

Journal Homepage

(2)

Functionality Overview

- Browse Volumes & Issues (1)
- Search within this journal (2)
- Journal Title (3)
- Journal ISSN (4)
- Journal description (5)
- Volumes & Issues Navigation (6)
- List of latest articles (7)
- Journal Cover (8)
- Look Inside (9)

(1) [» Browse Volumes & Issues](#) (2)

Applied Solar Energy (3)

ISSN: 0003-701X (Print) 1934-9424 (Online) (4)

Description (5)

Applied Solar Energy, the official journal of the Uzbekistan Academy of Sciences, is dedicated to solar energy science and technology. Published in English since 1965, the journal has featured a number of seminal articles in the field. Today, the journal continues to publish articles on topics ranging from solar radiation, photovoltaics, and solar materials to direct conversion of solar energy into electrical energy. In addit ... [show all](#)

6 Volumes 21 Issues 383 Articles available from 2007 - 2012

Find your Volume or Issue (6)


Volume Issue

Latest Articles (7)

Direct Conversion of Solar Energy to Electric Energy (7)

[Output parameters for thermoelectric modules based on metal/Last\(T\) hot side contacts. Part II](#)

N. A. Matchanov, M. Farhan, J. D'Angelo, E. J. Timm, T. P. Hogan... (January 2012)


 (8)



(9)

Other actions

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

Journal Homepage

 » Browse Volumes & Issues

Applied Solar Energy


ISSN: 0003-701X (Print) 1934-9424 (Online)


Description

Applied Solar Energy, the official journal of the Uzbekistan Academy of Sciences, is dedicated to solar energy science and technology. Published in English since 1965, the journal has featured a number of seminal articles in the field. Today, the journal continues to publish articles on topics ranging from solar radiation, photovoltaics, and solar materials to direct conversion of solar energy into electrical energy. In addit ... [show all](#)

6 Volumes 21 Issues 383 Articles available from **2007 - 2012**


Find your Volume or Issue



 **All Volumes & Issues**


Latest Articles


Direct Conversion of Solar Energy to Electric Energy
[Output parameters for thermoelectric modules based on metal/Last\(T\) hot side contacts. Part II](#)
N. A. Matchanov, M. Farhan, J. D'Angelo, E. J. Timm, T. P. Hogan... (January 2012)



LOOK INSIDE

Other actions

[» Register for TOC Alerting](#) 

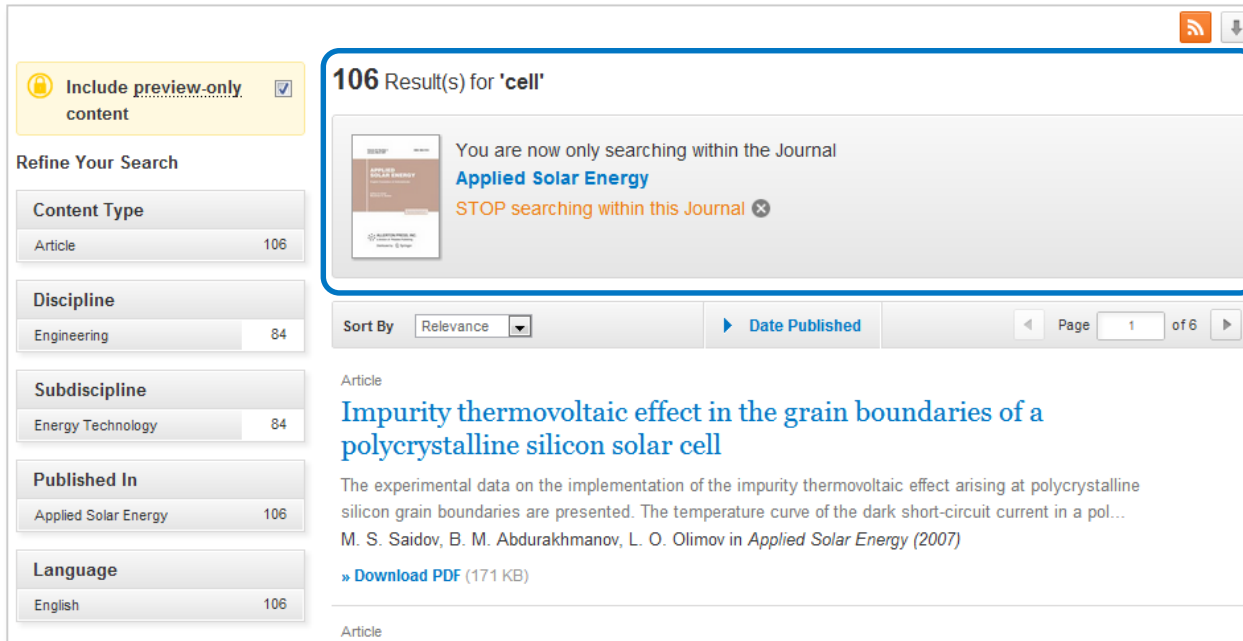
[» About This Journal](#) 

Search within this journal content

To find relevant journal articles you may enter a search term to start a search within the content of a journal.

