

Submission Deadline—July 1, 2015



Biomineralization and Biomimetics

Biomineralization is the process by which living organisms influence the formation of inorganic compounds such as carbonates and phosphates. This influence can be both direct or indirect, to control the size, shape, structure, and properties of the crystals formed. Such control is associated with organic molecules that generate the critical difference between geological mineral formation and biomineralization. This organic material can be trapped within the crystal formed, leading to unique properties due to the composite organic-inorganic structure. Biomineralization naturally takes place under near-ambient conditions, which means that a better understanding of its mechanisms could lead to novel materials synthesis techniques that are environmentally benign.

The editors of this Focus Issue welcome contributed submissions on any topic within the broad category of biomineralization and biomimetics, including but not limited to:

- ◆ Characterization of natural biomineral materials with unique structures and/or novel properties, and their mechanisms of formation
- ◆ Biomimetic materials synthesis incorporating biomineralization strategies and processes
- ◆ Computational modelling of processes involved in biomineralization, and biomineral structure-property relationships

GUEST EDITORS

Michelle L. Oyen, Cambridge University, United Kingdom

Colin Freeman, Sheffield University, United Kingdom

Laurie Gower, University of Florida, USA

MANUSCRIPT SUBMISSION

To be considered for this issue, new and previously unpublished results significant to the development of this field should be presented. The manuscripts must be submitted via the JMR electronic submission system by **July 1, 2015**. Manuscripts submitted after this deadline will not be considered for the issue due to time constraints on the review process. **Submission instructions may be found at www.mrs.org/jmr-instructions.** Please select "Focus issue: *Biomineralization and Biomimetics*" as the manuscript type. **Note our manuscript submission minimum length of 6000 words.** All manuscripts will be reviewed in a normal but expedited fashion. Papers submitted by the deadline and subsequently accepted will be published in the Focus Issue. Other manuscripts that are acceptable but cannot be included in the issue will be scheduled for publication in a subsequent issue of *JMR*.

jmr@mrs.org

Please contact jmr@mrs.org with questions.

CALL FOR PAPERS



Submission Deadline—July 1, 2015

Early Career Scholars in Materials Science Annual Issue

This inaugural Special Issue invites full length research and review articles by materials researchers who have completed their PhD within 8 years of submission, for peer review and publication in the January 2016 issue. The Special Issue provides a unique opportunity to be highlighted and promoted early in one's research career. To increase attention to these papers, this issue will be published on an **open access** basis. Although some papers may have multiple authors, only the Early Career Scholar submitting the paper will be identified with a photo and brief biography when the paper is published. Authors from around the world are invited to submit papers that span the topical coverage of *JMR* including advanced ceramics, metals, polymers, composites, and combinations thereof related to energy, electrical, magnetic, optical, and structural properties and related applications and reporting on:

Contributed papers are solicited in the following areas:

- ◆ Advanced characterization methods and techniques
- ◆ Computational materials science when coupled with experimentation
- ◆ Fundamental materials science
- ◆ Interfacial science as relates to material process understanding and improvements
- ◆ Material property enhancements through advances in materials processing
- ◆ Material property enhancements through material design (especially Materials Genome related)
- ◆ Material combinations and design that improve system performance
- ◆ Nanoscience and nanotechnology

GUEST EDITORS

Gary L. Messing, Pennsylvania State University, USA

Jörg Löffler, ETH, Switzerland

Cewen Nan, Tsinghua University, China

Linda S. Schadler, Rensselaer Polytechnic University, USA

MANUSCRIPT SUBMISSION

To be considered for the issue, the Early Career Scholar must be listed as the first and lead author and confirm in the submission letter that they have completed their PhD within 8 years at the time of submission. Also, the manuscript must report new and previously unpublished results. Review articles are invited but must be approved by the lead guest editor before submission. Manuscripts must be submitted via the *JMR* electronic submission system by **July 1, 2015**. Manuscripts submitted after this deadline will not be considered for the issue due to time constraints on the review process. **Submission instructions may be found at www.mrs.org/jmr-instructions**. Please select "**Special Issue: Early Career Scholars in Materials Science**" as the manuscript type. **Note our manuscript submission minimum length of 6000 words**. All manuscripts will be reviewed in a normal but expedited fashion. Papers submitted by the deadline and subsequently accepted will be published in the Special Issue. Other manuscripts that are acceptable but cannot be included in the issue will be scheduled for publication in a subsequent issue of *JMR*.

Papers will be accompanied by a photo and short bio of the lead author. These materials must be submitted along with the original submission of the paper.

jmr@mrs.org
Please contact jmr@mrs.org with questions.

CALL FOR PAPERS

MATERIALS RESEARCH SOCIETY®

2015 Board of Directors

Officers

Oliver Kraft, *President*
Tia Benson Tolle, *Past President*
Kristi S. Anseth, *Vice President*
Sean J. Hearne, *Secretary*
Michael R. Fitzsimmons, *Treasurer*
Todd M. Osman, *Executive Director*

Directors

Charles T. Black
Alexandra Boltasseva
C. Jeffrey Brinker
David Cahen
Stephen J. Eglash
Sossina M. Haile
Andrea M. Hodge
Hideo Hosono
Karen L. Kavanagh
Fiona C. Meldrum
Kornelius Nielsch
Christine Ortiz
David J. Parrillo
Sabrina Sartori
Eric A. Stach
Loucas Tsakalakos
Anke Weidenkaff

2015 Publications Committee

R.A. Vaia, *Chair*
S.P. Baker, *Editors Subcommittee*
A.J. Hurd, *New Publication Products Subcommittee*
J.M. Phillips, *Publications Quality Subcommittee*

2015 MRS Committee Chairs

B.M. Clemens, *Academic Affairs*
A. Polman, *Awards*
N. Bassim, *Government Affairs*
D.S. Ginley, *Meetings Committee*

Y. Chabal, *Member Engagement*
R.A. Vaia, *Publications*
A. Risbud, *Public Outreach*

MRS Headquarters

T.M. Osman, *Executive Director*
J.A. Dillen, *Director of Finance and Administration*
D. Dozier, *Director of Government Affairs*
P.A. Hastings, *Director of Meeting Activities*
E.M. Kiley, *Director of Communications*

Journal of Materials Research Founding Sponsors

Allied-Signal Inc.
Xerox Corporation

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 over 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 two 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 perspectives journal focused on groundbreaking work across the spectrum of materials research. MRS Energy & Sustainability—A Review Journal publishes reviews on key topics in materials research and development as they relate to energy and sustainability.

MRS regular and student members may subscribe to *Journal of Materials Research*. See inside front cover for subscription rates for *Journal 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.

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
MRS MATERIALS RESEARCH SOCIETY
Advancing materials - Improving the quality of life.

Periodical Rate Postage Paid at New York, NY
and Additional Mailing Offices

Postmaster—Send change of address notice to:

ISSN: 0884-2914

Cambridge University Press
100 Brook Hill Drive
West Nyack, NY 10994-2113, USA