



# Information Regarding Dealing With Library Resources

By: Amany Khaled  
Mechatronics Program



# First Step ...



[www.aast.edu](http://www.aast.edu)



How to get most  
out of the  
resources available



# www.aast.edu



1

2





# Library – Sheraton Branch



- **Resources :**

3307      engineering books titles

371      Dissertations and thesis

64      Projects

7      Periodicals



Online Databases



# Library – Sheraton Branch



- **Borrowing policy :**

- For Full time staff , borrowing is opened up to 5 books for 30 days.
- Materials that can NEVER be borrowed include: References, Periodicals, Dissertations, Researches and Reports.

- **Document Delivery :**

- Users who are looking for an article/paper published in a periodical not available in the Library, can order it through the British Library Document Supply Center (BLDSC). The cost is L.E80/article and it arrives within 10-15 days.



# Library – Sheraton Branch



## Search for books

**LIBRARY**  
*Research Made Easy!*

Home | Email | QR Code | عربي

About The Library | Information Resources | **Search for Books** | Online Services | Ask-A-Librarian

AASTMT Homepage > Library > Online Library Catalog

### Online Library Catalog

You can search the library database of books.  
Click the corresponding link to access the library online catalog

### Books

I. By (Title,Author,Subject,Series)

II. By Call Number

You can search the Library and get to Know details about Whatever you want



# Library – Sheraton Branch



## Online Resources

### Databases and E-Journals

Click on Database Name to show all available information concerning journals and websites.

[ABI/INFORM ProQuest Dissertations & Theses](#) 

[AOM Academy Of Management](#) 

[ASME American Society of Mechanical Engineers](#) 

[ASCE American Society of Civil Engineers](#) 

[EBSCO's Art & Architecture Complete Database](#) 

[Emerald](#) 

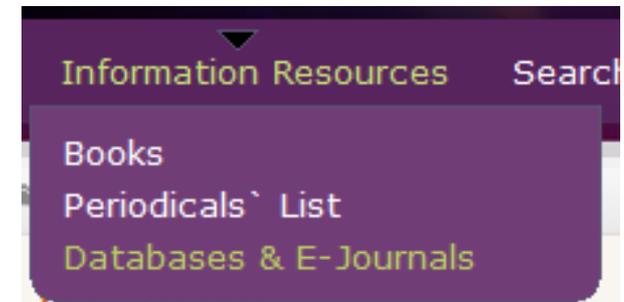
[IEEE - IET Electronic Library\(IEL\)](#) 

[ScienceDirect: Engineering](#) 

[SPE Society of Petroleum Engineering](#) 

[Individual titles](#) 

[Ebooks](#) 





# Online Resources



ProQuest Database

CRCnetBASE Database

ASME Database

IEEE Database

Science Direct Database

Knovel Database





# Next Step ...



ProQuest  
Database





# ProQuest Databases



<http://proquest.umi.com/login>

Access By IP address

Searching: 2 databases ▼

- 2838 Journal Titles
- 1.5 million full-text doctoral dissertations and master's theses

ProQuest Advanced search

Full text  Peer reviewed i Search tips

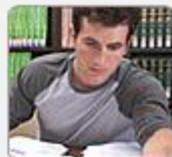
Search subject areas [List view](#)



The Arts



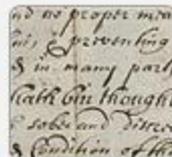
Business



Dissertations &  
Theses



Health &  
Medicine



History



Literature &  
Language



Science &  
Technology



Social Sciences



# ProQuest Databases

ProQuest

## Dissertations & Theses

Basic Search | Advanced | Browse

image processing

Submit Your search key word



Full text

Modify search | Tips

148125 Results \*

Search within

Create alert

Create RSS feed

Save search

Suggested subjects Hide ▲

Powered by ProQuest® Smart Search

■ Electrical engineering ■ Electrical engineering AND Computer science ■ Electrical engineering AND Algorithms

■ Electrical engineering AND Biomedical research ■ Electrical engineering AND Artificial intelligence ■ Image ■ Image AND Marketing

[View All >](#)

0 Selected items [Clear]

Save to My Research

Email

Print

Cite

Export/Save >

Select 1-20

Brief view | Detailed view

1



[Modulation domain image processing](#)

Preview

Diss.Nguyen, Chuong T.. The University of Oklahoma, 2012. 3507872.

