

Special Issue

Preparation and Characterization of Magnetic Nanomaterials

Message from the Guest Editor

This Special Issue aims to bring into focus both the preparation and precise characterization of magnetic nanomaterials, emphasizing methods that control crystal structure, morphology, surface chemistry, and defect landscapes. We invite the submission of original contributions reporting on new synthetic strategies—chemical, physical, or bio-inspired—that enable careful tuning of composition, size, and morphology, as well as studies that probe intrinsic magnetic properties using advanced techniques such as synchrotron X-ray, electron microscopy with atomic resolution, magneto-optical spectroscopies, and magnetic resonance. In addition, submissions that correlate structure with application are particularly welcome; for instance, studies of magnetic nanomaterials in data storage, spintronic devices, biomedical imaging or therapy, catalysis, or energy conversion. This Special Issue seeks to chart the state of the art in magnetic nanomaterials, highlight long-term stability and reliability under ambient conditions, and define emerging challenges and directions for future breakthroughs.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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