Special Issue

Electronic Structures Modulation of Transition Metal Chalcogenides for Energy Storage and Catalysis Applications

Message from the Guest Editors

Transition metal selenides are compounds composed of transition metals (elements from the d-block of the periodic table) and selenium. Transition metal selenides possess stable physicochemical properties, abundant diversity in terms of material structures, and tunable electronic structures. They can form a wide range of material structures, including layered structures, nanostructures, and heterostructures. This diversity allows for tailored properties and functionalities, allowing them to be versatile for different applications. For instance, transition metal selenides exhibit certain potential applications in electrocatalytic hydrogen and oxygen reduction reactions, as well as in sodium/potassium-ion batteries.

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