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Magnetic and Magnetoelectric Nanomaterials: Synthesis, Characterization and Applications

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Message from the Guest Editors

Functional nanomaterials and nanostructures occupy central importance in nowadays technologies, nonetheless, offer still significant new opportunities in different fields. In particular, magnetic and magnetoelectric nanomaterials can bring innovative solutions for applications in energy harvesting, spintronics, sensing and biosensing applications. Moreover, their unique functional properties offer a vast playground for fundamental science and materials engineering.

This Special Issue welcome both theoretical and experimental approaches, namely by including the design of new magnetic and magnetoelectric nanomaterials using computational screening methods based on genetic algorithms, combined with density functional theory, and/or their synthesis and characterization, towards the development of material architectures for applications, especially for the areas of energy, information technology and sensing aiming to solve emergent societal challenges.



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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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