

ENERGY & ENVIRONMENT

Advances in Magnetic Materials

This symposium focuses on structure, processing, and performance interrelationships for soft and hard magnetic materials, magnetocaloric materials, magnetoelastic, multiferroic, magnetostrictive, and thermoelectric materials. The scope includes new material compositions, novel and advanced characterization approaches, and application driven magnetic component design for energy conversion, sensors, and actuators.

We also encourage topics that focus on the economic and supply chain impacts related to magnetic materials manufacturing. A separate symposium exists for work related to additively manufactured magnetic materials so that topic area is not within scope of this symposium. Topics of particular interest include:

- Emerging and established advanced manufacturing methods
 - Bulk manufacturing of advanced magnetic materials
 - Thermal-mechanical/thermal-magnetic processing
 - Energy dense processing using RF, microwave, high pressure, or high magnetic fields
- Novel magnetic materials and processing techniques for sensor and actuator applications
- Functionalized magnetic materials for biomedical applications:
 - Hyperthermia
 - Magnetomechanical actuation
 - Drug delivery
 - Imaging
- Multiferroic and magnetoelastic materials
- Advanced characterization techniques, including neutron and synchrotron radiation, to study magnetic materials

ORGANIZERS

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