



Two-Dimensional Materials and Films

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Message from the Guest Editors

Dear Colleagues,

Two-dimensional (2D) materials and films have offered great possibility to develop novel functional devices with outstanding electronic, optical, optoelectronic and mechanical performances. Much effort has been made in both experimental and theoretical studies on 2D materials and films to understand the sophisticated nature of 2D materials and design advanced functional nanodevices. In this Special Issue, we welcome high-quality and original research articles focusing on 2D materials and films. In particular, the topics of interest include, but are not limited to:

- First-principle density functional theory calculations;
- Classical molecular dynamics simulations of thermal and mechanical properties;
- Synthesis and controllable growth of 2D materials and films;
- Fabrication and construction of 2D heterostructures;
- Characterization of 2D materials and heterostructures;
- Charge and heat transport in 2D materials and heterostructures;
- Structural, electronic, optical, magnetic and thermal properties;
- 2D materials for electronics, photonics, optoelectronics and energy applications.





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Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

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