

Special Issue on
**2D Nanostructures and Nanomaterials with Novel
Properties and Applications**

CALL FOR PAPERS

During the past decades, there have been many kinds of 2D nanomaterials developed including graphene, boron nitride, silicene, germanene, phosphorene, and transition metal dichalcogenides (TMD). More recently, 2D topological insulators attract fast growing interest owing to their original novelty and potential applications in many academic and applied fields and are publically recognized by the Nobel Prize committee in 2016.

2D layered materials generate a great deal of promises and impacts in both experimental and theoretical researchers. Linear energy-momentum dispersion relation, massless Dirac fermions, and strong spin-orbit interactions provide scientists with exciting new physics and unusual phenomena. In order to accelerate the tangible outcomes of the 2D materials sciences and technologies, it is necessary to develop next-generation characterization tools, scalable synthesis approach from both top-down and bottom-up directions, and concurrent theoretical and simulation results and predictions. Potential applications can be explored by utilizing new findings and unique properties in 2D materials.

In this special issue, we sincerely invite scientists and researchers working in 2D nanomaterials- nanostructures and nanoscale interfaces to publish high-impact research papers and review articles which are not yet published or that are not currently under review by other journals. We expect to gather stimulating and interesting research products in which current status and new challenges in 2D systems are well described and the future directions can be projected.

Potential topics include but are not limited to the following:

- ▶ Synthesis and characterization methods for 2D nanostructures
- ▶ Optical and spectroscopic analysis of 2D materials
- ▶ 2D layered heterojunctions and interface properties
- ▶ Theoretical and simulation studies on molecular dynamics and interactions
- ▶ Applications in optoelectronics and thermoelectric devices

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jnm/nnn/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

Nam-Jung Kim, University of Missouri,
Columbia, USA
njkim36@gmail.com

Guest Editors

Seokhyun Yoon, Ewha Womans
University, Seoul, Republic of Korea
syoon@ewha.ac.kr

Young-Kyun Kwon, Kyung Hee
University, Seoul, Republic of Korea
ykkwon@khu.ac.kr

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