Special Issue

Magnetic Nanomaterials and Nanostructures

Message from the Guest Editors

The continuous advances in nanofabrication and nanosynthesis techniques have given a boost to the study of magnetic nanomaterials for novel applications in bio-magnetism, magneto-logic devices and high-density magnetic storage. In this framework, improved processing methods, high-precision dimensional and magnetic characterization techniques, as well as advanced computational modelling at the nanoscale level, are fundamental tools for the design steps. In particular, the synergy between experimental and simulation phases can shed light on the involved magnetization processes and provide a key for the discovery of new phenomena and the development of cutting-edge technologies. This Special Issue of Nanomaterials, "Magnetic Nanomaterials and Nanostructures", aims at collecting a compilation of articles that present novel applications of nanomagnetism in the fields of biomedicine, nanostructured magnetic field sensors, spintronics and magnonics. Particular attention is devoted to the recent advances in nanofabrication, experimental characterization and modelling methodologies that have unlocked such applications.

Guest Editors

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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.

Editor-in-Chief

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