The results will be displayed in a search result list. You leave the environment of the journal product page.

Journal Homepage



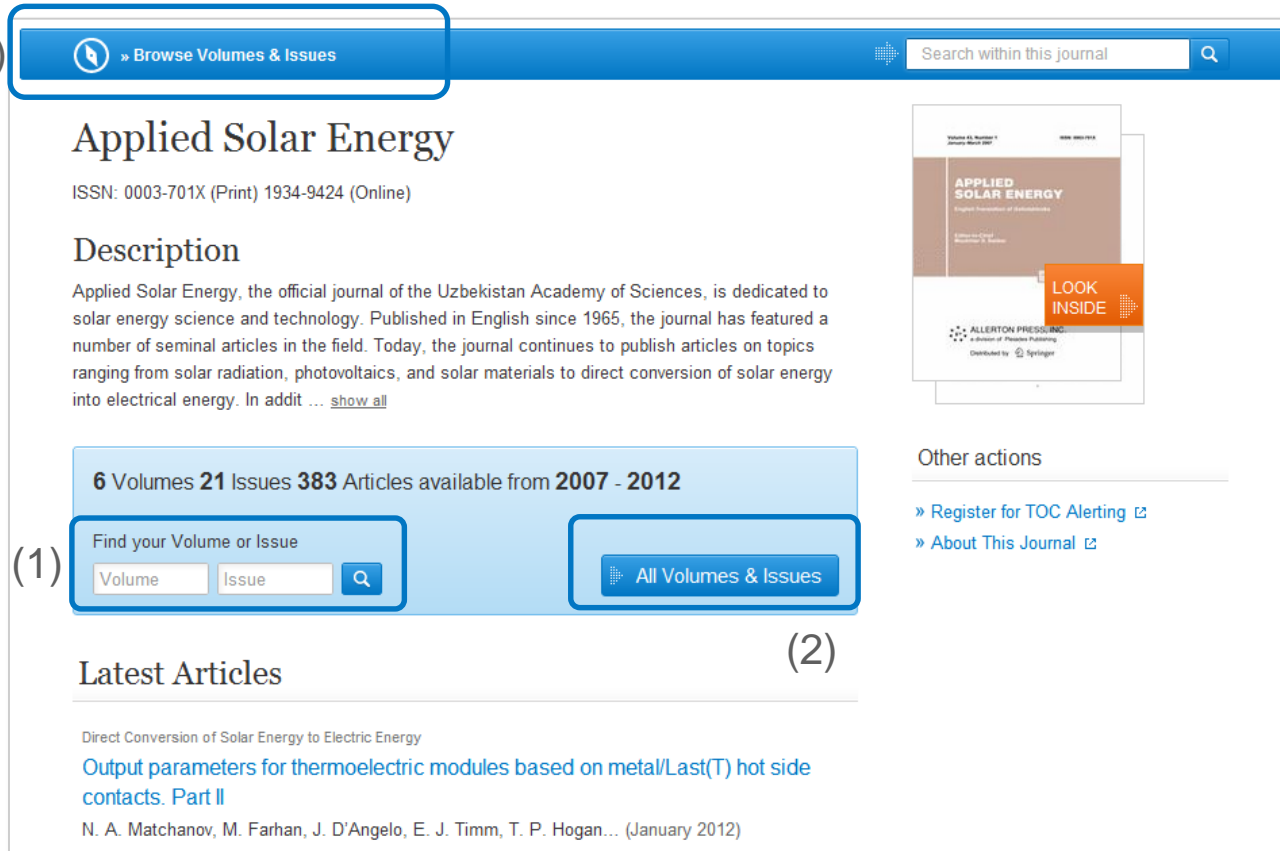
The screenshot shows a search result page on SpringerLink. On the left, there is a 'Refine Your Search' sidebar with filters for Content Type (Article: 106), Discipline (Engineering: 84), Subdiscipline (Energy Technology: 84), Published In (Applied Solar Energy: 106), and Language (English: 106). A yellow box at the top left of the sidebar indicates 'Include preview-only content' is checked. The main search area is titled '106 Result(s) for 'cell'' and is highlighted with a blue border. It contains a message: 'You are now only searching within the Journal **Applied Solar Energy**. STOP searching within this Journal'. Below this, there are sorting options (Relevance, Date Published) and pagination (Page 1 of 6). The first search result is an article titled 'Impurity thermovoltaic effect in the grain boundaries of a polycrystalline silicon solar cell' by M. S. Saidov, B. M. Abdurakhmanov, and L. O. Olimov, published in *Applied Solar Energy* (2007). A 'Download PDF (171 KB)' link is provided for this article.

Search result page of a keyword search within a journal

On top of the search result list you get the search term listed and the journal name.

