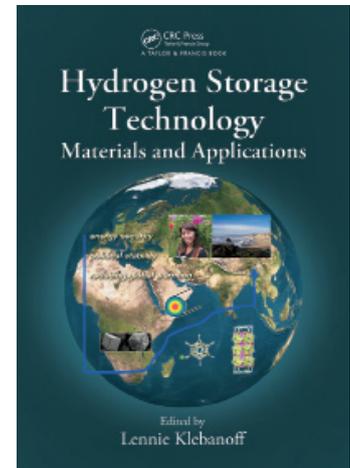




Hydrogen Storage Technology Materials and Applications

This book describes the need, science and engineering for hydrogen storage technology, with an emphasis on the hydrogen storage materials that have been recently developed. The case is made for why we need to convert to a hydrogen-based energy infrastructure to address pressing global energy and environmental problems, especially global climate change. After a description of the devices that convert hydrogen to electricity and shaft power, such as fuel cells and internal combustion engines, the book delves into the state-of-the-art in hydrogen storage technology, including high pressure and cryogenic methods, with a special emphasis on solid-state hydrogen storage materials. Complete coverage is given to the engineering systems for storing hydrogen and the codes and standards that govern their use. A variety of applications such as mobile technologies, stationary power and automotive uses illustrate how these hydrogen storage systems can be applied to real-life problems requiring clean energy.



Key Features

- Gives a compelling and convincing explanation of the need for hydrogen-based technology in the 21st Century, informative for policy makers, the public, and the technical community alike.
- Provides in-depth yet easy-to-understand discussion of H₂ storage methods, materials and applications by an internationally renowned team of authors
- Practical descriptions and unbiased assessments of real engineered H₂ storage systems.

Lennie Klebanoff

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