



Semiconductor Nanomaterials: Growth, Characterization and Optoelectronic Application

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Message from the Guest Editor

Dear Colleague,

Semiconductors are the cornerstone of the current Information Age. Semiconductor nanomaterials, including, but not limited to, the II-VI, III-VI or IV-VI compound semiconductors, have attracted worldwide interest due to their unique optical, electrical, magnetical and mechanical properties and their potential applications in many fields such as solar cells, nanoscale electronic devices, nanophotonics, light-emitting diodes, laser technology, sensors and catalysts. The study of the growth, characterization and optoelectronic applications of low-dimensional (0D, 1D and 2D) semiconductors is one of the leading topics of today's nanomaterials research and will certainly lead to significant breakthroughs in the semiconductor industry.

This Special Issue focuses on the latest theoretical and experimental advances in semiconductor nanomaterials, concerning their design, preparation, characterization and optoelectronic applications. It aims to attract academic researchers in the fields of semiconductor materials and device 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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