Special Issue

Electronic and Optical Properties of Nanostructures

Message from the Guest Editor

Recently, the progress has been impressive in the synthesis of various OD, 1D, and 2D nanostructures based on dielectric, semiconductor, and metallic materials, as well as based on their composites, including metamaterials. Such nanostructures are successfully used in electronics, photonics, sensing, biology, and medicine. Also of interest are carbon nanostructures (based on graphene or carbon dots), plasmon nanostructures, and the use of perovskites as key materials in nanostructures. The rapid development of technology for creating new nanostructures requires the research community to comprehensively analyze their electronic and optical properties. This analysis will provide a deeper understanding of the physics of lowdimensional systems and will broaden the scope of nanostructure applications. This Special Issue will highlight the latest advances in the study of electronic and optical properties of various types of nanostructures. We invite researchers to submit their original research articles, letters, and reviews on fundamental and applied studies of nanostructures.

Guest Editor

Prof. Dr. Anatoly V. Fedorov ITMO University, Saint Petersburg, Russian Federation

Deadline for manuscript submissions

closed (31 December 2020)



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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 nanometerscale 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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