

Special Issue

Transport Properties of Nanowires

Message from the Guest Editor

Bottom-up methods have allowed us to realize one-dimensional nanowire structures with a high surface to volume ratio, whose size and composition can be reliably controlled during synthesis. In addition, their small cross-sectional area allows nanowires to accommodate higher lattice mismatch compared to thin films, resulting in the possibility to grow nanostructures of high structural quality. Due to these reasons, nanowires represent promising building blocks for a wide range of nanoscaled device applications, not only in the field of electronics and optoelectronics, but also for electrochemical device applications for energy storage. Special Issue on “Transport in Nanowires” attempts to cover all aspects regarding recent progresses and results in the characterization of transport processes in nanowires structures. Thus, the issue not only includes recent advances in the preparation and characterization of nanowire-based devices for technological applications but also focusses on recent progress in understanding the mesoscopic transport properties in nanowires and nanowire heterostructures.

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 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.

Editor-in-Chief

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