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Transition Metal Chalcogenides for (Photo)electrochemical Energy Conversion

Guest Editor:

Dr. Jan Philipp Hofmann

Surface Science Laboratory,
Department of Materials and
Earth Sciences, Technical
University of Darmstadt, 64287
Darmstadt, Germany

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Message from the Guest Editor

In view of dwindling fossil resources and increasing CO₂ emissions, the transition to a sustainable energy system based on renewable energy sources will be the only option to maintain the health and welfare of mankind in the future. Here, the electrochemical splitting of water to produce H₂ or the reduction of CO₂ to liquid fuels or value-added chemicals by either renewable energy driven electrolysis or direct photoelectrolysis appears to offer most scalable and flexible chemical energy storage and conversion options.

This Special Issue focuses on transition metal chalcogenides to be used as non-noble metal electrocatalysts (materials based on, e.g., MoS₂, WS₂, WSe₂ and related transition metal dichalcogenides) or photoabsorbers in photoelectrochemical devices (e.g., dichalcogenides, as well as complex sulfides, selenides). Contributions on synthesis, characterization, and functional testing, as well as performance evaluation, in the form of full papers, communications, and reviews are welcome and should advance the understanding of the fundamental properties of this class of materials.

I kindly invite you to submit a manuscript for this Special Issue.



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Special Issue



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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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Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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