Journal Homepage

(3)



The screenshot shows the journal homepage for **Applied Solar Energy**. At the top, a blue navigation bar contains a magnifying glass icon and the text "Browse Volumes & Issues" (annotated with (3)), a search bar with the placeholder "Search within this journal", and a search icon. Below the navigation bar, the journal title "Applied Solar Energy" is displayed, followed by its ISSN: 0003-701X (Print) 1934-9424 (Online). A "Description" section follows, stating the journal is the official journal of the Uzbekistan Academy of Sciences. To the right, there is a cover image of the journal with a "LOOK INSIDE" button. Below the description, a light blue box contains the text "6 Volumes 21 Issues 383 Articles available from 2007 - 2012". Inside this box, there is a search area for "Find your Volume or Issue" with input fields for "Volume" and "Issue" (annotated with (1)), a search icon, and a blue button labeled "All Volumes & Issues" (annotated with (2)). Below this box, the "Latest Articles" section is visible, featuring the title "Direct Conversion of Solar Energy to Electric Energy" and a link to "Output parameters for thermoelectric modules based on metal/Last(T) hot side contacts. Part II" by N. A. Matchanov, M. Farhan, J. D'Angelo, E. J. Timm, T. P. Hogan... (January 2012).

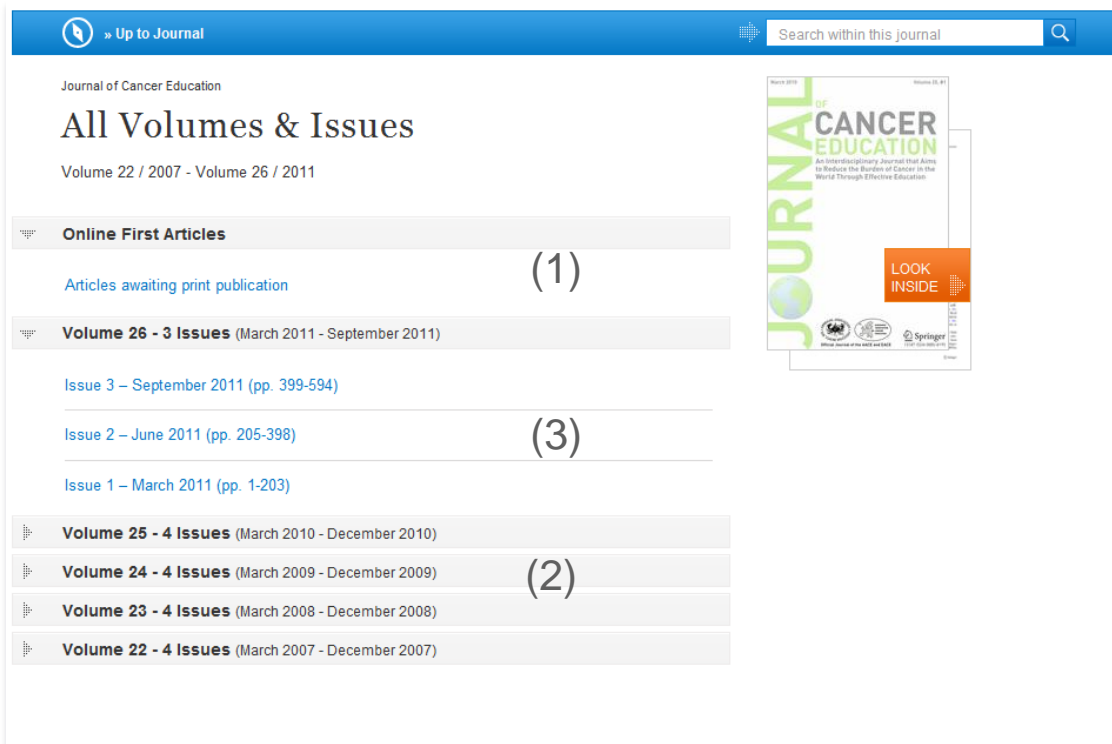
Volumes & Issues Nav

On the journal homepage below the journal description you find a blue box that allows you to navigate to individual volumes and issues (1).

If you like to have an overview on all volumes and issues press the “All Volumes and Issues” button within that blue box (2).

You can also use the link “Browse Volumes & Issues” within the blue bar on top of the page (3).

Journal Homepage



The screenshot shows the homepage of the Journal of Cancer Education. At the top, there is a blue navigation bar with a back arrow and the text "Up to Journal", and a search bar labeled "Search within this journal". Below the navigation bar, the journal title "Journal of Cancer Education" is displayed, followed by the main heading "All Volumes & Issues" and the date range "Volume 22 / 2007 - Volume 26 / 2011". On the right side, there is a thumbnail image of the journal cover for March 2011, which includes the text "CANCER EDUCATION" and "An interdisciplinary journal that aims to reduce the burden of cancer in the world through effective education". Below the thumbnail, there is an orange button labeled "LOOK INSIDE". The main content area is divided into several sections. The first section is "Online First Articles" with a link to "Articles awaiting print publication" and a count of "(1)". The second section is "Volume 26 - 3 Issues" (March 2011 - September 2011), which is highlighted with a grey bar. It contains three links: "Issue 3 - September 2011 (pp. 399-594)", "Issue 2 - June 2011 (pp. 205-398)", and "Issue 1 - March 2011 (pp. 1-203)", with a count of "(3)" next to the second link. Below this, there are four more volume sections: "Volume 25 - 4 Issues" (March 2010 - December 2010), "Volume 24 - 4 Issues" (March 2009 - December 2009), "Volume 23 - 4 Issues" (March 2008 - December 2008), and "Volume 22 - 4 Issues" (March 2007 - December 2007). The "Volume 24 - 4 Issues" section is highlighted with a grey bar and has a count of "(2)" next to it.

