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Hydrogen Storage in Metal Hydrides and Related Materials

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Deadline for manuscript submissions:
closed (20 March 2023)

Message from the Guest Editors

Hydrogen storage is currently one of the most challenging issues impeding the broad introduction of a hydrogen economy. Solid-state hydrogen-rich materials are considered promising storing media for releasing and absorbing gaseous hydrogen due to the high gravimetric and volumetric capacities they are able to reach.

The current special issue of *Materials* by MDPI focuses on metal-boron-nitrogen based hydrogen storage materials, which comprise various families of compounds and composites, including, amongst others, borohydrides, ammonia borane, amidoboranes and their derivatives. This selection of materials is justified by their very high hydrogen content and relatively low temperature of hydrogen desorption, which can be tuned by adjusting their cationic and anionic composition and doping. Attention will be directed to novel hydrogen-rich systems, their synthesis, characterization and possible applications. However, the Issue will not be limited to these topics, and related submissions are welcome.

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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