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Synthesis and Modification of Transition-Metal Dichalcogenides (TMDs) for Energy and Sensing Applications

Guest Editors:

Dr. Muhammad Ikram
Qinghai Institute of Salt Lakes, Chinese Academy of Sciences, Xining 810008, China

Dr. Shahzad Afzal
Department of Environmental Engineering, China Jiliang University, Hangzhou 310018, China

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Message from the Guest Editors

Dear Colleagues,

Our Special Issue is focused on advances in graphene and 2D materials, including MXene, transition-metal dichalcogenides (TMDs), etc. The unique properties of 2D materials have been leveraged in the energy sector, sensors, wearable technology, environmental remediation, and more, owing to their subnanometer thickness and tunable chemical, physical, and electronic properties.

The scope of this issue ranges from the synthesis, characterization, and surface modification of 2D materials to its practical applications. This issue focuses on the both scientific and engineering aspects of graphene and 2D materials with fundamental properties and the accomplishment of state-of-the-art photo- and electrocatalysts for water splitting, CO_2 reduction, pollutant degradation, and gas sensing.

This Special Issue aims to provide a comprehensive overview of recent advances in graphene- and 2D-material-based catalysts, including their synthesis, characterization, and catalytic applications.

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Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

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Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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𝕏@Materials_Mdpi