...traditional linear signal and **image processing**. The discrete Fourier ...nonstationary representation for **images**, the 2D AM-FM model ...model represents an **image** as a finite sum of smoothly

References (128)

Citation/Abstract Preview - PDF (666 KB) Full text

2



[Parameterized Logarithmic Image Processing for practical](#)

Diss.Wharton, Eric. Tufts University, 2008. 1456622.

... **Image processing** is the system of mathematically ...Further, processed **images** are not always representative ...of their constituent **images**, necessitating a more

References (70)

Citation/Abstract Preview - PDF (619 KB) Full text - PDF (7 MB) Order a copy

3



[Employment of Crystallographic Image Processing Techniques to Scanning Probe Microscopy Images of Two-Dimensional Periodic Objects](#)

Preview

Diss.Moon, Bill. Portland State University, 2011. 1501443.

...these **images**. The improved resolution of current SPMs creates **images** with more ...than earlier, "softer" **images**; these higher-order coefficients

Narrow your results  
By choosing from  
Options below

Sort results by:

Relevance

Sort

Narrow results by

Full text

Source type

Dissertations & Theses (148123)

Publication title

Subject

electrical engineering (13675)

computer science (11997)

materials science (7314)

molecular biology (7046)

mechanical engineering (6979)



# ProQuest Databases



## Narrowing your results

Link your required resource to the keyword you are introducing by choosing the type of source you are searching for.

Narrow results by  
[Clear all]

- Full text
- Source type
  - Dissertations & Theses (28)
- Publication title
- Subject
  - materials science (28)
  - And also:
    - chemical engineering (4)
    - metallurgy (3)
    - mechanical engineering (2)
  - More options...
- Classification
  - Materials science (28)
- Company/organization
- Location
- Person
- Tags
- Language
  - English (28)
- Database
- Author keyword
  - Microstructures (28)
- School name
- Publication date
  - 1988 - 2012 (years)

For best results choose your discipline and exclude other unwanted ones

You can include or exclude certain criteria to narrow your results and go to the required point.



# Next Step ...



**ASME  
Database**





# ASME



## American Society for Mechanical Engineers

<http://asmedl.org>

Access By IP address

Choose your required journal

25 different journals accessible for academy's usage

Select Journals	Select Years
<ul style="list-style-type: none"> <li>All Digital Journal Papers</li> <li>Applied Mechanics Reviews</li> <li><b>J. Applied Mechanics</b></li> <li>J. Biomechanical Engineering</li> <li>J. Basic Engineering</li> </ul>	<ul style="list-style-type: none"> <li>2012</li> <li>2011</li> <li>2010</li> <li>2009</li> <li>2008</li> </ul>

Select a certain conference if available

Select Conference Proceedings Series	Select Years
<ul style="list-style-type: none"> <li>All Conference Proceedings</li> <li>ASME/JSME Thermal Engineering Joint Conference (AJTEC)</li> <li>ASME International Mechanical Engineering Congress &amp; Exposition (IMECE)</li> <li>CANEUS: MNT for Aerospace Applications (CANEUS)</li> <li>Summer Bioengineering Conference (SBC)</li> </ul>	<ul style="list-style-type: none"> <li>All Years</li> <li>2012</li> <li>2011</li> <li>2010</li> <li>2009</li> </ul>

Search eBooks

Note: Hold CTRL key to select multiple titles and years. If no journal, proceedings series or year is selected, all journals and proceedings series across all years will be searched.

[ASME Product Catalog on asme.org](#)

Submit your search criteria

Keep default or choose another search field

Finite element in Full Bibliographic Record

AND in Abstract/Title/Keywords

AND in Author

Hitlist Sorting Options: Show Most Recent First

Records Per Page: 25

Threshold: All



[Search Tips & Examples](#)



# ASME

## American Society for Mechanical Engineers



You were searching for: **(Finite element)** [RSS](#) [?](#)  
You found 593 out of 10988 (500 returned) Documents 1 - 25 listed on this page

refine your search

AND

Abstract/Title/Subject Headings

REFINE

Refine your search results if required

Sorting Options: Show Most Recent First

RE-SORT

[ [Search ASME Online Catalog for Related Products](#) ]

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | [Next 25](#) | [More Results](#)



Choose Action for Selected Articles

GO



[View Cart](#)

1.

### [A Combined Finite Element-Multiple Criteria Optimization Approach for Materials Selection of Gas Turbine Components](#)

[A. Shanian](#), [A. S. Milani](#), [N. Vermaak](#), [K. Bertoldi](#), [T. Scarinci](#), and [M. Gerendas](#)

J. Appl. Mech. 79, 081019 (2012)

Full Text: [ [HTML PDF](#) (1705 kB) ] [BUY THIS](#)

2.

