

# MRS Communications Author Instructions

Please carefully read all instructions below before submitting a manuscript to *MRS Communications*. Manuscripts not prepared according to *MRS Communications* specifications may be returned to the author and may experience significant delays in review and time to publication.

Authors who have read the instructions and are prepared to submit manuscripts may do so at <http://mc.manuscriptcentral.com/mrscom>.

## Manuscript Submission Requirements

Original and revised manuscripts must be submitted online via *MRS Communications* Manuscripts (<http://mc.manuscriptcentral.com/mrscom>). E-mail submissions are not accepted. Complete instructions are available on the *MRS Communications* Manuscripts site.

### Manuscripts must be:

- Written in English
- Formatted to fit 8 ½ x 11 inch paper
- Saved as a .doc file
- Double-spaced
- Single column

### Manuscript submissions must include the following:

1. **Cover letter** explaining the importance and impact of the materials research being reported in the paper. Authors must also confirm that the manuscript has not been published previously and is not under consideration for publication in another journal at the time of submission. Authors are encouraged to suggest appropriate Principal Editors.
2. **Title page** with manuscript title, all authors' names and affiliations (including mailing addresses and postal codes)\*, abstract, and name and institutional email address of the corresponding author.  
\*During submission, authors must enter all co-author names, addresses, and institutional email addresses.
3. **Abstract**, outlining all subjects related to the new information being presented, as well as conclusions and all numerical results of general interest. A list of experimental techniques used in the research is discouraged. The abstract must be adequate as an index and a summary.
  - See article type description for word-length limitation.
  - Please identify the figure or figure part that best represents your paper for display in the online abstract. A color figure that is visually interesting and tells

the reader at a glance what the paper is about is recommended. Please be specific [i.e., Fig. 3(a) or Fig. 3(b)].

- Avoid the use of jargon and other terminology that would render the abstract inaccessible to the non-specialist
  - Use past tense when referring to experiments but present tense when referring to scientific law.
4. **Three keywords** selected from the MRS Publications Keyword List. These keywords are used to facilitate topical searches in the online version of MRC.
  5. **Four preferred reviewers**, including name, email, and institutions. Each reviewer must be from a different institution and not from the institution of the authors. Authors may also note non-preferred reviewers.
  6. **High resolution figures** The preferred format for figure submission is .tif or .eps format. Figures submitted in pdf format must be saved in separate files. Please note that the system has a 60 MB upload limit.
  7. A **Copyright Form** must be submitted at the time of manuscript submission.
    - Manuscript number and corresponding author's name must appear on all forms.
    - The completed copyright form may be sent to the Editorial Office electronically at [mrc@mrs.org](mailto:mrc@mrs.org) or faxed to 724-779-4396. When sending the form electronically, please use the following subject line: Manuscript ID Number – Copyright Form.
    - **Manuscripts cannot be accepted for publication until the completed form is received.**

### Important Notes about Electronic Manuscript Submission:

- Please carefully review the converted PDF file to verify that special characters and formatting have not been lost during conversion. The converted PDF proof that is approved and submitted is viewed by the Editorial Office, editors and reviewers.
- You must click “Submit Manuscript,” to complete the manuscript submission process.
- After successful submission, all authors will receive a confirmation email containing the manuscript number.
- To check manuscript status, the corresponding author may log on to the *MRS Communications* Manuscripts site and proceed to the Author Center, where current status information is displayed for all of that author's articles.
- Please list [mrc@mrs.org](mailto:mrc@mrs.org) as an allowable sender in your email system to ensure that all email notifications are delivered.

## Authorship Declaration:

*MRS Communications* does not require all authors of a paper to sign a letter of submission. The corresponding or submitting author is presumed to have sought the agreement of each named author for all content interpretation. The named corresponding author will be responsible for all communication with the Journal and author group.

Authors are required to submit a statement of responsibility for each named contributor to the submitted paper that specifies their role.

After acceptance, the corresponding author shall take responsibility for taking delivery of proofs and circulating them to co-authors. The corresponding author is especially responsible for ensuring that the names and affiliations of co-authors are all present, correctly spelled and current.

## Conflict of Interest Disclosure:

In the interests of full disclosure and transparency of any potential bias, MRC requires authors to declare any financial interests relating to the work described in the submission. A short statement should be supplied and will be printed as part of the final article. Authors with no competing financial interests should declare this to be the case.

