MS&T14®

Materials Science & Technology 2014

October 12–16, 2014

call for papers

abstract deadline: march 15, 2014

David L. Lawrence Convention Center
Pittsburgh, Pennsylvania USA

www.matscitech.org

MS&T annual events are hosted by four leading materials societies: ACerS, AIST, ASM and TMS. This partnership brings together scientists, engineers, students and suppliers to discuss current research & applications, and to shape the future of materials science and technology.

Corrosion continues to be a relevant topic in materials, and MS&T welcomes NACE International as an event co-sponsor.

Program Coordinating Committee

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Judy Schneider, Mississippi State University

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Organizers:

The American Ceramic Society www.ceramics.org

AIST Association for Iron & Steel Technology

ASM International® The Materials Information Society

TMS The Minerals, Metals & Materials Society

Co-sponsor:

NACE International The Corrosion Society

Technical Program

Biomaterials

- Bioinspired Materials Engineering
- Corrosion of Biomaterials
- Nanomechanics of Biomaterials
- Next Generation Biomaterials
- Surface Properties of Biomaterials V

Ceramic and Glass Materials

- Amorphous Materials: Common Issues within Science and Technology
- Ceramic Matrix Composites
- Computational Design of Ceramic Materials
- Glass and Optical Materials
- Innovative Processing and Synthesis of Ceramics, Glasses, and Composites
- Multifunctional Oxides
- Phase Transformations in Ceramics: the Present and the Future

Electronic, Optical, and Magnetic Materials

- Advances in Dielectric Materials and Electronic Devices
- Advanced Spintronic Materials
- Dielectric, Magnetic, and Semiconductor Materials for Harsh Environments
- Pb-free Solders and Advanced Interconnecting Materials
- Semiconductor Heterostructures: Theory, Growth, Characterization, and Device Applications

Energy

- Energy Storage IV: Materials, Systems and Applications Symposium
- Materials Development for Nuclear Applications and Extreme Environments
- Materials Issues in Nuclear Waste Management in the 21st Century

Fundamentals & Characterization

- Boron, Boron Compounds, and Boron Nanomaterials: Structure, Properties, Processing, and Applications
- Failure Analysis and Prevention
- Fluctuations and Collective Phenomena in Materials Deformation
- Interfaces, Grain Boundaries, and Surfaces from Atomistic and Macroscopic Approaches - Fundamental and Engineering Issues
- International Symposium on Defects, Transport, and Related Phenomena
- Mechanical Behavior of Technological Coatings and Thin Films
- Multiscale Modeling of Microstructure Deformation in Material Processing
- Phase Stability, Diffusion Kinetics, and their Applications (PSDK-IX)
- Recent Advances in Electron Microscopy, Spectral Imaging, and Surface Analysis Techniques for Materials Characterization
- Role of Solidification Technology for Multifunctional Materials

Green Manufacturing and Sustainability

- Green Technologies for Materials Manufacturing and Processing VI
- Materials and Processes for CO_2 Capture, Conversion and Sequestration

Iron and Steel (Ferrous Alloys)

- Advanced Steel Metallurgy: Products and Processing
- Ferrous Metallurgy: from Past to Present
- Fifth Symposium on Railroad Tank Cars
- Structural Characteristics for High-toughness Steels
- Vanadium Microalloyed Steels: A Symposium in Memory of Michael Korchynsky

Materials-Environment Interactions

- Advanced Materials for Harsh Environments
- Biofuels Corrosion Issues
- Corrosion Monitoring and Control
- Corrosion Testing and Modelling
- Degradation of Nonmetallic Materials
- Environmentally Assisted Cracking — Nuclear
- Environmentally Assisted Cracking — Oil & Gas
- High-temperature Corrosion
- Microbiologically Influenced Corrosion
- Thermal Protection Materials and Systems
- Third Symposium on Surface Hardening of Corrosion-Resistant Alloys

Nanomaterials

- Commercial Production and Applications of Nanomaterials: ECAP and Fullerenes
- Controlled Synthesis, Processing, and Applications of Structural and Functional Nanomaterials
- Nanotechnology for Energy, Environment, Electronics, and Industry
- Synthesis and Applications of Nanoscale Surface Patterns

Processing and Product Manufacturing

- Advanced Aluminum Alloys, Composites, and Process Technologies
- Advanced Manufacturing Technologies
- Advanced Solution and Colloidal Processing for Ceramics
- Advances in Metal Casting Technologies
- Advances in Titanium Manufacturing: Powder Processing, Powder Metallurgy and Additive/Emerging Manufacturing Techniques
- Fatigue of Materials III
- Friction Stir Processing
- Joining of Advanced and Specialty Materials (JASM XVI)
- Materials Science of Additive Manufacturing
- Materials Technology Aspects in Product Remanufacturing
- Measurement and Modeling of High Strain-rate Deformation
- Multifunctional Materials for Aerospace and Defense: Challenges and Prospects
- Processes, Applications and Performance of Materials in Additive Manufacturing
- Sintering and Related Powder Processing Science and Technologies
- Structural Intermetallics: Alloy Design, Processing, and Applications

Surface Modification

- Advanced Coatings for Wear and Corrosion
- Advances in Smart and Functional Coatings and Thin Films
- Surface Protection for Enhanced Materials Performance: Science, Technology, and Application

Special Topics

- Innovation in Processing of Light Metals for Transportation Industries: A Symposium in Honor of C. Ravi Ravindran
- Perspectives for Emerging Materials Professionals
- Rustum Roy Symposium on Processing and Performance of Materials using Microwaves, Electric and Magnetic Fields, Ultrasound, Lasers, and Mechanical Work
- Robert B. Sosman Award Symposium: Opportunities for Enhancement of Nanomechanical Properties of Materials (Abstracts by Invitation Only)
- Understanding the Engineering Design of Art Objects and Cultural Heritage

Abstract Submission Details

Submit a 150-word abstract by March 15, 2014. Visit www.matscitech.org and follow the submission instructions. Conference organizers will receive electronic notification of all submitted abstracts.

Need Assistance?

Should you have questions concerning the online abstract system, contact the programming administrator at (724) 776-9000, ext. 239 or at programming@programmaster.org.