Special Issue

Semiconductor Quantum Wells and Nanostructures

Message from the Guest Editor

This Special Issue is supposed to contain the papers about quantum and classical transport in lowdimensional electron systems, such as 2D electron gas, 3D and 2D topological insulators, 2D ordinary and Weyl semimetals, quantum wires, rings, and dots. The studies of energy spectrum of semiconductor quantum wells and nanostructures, by means of optical and tunneling spectroscopy, also are acknowledged in the issue. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but not limited to) the following: 1) quantum and classical transport in low-dimensional electron systems, such as 2D electron gas, quantum wires, rings, and dots; 2) energy spectrum of semiconductor quantum wells and nanostructures (SQWN), 3D and 2D topological insulators; 3) 2D ordinary and Weyl semimetals; 4) thermoelectric and photoelectric phenomena; 5) optical spectroscopy of semiconductor quantum wells and nanostructures; 6) microwave and terahertz spectroscopy of electron states in SQWN. We look forward to receiving your contributions.

Guest Editor

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Deadline for manuscript submissions

closed (2 January 2023)



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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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