

Special Issue

Chemical Hydrogen Storage Materials for Hydrogen Generation

Message from the Guest Editor

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.

Guest Editor

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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