All Volumes and Issues

You get links to the **most recent content**, including Online First articles, displayed on top of the page (1).

The content of **older volumes** is hidden behind the grey volume bars (2).

If you click into the volume bar the **content of this volume** is listed (3).

Journal Homepage

OriginalPaper

Possible Logistic and Sociodemographic Factors on Breast Cancer Screening in Turkey: Lessons from a Women's Health Project in Mersin Province

Huseyin Abali, Alper Ata, Gozde Gokçe, Huseyin Gokçe (October 2011)

» [Download PDF](#) (145KB) » [View Article](#)

» [See all articles](#)

About this Journal

On the bottom of the journal homepage you find some detail information to the journal:

To the left you get the **bibliographic information** offered (1).

Below there are some **“Additional Links”** to information and services offered on springer.com (2):

- Toc Alert Registration
- Manuscript Submission
- Editorial Board info
- More info on the journal

(1)

(2)

(3)

About this Journal

Journal Title

Journal of Cancer Education

Topics

» Pharmacology/Toxicology
» Cancer Research

Coverage

Volume 22 / 2007 - Volume 26 / 2011

Print ISSN

0885-8195

Online ISSN

1543-0154

Publisher

Springer-Verlag

Additional Links

» Register for TOC Alerting [↗](#)
» Editorial Board [↗](#)
» About This Journal [↗](#)
» Manuscript Submission [↗](#)

Journal Article

(1) [Download PDF \(230 KB\)](#) (2) [View Article](#)

Journal of Pest Science (3) (4)
March 2012, Volume 85, Issue 1, pp 17-21

Feasibility of solar tents for inactivating (5) weedy plant propagative material (6)


James J. Stapleton (6)

(7) [Download PDF \(230 KB\)](#) (8) [View Article](#)

Abstract

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Feasibility of solar tents for inactivating weedy plant propagative material

James J. Stapleton

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
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Original Paper

Feasibility of solar tents for inactivating weedy plant propagative material

James J. Stapleton¹ 

(1) Statewide Integrated Pest Management Program, University of California, Kearney Agricultural Center, Parlier, CA 93648, USA

 James J. Stapleton
Email: jms@uckac.edu

Received: 21 July 2011 Accepted: 19 December 2011 Published online: 3 January 2012

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Keywords Appropriate technology · Ecological restoration · Solar energy · Solarization · Weeds · Wildland

Introduction

Passive solar heating of moist soil beneath clear plastic film is used as a non-chemical alternative to soil fumigation in cultivated agriculture (Stapleton 2000). In addition, it has shown promise for use in wildland and other ecological restoration efforts (Bainbridge 1999; Moyes et al. 2003; Stapleton and Jetz 2006; Marushia and Allen 2011). Weed seed inactivation is one of the most beneficial results obtained from heating soil. A factor limiting effectiveness of soil heating in open fields is "top-down" efficacy resulting from the solar energy source overhead. This gives maximal pesticidal efficacy in uppermost soil layers, which decreases with increasing soil depth (Rubin and Benjamin 1984).

A aboveground solar tent, as opposed to open-field treatment, was developed as a method for eradication of soil pests in smaller volumes of soil, such as used in horticultural

