



2012
MRS
SPRING
MEETING

April 9–13
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CALL FOR PAPERS

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

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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

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