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Transition Metal Chalcogenides for (Photo)electrochemical Energy Conversion

Guest Editor:

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Deadline for manuscript submissions:
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Message from the Guest Editor

In view of dwindling fossil resources and increasing CO_2 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 H_2 or the reduction of CO_2 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., MoS_2, WS_2, WSe_2 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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