

1. Record Nr.	UNINA9910144685503321
Titolo	Hydrogen as a future energy carrier [[electronic resource] /] / edited by Andreas Zuttel, Andreas Borgschulte, and Louis Schlapbach
Pubbl/distr/stampa	Weinheim, : Wiley-VCH, c2008
ISBN	1-283-86968-3 3-527-62290-X 3-527-62289-6
Descrizione fisica	1 online resource (443 p.)
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Disciplina	665.81
Soggetti	Hydrogen as fuel - Research Hydrogen as fuel
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Hydrogen as a Future Energy Carrier; Contents; Preface; List of Contributors; 1 Introduction; References; 2 History of Hydrogen; 2.1 Timeline of the History of Hydrogen; 2.2 The Hindenburg and Challenger Disasters; References; 3 Hydrogen as a Fuel; 3.1 Fossil Fuels; 3.2 The Carbon Cycle and Biomass Energy; 3.3 The Hydrogen Cycle; References; 4 Properties of Hydrogen; 4.1 Hydrogen Gas; 4.2 Interaction of Hydrogen with Solid Surfaces; 4.3 Catalysis of Hydrogen Dissociation and Recombination; 4.4 The Four States of Hydrogen and Their Characteristics and Properties 4.5 Surface Engineering of HydridesReferences; 5 Hydrogen Production; 5.1 Hydrogen Production from Coal and Hydrocarbons; 5.2 Electrolysis: Hydrogen Production Using Electricity; References; 6 Hydrogen Storage; 6.1 Hydrogen Storage in Molecular Form; 6.2 Hydrogen Adsorption (Carbon, Zeolites, Nanocubes); 6.3 Metal Hydrides; 6.4 Complex Transition Metal Hydrides; 6.5 Tetrahydroborates as a Non-transition Metal Hydrides; 6.6 Complex Hydrides; 6.7 Storage in Organic Hydrides; 6.8 Indirect Hydrogen Storage via Metals and Complexes Using Exhaust Water; References

7 Hydrogen Functionalized Materials
7.1 Magnetic Heterostructures - A Playground for Hydrogen; 7.2 Optical Properties of Metal Hydrides: Switchable Mirrors; References; 8 Applications; 8.1 Fuel Cells Using Hydrogen; 8.2 Borohydride Fuel Cells; 8.3 Internal Combustion Engines; 8.4 Hydrogen in Space Applications; References; Index

Sommario/riassunto

This book fills the gap for concise but comprehensive literature on this interdisciplinary topic, involving chemical, physical, biological and engineering challenges. It provides broad coverage of the most important fields of modern hydrogen technology: hydrogen properties, production, storage, conversion to power, and applications in materials science. In so doing, the book covers all the pertinent materials classes: metal hydrides, inorganic porous solids, organic materials, and nanotubes. The authors present the entire view from fundamental research to viable devices and systems, including