### [Evaluation of Micro-Pillar Compression Tests for Accurate Determination of Elastic-Plastic Constitutive Relations](#)

[Huiyang Fei](#), [Amit Abraham](#), [Nikhilesh Chawla](#), and [Hangqing Jiang](#)

J. Appl. Mech. 79, 081011 (2012)

Full Text: [ [HTML PDF](#) (1883 kB) ] [BUY THIS](#)

3.

### [A New Experimental Method for the Introduction of a Predetermined Amount of Residual Stresses in Fatigue Test Specimens](#)

[Daniel Paquet](#), [Jacques Lanteigne](#), and [Marie Bernard](#)

J. Appl. Mech. 79, 081002 (2012)

Full Text: [ [HTML PDF](#) (2111 kB) ] [BUY THIS](#)

4.

### [Determination of Isospectral Nonuniform Rotating Beams](#)

[Sandilya Kambampati](#), [Ranjan Ganguli](#), and [V. Mani](#)

J. Appl. Mech. 79, 081018 (2012)

Full Text: [ [HTML PDF](#) (1553 kB) ] [BUY THIS](#)

Even though there is "Buy this" sign, you still can download the PDF file



# ASME

## American Society for Mechanical Engineers



### Journal of Applied Mechanics

J. Appl. Mech. / Volume 79 / Issue 6 / Research Papers

#### Lateral-Torsional Stability Boundaries for Polygonally Depth-Tapered Strip Cantilevers Under Multi-Parameter Point Load Systems—An Analytical Approach

J. Appl. Mech. — November 2012 — Volume 79, Issue 6, 061015 (11 pages)  
<http://dx.doi.org/10.1115/1.4006459>

ABSTRACT REFERENCES (36)

#### Author(s):

Anísio Andrade

Department of Civil Engineering, INESC Coimbra, University of Coimbra FCTUC-Pólo II, Rua Luis Reis Santos, 3030-788 Coimbra, Portugal

Noël Challamel

LIMATB – Laboratoire d'Ingénierie des MATériaux de Bretagne, Université Européenne de Bretagne – Université de Bretagne Sud, P.O. Box 11711, 56317 Lorient Cedex, France

This paper reports an analytical study on the elastic lateral-torsional buckling behavior of strip cantilevers (i) whose depth is given by a monotonically decreasing polygonal function of the distance to the support and (ii) which are subjected to an arbitrary number of independent conservative point loads, all acting in the same "downward" direction. The study is conducted on the basis of a one-dimensional (beam) mathematical model. A specialized model problem, consisting of a two-segment cantilever acted by two loads, applied at the free end and at the junction between segments, is first considered in detail for it "contains all the germs of generality". It is shown that the governing differential equations can be integrated in terms of confluent hypergeometric functions or Bessel functions (themselves special cases of confluent hypergeometric functions). This allows us to establish exactly the characteristic equation for this structural system, which implicitly defines its stability boundary. Moreover, it is shown that the methods used to solve the model problem also apply to the general problem. A couple of parametric illustrative examples are discussed. Some analytical solutions are compared with the results of shell finite element analyses—a good agreement is found.

©2012 American Society of Mechanical Engineers

History: Received 10 June 2011; revised 3 March 2012; accepted manuscript posted 29 March 2012; published 21 September 2012

Digital Object Identifier <http://dx.doi.org/10.1115/1.4006459>

▲ HITS NEW  
You are logged into the ASME Database  
Sign Out

You can preview the abstract and the references separately for easier manipulation of data.

#### FULL TEXT OPTIONS

HTML HTML PDF Download Final PDF

PDF Download Accepted Manuscript

Connotea CiteULike del.icio.us BibSonomy

DOWNLOAD CITATION MySCitation  
EMAIL ABSTRACT ERRATA ALERT  
TOOLKIT PRINT VIEW  
BLOG THIS ARTICLE

#### PUBLICATION DATA

Coden:

JAMCAV

ISSN:

0021-8938 (print) 1528-9038 (online)

Publisher:

