Special Issue

Advances in Semiconducting Nanomaterials

Message from the Guest Editor

Semiconducting nanomaterials are new materials with characteristic sizes in the nanometer scale. The structures are usually low-dimensional structures rather than three-dimensional bulk materials, such as zero-dimensional quantum dots, one-dimensional quantum wires, two-dimensional superlattices, quantum wells, and other low-dimensional structures. Due to surface effects, volume effects, quantum size effects, and the macro quantum tunneling effect, as well as some nontrivial optical, electrical, and magnetic properties, semiconducting nanomaterials have been widely used to manufacture artificial microstructures and advanced devices with superior performance since their rise in the 1990s. In this Special Issue, we invite the submission of research papers highlighting semiconducting nanomaterial synthesis, device fabrication, performance characterization, and physical analysis.

- Nanomaterials
- Quantum dots
- Quantum wires
- Nanocrystals
- Superlattices
- Optoelectronic devices
- Large-scale integrated circuit

Guest Editor

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Deadline for manuscript submissions

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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