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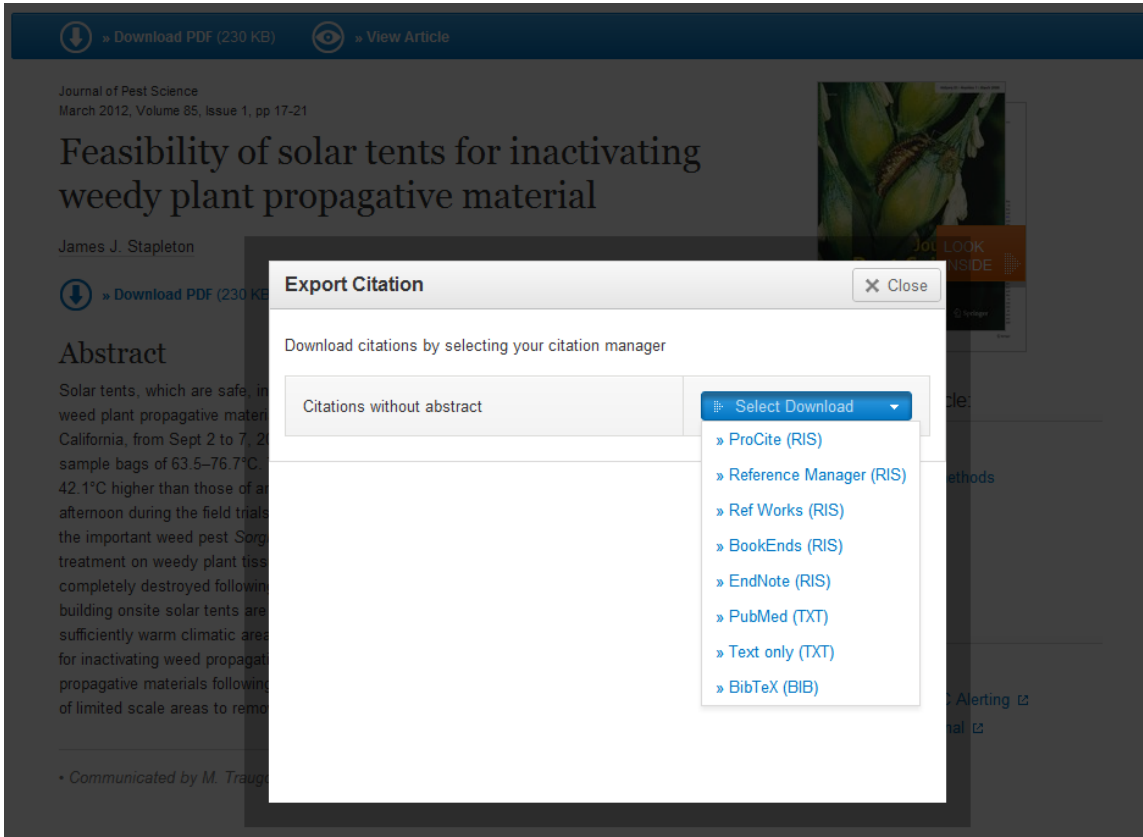
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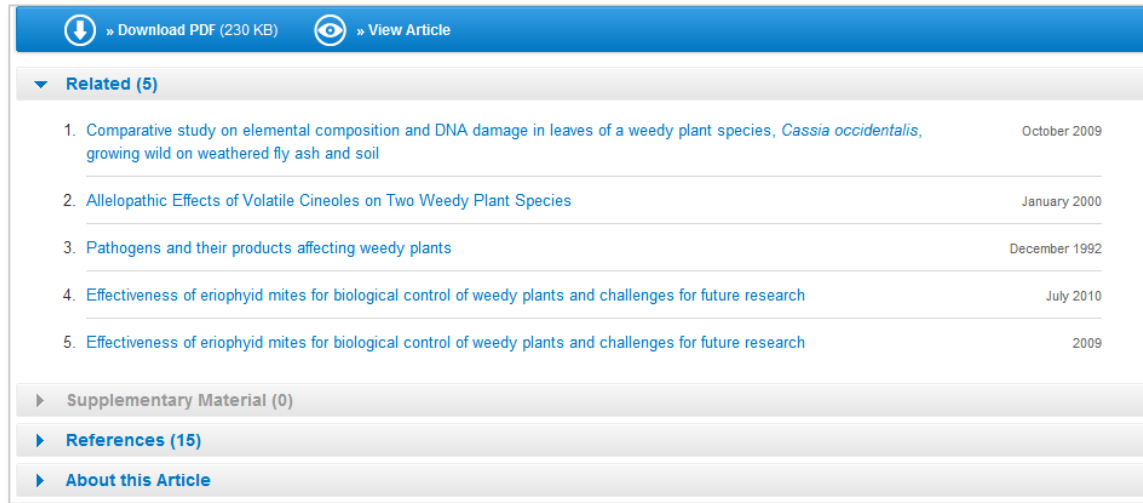
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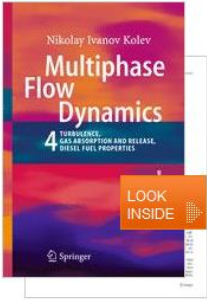