ASME



There's still a link for full text PDF download



# Next Step ...



**CRCnetBASE  
Database**





# CRCnetBASE



<http://www.crcnetbase.com/>

Access by IP addresses

**CRCnetBASE**  Full Access Content Only  
Access provided by ARAB ACADEMY OF SCIENCE & TECHNOLOGY



# CRCnetBASE



## Advanced Search

### Search Criteria

Search

Clear

#### General Search

Full text

And

Book/Chapter Title  And

Author (by Chapter)  And

ISBN/DOI

#### Publication Dates

Between: Year  and Year

#### Subjects (by Chapter)

Select All

Clear All

- |   |  |
|---|--|
| <input type="checkbox"/> Agriculture                              | <input type="checkbox"/> Forensics & Criminal Justice          |
| <input type="checkbox"/> Biomedical Science                       | <input type="checkbox"/> Geoscience                            |
| <input type="checkbox"/> Business & Management                    | <input type="checkbox"/> Healthcare                            |
| <input type="checkbox"/> Chemistry                                | <input type="checkbox"/> Homeland Security                     |
| <input type="checkbox"/> Clean Tech                               | <input type="checkbox"/> Information Technology                |
| <input type="checkbox"/> Computer Game Development                | <input type="checkbox"/> Life Science                          |
| <input type="checkbox"/> Computer Science & Engineering           | <input type="checkbox"/> Material Science                      |
| <input type="checkbox"/> Economics                                | <input type="checkbox"/> Math                                  |
| <input type="checkbox"/> Engineering - Chemical                   | <input type="checkbox"/> Medicine                              |
| <input type="checkbox"/> Engineering - Civil                      | <input type="checkbox"/> Nanoscience & Technology              |
| <input type="checkbox"/> Engineering - Electrical                 | <input type="checkbox"/> Nutrition                             |
| <input type="checkbox"/> Engineering - Environmental              | <input type="checkbox"/> Occupational Health & Safety          |
| <input type="checkbox"/> Engineering - General                    | <input type="checkbox"/> Pharmaceutical Science & Regulation   |
| <input type="checkbox"/> Engineering - Industrial & Manufacturing | <input type="checkbox"/> Physics                               |
| <input checked="" type="checkbox"/> Engineering - Mechanical      | <input type="checkbox"/> Polymer Science                       |
| <input type="checkbox"/> Engineering - Mining                     | <input type="checkbox"/> Public Administration & Public Policy |
| <input type="checkbox"/> Environmental Science                    | <input type="checkbox"/> Social Sciences                       |
| <input type="checkbox"/> Ergonomics & Human Factors               | <input type="checkbox"/> Statistics                            |
| <input type="checkbox"/> Food Science & Culinary Science          | <input type="checkbox"/> Water Science & Engineering           |

Search

Clear

Insert search criteria  
(Subject or keywords)

## Search

Simple Search

Advanced Search

- All books
- This series
- This book

Search

Select related subjects  
for results narrowing



# CRCnetBASE



## Results

**Product Design for the Environment**

**Citation Information**  
Product Design for the Environment  
A Life Cycle Approach  
Fabio Giudice , Guido La Rosa , and Antonino Risitano  
CRC Press 2006  
Print ISBN: 978-0-8493-2722-3  
eBook ISBN: 978-1-4200-0104-4

**Table of Contents** Permalink ↓

[Download to Citation Mgr](#) [View Abstracts](#) [Add to Bookshelf](#) [Email](#)

Access	Page	Title	Abstract	Hi-Res PDF	PDF w/links
<input checked="" type="checkbox"/>	xxxiii	<b>Author Biographies</b>	<a href="#">Abstract</a>	<a href="#">Hi-Res PDF (559 KB)</a>	<a href="#">PDF w/links (560 KB)</a>
<input checked="" type="checkbox"/>	1	<b>Chapter 1. From Sustainable Development to Design for Environment</b>	<a href="#">Abstract</a>	<a href="#">Hi-Res PDF (402 KB)</a>	<a href="#">PDF w/links (419 KB)</a>
<input checked="" type="checkbox"/>	37	<b>Chapter 2. Life Cycle Approach and the Product, System Concept and Modeling</b>	<a href="#">Abstract</a>	<a href="#">Hi-Res PDF (390 KB)</a>	<a href="#">PDF w/links (395 KB)</a>
<input checked="" type="checkbox"/>	61	<b>Chapter 3. Life Cycle Design and Management</b>	<a href="#">Abstract</a>	<a href="#">Hi-Res PDF (293 KB)</a>	<a href="#">PDF w/links (310 KB)</a>
<input checked="" type="checkbox"/>	83	<b>Chapter 4. Life Cycle Assessment</b>	<a href="#">Abstract</a>	<a href="#">Hi-Res PDF (297 KB)</a>	<a href="#">PDF w/links (323 KB)</a>
<input checked="" type="checkbox"/>	111	<b>Chapter 5. Life Cycle Cost Analysis</b>	<a href="#">Abstract</a>	<a href="#">Hi-Res PDF (340 KB)</a>	<a href="#">PDF w/links (354 KB)</a>
<input checked="" type="checkbox"/>	135	<b>Chapter 6. Integrated Economic, Environmental Analysis of the Life Cycle</b>	<a href="#">Abstract</a>	<a href="#">Hi-Res PDF (181 KB)</a>	<a href="#">PDF w/links (200 KB)</a>

