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Dynamics and Mechanics in Two-Dimensional Nanostructures: Simulation and Computation

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Message from the Guest Editors

Dear Colleagues,

In recent years, scientists and engineers from different fields have drawn particular attention to the exploration of the mechanical and dynamic properties of 2D materials and devices. In practical application, the dynamics and mechanics of 2D materials have a significant impact on the performance of related devices, including thermoelectrics, rechargeable batteries, optoelectronic devices, and field-effect transistors. This Special Issue aims to summarize the present state of the art in this field, to inspire the research interests and trends, and to shed light on novel applications in the future.

In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following: mechanical properties of two-dimensional materials; dynamics of two-dimensional materials; lattice dynamics; thermal conduction; and theory and simulation.....

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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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