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Atomically Thin Quantum Materials

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Message from the Guest Editors

Dear Colleagues,

This Special Issue is dedicated to the vibrant and rapidly evolving realm of two-dimensional (2D) and atomically thin materials with unique quantum properties. These materials, which include graphene, atomically thin superconductors, transition metal dichalcogenides (TMDs), Kagome materials, twisted materials, etc., exhibit intriguing quantum phenomena due to their ultra-thin quantum nature. This Special Issue encompasses a wide spectrum of facets related to atomically thin quantum materials, spanning from their synthesis and characterization to their applications in state-of-the-art technologies.

We encourage researchers to study the fundamental physics of these materials, exploring quantum confinement effects, topological phases, and strong correlation phenomena. Moreover, we seek submissions that explore the practical applications of these materials in next-generation electronics, optoelectronics, and quantum computing.

See more information in
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Special Issue



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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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