**Search Results** Sort by **Relevancy** Results Per Page **20**

**Chapters** **Book Titles**

Showing: 1-20 of 5580 1 2 3 4 5 6 7 8 9 10 11

[View Abstracts](#) [Add to Bookshelf](#) [Email](#) [Download to Citation Mgr](#)

**Select All Results**

**Chapter 10. Microstructure**  
Isabel Hernando, Empar Llorca, Ana Puig, Maria-Angeles Lluch  
Handbook of Seafood and Seafood Products Analysis  
Pages 139–152  
[Abstract](#) [Hi-Res PDF \(3168 KB\)](#) [PDF w/links \(2793 KB\)](#)

**Chapter 12. Microstructure**  
Mechanics of Materials and Interfaces  
The Disturbed State Concept  
[Abstract](#) [Hi-Res PDF \(1097 KB\)](#) [PDF w/links \(988 KB\)](#)

**Chapter 7. Microstructure**  
Alejandro G. Marangoni, Suresh S. Narine  
Fat Crystal Networks  
Pages 179–254  
[Abstract](#) [Hi-Res PDF \(9619 KB\)](#) [PDF w/links \(1924 KB\)](#)

**Chapter 10. Microstructures**  
Continuum Models for Phase Transitions and Twinning in Crystals  
[Abstract](#) [Hi-Res PDF \(143 KB\)](#) [PDF w/links \(144 KB\)](#)

**B10. Microstructured optical fibres**  
Jesper Lægsgaard, Tanya M. Monro, Anders Bjarklev  
Handbook of Optoelectronics (Two-Volume Set)  
Pages 719–744



# Next Step ...



**IEEE  
Database**





# IEEE Xplore



IEEE Xplore®  
DIGITAL LIBRARY

Access provided by:  
Arab Academy for Science  
Technology & Maritime Transport  
Sign Out



BROWSE ▾

MY SETTINGS ▾

MY PROJECTS

WHAT CAN I ACCESS? | About IEEE Xplore | Terms of Use | Feedback



SEARCH

[Advanced Search](#) | [Preferences](#) | [Search Tips](#) | [More Search Options](#) ▾

## What can I access?

### Your institution subscribes to:

#### • IEEE/IET Electronic Library (IEL)

Your online subscription includes access to the full text of IEEE content published since 1988 with select content published since 1893 from:

- IEEE journals, transactions, and magazines, including early access documents
- IEEE conference proceedings
- IET journals
- IET conference proceedings
- IEEE published standards
- IEEE Standards Dictionary Online

For more information: [www.ieee.org/go/iel](http://www.ieee.org/go/iel)

#### • VDE VERLAG Conference Proceedings

Your online subscription includes complimentary access to the AbstractPlus records and select full text published since 2005 from:

- VDE VERLAG conference proceedings

For more information: [www.ieee.org/go/vde](http://www.ieee.org/go/vde)



# IEEE Xplore



**SEARCH RESULTS**

You searched for: **microstructure analysis** 9,152 Results returned

Results per page:  Sort by:

Select All on Page | Deselect All < First | 1 | 2 | 3 | 4 | 5 | >> Last >

Set Search Alert Download Citations Save to Project Email Selected Results Print Export Results

---

**Study of the interface microstructure of Sn-Ag-Cu lead-free solders and the effect of solder volume on intermetallic layer formation**

Salam, B.; Ekere, N.N.; Rajkumar, D.  
Electronic Components and Technology Conference, 2001.  
Proceedings., 51st  
Digital Object Identifier: 10.1109/ECTC.2001.927769  
Publication Year: 2001 , Page(s): 471 - 477  
Cited by 4  
**IEEE CONFERENCE PUBLICATIONS**  
 Quick Abstract | PDF (2736 KB)

---

**Defect structure and electron field-emission properties of boron-doped diamond films**

Chen, Yung-Hsin; Hu, Chen-Ti; Lin, I-Nan  
Applied Physics Letters  
Volume: 75 , Issue: 18  
Digital Object Identifier: 10.1063/1.125173  
Publication Year: 1999 , Page(s): 2857 - 2859  
**AIP JOURNALS & MAGAZINES**  
 PDF (60 KB)

