Special Issue

Synthesis of Nanowires

Message from the Guest Editors

This Special Issue of *Nanomaterials* will address the following key topics:

- Different types of nanowire synthesis techniques (chemical and physical methods), as well as unconventional or new emerging techniques;
- synthesis of NWs on new types of conventional and unconventional substrates;
- synthesis of complex nanowires with controlled crystalline morphologies, orientations, and surface architectures;
- selective or templated growth of NWs using new methods of patterning of the substrate;
- efficiency of the chemical synthesis method and the factors limiting the growth process;
- scaling behavior or strategies for large-scale growth of nanowires;
- controlling nanowire growth, i.e., controlling the morphology, orientation, dispersion, polarity, and intrinsic properties, and tuning the electrical and optical properties by doping;
- integration of the nanowires into new heterostructures combining different types of compound semiconductors;
- the impact of these nanomaterials on the environment;
- new properties of the synthesized nanowires; and
- applications of these nanowires for lighting, energy harvesting and storage, sensing, and biological purposes.

Guest Editors

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Deadline for manuscript submissions

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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.

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