



Smart Nanocomposites and Their Applications

Guest Editor:

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Message from the Guest Editor

Functional materials constitute a class of materials with the ability to execute certain functions (operations) under the influence of an external (environmental) stimulus or sign control. Smart or multifunctional performance can be achieved by combining various desirable properties in a materials' system, exhibiting all necessary responses under different loading conditions at service.

This Special Issue welcomes original research and review papers on experimental or theoretical/computational studies of all kinds of smart/multifunctional nanocomposites, including but not limited to design and fabrication, thermo-mechanical performance, fire retardants, biological/biomimetic systems, biomedical applications, electrical engineering devices, nanocomposites for energy applications, nanodielectrics, magnetic nanocomposites, stimuli-responsive materials, piezoelectrics, ferroelectrics, pyroelectrics, electro/magneto-rheological systems, shape memory materials, structure properties relationships, polymer matrix nanocomposites and hybrids, and all kind of current and forthcoming applications.





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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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