---

**Detection of masses in digitised mammograms**

Pfisterer, R.; Aghdasi, F.  
Communications and Signal Processing, 1998. COMSIG '98.  
Proceedings of the 1998 South African Symposium on  
Digital Object Identifier: 10.1109/COMSIG.1998.736933  
Publication Year: 1998 , Page(s): 115 - 120  
**IEEE CONFERENCE PUBLICATIONS**



A sign is available to indicate if the resource is accessible for you



# IEEEExplore



Filter results by choosing only the resources included in the academy's subscription

**FILTER THESE RESULTS** ?

Search within results:

Only show full text results included in my subscription

▼ **CONTENT TYPE**

Journals & Magazines (6,341)  
 Conference Publications (2,805)  
 Early Access Articles (4)  
 Books & eBooks (2)

▶ **PUBLICATION YEAR**

▶ **AUTHOR**

▶ **AFFILIATION**

▶ **PUBLICATION TITLE**

▶ **PUBLISHER**

▶ **TOPIC**

▶ **CONFERENCE COUNTRY**

▶ **CONFERENCE LOCATION**



# Next Step ...



Science Direct  
Database





# Science Direct



**All Sources** Journals Books Images [Advanced search](#) | [Expert search](#)

[? Search tips](#)

**Search**

microstructure analysis in All Fields

AND

image processing in All Fields

**Include**

Journals  All Books

**Source**

All sources

**Subject** (select one or more)

Engineering  
Environmental Science  
Immunology and Microbiology  
Materials Science

Hold down the Ctrl key (or Apple Key) to select multiple entries.

**Date Range**

All Years  2002 to: Present

**Search** | [Recall search](#)



= Full-text available = Abstract only

Go to page:  of 752 [Go](#) | [Next >](#)

Search within results

[Search](#)

Refine results

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

Content Type

- Journal (36,596)
- Book (1,210)
- Reference Work (335)

Journal/Book Title

- Materials Science and Engineering: A (3,520)
  - Acta Materialia (1,682)
  - Journal of the European Ceramic Society (1,619)
  - Journal of Alloys and Compounds (1,569)
  - Surface and Coatings Technology (1,357)
- [view more](#)

Topic

- thin film (727)
  - mechanical property (585)
  - x-ray diffraction (494)
  - inter face (490)
  - grain boundary (431)
- [view more](#)

Year

- 2013 (154)
- 2012 (5,196)

[Purchase](#) | [E-mail articles](#) | [Export citations](#) | [Download multiple PDFs](#) | [Open all previews](#)

Sort by: [Relevance](#) | [Date](#)

- Image processing and statistical analysis of microstructures of as plasma sprayed Alumina-13 wt.% Titania coatings** Original Research Article  
*Surface and Coatings Technology, Volume 201, Issue 6, 4 December 2006, Pages 3691-3700*  
R. Venkataraman, Gautam Das, B. Venkataraman, G.V. Narashima Rao, R. Krishnamurthy  
[Show preview](#) | [Related articles](#) | [Related reference work articles](#) [Purchase](#)
- Effect of long term annealing on the microstructure of hpdc AZ91 Mg alloy: A quantitative analysis by image processing** Original Research Article  
*Computational Materials Science, Volume 43, Issue 4, October 2008, Pages 759-766*  
D.G. Leo Prakash, Doris Regener, W.J.J. Vorster  
[Show preview](#) | [Related articles](#) | [Related reference work articles](#) [Purchase](#)
- Microstructural image analysis applied to fibre composite materials: a review** Original Research Article  
*Composites, Volume 24, Issue 5, July 1993, Pages 383-393*  
F.J. Guild, J. Summerscales  
[Show preview](#) | [Related articles](#) | [Related reference work articles](#) [Purchase](#)
- Morphological operations, planar mathematical formulations, and stereological interpretations for automated image analysis of concrete microstructure** Original Research Article  
*Cement and Concrete Composites, Volume 27, Issues 7-8, August-September 2005, Pages 823-833*  
Parviz Soroushian, Mohamed Elzafraney  
[Show preview](#) | [PDF \(331 K\)](#) | [Related articles](#) | [Related reference work articles](#)
- Fractal analysis of eroded surfaces by digital image processing**  
*Materials Letters, Volume 56, Issue 4, October 2002, Pages 512-517*  
Luciano M.F Ribeiro, Ana Lucia Horovistiz, Glaucio A Jesuino, Luis Rogério de O Hein, Noelmar P Abbade, Sérgio J Crnkovic  
[Show preview](#) | [Related articles](#) | [Related reference work articles](#) [Purchase](#)
- Evaluation of multilayer perceptron and self-organizing map neural network topologies applied on microstructure segmentation from metallographic images** Original Research Article  
*NDT & E International, Volume 42, Issue 7, October 2009, Pages 644-651*  
Victor Hugo C. de Albuquerque, Auzuir Ripardo de Alexandria, Paulo César Cortez, João Manuel R.S. Tavares  
[Show preview](#) | [PDF \(550 K\)](#) | [Related articles](#) | [Related reference work articles](#)



