



Ceramic Nanocomposites and Their Applications

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Message from the Guest Editors

Dear Colleagues,

Understanding the basic chemical and physical phenomena may direct ceramic materials design. Ceramic materials include oxide and non-oxide ceramics, glass ceramics, amorphous inorganic materials, and their combinations with metal and organic materials. They can be in the form of particulates, thin/thick films, porous matrices, and/or composite structures.

This Special Issue covers the design, preparation, testing, and characterization of novel ceramic-based materials and their applications. The SI welcomes contributions on (but not limited to) the following topics:

- Thermodynamic, phase transformations, and electronic properties and reactivity of ceramic nanomaterials
- Low-dimensional systems including 0-, 1-, and 2-D nanomaterials (graphene, DLC, and carbon nanotubes are also welcome)
- Ceramics for industrial and domestic applications presenting novel functionalities
- Ceramic surface finishing and conditioning for environmental applications
- Ceramics for nuclear fission and nuclear waste management
- Bio-inert and bioactive ceramics for biomedical applications and drug delivery





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Editor-in-Chief

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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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