Special Issue

Recent Advances in Semiconductor Nanomaterials and Their Applications in Electronics and Optoelectronics

Message from the Guest Editor

Due to the physical limitations of semiconductor devices such as diode, resistor, electrode, and memory, research using various nanomaterials and nanoscale semiconductor devices is being actively conducted. Semiconductor nanomaterials can potentially be used in the design of electronic devices, optical devices, semiconductor-based sensors, and transparent electrodes. The study of semiconductor nanomaterials spans various multidisciplinary fields in both fundamental research on material and device physics, and emerging applications such as FET, flexible devices, and optoelectronic devices. Further development of semiconductor nanomaterials will certainly lead to significant breakthroughs in the semiconductor industry. This Special Issue is open to an original research article addressing recent theoretical and/or experimental findings on the electronic/optical properties of semiconductor nanomaterials. We hope that this Special Issue will provide a collection of research papers covering original and important advanced research related to fundamental physics, novel concepts, and potential applications of semiconductor nanomaterials in the fields of electronics and optoelectronics.

Guest Editor

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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.

Editor-in-Chief

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