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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.)
Altri autori (Persone)	BorgschulteAndreas SchlapbachL <1944-> (Louis) ZuttelAndreas
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 Materials7.1 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

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Autore	Torshin Ivan Yu
Titolo	Physiology and medicine / / Ivan Yu. Torshin
Pubbl/distr/stampa	New York, : Nova Science Publishers, 2007
ISBN	1-62618-183-7
Edizione	[1st ed.]
Descrizione fisica	1 online resource (318 p.)
Collana	Bioinformatics in the post-genomic era
Disciplina	572.80285
Soggetti	Bioinformatics
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	Systems within the systems within the systems -- Some basics of cardiovascular physiology, pathology and genetics -- Biomedical studies and studies of the studies -- MedSNP: a middle ground between physiology, genetics,g and medicine -- Analyses of the data consistency -- The functional genomics quest -- Molecular cascades and metabolic pathways -- Metabolome analyses and drug design.
Sommario/riassunto	Several years have passed after the sequencing of the human genome and what might be called as aeoethe post-genomic eraae has begun. Of course, there are many different genomes and the term aeoepost-

genomicae does not necessarily imply the human genome. However, it is the data encoded in the human genome that hold the promise to be of practical importance in a wide range of biomedical applications. The sequencing and preliminary annotations of the human genome provided an incredible amount of the raw, largely unprocessed information. Coupled with the millions of publications on human physiology already available in public databases, it is clear that certain informational strategies should be adopted for the retrieval, analysis and representation of these data. Among biological sciences, bioinformatics is a specific branch that deals with managing complexities in the biological information. However, the bioinformatics is in no way restricted to the compilation of large databases or elaboration of sophisticated software. The methods of bioinformatics can greatly assist the generation of productive hypotheses that allow subsequent experimental testing followed by confirmation or disproval. The main idea behind the present volume is not worrying about the steadily growing amounts of biomedical information or about the relative quality of it. This volume, as well as the entire book series, is based on the purpose-oriented attitude: how to make a good use of this information in particular research projects.