Competing interests are defined as any financial relationships that, through their potential influence, could undermine the objectivity, integrity or perceived value of a body of work. This may include: research funding, employment, consultation fees, or other personal financial interests.

Since it is impossible to define a specific threshold at which financial interests become significant, authors should refer to the policies of their own institution or consider whether undisclosed financial interests could be considered potentially embarrassing, should they become publicly known after publication.

Should no declaration be provided as part of the submission, it will be assumed that the authors have declared that they do not have any conflict of interest.

## Instructions - Figures

### Format:

High-resolution figures must be uploaded during manuscript submission. The preferred format for figure submission is .tif or .eps format. Figures submitted in pdf format must be saved in separate files.

### Resolution:

Line drawings and graphs must have a resolution of at least 1200 dpi and a minimum width of 3 inches. Photographs and

micrographs must have resolution of at least 350 dpi and a minimum width of 3 inches. For all figures the maximum width is 6 inches. Lower-resolution images will not reproduce properly and will not be accepted. The Editorial Office will provide instructions for ftp of electronic figure submission on an as-needed basis.

### File size:

There is a 60 MB file upload size limit in *MRS Communications* Manuscripts. Please use LZW compression (which does not affect resolution) when saving figure files.

### Labels and appearance:

- Figure numbers are Arabic: 1, 2, 3. Do not use Roman numerals for figures. Figure parts are labeled with letters: (a), (b), (c).
- Figure part labels appear lowercase (a), (b), etc., in the lower left corner outside of figure area. Do not include figure labels within the figures. Do not use capital letters.
- Multi-part figures, which should be submitted as one electronic file, should read horizontally rather than vertically.
- All extraneous machine-generated information in SEM and TEM micrographs must be removed prior to submission and professional quality scale markers placed on the figure.
- Presenting x-ray and neutron diffraction patterns:
  - X-ray or neutron powder diffraction data should be presented with the diffraction peaks identified to the fullest extent possible. For data from materials with known unit cells, the diffraction peaks should be indexed as shown below. For Miller indices with a value of 10 or higher, an underline is used to more clearly indicate that there are two digits in the index.
  - Note: by convention the Miller indices of the reflection plane *hkl*, written without parentheses, represent the diffracted beam from plane (*hkl*).

### Captions:

Every figure must be referred to in the main text in consecutive numerical order. A caption (legend) must be provided for each figure. Captions must be placed on a separate page at the end of the manuscript. If a figure part such as (a) or (b) is referred to in a caption, that figure part must be labeled.

- Figure captions are numbered FIG. 1, FIG. 2, FIG. 3, etc. Example: FIG. 1. Concentration dependence of the critical indentation depth, *hc*.
- Labels appear before what they describe. Example: (a) SEM micrograph, (b) TEM micrograph, and (c) XRD micrograph.

## Color:

- *MRS Communications* is a full-color journal. Authors are strongly encouraged to submit color figures.
- Color figures must be submitted before the paper is accepted for publication, and cannot be received later in the process.
- Submit a color graphic in Tagged Image File Format (.tif).
- Submit color graphics with a resolution of at least 300 dpi (600 dpi if there is text or line art in the figure).
- Submit color graphics in CMYK format.
- Submit figures sized to fit the actual column or page width of the journal so that reduction or enlargement is not necessary.
- Submit multipart figures in one single electronic file.

## Figure display in abstract:

Please identify the figure or figure part that best represents your paper for display in the online abstract. A color figure that is visually interesting and tells the reader at a glance what the paper is about is recommended. Please be specific [i.e., Fig. 3(a) or Fig. 3(b)].

## Supplementary Material:

*MRS Communications* allows the submission of supplemental material for online publication. Supplementary Material is defined as any content that supports, but is not key to, the understanding of a published item's message. Given that Supplementary Material is exclusively published online, it may include file types (video, audio) that are incompatible with a print format.

