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Advanced Nanomaterials for Sustainable Energy, Environment and Sensing Applications

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Message from the Guest Editors

This Special Issue will attempt to cover the most recent advances in nanostructures, concerning, not only their synthesis and characterization but also their functional and smart properties to be applied in scaling factors, such as grain size, thin film thickness, and porosity in the context of a lattice defect model, nanoceramic thin films, nanoscale superlattices, and mesoporous materials. Therefore, this Special Issue welcomes contributions from all researchers working on nanomaterials, as well as on their characterization, properties, and applications.

The Special Issue will cover, but will not be limited to, the following topics:

- Advanced synthesis;
- Smart properties;
- Characterizations;
- Multifunctional materials;
- Energy harvesting/storage devices;
- Sensors;
- Highly dispersed metal, metal oxide, or metal sulfide nanoparticles;
- Heterogeneous catalysis supported by nanoparticle materials;
- Photochemical properties and applications of nanomaterials;
- Electrochemical and optical properties of nanomaterials.



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Special Issue



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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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