

Special Issue

Synthesis, Development and Characterization of Magnetic Nanomaterials

Message from the Guest Editor

Since the early thirties, when it was predicted that a particle of ferromagnetic material with a size below a critical limit would possess a single magnetic domain within which magnetic moments of free electrons are aligned parallel, there has been a continuously increasing interest in the scientific community in the development and study of magnetic materials in the nanoscale size regime. This enormous interest is mainly due to their prospective applications in many technological areas, including magnetic storage devices, ferrofluids, magnetic resonance imaging, magnetic carriers, magnetic hyperthermia, energy, and catalysis. This Special Issue of *Nanomaterials* will cover the most recent advances in synthesis, characterization, and niche applications, of magnetic nanomaterials from permanent magnets to biomedicine, and from environmental remediation to sensors and catalysis. Research articles including review articles and short communications must have originality and promote knowledge in the scope of the Special Issue.

Guest Editor

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano–alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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