# Next Step ...



Knovel  
Database





# Knovel



Arab Academy for Science and Technology | **My Subscription / All Content** | Sign Out |

Choose my subscription to ensure full access to all your results

## Browse (My Subscription)

Civil Engineering & Construction Materials	Metals & Metallurgy
Electrical & Power Engineering	Oil & Gas Engineering
Electronics & Semiconductors	Promotional Package
General Engineering & Engineering Management	Transportation Engineering
Mechanics & Mechanical Engineering	



# Knovel



## Results

You searched for *(microstructure analysis)* within Your Subscription

Titles:

Advanced Building Materials **NEW**



Search Within

Sections

- 111.3.2 Phase and Microstructure Analysis of the Specimens
- 187.5 Microstructure Analysis
- 133.5 Mechanics Properties Analysis of the Microstructure of Rubber Modified Concrete
- 25.3.5 Microstructure and Inclusion Rating
- 7.2.1 Materials

Relevancy

- 100 %
- 100 %
- 97 %
- 8 %
- 8 %

Content Type

- Text
- Text
- Text
- Text
- Text

Show more results

Advanced Structural Materials

99 %

Comprehensive Structural Integrity, Volumes 1-10

99 %

Encyclopedia of Materials - Science and Technology, Volumes 1-11

98 %

Light Metals Technology V

75 %

Structural Integrity and Failure

75 %

Casting Aluminum Alloys

30 %

Failure Analysis of Heat Treated Steel Components

30 %

Light Metals Technology 2009

29 %

Handbook of Deposition Technologies for Films and Coatings - Science, Applications and Technology (3rd Edition)

29 %

Shows how much the topic is related to the result



# Knovel



## Results

You have full access to copy and save the whole content

Knovel®  
111.3.2 Phase and Microstructure Analysis of the Specimens

591 (4 of 7) 110%

Advanced Materials Research Vols. 250-253 591

Bookmarks

- Front Matter
- Table of Contents
- Part I. Traditional Construction Materials
- Part II. Advanced Construction Materials
  - 55. Experimental Study on Sustainable Concrete with the Mixture of Low
  - 56. Influence of Retarders on the Microstructure of Hardened Building Gypsum
  - 57. Effect of Citric Acid on the Crystal Morphology of Gypsum and its Action Mechanism
  - 58. Research on the Sulfate Corrosion-Resistant Admixture for

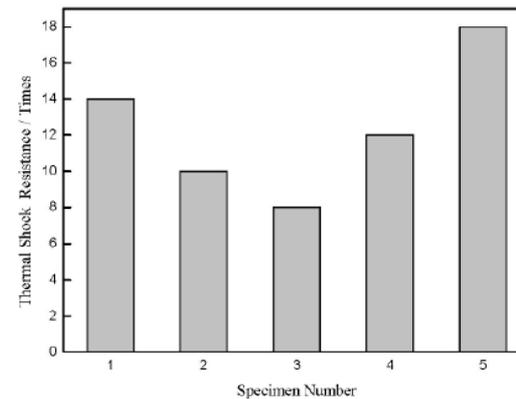


Fig. 2. Cycles of specimens thermal shock resistance

Fig. 3 shows the cold crushing strength of specimens. The cold crushing strength of specimens takes on an increased trend roughly from specimen 1 to specimen 5. This is also due to the better sintering situation as the spinel grain size gets bigger, forming a good network structure and making the material dense.

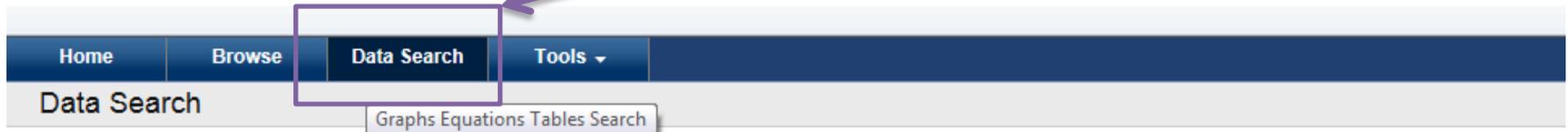


# Knovel



## Data search

For tables , graphs  
and more ...