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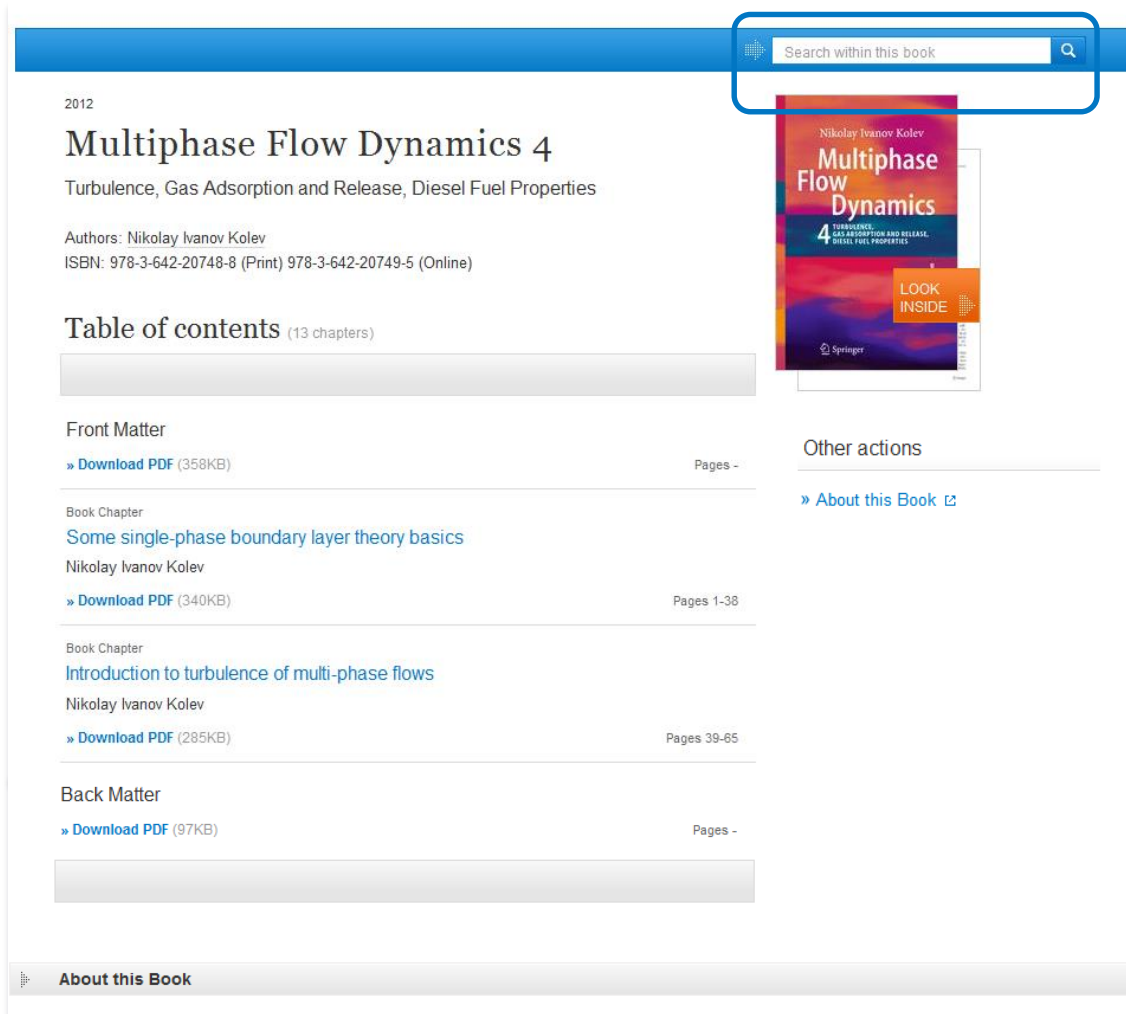
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New Horizons of Parallel and Distributed Computing
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Gabriele Eichfelder, Johannes Jahn