Supplementary Material is subject to the same peer review process and copyright requirements as all primary content. It will be neither copy-edited nor typeset, but will be published as approved by the Editor-in-Chief. Common types of Supplementary Material include audio and video files and large datasets or tables. Datasets, tables, and other textual material are commonly submitted as PDF, Excel, or Word files. The author should ensure that an in-text citation to each Supplementary file has been made in the article. Preferably, in-text cites will appear in a separate section at the end of the article, following the text and preceding the traditional "References" or "Notes" section. Supplementary figures and tables should be labeled as FIG. S1, FIG. S2, etc. and TABLE SI, TABLE SII, etc.

The author will be able to check in page proofs to be certain that the in-text citation appears properly; however, the Supplementary Material files themselves will not be circulated with the page proofs. When an article is published online, either as a FirstView article or as part of an issue, the Supplementary Material will be published online with the article.

Files should be in final, publishable format upon submission. *MRS Communications* will not edit or typeset Supplementary Material, nor will it modify audio or video files in any substantial way. The author will be notified if a submitted file does not meet quality and size requirements.

Some Supplementary Material may not be able to be submitted through our online peer review systems, due to file size or compatibility problems. In such cases, and for all other questions regarding supplementary material, contact the *MRC* Editorial Office.

## Format Style:

Authors are expected to follow the conventional writing, notation, and illustration style prescribed in 1) *The ACS Style Guide*, 3rd Edition, 2006. Authors should also study the form and style of printed material in this journal. SI units should be used. Authors should use an identical format for their names in all publications to facilitate use of citations and author indexes.

## Mathematics:

- Special care should be given to make equations and formulas clear to the typesetter.
- *Variables* should appear in italic text.
- **Vectors** should appear in bold text.
- Capital and lower-case letters should be distinguished clearly where there could be confusion.
- Fractional exponents should be used to avoid root signs.
- Extra symbols should be introduced to avoid complicated exponents or where it is necessary to repeat a complicated expression a number of times.
- The slash (/) should be used wherever possible for fractions.
- Mathematical derivations that are easily found elsewhere in the literature should not be used.

## References:

All journal article references must include the title of the article and all authors. The phrases *et al.* and *ibid.* should not be used in any reference. Instead, all authors of the reference should be listed. All journal article references must include the initials and last name of all authors: the title of the article, journal title in italic, the volume number in bold, page number and (year).

Authors are responsible for providing English-language translations of reference citations originally published in other languages.

References should be double-spaced, numbered consecutively, placed on a separate page, and arranged thus:

1. A. Gouldstone, Y-L. Shen, S. Suresh, and C.V. Thompson: Evolution of stress in passivated and unpassivated metal interconnects. *J. Mater. Res.* **13**, 1956 (1998).
2. H. Lamb: Hydrodynamics, 6th ed. (Cambridge Univ. Press, Cambridge, England, 1940), pp. 573, 645.
3. T.R. Jervis, J-P. Hirvonen, M. Nastasi, and M.R. Cohen: Laser mixing of titanium on silicon carbide, in *Beam-Solid Interactions: Physical Phenomena*, edited by J.A. Knapp, P. Borgesen, and R.A. Zuhr (Mater. Res. Soc. Symp. Proc. **157**, Pittsburgh, PA, 1990), p. 395.
4. H. Wang, A. Sharma, and A. Kvit: Mechanical properties of nanocrystalline and epitaxial TiN films on (100) silicon. *J. Mater. Res.* **16**, 9 (2001).

Please take note of the reference format for the following MRS publications:

#### MRS Communications

T. Yokoto, T. Sekitani, Y. Kato, K. Kuribara, U. Zschieschang, H. Klauk, T. Yamamoto, K. Takimiya, H. Kuwabara, M. Ikeda, and T. Someya: Low-voltage organic transistor with subfemto-liter inkjet source-drain contacts. *MRS Communications*, doi:10.1557/mrc.2011.4, Published online 17 June 2011.

#### Journal of Materials Research

G. Bakan, N. Khan, A. Cywar, K. Cil, M. Akbulut, A. Gokirmak, and H. Silva: Self-heating of silicon microwires: Crystallization and thermoelectric effects. *J. Mater. Res.* **26**(9), 1061 (2011).

#### MRS Bulletin

B.M. Moskal and L. Kosbar: Addressing broader impacts through K-12 outreach in materials education. *MRS Bull.* **36**(4), 255 (2011).

