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Current Trends in Hydrogen Storage Materials: Properties, Applications and Future Perspectives

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Message from the Guest Editors

Owing to the possibility of zero carbon emissions associated with H_2 energy utilization, green H_2 is considered one of the most viable future energy sources and is extremely important in the efforts to meet the net zero emission target set in COP21. To materialize its commercialization, extensive research efforts are currently devoted to the development of viable systems to generate, store and utilize green H_2. Among all of the three above mentioned aspects, the storage of H_2 is important, as safe and high density storage systems are key to the advancement of H_2 and fuel cell technologies for applications in the area of transportation and stationary and portable power units.

This Special Issue will encompass all area of H_2 storage ranging from physical-based to material-based H_2 storage systems and their further utilization. Research articles and comprehensive reviews from related areas may be submitted for publication in the Special Issue. Owing to the demand for advancements in this field, we predict this collection will be widely viewed and receive notable recognition.

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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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