**Call for Papers**

Spring Meeting registrations include MRS Membership July 1, 2019 – June 30, 2020

**Broader Impact**
- **B101** High Impact Practice—Increasing Ethnic and Gender Diversification in Engineering Education

**Characterization, Processing and Theory**
- **CP01** Advances in In Situ Experimentation Techniques Enabling Novel and Extreme Materials/Nanocomposite Design
- **CP02** Design and In Situ TEM Characterization of Self-Assembling Colloidal Nanosystems
- **CP03** Advances in In Situ Techniques for Diagnostics and Synthetic Design of Energy Materials
- **CP04** Interfacial Science and Engineering—Mechanics, Thermodynamics, Kinetics and Chemistry
- **CP05** Materials Evolution in Dry Friction—Microstructural, Chemical and Environmental Effects
- **CP06** Smart Materials for Multifunctional Devices and Interfaces
- **CP07** From Mechanical Metamaterials to Programmable Materials
- **CP08** Additive Manufacturing of Metals
- **CP09** Mathematical Aspects of Materials Science—Modeling, Analysis and Computations

**Electronics and Photonics**
- **EP01** Liquid Crystalline Properties, Self-Assembly and Molecular Order in Organic Semiconductors
- **EP02** Photonic Materials and Devices for BioInterfaces
- **EP03** Materials Strategies and Device Fabrication for Biobased Electronics
- **EP04** Soft and Stretchable Electronics—From Fundamentals to Applications
- **EP05** Engineered Functional Multicellular Circuits, Devices and Systems
- **EP06** Organic Electronics—Materials and Devices
- **EP07** Next-Generation Interconnects—Materials, Processes and Integration
- **EP08** Phase-Change Materials for Memories, Photonics, Neuromorphic and Emerging Application
- **EP09** Devices and Materials to Extend the CMOS Roadmap for Logic and Memory Applications
- **EP10** Heterovalent Integration of Semiconductors and Applications to Optical Devices
- **EP11** Hybrid Materials and Devices for Enhanced Light-Matter Interactions
- **EP12** Emerging Materials for Plasmonics, Metamaterials and Metasurfaces
- **EP13** Thermoelectrics—Materials, Methods and Devices

**Energy and Sustainability**
- **ES01** Organic Materials in Electrochemical Energy Storage
- **ES02** Next-Generation Intercalation Batteries
- **ES03** Electrochemical Energy Materials Under Extreme Conditions
- **ES04** Solid-State Electrochemical Energy Storage

**Catalysis, Alternative Energy and Fuels**
- **ES05** Cooperative Catalysis for Energy and Environmental Applications
- **ES06** Atomic-Level Understanding of Materials in Fuel Cells and Electrolyzers
- **ES07** New Carbon for Energy—Materials, Chemistry and Applications
- **ES08** Materials Challenges in Surfaces and Coatings for Solar Thermal Technologies
- **ES10** Rational Designed Hierarchical Nanostructures for Photocatalytic System
- **ES11** Advanced Low Temperature Water-Splitting for Renewable Hydrogen Production via Electrochemical and Photoelectrochemical Processes
- **ES12** Redox-Active Oxides for Creating Renewable and Sustainable Energy Carriers

**Water-Energy Materials and Sustainability**
- **ES09** Advanced Materials for the Water-Energy Nexus
- **ES13** Materials Selection and Design—A Tool to Enable Sustainable Materials Development and a Reduced Materials Footprint
- **ES14** Materials Circular Economy for Urban Sustainability

**Photovoltaics and Energy Harvesting**
- **ES15** Fundamental Understanding of the Multifaceted Optoelectronic Properties of Halide Perovskites
- **ES16** Perovskite Photovoltaics and Optoelectronics
- **ES17** Perovskite-Based Light-Emission and Frontier Phenomena—Single Crystals, Thin Films and Nanocrystals
- **ES18** Frontiers in Organic Photovoltaics
- **ES19** Excitonic Materials and Quantum Dots for Energy Conversion
- **ES20** Thin-Film Chalcogenide Semiconductor Photovoltaics
- **ES21** Nanogenerators and Piezotronics

**Quantum and Nanomaterials**
- **QN01** 2D Layered Materials Beyond Graphene—Theory, Discovery and Design
- **QN02** Defects, Electronic and Magnetic Properties in Advanced 2D Materials Beyond Graphene
- **QN03** 2D Materials—Tunable Physical Properties, Heterostructures and Device Applications
- **QN04** Nanoscale Heat Transport—Fundamentals
- **QN05** Emerging Thermal Materials—From Nanoscale to Multiscale Thermal Transport, Energy Conversion, Storage and Thermal Management
- **QN06** Emerging Materials for Quantum Information
- **QN07** Emergent Phenomena in Oxide Quantum Materials
- **QN08** Colloidal Nanoparticles—From Synthesis to Applications

**Soft Materials and Biomaterials**
- **SM01** Materials for Biological and Medical Applications
- **SM02** Progress in Supramolecular Nanobiomaterials
- **SM03** Growing Next-Generation Materials with Synthetic Biology
- **SM04** Translational Materials in Medicine—Prosthetics, Sensors and Smart Scaffolds
- **SM05** Supramolecular Biomaterials for Regenerative Medicine and Drug Delivery
- **SM06** Nano- and Microgels
- **SM07** Bioinspired Materials—From Basic Discovery to Biomimicry

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Meeting Chairs
- **Yuping Bao** The University of Alabama
- **Bruce Dunn** University of California, Los Angeles
- **Subodh Mhaisalkar** Nanyang Technological University
- **Ruth Schweiger** Karlsruhe Institute of Technology—Institute for Applied Materials
- **Subhash L. Shinde** University of Notre Dame

Don’t Miss These Future MRS Meetings!
- **2019 MRS Fall Meeting & Exhibit**
  - December 1–6, 2019, Boston, Massachusetts
- **2020 MRS Spring Meeting & Exhibit**
  - April 13–17, 2020, Phoenix, Arizona