

Special Issue

Transition Metal Dichalcogenides: Synthesis, Characterisation and Applications

Message from the Guest Editor

Transition metal dichalcogenides (TMDs), with the general formula MX_2 (where M = transition metal and X = chalcogen), represent a versatile class of layered materials that exhibit unique physical, chemical, and electronic properties. Over the past decade, TMDs have emerged as promising candidates in fields ranging from catalysis and optoelectronics to energy storage, spintronics, and biomedical applications. Their tuneable band structures, strong light-matter interactions, and catalytic activity make them a focal point of multidisciplinary research. This Special Issue aims to highlight the latest developments in the synthesis, characterisation, and applications of TMDs. Emphasis will be placed on both fundamental advances and applied research, thereby providing a comprehensive platform for the exchange of innovative ideas and methods within the inorganic and materials chemistry community. The Special Issue aligns with the scope of *Inorganics*, fostering contributions that advance our understanding of structure–property relationships and novel functionalities of these important materials.

Guest Editor

Dr. Charalampos Drivas
Department of Chemical Engineering, University of Patras, 26500
Patras, Greece

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Inorganics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
inorganics@mdpi.com

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Message from the Editor-in-Chief

Inorganic chemistry remains a lynchpin of modern chemistry, not only embracing the function and reactivity of combinations of most elements of the periodic table, but also providing a footing for studies of materials, catalysts, drugs, fuels and industrial chemicals. Arguably, the role and reach of inorganics in society have never been as great as today. Adventurous research at the heart and at the extremes of inorganic chemistry is vital to further advances and Inorganics offers authors the opportunity to publish exciting new research in an open access format.

Editor-in-Chief

Prof. Dr. Duncan H. Gregory

School of Chemistry, University of Glasgow, University Avenue, Glasgow G12 8QQ, UK

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