#### MRS Symposium Proceedings

##### Print volume:

T.R. Jervis, J-P. Hirvonen, M. Nastasi, and M.R. Cohen: Laser mixing of titanium on silicon carbide, in *Beam-Solid Interactions: Physical Phenomena*, edited by J.A. Knapp, P. Borgesen, and R.A. Zuhr (Mater. Res. Soc. Symp. Proc. **157**, Pittsburgh, PA, 1990), p. 395.

##### Electronic volume:

T. Saif, J. Rajagopalan, and A. Tofangchi: The role of mechanical tension in neurons, in *Biological Materials and Structures in Physiologically Extreme Conditions and Disease*, edited by M.J. Buehler, D. Kaplan, C.T. Lim, and J. Spatz (Mater. Res. Soc. Symp. Proc. **1274**, Warrendale, PA, 2010) 1274-QQ01-06.

#### Tables:

All but the simplest tabular material should be organized into separate tables. Tables should be numbered with Arabic numerals on separate pages at the end of the manuscript. Captions should be sufficiently descriptive to make the data in the table intelligible without referring to the text. Complicated column headings in the body of the table should be avoided. If necessary, symbols that are explained in the caption should be used.

#### Acknowledgments:

An Acknowledgment(s) section is optional. Please note spelling above. Place statements of funding support and disclaimers in the Acknowledgments section, not in footnotes.

#### Rights and Permissions:

All requests to publish material published in *MRS Communications* should be directed to Cambridge University Press. Please visit Cambridge's Rights and Permissions page: <http://journals.cambridge.org/action/rightsAndPermissions>

#### Proof Instructions for Articles:

*MRC* is dedicated to rapid publication of material and our Publisher is committed to providing the fastest and highest quality production processes in support of this goal. With a target of acceptance to publication in under **14 working days**, authors are therefore asked to respond to receipt of their proofs promptly. Authors can anticipate receiving electronic copies of their proofs within 5 days of acceptance. We ask authors to bear in mind the following policies:

1. Authors will be required to return proofs for correction within 48 hours of receipt.
2. If an author is unable to meet the 48 hour deadline, but wants additional input, this needs to be communicated so that the production process is put on hold.
3. If authors fail to return their corrected page proofs or to communicate a requirement for an extended review period, the paper will be published without corrections.
4. Authors shall follow the instructions for the return proofs provided at the time of their dispatch.
5. Online publication is considered a definitive act and shall be the version of record. Any subsequent request for alterations, additions or correction shall be considered on a case by case basis for significant errors at the discretion of the editors. Records shall be updated by the publication of a corrigendum, erratum or addendum, as appropriate.

**Note:** Authors should note that minor corrections of their published material, not affecting the contribution in any significant way or impairing the reader's understanding of the article (spelling or grammatical errors, for instance), will not be published.

# MRS Communications

## NEW JOURNAL

The Materials Research Society (MRS) and Cambridge University Press proudly announce, a new full-color, high-impact journal focused on groundbreaking work across the broad spectrum of materials research.

*MRS Communications* offers a rapid but rigorous peer-review process and time to publication—an aggressive production schedule will bring your article to online publication and a global audience within a target 14-day process from acceptance.

Major article types for *MRS Communications* include:

Rapid Communications  
Ultra-Rapid Communications  
Prospectives Articles  
Editorials  
Commentaries  
Correspondence

For more information please visit [www.mrs.org/mrc](http://www.mrs.org/mrc) or e-mail [mrc@mrs.org](mailto:mrc@mrs.org).



MRS MATERIALS RESEARCH SOCIETY

CAMBRIDGE UNIVERSITY PRESS

## CALL FOR PAPERS

Manuscripts are solicited in the following topical areas, although submissions that succinctly describe groundbreaking work across the broad field of materials research are encouraged.

- Biomaterials and biomimetic materials
- Carbon-based materials
- Complex oxides and their interfaces
- Materials for energy storage, conversion and environmental remediation
- Materials for nanophotonics and plasmonic devices
- Theory and simulation of materials
- Mechanical behavior at the nanoscale
- Nanocrystal growth, structures and properties, including nanowires and nanotubes
- Nanoscale semiconductors for new electronic and photonic applications
- New materials synthesis, templating and assembly methods
- New topics in metals, alloys and transformations
- Novel and *in-situ* characterization methods
- Novel catalysts and sensor materials
- Organic and hybrid functional materials
- Quantum matter
- Surface, interface and length-scale effects on materials properties

For manuscript submission instructions, please visit [www.mrs.org/mrc-instructions](http://www.mrs.org/mrc-instructions).

