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Chemical Hydrogen Storage Materials for Hydrogen Generation

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Message from the Guest Editor

Dear Colleagues,

Hydrogen is expected to play a key role as an energy carrier in future energy systems of the world. However, hydrogen storage is a crucial step in supplying hydrogen fuel to an end user, both for embedded systems and energy storage for stationary applications.

Without effective and efficient storage systems, a hydrogen economy will be difficult to achieve. Hydrogen storage in solid materials constitutes alternatives that possess the potential to surpass the storage densities of compressed and liquid hydrogen. In particular, the high volumetric density, storage at near-ambient conditions, and significantly improved safety are important driving forces for research activities for hydrogen storage in solid compounds.

This Special Issue aims to collect original research or review articles on different classes of materials for hydrogen storage both from a fundamental and an applied point of view. Different types of materials for solid hydrogen storage, including metal and complex hydrides, perovskites, nanotubes and magnetic materials, spinel ferrites, high-entropy alloys and nanoporous materials, will be considered.



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Special Issue



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Message from the Editor-in-Chief

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