

1<sup>ST</sup> YEAR IN  
PHOENIX



2016 **MRS**® SPRING MEETING & EXHIBIT  
March 28–April 1, 2016 | Phoenix, Arizona

# CALL FOR PAPERS

**Abstract Submission Opens**  
September 15, 2015

**Abstract Submission Deadline**  
October 15, 2015

## CHARACTERIZATION AND MODELING OF MATERIALS

- CM1 New Frontiers in Aberration Corrected Transmission Electron Microscopy
- CM2 Quantitative Tomography for Materials Research
- CM3 Mechanics and Tribology at the Nanoscale—  
*In Situ* and *In Silico* Investigations
- CM4 Verification, Validation and Uncertainty Quantification in Multiscale  
Materials Simulation

## ENERGY AND ENVIRONMENT

- EE1 Emerging Materials and Phenomena for Solar Energy Conversion
- EE2 Advancements in Solar Fuels Generation—  
Materials, Devices and Systems
- EE3 Materials and Devices for Full Spectrum Solar Energy Harvesting
- EE4 Electrode Materials and Electrolytes for Lithium and Sodium Ion Batteries
- EE5 Next-Generation Electrical Energy Storage Chemistries
- EE6 Research Frontiers on Liquid-Solid Interfaces in Electrochemical Energy  
Storage and Conversion Systems
- EE7 Mechanics of Energy Storage and Conversion—  
Batteries, Thermoelectrics and Fuel Cells
- EE8 Grid-Scale Energy Storage
- EE9 Hydrogen and Fuel Cell Technologies for Transportation—  
Materials, Systems and Infrastructure
- EE10 Recent Advances in Materials for Carbon Capture
- EE11 Caloric Materials for Renewable Energy Applications
- EE12 Radiation Damage in Materials—A Grand Multiscale Challenge
- EE13 Actinides—Fundamental Science, Applications and Technology
- EE14 Titanium Oxides—From Fundamental Understanding to Applications
- EE15 Materials for Sustainable Development—Integrated Approaches

## ELECTRONICS AND PHOTONICS

- EP1 Organic Excitonic Systems and Devices
- EP2 Silicon Carbide—Substrates, Epitaxy, Devices, Circuits and Graphene
- EP3 Perovskite-Based Photovoltaics and Optoelectronic Devices
- EP4 Emerging Silicon Science and Technology
- EP5 Metal Oxide Hetero-Interfaces in Hybrid Electronic Platforms
- EP6 Integration of Heterovalent Semiconductors and Devices
- EP7 Material and Device Frontiers for Integrated Photonics
- EP8 Resonant Optics—Fundamentals and Applications
- EP9 Materials and Processes for Nonlinear Optics
- EP10 Optoelectronic Devices of Two-Dimensional (2D) Materials
- EP11 Novel Materials for End-of-Roadmap Devices in Logic, Power and Memory
- EP12 Materials Frontiers in Semiconductor Advanced Packaging
- EP13 Tailoring Superconductors—  
Materials and Devices from Basic Science to Applications
- EP14 Materials for Next-Generation Displays
- EP15 Diamond Power Electronic Devices

## MATERIALS DESIGN

- MD1 Materials, Interfaces and Devices by Design
- MD2 Tuning Properties by Elastic Strain Engineering—  
From Modeling to Making and Measuring
- MD3 Functional Oxide Heterostructures by Design
- MD4 Phase-Change Materials and Applications
- MD5 Fundamentals of Organic Semiconductors—  
Synthesis, Morphology, Devices and Theory
- MD6 Electronic Textiles
- MD7 Advances in Lanthanide Materials for Imaging, Sensing,  
Optoelectronics and Recovery/Recycling
- MD8 Multiscale Behavior of Materials in Extreme Environments
- MD9 Magnetic Materials—From Fundamentals to Applications
- MD10 Micro-Assembly Technologies

## NANOTECHNOLOGY

- NT1 Functional Nanostructures and Metamaterials for Solar Energy  
and Novel Optical Phenomena
- NT2 Oxide and Chalcogenide-Based Thin Films and Nanostructures  
for Electronics and Energy Applications
- NT3 Carbon Nanofluidics
- NT4 Emerging Non-Graphene 2D Materials
- NT5 Nanodiamonds—Fundamentals and Applications
- NT6 Colloidal Nanoparticles—From Synthesis to Applications
- NT7 Nanoparticle Characterization and Removal
- NT8 Silicon Nanostructures—Doping, Interface Effects and Sensing

## SOFT MATERIALS AND BIOMATERIALS

- SM1 Liquid Crystalline Materials—Displays and Beyond
- SM2 Bioinspired Dynamic Materials—Synthesis, Engineering and Applications
- SM3 Soft Materials for Compliant and Bioinspired Electronics
- SM4 Engineering Biointerfaces with Nanomaterials
- SM5 Surfaces and Interfaces for Biomaterials
- SM6 Transient and Biologically-Inspired Electronics
- SM7 Future Healthcare Needs through Biomaterials, Bioengineering  
and the Cellular Building Block
- SM8 Bioinspired Metal Nanoparticles—Synthesis, Properties and Application
- SM9 Structure and Properties of Biological Materials and Bioinspired Designs
- SM10 Biofabrication-Based Biomaterials and Tissues

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**Osamu Ueda** Kanazawa Institute of Technology

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Boston, Massachusetts

**2017 MRS Spring Meeting & Exhibit**  
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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.

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A publication of the  
**MRS** MATERIALS RESEARCH SOCIETY  
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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