CALL FOR PAPERS

Fall Meeting registrations include MRS Membership • January – December 2022

The Materials Research Society is taking the 2021 MRS Fall Meeting & Exhibit to an exciting new level, offering a Hybrid Event where presenters and attendees can choose to join us in person in Boston, Massachusetts, attend virtually from the comfort of their home or office, or both!

BROADER IMPACT
BI01 Developing an Open Source Introductory Textbook for the Materials Community
BI02 Women in Materials Science—Pioneers and a Vision for a More Inclusive Future

CHARACTERIZATION
CH01 In Situ and Operando Techniques Applied to Electrochemical Systems—A Key Toolkit for Deep Understanding
CH02 Solid-State Chemistry of New Materials
CH03 Frontiers in Scanning Probe Microscopy—Beyond Imaging of Soft Materials
CH04 Accelerating Materials Characterization, Modeling and Discovery by Physics-Informed Machine Learning

MATERIALS COMPUTING AND DATA SCIENCE
DS01 Accelerating Experimental Materials Research with Machine Learning
DS02 Advanced Atomistic Algorithms in Materials Science
DS03 Combining Machine Learning with Simulations for Materials Modeling

ELECTRONICS, OPTICS AND QUANTUM
EO01 Quantum Optical Materials and Devices Based on Impurity Systems
EO02 Heterostructures of Various Dimensional Materials
EO03 Spin-Based Sensing at the Nanoscale and Hyperpolarization with NV-Diamond and Beyond
EO04 Machine Learning on Experimental Data for Emergent Quantum Materials
EO05 Plasmonics, Nanophotonics and Metaphotonics—Design, Materials and Applications
EO06 Innovative Fabrication and Processing Methods for Organic and Hybrid Electronics
EO07 Defects and Strain Potential Enabled Emergent Behavior in Two-Dimensional Materials
EO08 New Frontiers in the Design, Fabrication and Applications of Metamaterials and Metasurfaces
EO09 Cutting-Edge Plasma Processes for Next-Generation Materials Science Applications
EO10 Multiferroics and Magnetoelectrics
EO11 Materials, Processes and Device Structures Enabling Next-Generation High-Frequency Flexible Electronics
EO12 Optical Probes of Nanostructured, Organic and Hybrid Materials
EO13 Nitride Materials—Synthesis, Characterization and Modeling
EO14 Materials and Devices for Controlling Quantum-Coherent Spin Dynamics
EO15 Soft Matter Materials and Mechanics for Haptic Interfaces
EO16 Infrared and Thermal Photonic Materials and Their Applications
EO17 Emerging Materials for Contacts and Interfaces in Optoelectronics
EO18 Emerging Materials for Quantum Information
EO19 Diamond and Diamond Heterojunctions—From Growth to Applications
EO20 Beyond Graphene 2D Materials—Synthesis, Properties and Device Applications

ENERGY AND SUSTAINABILITY
EN01 Materials for Sustainable Electronics
EN02 Solid-State Batteries—Electrodes, Electrolytes and Interphases
EN03 Thermal Materials, Modeling and Technoeconomic Impacts for Thermal Management and Energy Application
EN04 Silicon for Photovoltaics
EN05 Emerging Energy and Materials Sciences in Halide Perovskites
EN06 Sustainable Electronics—Green Chemistry, Circular Materials, End-of-Life and Eco-Design
EN07 Mechano-Thermo and Electrical Coupling in Emerging Energy Materials
EN08 Low-Dimensional Halide Perovskites—From Fundamentals to Applications
EN09 Metal Sulfides for High Performance Electrochemical Batteries
EN10 Advanced Materials for Thermal Energy Management and Harvesting
EN11 Electrocaloric Materials to Sustainably Convert Atmospheric C, H, O, and N into Fuels and Chemicals
EN12 Advanced Materials and Chemistries for Low-Cost and Sustainable Batteries
EN13 Climate Change Mitigation Technologies
EN14 Advanced Materials for Hydrogen and Fuel Cell Technologies

BIOMATERIALS AND SOFT MATERIALS
SB01 Engineered Functional Multicellular Circuits, Devices and Systems
SB02 From Hydrogel Fundamentals to Novel Applications via Additive Manufacturing
SB03 Transformative Nanostructures with Therapeutic and Diagnostic Modalities
SB04 Materials and Algorithms for Neuromorphic Computing and Adaptive Bio-Interfacing, Sensing and Actuation
SB05 Antimicrobial Materials Against Coronavirus and Other Nosocomial Pathogens
SB06 Graphene and Related 2D Materials for Bioelectronics and Healthcare
SB07 Soft and Healable Conducting Materials for Biological Interfaces
SB08 Bioelectronics—Materials and Interfaces
SB09 Biological and Bioinspired Functional Materials—From Nature to Applications
SB10 Micro- and Nanoelectronics of Biomaterials—From Precision Medicine to Precision Agriculture and Enhanced Food Security
SB11 Photo/Electrical Phenomena at the Interface with Living Cells and Bacteria
SB12 Biomaterials for Regenerative Engineering

STRUCTURAL AND FUNCTIONAL MATERIALS
SF01 Advanced Atomic Layer Deposition and Chemical Vapor Deposition Techniques and Applications
SF02 Additive Manufacturing—From Material Design to Emerging Applications
SF03 3D Printing of Functional Materials and Devices
SF04 New Types of Polymers, Composites and Hybrid Materials for Additive Manufacturing

mrs.org/fall2021

Meeting Chairs
Markus J. Buehler Massachusetts Institute of Technology
Craig Fennie Cornell University
Marina Leite University of California, Davis
Laura Na Liu Universität Stuttgart
Cengiz S. Ozkan University of California, Riverside

Don’t Miss These Future MRS Meetings!
2022 MRS Spring Meeting & Exhibit
May 8–13, 2022
Honolulu, Hawai‘i

2022 MRS Fall Meeting & Exhibit
November 27–December 2, 2022
Boston, Massachusetts

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MRS MATERIALS RESEARCH SOCIETY
Advancing materials. Improving the quality of life.