

Special Issue

Synthesis and Characterization of Emerging Two-Dimensional Nanomaterials

Message from the Guest Editors

In recent decades, atomically thin layered two-dimensional (2D) nanomaterials have attracted much attention in the research and development societies due to their extraordinary mechanical, optical, electrical, and physical properties. Two-dimensional nanomaterials contain graphene, transition metal dichalcogenides (MoS₂, WS₂, etc.), nitrides (GaN, BN, and Ca₂N), Mxene (Ti₃C₂, Ta₄C₃, etc.), and Xene (B, Si, Ge, and Sn). For the broad range of various device applications, diverse synthesis methods such as mechanical exfoliations, chemical vapor depositions, physical vapor depositions, and other hybrid methods have been reported to date. Furthermore, physical and electrical characterization methods could also be important research areas in order to precisely design and realize functional properties in nanometer-scaled material systems. Keywords

- 2D nanomaterials
- graphene
- synthesis
- characterizations
- electronic devices
- physical and electrical properties
- design and simulations

Guest Editors

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