What's new in hydrogen storage materials development?

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ABSTRACT

Hydrogen is undoubtedly one of the key alternatives to replace petroleum products as a clean energy carrier for both transportation and stationary applications. Although there have been numerous material systems studied as potential candidates for hydrogen storage applications, none of them have demonstrated sufficient capacity or efficiency in the required operating temperature ranges. There are still considerable opportunities for the discovery of new materials. The University of Utah is a partner in the US DOE Metal Hydride Center of Excellence, and has been doing research on light-metal hydrides for hydrogen storage. An overview of developments in this field will be presented.