Special Issue

Optical Properties of Semiconductor Nanostructures: Latest Advances and Prospects

Message from the Guest Editor

The scope of this Special Issue includes, but is not limited to, the following areas:

- Theoretical studies: computational modeling, quantum mechanical simulations, and theoretical frameworks to understand the fundamental principles and mechanisms
- Experimental techniques: novel experimental methodologies, advanced spectroscopic techniques, and characterization methods
- Material synthesis and fabrication: strategies for the synthesis, growth, and fabrication of semiconductor nanostructures with tailored intraband transitions and optimized nonlinear optical properties
- Nonlinear optical phenomena: investigation and analysis of nonlinear optical effects
- Device applications: the development of practical applications, including all-optical switching, ultrafast data processing, quantum light sources, photonic devices, and optoelectronic devices
- Nanoscale engineering: design and engineering of semiconductor nanostructures
- Biomedical and sensing applications: exploration of the potential applications in biomedical imaging, sensing, drug delivery, and other biomedical applications

Guest Editor

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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