TMS FALL 2024

@ MATERIALS SCIENCE & TECHNOLOGY

October 6-9, 2024 | Pittsburgh, Pennsylvania | #TMSFallMeeting

Abstracts are now being accepted for 37 symposia organized by TMS technical committees and TMS members. Select the symposium that best suits your work and submit an abstract today. The TMS Fall Meeting allows TMS members to meet and share their work within the broader structure of the Materials Science & Technology 2024 (MS&T24) meeting and exhibition.

SUBMIT YOUR ABSTRACT BY MAY 1, 2024 | www.tms.org/TMSFall2024

ADDITIVE MANUFACTURING

- Additive Manufacturing Modeling, Simulation, and Machine Learning: Microstructure, Mechanics, and Process
- Additive Manufacturing of Polymer-involved Ceramic and Metal Composites
- Additive Manufacturing of Titanium-based Materials: Processing, Microstructure and Material Properties
- Additive Manufacturing: Artificial Intelligence and Data Driven Approaches
- Additive Manufacturing: Equipment, Instrumentation and In-Situ Process Monitoring
- Additive Manufacturing: Microstructure, Defects, and Properties
- Opportunities and Applications of Solid-State Additive Manufacturing Processes
- Phase Stability of Additively Manufactured Materials in Extreme Environments
- Standards for Data Science in Additive Manufacturing

ARTIFICIAL INTELLIGENCE

- Frontiers of Machine Learning on Materials Discovery
- Integrated Computational Materials Engineering for Physics-Based Machine Learning Models

BIOMATERIALS

- Next Generation Biomaterials

FUNDAMENTALS AND CHARACTERIZATION

- Computational Materials for Qualification and Certification
- Emergent Materials under Extremes and Decisive In Situ Characterizations
- High Entropy Materials: Concentrated Solid Solutions, Intermetallics, Ceramics, Functional Materials and Beyond V
- Processing-Microstructure-Properties in 3D Materials Science
- Solid-State Transformations Under Complex Thermal Conditions
- Uncertainty Quantification Applications in Materials and Engineering
- Understanding High Entropy Materials via Data Science and Computational Approaches

IRON AND STEEL (FERROUS ALLOYS)

- Austenite Formation and Decomposition V: A Symposium in Honor of Prof. Mats Hillert
- Segregation in Steels
- Steels for Sustainable Development III

LIGHTWEIGHT ALLOYS

- Advancements in Lightweight Composites, Materials & Alloys
- Composition–Processing–Microstructure-Property Relationships of Titanium Alloys
- Light Alloys, Advanced Forming Processes and Characterization
- Light Metal Technology

MATERIALS-ENVIRONMENT INTERACTIONS

- Advances in High-Temperature Oxidation and Degradation of Materials for Harsh Environments: A SMD and FMD Symposium Honoring Brian Gleeson
- Corrosion and Environmental Degradation: Theory and Practice
- Thermodynamics of Materials in Extreme Environments

MODELING

- Advances in Multiphysics Modeling and Multi-modal Imaging of Functional Materials

NANOMATERIALS

- Advances in Emerging Electronic Nanomaterials: Towards Next-Generation Microelectronics

NUCLEAR ENERGY

- Advanced Characterization of Materials for Nuclear, Radiation, and Extreme Environments V
- Ceramic Materials for Nuclear Energy Systems
- Progressive Solutions to Improve Corrosion Resistance of Nuclear Waste Storage Materials
- Tackling Metallic Structural Materials Challenges for Advanced Nuclear Reactors

SUSTAINABILITY, ENERGY, AND THE ENVIRONMENT

- Application of ICME Methods to Advance Sustainable Metallurgy and Metals Processing
- Manufacturing Changes and Challenges Associated with Electric Vehicles