### EDITOR IN CHIEF

Peter F. Green, University of Michigan, USA

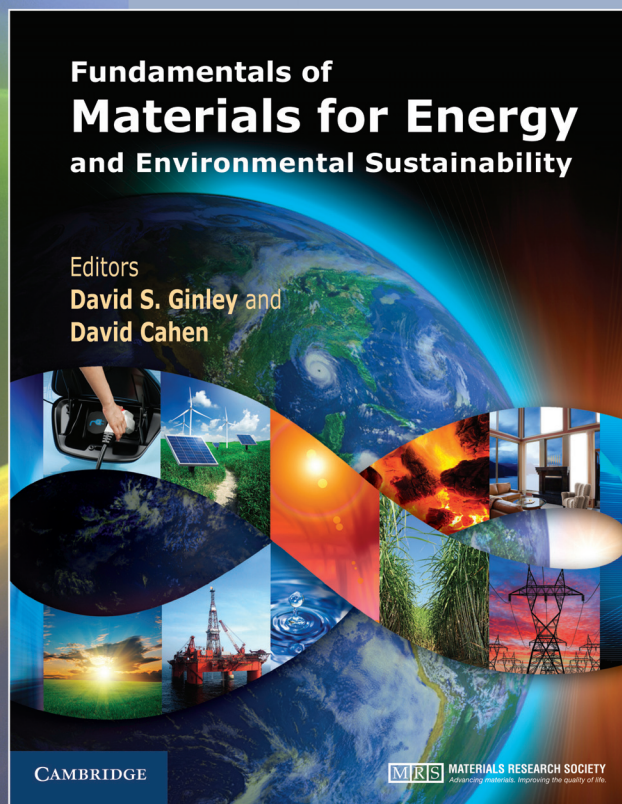
### FOUNDING PRINCIPAL EDITORS

Luca Dal Negro, Boston University, USA  
Horacio Espinosa, Northwestern University, USA  
Supratik Guha, IBM Research, USA  
Dan Hancu, GE Global Research, USA  
Kristi Kiick, University of Delaware, USA  
Nicola Marzari, Ecole Polytechnique Fédérale de Lausanne, Switzerland  
Alberto Salleo, Stanford University, USA  
Alec Talin, National Institute of Standards and Technology (NIST), USA  
Nagarajan (Nagy) Valanoor, University of New South Wales, Australia

ORDER YOUR COPY TODAY

## Fundamentals of Materials for Energy and Environmental Sustainability

Editors: **David S. Ginley** and **David Cahen**



Whether you are a student taking an energy course or a newcomer to the field, this book will help you understand critical relationships between the environment, energy and sustainability. Leading experts provide comprehensive coverage of each topic, bringing together diverse subject matter by integrating theory with engaging insights. Each chapter includes helpful features to aid understanding, including a historical overview to provide context, suggested further reading and questions for discussion. Every subject is beautifully illustrated and brought to life with full-color images and color-coded sections for easy browsing, making this a complete educational package.

#### Sections Include:

- Energy and the Environment—The Landscape
- Nonrenewable Energy Sources
- Renewable Energy Sources
- Transportation
- Energy Efficiency
- Energy Storage, High-Penetration Renewables and Grid Stabilization

Published in partnership by the Materials Research Society and Cambridge University Press

Hardback  
ISBN: 9781107000230

[www.mrs.org/energybook](http://www.mrs.org/energybook)

\$99.00 List Price  
\$79.00 MRS Member Price

# Handbook of Modern Ion Beam Materials Analysis

Second Edition

## EDITORS

Yongqiang Wang  
and Michael Nastasi

## ORDER TODAY

The most comprehensive  
database on ion beam  
analysis ever published—  
revised and updated from  
the popular handbook  
released in 1995!



