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New Insights into Two-Dimensional (2D) Transition Metal Materials

Guest Editors:

Prof. Dr. Masahiro Yoshimura

Department of Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan

Prof. Dr. Yu-Ze Chen

Department of Materials Science and Engineering, National Cheng Kung University, Tainan 701401, Taiwan

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Message from the Guest Editors

Since graphene was discovered, various 2D materials (graphene oxides, MXenes, metal chalcogenides, and their hybrids, composites, etc.) have been studied because they have quite a wide range of interesting properties. Therefore, they have been expected to find applications in electronics, photonics, electrophotonics, sensors, capacitors, catalysis, and biomedicine. These 2D materials can be deposited as films and laminated on various substrates via dry or wet conditions.

The present Special Issue of *Nanomaterials* aims to collect articles in order to gain new insight and identify new horizons of these 2D materials. Topics of interest include 1) the synthesis and fabrication of new 2D materials; 2) characterization; 3) properties; 4) integration and assembly into homogeneous and/or heterogeneous layers; 5) device formation; 6) function and application in various conditions; and 6) theoretical analysis and simulation; among others. We expect to collect not only original research papers but also critical/prospective review papers. We also welcome and encourage early-career authors to submit their works to this Special Issue.



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Special Issue



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Editor-in-Chief

Prof. Dr. Shirley Chiang

Department of Physics, University
of California Davis, One Shields
Avenue, Davis, CA 95616-5270,
USA

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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Nanomaterials Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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