Data Search retrieves numeric and other tabular data contained in Knovel's interactive graphs, equations and tables. Click in the Field box to display the available search fields. When you begin typing, the list is filtered.

 Help

Field

surface tension

Operator

less than or equal to 

Value

25

Units

mN/m 

 Add another row

**Search**

or [clear form](#)



# Knovel



## Data search

Accessible data in tables

Home Browse Data Search Tools

COLLAPSE ALL Number of Titles Retrieved: 9 Page: 1 of 1 Back to Data Search

You searched for (surface tension <= 25 mN/m) within Your Subscription

Titles:

Yaws' Critical Property Data for Chemical Engineers and Chemists 100 %

Search Within

Sections	Relevancy	Content Type
Table 26. Surface Tension - Organic Compounds, $\sigma = A(1-T/B)^n$	100 %	Table (2203)
Table 25. Surface Tension - Inorganic Compounds, $\sigma = A(1-T/B)^n$	5 %	Table (109)

Knovel Critical Tables (2nd Edition) 99 %

Search Within

Sections	Relevancy	Content Type
Surface Tensions	100 %	Table (95)
Surface Tensions - Temperature Dependences	84 %	Table (79)
Basic Physical Properties of Common Solvents	64 %	Table (60)

International Critical Tables of Numerical Data, Physics, Chemistry and Technology (1st Electronic Edition) 96 %

Knovel Solvents - A Properties Database 96 %

Knovel Steam Tables 95 %

Heat Transfer Handbook 94 %

Mechanical Engineers' Handbook - Energy and Power (3rd Edition) 93 %

2009 ASHRAE Handbook - Fundamentals (I-P Edition) 93 %

Adhesives Technology for Electronic Applications - Materials, Processes, Reliability 91 %



# Knovel



Filter and export  
data as desired

## Data search

Search criteria  
highlighted

Choose your  
desired fields

Table 26. Surface Tension - Organic Compounds,  $\sigma = A(1-T/B)$

Table: Table 26. Surface Tension - Organic Compounds,  $\sigma = A(1-T/B)$   
Table Type: Interactive Table With Equation Plotter  
Search Query: (surface tension <= 25 nN/m)  
Total Number of Search Hits: 2203  
Total Number of Rows: 7293

Pages: <<< 1 2 3 >>>

Jump to: 1 of 45

Display: Data Found | All Data

no.	equation plotter	molecular formula	substance name	synonyms	CAS No.	molecular weight	temperature, T <sub>min</sub> (K)	temperature, T <sub>max</sub> (K)	temperature, (K)	surface tension, (dyne/cm)	cod
1		CBrClF <sub>2</sub>	bromochlorodifluoride	Synonyms	353-59-3	163.364	113.65	426.15	298.15	12.79	
3		CBrF <sub>3</sub>	bromotrifluoromethane	Synonyms	75-63-8	148.911	105.15	340.15	298.15	3.76	
4		CBr <sub>2</sub> F <sub>2</sub>	dibromodifluoromethane	Synonyms	75-61-6	209.816	163.05	478.00	298.15	20.49	
6		CClF <sub>3</sub>	chlorotrifluoromethane	Synonyms	75-72-9	104.459	92.15	301.96	298.15	0.22	
7		CClN	cyanogen chloride	Synonyms	506-77-4	61.471	266.65	449.00	298.15	21.53	
8		CCl <sub>2</sub> F <sub>2</sub>	dichlorodifluoromethane	Synonyms	75-71-8	120.913	115.15	384.95	298.15	8.79	
9		CCl <sub>2</sub> O	phosgene	Synonyms	75-44-5	98.915	145.37	455.00	298.15	18.95	
10		CCl <sub>3</sub> F	trichlorofluoromethane	Synonyms	75-69-4	137.367	162.04	471.20	298.15	18.34	
12		CF <sub>2</sub> O	carbonyl fluoride	Synonyms	353-50-4	66.007	159.15	287.85	230.28	10.76	
13		CF <sub>4</sub>	carbon tetrafluoride	Synonyms	75-73-0	88.005	89.56	227.50	182.00	5.73	
15		CHClF <sub>2</sub>	chlorodifluoromethane	Synonyms	75-45-6	86.468	115.73	369.30	298.15	7.87	
16		CHCl <sub>2</sub> F	dichlorofluoromethane	Synonyms	75-43-4	102.922	138.15	451.58	298.15	17.78	



# Any Questions ?



Thank You!