- Written and compiled by over 30 leading authorities in the field of ion beam analysis
- Important reference tool for technicians, students and professionals
- A must for all accelerator labs
- Excellent introduction to the fundamentals and lab practices of ion beam analysis
- Useful as a teaching text for undergraduate senior or first-year graduate students
- For libraries, the most recent and comprehensive collection of nuclear and atomic data for the applications of ion beam materials analysis
- DVD includes bonus info—Ion Beam Analysis Nuclear Data Library (IBANDL) and GUPIX Subroutines (CSA and YLS) for X-ray Database

### TWO VOLUME PRINT SET + DVD OF APPENDICES

ISBN: 978-1-60511-217-6

\$ 200.00 Materials Research Society Members  
\$ 250.00 Nonmembers

### VOLUME 1—PRINT CHAPTERS (441 PAGES) + DVD OF APPENDICES

ISBN: 978-1-60511-215-2

\$ 125.00 Materials Research Society Members  
\$ 150.00 Nonmembers

### VOLUME 2—PRINT APPENDICES ONLY (370 PAGES)

ISBN: 978-1-60511-216-9

\$ 125.00 Materials Research Society Members  
\$ 150.00 Nonmembers

**WWW.MRS.ORG/IBH2**



# 2011 MRS FALL MEETING & EXHIBIT

November 28-December 2 · Boston, MA



## SYMPOSIA

### ENERGY AND THE ENVIRONMENT

- A Material Challenges in Current and Future Nuclear Technologies
- B Advanced Materials for Fuel Cells
- C *In Situ* Studies of Solid-Oxide Fuel-Cell Materials
- D Sustainable Synthesis of Nanomaterials
- E Advanced Materials for Solar-Fuel Generation
- F Mobile Energy
- G Applications of Hierarchical 3D Structures
- H Organic Photovoltaic Devices and Processing
- I Fundamental Processes of Solar Harvesting in Excitonic Solar Cells
- J Photonic and Plasmonic Materials for Enhanced Photovoltaic Performance
- K Materials for High-Performance Photonics

### FUNCTIONAL MATERIALS

- L Topological Insulator Materials
- M Oxide Semiconductors—Defects, Growth, and Device Fabrication
- N Diamond Electronics and Biotechnology—Fundamentals to Applications V
- O Compound Semiconductors for Generating, Emitting, and Manipulating Energy
- P Ferroelectric and Multiferroic Materials
- Q Magnetolectric Composites
- R Compliant Electronics and Photonics
- S Solution Processing of Inorganic and Hybrid Materials for Electronics and Photonics
- T Large-Area Processing and Patterning for Active Optical and Electronic Devices III
- U Charge Generation/Transport in Organic Semiconductor Materials
- V Multifunctional Polymer-based Materials
- W Phonons in Nanomaterials—Theory, Experiments, and Applications
- Y Advances in Energetic Materials Research

### NANOMATERIALS

- Z Functional Metal-Oxide Nanostructures
- AA Carbon Nanotubes, Graphene, and Related Nanostructures
- BB Functional Nanowires and Nanotubes
- CC Functional Semiconductor Nanocrystals and Metal-Hybrid Structures
- DD Transport Properties in Polymer Nanocomposites II
- EE Self Organization and Nanoscale Pattern Formation
- FF Mechanical Nanofabrication, Nanopatterning, and Nanoassembly
- GG Safety and Toxicity Control of Nanomaterials

### BIOMATERIALS

- HH Bioelectronics—Materials, Properties, and Applications
- II BioMEMS—Materials and Devices
- JJ Nanofunctional Materials, Nanostructures, and Nanodevices for Cancer Applications
- KK Biomaterials for Tissue Regeneration
- LL Synthetic and Biological Gels
- MM Micro- and Nanoscale Processing of Biomedical Materials
- NN Nucleation and Growth of Biological and Biomimetic Materials
- OO Multiscale Mechanics of Hierarchical Materials

