Handbook of Hydrogen Storage. New Materials for Future Energy Storage

Description:
Owing to the limited resources of fossil fuels, hydrogen is proposed as an alternative and environment-friendly energy carrier. However, its potential is limited by storage problems, especially for mobile applications. Current technologies, as compressed gas or liquefied hydrogen, comprise severe disadvantages and the storage of hydrogen in light-weight solids could be the solution to this problem.

Since the optimal storage mechanism and optimal material have yet to be identified, this first handbook on the topic provides an excellent overview of the most probable candidates, highlighting both their advantages as well as drawbacks.

From the contents:
* Physisorption
* Clathrates
* Metal hydrides
* Complex hydrides
* Amides, imides, and mixtures
* Destabilized systems
* Borazan
* Aluminum hydride
* Nanoparticles

A one-stop reference on all questions concerning hydrogen storage for physical and solid state chemists, materials scientists, chemical engineers, and physicists.

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