CALL FOR PAPERS

Fall Meeting registrations include MRS Membership January – December, 2020

BROADER IMPACT
BI01 Materials Data Science—Transformations in Interdisciplinary Education

ENERGY AND ENVIRONMENT
EN01 Challenges in Battery Technologies for Next-Generation Electric Vehicles and Grid Storage Applications
EN02 Materials for High-Energy and Safe Electrochemical Energy Storage
EN03 Green Electrochemical Energy Storage Solutions—Materials, Processes and Devices
EN04 Advanced Membranes for Energy-Efficient Molecular Separation and Ion Conduction
EN05 Thermoelectric Energy Conversion (TEC)—Organic Semiconductors and Hybrid Materials
EN06 Development in Catalytic Materials for Sustainable Energy—Batteries and Fuel Cells
EN07 Materials Science for Efficient Water Splitting
EN08 Halide Perovskites for Photovoltaic Applications—Devices, Stability and Upscaling
EN09 Advances in the Fundamental Science of Halide Perovskite Optoelectronics
EN10 Emerging Light-Emitting Materials and Devices—Perovskite Emitters, Quantum Dots and Other Low-Dimensional Nanoscale Emitters
EN11 Silicon for Photovoltaics
EN12 Structure–Function Relationships and Interfacial Processes in Organic Semiconductors for Optoelectronics
EN13 Flexible and Miniaturized Thermoelectric Devices Based on Organic Semiconductors and Hybrid Materials
EN14 Thermoelectric Energy Conversion (TEC)—Complex Materials and Novel Theoretical Methods
EN15 Nanomaterials for Sensing and Control of Energy Systems—Processing, Characterization and Theory
EN16 Advanced Materials, Fabrication Routes and Devices for Environmental Monitoring
EN17 Structure–Property Processing Performance Relationships in Materials for Nuclear Technologies

FABRICATION OF FUNCTIONAL MATERIALS AND NANOMATERIALS
FF01 Beyond Graphene 2D Materials—Synthesis, Properties and Device Applications
FF02 2D Nanomaterials-Based Nanofluids
FF03 Building Advanced Materials via Particle-Based Crystalization and Self-Assembly of Molecules with Aggregation-Induced Emission
FF04 Crystal Engineering of Functional Materials—Solution-Based Strategies
FF05 Advanced Atomic Layer Deposition and Chemical Vapor Deposition Techniques and Applications
FF06 Advances in the Fundamental Understanding and Functionalization of Reactive Materials

MATERIALS FOR QUANTUM TECHNOLOGY
MO01 Coherent and Correlated Magnetic Materials for Hybrid Quantum Interfaces
MO02 Materials for Quantum Computing Applications
MO03 Predictive Synthesis and Advanced Characterization of Emerging Quantum Materials

MATERIALS THEORY, COMPUTATION AND CHARACTERIZATION
MT01 Advanced Atomic Algorithms in Materials Science
MT02 Closing the Loop—Using Machine Learning in High-Throughput Discovery of New Materials
MT03 Automated and Data-Driven Approaches to Materials Development—Bridging the Gap Between Theory and Industry
MT04 Advanced Materials Exploration with Neutrons
MT05 Emerging Prospects and Capabilities in Focused Ion-Beam Technologies and Applications
MT06 In Situ Characterization of Dynamic Phenomena During Materials Synthesis
MT07 In Situ/Operando Studies of Dynamic Processes in Ferroelectric, Magnetic and Multiferroic Materials

MECHANICAL BEHAVIOR AND STRUCTURAL MATERIALS
MS01 Extreme Mechanics
MS02 Mechanically Coupled and Defect-Enabled Functionality in Atomically Thin Materials
MS03 Mechanics of Nanocomposites and Hybrid Materials
MS04 High-Entropy Alloys and Other Novel High-Temperature Structural Alloys

SOFT MATERIALS AND BIOMATERIALS
SB01 Multifunctional Materials—From Conceptual Design to Application-Motivated Systems
SB02 Multiscale Materials Engineering Within Biological Systems
SB03 Smart Materials, Devices and Systems for Interface with Plants and Microorganisms
SB04 Hydrogel Materials—From Theory to Applications via 3D and 4D Printing
SB05 Light–Matter Interactions at the Interface with Living Cells, Tissues and Organisms
SB06 Bringing Mechanobiology to Materials—From Molecular Understanding to Biological Design
SB07 Bioelectrical Interfaces
SB08 Advanced Neural Materials and Devices
SB09 Interfacing Bio/Nano Materials with Cancer and the Immune System
SB10 Electronic Textiles
SB11 Multiphase Fluids for Materials Science—Droplets, Bubbles and Emulsions

Meeting Chairs
Bryan O. Huey University of Connecticut
Stéphanie P. Lacour École Polytechnique Fédérale de Lausanne
Conal E. Murray IBM T.J. Watson Research Center
Jeffrey B. Neaton University of California, Berkeley, and Lawrence Berkeley National Laboratory
Iris Visoly-Fisher Ben-Gurion University of the Negev

Don’t Miss These Future MRS Meetings!
2020 MRS Spring Meeting & Exhibit
April 13–17, 2020, Phoenix, Arizona

2020 MRS Fall Meeting & Exhibit
November 29–December 4, 2020, Boston, Massachusetts

2019 MRS FALL MEETING & EXHIBIT
December 1–6, 2019 | Boston, Massachusetts

FOLLOW THE MEETING!
#F19MRS