### MATERIALS EXPLORATION

- PP Three-Dimensional Tomography of Materials
- QQ Functional Imaging of Materials—Advances in Multifrequency and Multispectral Scanning Probe Microscopy and Analysis
- RR Dynamics in Confined Systems and Functional Interfaces
- SS Properties and Processes at the Nanoscale—Nanomechanics of Material Behavior
- TT Microelectromechanical Systems—Materials and Devices V
- UU Combinatorial and High-throughput Methods in Materials Science

www.mrs.org/fall2011

#### 2011 MRS Fall Meeting Chairs

**Cammy R. Abernathy**  
University of Florida  
cabern@mse.ufl.edu

**Paul V. Braun**  
University of Illinois-Urbana  
pbraun@illinois.edu

**Masashi Kawasaki**  
Tohoku University  
kawasaki@imr.tohoku.ac.jp

**Kathryn J. Wahl**  
Naval Research Laboratory  
kathryn.wahl@nrl.navy.mil

#### Don't miss these future MRS Meetings!

**2012 MRS Spring Meeting & Exhibit**  
**April 9-13, 2012**  
Moscone West & San Francisco Marriott Marquis  
San Francisco, California

**2012 MRS Fall Meeting & Exhibit**  
**November 26-30, 2012**  
Hynes Convention Center & Sheraton Boston Hotel  
Boston, Massachusetts



**Materials Research Society**  
506 Keystone Drive  
Warrendale, PA 15086-7573

Tel 724.779.3003  
Fax 724.779.8313  
info@mrs.org  
www.mrs.org



# MATERIALS RESEARCH SOCIETY

## 2011 Board of Directors

### *Officers*

J.J. De Yoreo, *President*  
D.S. Ginley, *Immediate Past President*  
B.M. Clemens, *Vice President and President-Elect*  
S.J. Hearne, *Secretary*  
M.R. Fitzsimmons, *Treasurer*

### *Directors*

W. Adams  
A.C. Arias  
T. Benson Tolle  
F. Besenbacher  
E. Bodenschatz  
D.B. Dimos  
J.M. Gibson  
O. Kraft  
H. Matsumura  
C.A. Orme  
M.F. Rubner  
T. Someya  
S.E. Trolrier-McKinstry  
P. Wiltzius

## 2011 Publications Committee

P.C. McIntyre, *Chair*  
P.B. Messersmith, *Editors Subcommittee*  
R.M. Wallace, *New Publication Products Subcommittee*  
J.C. Bravman, *Publications Quality Subcommittee*

## 2011 MRS Committee Chairs

M.S. Whittingham, *Academic Affairs*  
J.R. Weertman, *Awards*  
A.J. Hurd, *Government Affairs*  
J.W.P. Hsu, *International Relations*

S. Jasty, *Membership*  
P.C. McIntyre, *Publications*  
G. Zenner Petersen, *Public Outreach*  
M. Aziz, *Technical Program*

## MRS Headquarters

T.M. Osman, *Executive Director*  
J.A. Dillen, *Director of Finance and Administration*  
P.A. Hastings, *Director of Meeting Activities*  
E.K. Novak, *Director of Communications*

## About the Materials Research Society

The Materials Research Society (MRS) is a not-for-profit scientific association founded in 1973 to promote interdisciplinary goal-oriented basic research on materials of technological importance. Membership in the Society includes almost 16,000 scientists from industrial, government, and university research laboratories in the United States and abroad.

The Society's interdisciplinary approach to the exchange of technical information is qualitatively different from that provided by single-discipline professional societies because it promotes technical exchange across the various fields of science affecting materials development. MRS sponsors three major international annual meetings encompassing many topical symposia, as well as numerous single-topic scientific meetings each year. It recognizes professional and technical excellence, conducts tutorials, and fosters technical exchange in various local geographical regions through Section activities and Student Chapters on university campuses.

MRS publishes symposia proceedings, the *MRS Bulletin*, and other volumes on current scientific developments. The *Journal of Materials Research*, the archival journal spanning fundamental developments in materials science, is published twenty-four times a year by Cambridge University Press for the MRS.

*MRS Communications* is a full-color letters and prospectives journal focused on groundbreaking work across the spectrum of materials research.

MRS is an Affiliated Society of the American Institute of Physics and participates in the international arena of materials research through associations with professional organizations such as the International Union of Materials Research Societies.

For further information on the Society's activities, contact MRS Headquarters, 506 Keystone Drive, Warrendale, PA 15086-7573; telephone (724) 779-3003; fax (724) 779-8313.



A publication of the



**CAMBRIDGE**  
UNIVERSITY PRESS

ISSN: 2159-68594

For further information about this journal please  
go to the journal website at:

[www.mrs.org/mrc](http://www.mrs.org/mrc)