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Advanced Nanocomposites for Photonics and Optoelectronics and Mechanics

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Message from the Guest Editors

Nanocomposites are materials that incorporate nanosized materials into a matrix of standard material. The result of the addition of nanomaterials is an extreme improvement in properties that can include photonics, optoelectronics, and mechanics. Due to their varied electronic, optical and mechanic properties, nanomaterials and nanocomposites have been utilized, with significant advances for a wide range of applications, such as nonlinear optics, electrooptic modulator, photovoltaics, plasmonics, lighting, display, anti-counterfeiting, and photodetectors.

The aim of this Special Issue is to collate original research and review articles concerning these issues in preparation, characterization, and applications of nanostructured materials and nanocomposites focusing on photonic, optoelectronic, and mechanic applications. Potential topics include, but are not limited to:

- Design and construction of nanomaterials and their heterostructures.
- Characterizations of nanomaterials and their devices.
- Theoretical calculation and simulation of advanced nanocomposites.
- Photonic or optoelectronic or mechanic applications of advanced nanocomposites



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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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