

Special Issue

Two-Dimensional Nanosheets: Synthesis and Applications

Message from the Guest Editor

“Nanosheets” have been mainly coined to refer to ultrathin films of two-dimensional (2D) materials which have had an explosive entrance into the field of new materials due to their remarkable properties versus their bulk counterparts. Since the discovery of graphene, many types of 2D nanosheets have emerged and attracted increasing interest, such as hexagonal boron nitrides (h-BNs), graphitic carbon nitride (g-C₃N₄), transition metal dichalcogenides (TMDs: MoSe₂, MoS₂, WS₂), transition metal oxides (TMOs: MnO₂, MoO₃, etc.), layered double hydroxides (LDHs: Co(OH)₂, Ni(OH)₂, etc.), noble metal nanosheets, the X-ene family (silicene, germanene, stannene, and phosphorene, etc.), and even metal–organic frameworks (MOFs). All these 2D materials exhibit a similar sheet-like morphology, but their different crystalline structure and composition provide them with versatile properties useful in a wide range of new advanced applications. This Special Issue aims to collect a series of articles concerning the synthesis of nanosheets, covering different synthesis processes and materials, in addition to the most relevant applications in several fields.

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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

Editor-in-Chief

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