

Special Issue

Excitons and Phonons in Two-Dimensional Materials: From Fundamental to Applications

Message from the Guest Editor

Recently, a variety of intriguing excitonic complexes has been identified and described in monolayers of 2D materials: so-called bright and dark complexes, neutral and charged excitons, biexcitons, etc. A family of excitons is even larger in multilayered specimens and artificial van der Waals (vdW) heterostructures. Consequently, the investigation of the phonons modes in 2D materials on account of e-p coupling is essential in terms of potential applications of layered materials. This Special Issue, entitled “Excitons and Phonons in Two-Dimensional Materials: From Fundamental to Applications”, aims to cover the entire range of fundamental and applied research associated with excitonic complexes and phonon modes in two-dimensional materials.

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.

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