



2022 MRS Fall Meeting & Exhibit to present a hybrid experience

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Continuing its format of a hybrid event, the Materials Research Society (MRS) offers both in-person (Nov. 27–Dec. 2) and virtual (Dec. 6–8) meeting components at the 2022 MRS Fall Meeting & Exhibit.

The on-site experience in Boston, Mass. will include in-person opportunities to hear leading-edge research, meet with colleagues, and explore a robust Exhibit Hall. The virtual experience will bring exceptional meeting content to attendees worldwide with live online, prerecorded, and on-demand scientific sessions.

The 2022 MRS Fall Meeting Chairs are **Will Dichtel**, Northwestern University; **Julia R. Greer**, California Institute of Technology; **Laura Herz**, University of Oxford; **Lane W. Martin**, University of California, Berkeley; and **Haimei Zheng**, Lawrence Berkeley National Laboratory.

The 53 symposia are grouped into eight topical clusters. The topic in **Broader Impact** is geared toward the next generation of professionals in academia and industry by providing technical instructions on different aspects of career development.

The cluster on **Characterization** features three symposia covering important topics in materials characterization from probing materials synthesis, to the frontiers of transmission electron microscopy, and novel imaging and spectroscopy of electrochemical energy storage materials. Machine learning approaches for materials development will be further expanded in the

cluster on **Materials Computing and Data Science**.

Electronics, Optics and Quantum features 10 symposia with topical coverage that includes two-dimensional (2D) materials and properties, energy-conversion materials, materials for low-power electronics, metamaterials, optoelectronics, phase-change materials, photonics, plasmonics, real-space topological structures, and thermoelectrics.

Nanomaterials features seven symposia covering a wide range of nanoscience topics highlighted as superlattices and multilayered heterostructures of 2D materials; 2D MXenes; carbon-based nanomaterials; solution synthesis of functional nanomaterials; colloidal quantum dot technologies; and mixed-dimensional heterostructures.

The cluster on **Materials Computing and Data Science** features three symposia highlighting advances in the applications of modern materials thermodynamics, artificial intelligence approaches for energy materials and machine learning approaches to accelerate materials modeling.

The nine symposia in the cluster on **Energy and Sustainability** feature aspects of Li-ion, flow and solid-state batteries; halide perovskites; materials for emergent applications in large-scale hydrogen; nuclear waste management; and sustainable and renewable materials.

Soft Materials and Biomaterials offers 12 symposia that touch on concepts ranging from responsive nanomaterials for theranostics and tissue

engineering, to lignocellulose materials, materials for bioelectronics, bioelectricity in living materials, emergent order and mesoscale structure in soft-condensed matter, to optoelectronic processes in organic materials, soft, magnetic (nano)robotics, bioinspired and biological polymers, synthetic biology, engineered biomaterials, hydrogels, E-textile materials, artificial skin, soft robotics and much more.

The cluster on **Structural and Functional Materials**, featuring eight symposia, includes topics on smart functions of stimuli-responsive materials, materials for extreme conditions, frontiers of intermetallics science for structural and functional materials design, and advanced ceramics and glasses—from advanced manufacturing to data-driven methods for synthesis and mechanical characterization.

Symposium X—MRS/The Kavli Foundation Frontiers of Materials sessions will feature presentations aimed at a broad audience and on topics at the forefront of research in materials science and engineering. To complement the symposia, **Tutorial Sessions** will provide detailed information on areas of research, and the **Exhibit** will showcase products and services of interest to the research community.

To keep up to date on the symposium sessions, special events, registration, and visa and travel resources, visit mrs.org/fall2022. The website includes links for up-to-date information on traveling during COVID-19.



Connect with MRS members as well as the broader materials community!

