Special Issue

Synthesis, Morphology, and Properties of Functional Nanomaterials

Message from the Guest Editor

The properties of nanomaterials are typically determined not only by composition but by the size and morphology of nanoparticles. This feature is used to design materials with specific photoactive, conductive/semiconductive, mechanical, and other properties. In microelectronics, the design of nanowires, single-electron transistors, diodes, and other nanoelectronics allows improving the computer performance. Functional nanomaterials play an important role in cleaning the environment, and molecular sieves and selective sorbents are widely used for gas separation. Functional nanomaterials have gained great popularity in medicine. Functional nanomaterials are opening up a whole new area of research of molecular design.

This Special Issue, collecting topics from an interdisciplinary viewpoint, is aimed at providing a resourceful background for readers, addressing the design of new functional materials and the devices based on them. Further, authors are encouraged to submit original works on the mechanisms of formation of nanocrystals and the effect of synthesis parameters on the morphology and properties of such materials.

Guest Editor

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Message from the Editorial Board

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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