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Abstract

In vector optimization one investigates optimal elements of a set in a pre-ordered space. The problem of determining these optimal elements, if they exist at all, is called a vector optimization problem. Problems of this type can be found not only in mathematics but also in engineering and economics. There, these problems are also called multiobjective (or multi criteria or Pareto) optimization problems or one speaks of multi criteria decision making. Vector optimization problems arise, for example, in functional analysis (the Hahn–Banach theorem, the lemma of Bishop–Phelps, Ekeland’s variational principle), multiobjective programming, multi-criteria decision making, statistics (Bayes solutions, theory of tests, minimal covariance matrices), approximation theory (location theory, simultaneous approximation, solution of boundary value problems) and cooperative game theory (cooperative n player differential games and, as a special case, optimal control problems). In the last decades vector optimization has been extended to problems with set-valued maps. This field, called set optimization, has important applications to variational inequalities and optimization problems with multivalued data.



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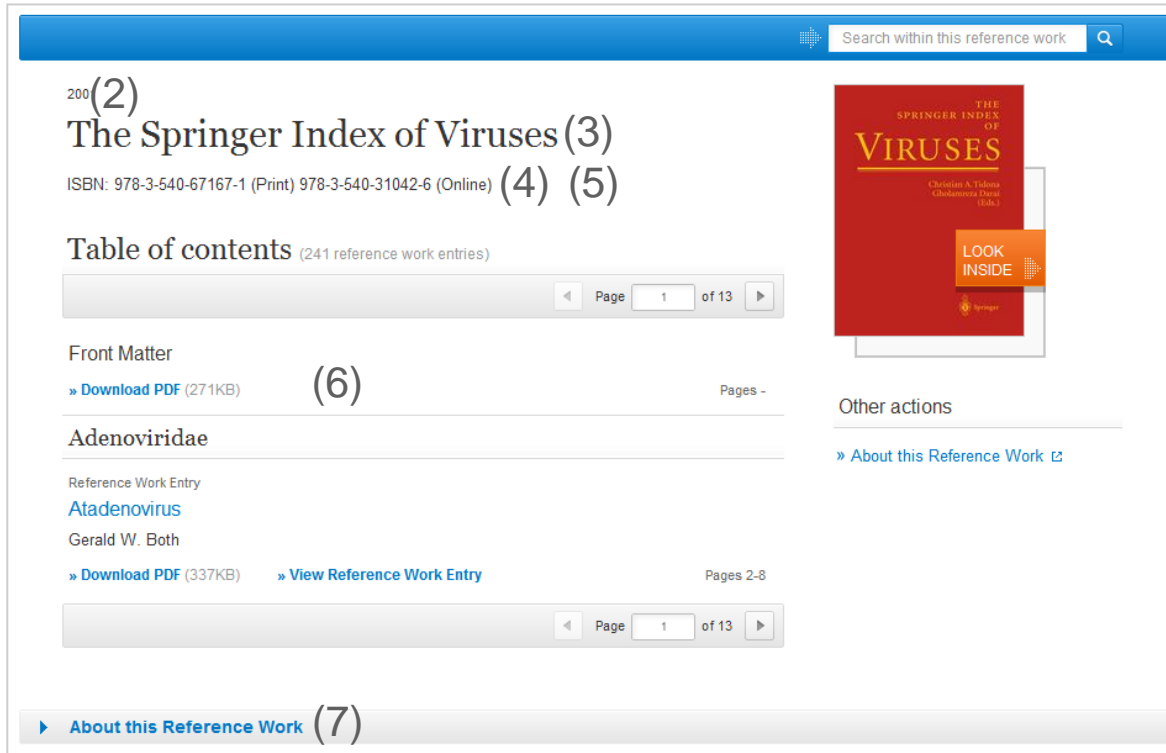
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Atadenovirus

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2001

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If you want to **search for a specific keyword** use the “**search within this reference work**” functionality on top of the page.

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Reference Work Entry

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(1)

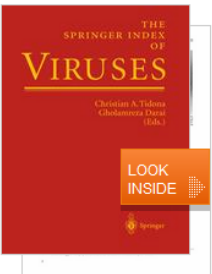
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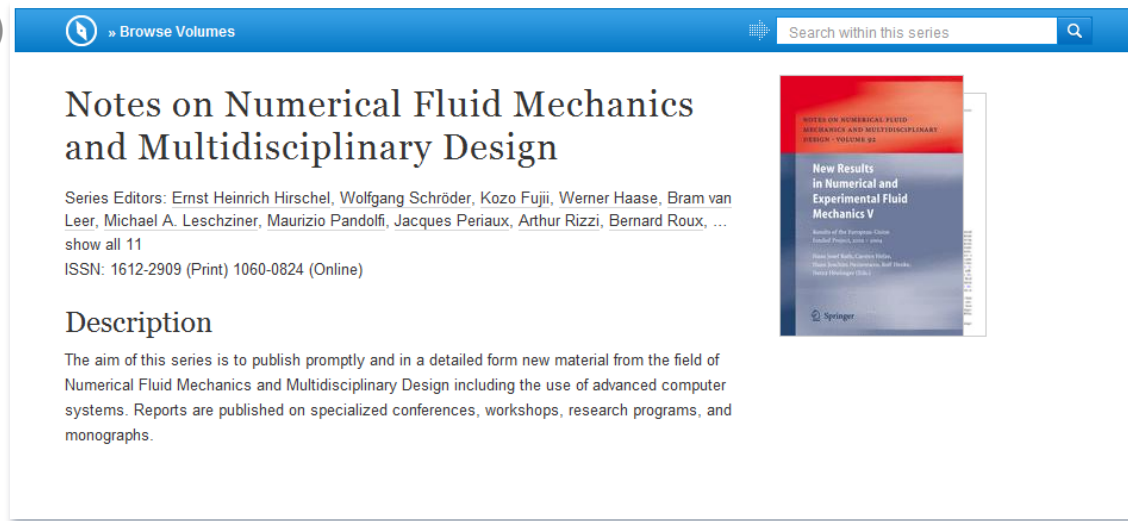
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The page structure is the same as for Journal Articles.

