Special Issue

Nanoscale Materials and Devices for Electronics, Photonics and Energy Conversion

Message from the Guest Editor

The low cost of natural energy sources has created economic barriers to the development of alternative and more efficient solar energy systems, fuel cells and batteries. Nanotechnology is widely accepted as a source of potential solutions in securing future progress for information and energy technologies. Nanoscale materials and devices for electronics, photonics and energy conversion aim at covering the following areas: atomic-scale material design, biomolecular and molecular electronics, high-frequency electronics, fabrication of nanodevices, magnetic materials and spintronics, materials and processes for integrated and subwave optoelectronics, nanoCMOS, new materials for FETs and other devices, nanoelectronics system architecture, nano-optics and lasers, non-silicon materials and devices, chemical sensors and biosensors, quantum effects in devices, nanoscience and technology applications in the development of novel solar energy devices, and fuel cells and batteries.

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 nanometerscale 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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