Special Issue

Photonics and Optics in Low-Dimensional Materials: Fundamentals and Applications

Message from the Guest Editors

Low-dimensional materials, represented especially by fullerenes, CNT, graphene, TMDs, black phosphorus, etc., with unique electrical, magnetic, optical, and mechanical properties, have attracted widespread scientific attention. This Special Issue is dedicated to exploring novel research at the intersection of the preparation, property modulation, and application of low-dimensional materials, not limited to microelectronics, sensing, catalysis, or energy storage. We encourage contributors to delve into the intricate synergy of the preparation and development of such devices, as well as the optimization of their functions, with a particular emphasis on showcasing advancements in the diverse array of devices and system applications that occur in practical scenarios.

Guest Editors

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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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