Book Series

(2)

(1)



The screenshot shows the SpringerLink interface for a book series. At the top is a blue navigation bar with a magnifying glass icon and the text 'Browse Volumes'. To the right of this bar is a search input field with the placeholder text 'Search within this series' and a search icon. Below the navigation bar, the main content area has a white background. On the left, the title 'Notes on Numerical Fluid Mechanics and Multidisciplinary Design' is displayed in a large, dark font. Below the title, the series editors are listed: 'Series Editors: Ernst Heinrich Hirschel, Wolfgang Schröder, Kozo Fujii, Werner Haase, Bram van Leer, Michael A. Leschziner, Maurizio Pandolfi, Jacques Periaux, Arthur Rizzi, Bernard Roux, ...'. A link 'show all 11' is provided. Below this, the ISSN is given: 'ISSN: 1612-2909 (Print) 1060-0824 (Online)'. A section titled 'Description' follows, with the text: 'The aim of this series is to publish promptly and in a detailed form new material from the field of Numerical Fluid Mechanics and Multidisciplinary Design including the use of advanced computer systems. Reports are published on specialized conferences, workshops, research programs, and monographs.' To the right of the text is a book cover image. The cover is red and white, with the title 'New Results in Numerical and Experimental Fluid Mechanics V' and the Springer logo at the bottom.



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To browse through the **volumes of a series** you need to click on the “**Browse volumes**” link offered within the blue action bar on the top of the page (1).

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Search result page on series content

 Also show locked results 

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Refine Your Search

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Book 

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Subdiscipline [see all](#)

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Computational Intelligence & Complexity	8
Mechanical Engineering	6
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Book


Noise and Vibration Mitigation for Rail Transportation Systems
Proceedings of the 10th International Workshop on RailwayNoise, Nagahama, Japan, 18–22 October 2010
Tatsuo Maeda, Pierre-Etienne Gautier... in *Notes on Numerical Fluid Mechanics and Multidisciplinary Design* (2012)

Book

Computational Science and High Performance Computing IV
The 4th Russian-German Advanced Research Workshop, Freiburg, Germany, October 12 to 16, 2009
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Book

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Browse volumes and keyword search result

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If you click on the title of the series within this info box you will be directed back to the series overview page.

Mobile

(1)



The screenshot shows the Springer website interface on a mobile device. At the top, there is a search bar with the text "Search Springer for Research & Development" and a magnifying glass icon. The Springer logo is on the left. Below the search bar, the article title "Agmatine transport in brain mitochondria: a different mechanism from that in liver mitochondria" is displayed. The authors "V. Battaglia, S. Grancara, M. Mancon, C. Cravanzola, S. Colombatto, M. A. Grillo..." are listed below the title. A "Show all" link is next to the authors. Below the authors, the keywords "Rat brain mitochondria, Agmatine, Kinetics, Polyamine, Transport..." and the DOI "10-1007/s00726-009-0401-1" are shown. To the right of the text, there is a thumbnail image of the journal cover "Amino Acids". Below the article information, there are two buttons: "Save to your device (702 KB)" and "View article". A "Share article" button is also present. Below the buttons, the "Abstract" section is visible, starting with "The diamine agmatine (AGM), exhibiting two positive charges at physiological pH, is transported into rat brain mitochondria (RBM) by an electrophoretic mechanism...". At the bottom, there is a "Related (5)" section with a list of three related articles.

Amino Acids
February 2010, Volume 38, Issue 2, pp 423-430

Agmatine transport in brain mitochondria: a different mechanism from that in liver mitochondria

V. Battaglia, S. Grancara, M. Mancon, C. Cravanzola, S. Colombatto, M. A. Grillo... [Show all](#)

Keywords: Rat brain mitochondria, Agmatine, Kinetics, Polyamine, Transport... [Show all](#)
DOI: 10-1007/s00726-009-0401-1

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Abstract

The diamine agmatine (AGM), exhibiting two positive charges at physiological pH, is transported into rat brain mitochondria (RBM) by an electrophoretic mechanism, requiring high membrane potential values and exhibiting a marked non-ohmic force-flux relationship. The mechanism of this transport apparently resembles that observed in rat liver mitochondria (RLM), but there are several characteristics that strongly suggest the presence of a different transporter of agmatine in RBM. In this type of mitochondria, the extent of initial binding and total accumulation is higher and lower, respectively, than that in liver; saturation kinetics and the flux-voltage relationship also exhibit different trends, whereas idazoxan and putrescine, ineffective in RLM, act as inhibitors. The characteristics of agmatine uptake in RBM lead to the conclusion that its transporter is a channel with two asymmetric energy barriers, showing some characteristics similar to those of the imidazoline receptor I2 and the sharing with the polyamine transporter.

Related (5)

1. [Further characterization of agmatine binding to mitochondrial membranes: involvement of imidazoline I2 receptor](#) February 2012
2. [Structural characterization of agmatine at physiological conditions](#) April 2006
3. [The Role of Brand Names and Visual Cues in Enhancing Memory for Consumer Packaged Goods](#) April 1998

(2)

Mobile

The site has been optimized for mobile devices. Depending on the screen size, the user will see different 'look and feel'.


The user does not need to go to a different URL, nor to download an app.

The header changes depending on your screen size ; this is tablet example (1).

Option to read articles when you are offline (to be developed) (2).

Mobile

(1)



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(2)



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Mobile (contd)

Article page optimized for phone (1). Search and menu are behind icons to save space.

When user has no access, the yellow bar is shown (2).

Footer

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	<p>(2)</p>	<p>(3)</p>	<p>(4)</p>

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