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# Nanoengineering of 2D MXene-Based Materials

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Deadline for manuscript submissions: closed (31 August 2022)



Message from the Guest Editors

Two-dimensional (2D) MXenes represent a new family of 2D transition metal carbides, nitrides, and carbonitrides, which were first prepared from the layered MAX phases in 2011. Since then, 2D MXenes have generated intensive research interest, due to their diverse compositions and structure, and fascinating properties, such as outstanding metallic conductivity, high-charge carrier mobility, diverse surface chemistry, and favorable mechanical properties. These unique properties enable MXenes to show promising applications, e.g., used in batteries and electrocatalysis, and investigations on MXenes are growing at the booming stage.

Accordingly, we cordially invite you to contribute to novel developments and advances in the field of nanoengineered 2D MXenes, including preparation, characterization and properties, experimental and computational studies, as well as the possibilities for their potential applications.

For further reading, please follow the link to the Special Issue Website at: http://www.mdpi.com/si/77308

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### **Editor-in-Chief**

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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, metalorganic 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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