Special Issue

Preparation and Application of Semiconductor Nanostructures

Message from the Guest Editor

Over the past three decades, inorganic and organic semiconductor nanostructures have demonstrated great potential in many electronic and optoelectronic applications due to their excellent crystal quality, large specific surface area, and quantum effects. The material preparation has developed from the initial purposeless preparation to the rational design and controllable preparation aiming at high-performance and multifunctional application. For example, high-yield synthesis of monodisperse zero-dimensional (0D) semiconductor nanodots was achieved via solution synthesis methods...

This Special Issue focuses on recent progresses in the preparation and application of semiconductor nanostructures. The research interest includes various synthesis methods of 0D, 1D, 2D, and their hybrid nanostructure, as well as their applications, such as photovoltaics, photodetectors, nonvolatile memories, field-effect transistors, logic circuits, LEDs, laser diodes, sensors, and photoelectrochemical devices. It is my pleasure to invite you to submit a manuscript for this Special Issue.

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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