



2012
MRS
SPRING
MEETING

April 9–13
San Francisco, CA

CALL FOR PAPERS

Abstract Deadline • November 1, 2011 Abstract Submission Site Opens October 1, 2011

 Co-sponsored by the Japan Society of Applied Physics*

ELECTRONICS AND PHOTONICS

- A Amorphous and Polycrystalline Thin-Film Silicon Science and Technology
- B Heterogeneous Integration Challenges of MEMS, Sensor, and CMOS LSI*
- C Interconnect Challenges for CMOS Technology—Materials, Processes, and Reliability for Downscaling, Packaging, and 3D Stacking
- D Nanocontacts—Emerging Materials and Processing for Ohmicity and Rectification
- E Materials and Physics of Emerging Nonvolatile Memories*
- F Phase-Change Materials for Memory and Reconfigurable Electronics Applications
- G Reliability and Materials Issues of III-V and II-VI Semiconductor Optical and Electron Devices and Materials II*
- H Silicon Carbide—Materials, Processing, and Devices
- I Recent Advances in Superconductors, Novel Compounds, and High- T_c Materials*
- J Organic and Hybrid-Organic Electronics
- K Advanced Materials and Processes for “Systems-on-Plastic”*
- L Group IV Photonics for Sensing and Imaging*
- M Optical Interconnects—Materials, Performance, and Applications

MATERIALS SCIENCE AND MATERIALS CHEMISTRY FOR ENERGY

- N One-Dimensional Nanostructured Materials for Energy Conversion and Storage
- O Next-Generation Energy Storage Materials and Systems
- P Advanced Materials and Nanoframeworks for Hydrogen Storage and Carbon Capture
- Q Titanium Dioxide Nanomaterials
- R Bandgap Engineering and Interfaces of Metal Oxides for Energy
- S Design of Materials for Sustainable Nuclear Energy
- T Bio-inspired Materials for Energy Applications
- U Materials for Catalysis in Energy
- V Advanced Materials Processing for Scalable Solar-Cell Manufacturing II
- W Nanostructured Solar Cells
- Y Actinides—Basic Science, Applications, and Technology
- Z Conjugated Organic Materials for Energy Conversion, Energy Storage, and Charge Transport

NANOSTRUCTURED MATERIALS AND DEVICES

- AA Inorganic Nanowires and Nanotubes—Synthesis, Properties, and Device Applications*
- BB Solution Synthesis of Inorganic Films and Nanostructured Materials

- CC Hierarchically Self-assembled Materials—From Molecule to Nano and Beyond
- DD *De Novo* Carbon Nanomaterials
- EE New Functional Nanocarbon Devices*
- FF Nanodiamond Particles and Related Materials—From Basic Science to Applications
- GG Functional Inorganic Nanoparticle-Polymer Composites with Engineered Structures and Coupled Properties
- HH Nanocomposites, Nanostructures, and Heterostructures of Correlated Oxide Systems*
- II Nanoscale Materials Modification by Photon, Ion, and Electron Beams*
- JJ Nanoscale Thermoelectrics—Materials and Transport Phenomena
- KK Plasmonic Materials and Metamaterials
- LL New Trends and Developments in Nanomagnetism
- MM Topological Insulators

BIOLOGICAL, BIOMEDICAL AND BIO-INSPIRED MATERIALS

- NN DNA Nanotechnology
- OO Structure-Function Design Strategies for Bio-enabled Materials Systems
- PP Manipulating Cellular Microenvironments
- QQ Mechanobiology of Cells and Materials
- RR Molecules to Materials—Multiscale Interfacial Phenomena in Biological and Bio-inspired Materials
- SS Structure/Property Relationships in Biological and Biomimetic Materials at the Micro-, Nano-, and Atomic-Length Scales
- TT Interfaces in Materials, Biology, and Physiology
- UU Integration of Natural and Synthetic Biomaterials with Organic Electronics
- VV Nanomedicine for Molecular Imaging and Therapy
- WW Plasma Processing and Diagnostics for Life Sciences*

GENERAL MATERIALS SCIENCE

- XX Computational Materials Design in Heterogeneous Systems
- YY Rare-Earth-based Materials
- ZZ Transforming Education in Materials Science and Engineering
- AAA Synthesis, Fabrication, and Assembly of Functional Particles and Capsules
- BBB Functional Materials and Ionic Liquids
- CCC Local Probing Techniques and *In-Situ* Measurements in Materials Science

www.mrs.org/spring2012

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DEADLINE FOR NOMINATIONS—October 1, 2011

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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 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.

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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.

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