1. Record Nr. UNINA9910830770603321

Titolo	Materials challenges in alternative and renewable energy [[electronic resource]] : a collection of papers presented at the Materials Challenges in Alternative and Renewable Energy Conference February 21-24, 2010, Cocoa Beach, Florida / / edited by George Wicks ... [et al.]
Pubbl/distr/stampa	Hoboken, NJ, : Wiley [Westerville, Ohio], : American Ceramic Society, c2011
ISBN	1-282-25149-X 9786613813886 1-118-01945-8 1-118-01946-6 1-118-01944-X
Descrizione fisica	1 online resource (430 p.)
Collana	Ceramic transactions ; ; 224
Altri autori (Persone)	WicksGeorge G
Disciplina	621.042
Soggetti	Renewable energy sources - Materials Renewable natural resources
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 author index.
Nota di contenuto	Materials Challenges in Alternative and Renewable Energy; Contents; Preface; Acknowledgments; HYDROGEN; Hydrogen Storage Technologies-A Tutorial with Perspectives from the US National Program; Structural Study and Hydrogen Sorption Kinetics of Ball-Milled Mg-10 wt% Ni Alloy Catalysed by Nb; Mechanical Processing-Experimental Tool or New Chemistry?; Production of Hydrogen and Carbon Monoxide from Water and Carbon Dioxide through Metal Oxide Thermochemical Cycles; Ultrasmall Angle X-Ray Scattering (USAXS) Studies of Morphological Changes in NaAlH4 Carbon Building Materials from Coal Char: Durable Materials for Solid Carbon Sequestration to Enable Hydrogen Production by Coal PyrolysisThermal Decomposition of t-Butylamine Borane Studied by In Situ Solid State NMR; The Performances of Ceramic Based Membranes for Fuel Cells; Microcrack Resistant Polymers Enabling Lightweight Composite Hydrogen Storage Vessels; A Study of the Thermodynamic

Destabilization of Sodium Aluminum Hydride (NaAlH4) with Titanium Nitride (TiN) using X-ray Diffraction and Residual Gas Analysis; BATTERIES AND ENERGY STORAGE MATERIALS
Rapid Synthesis of Electrode Materials (Li4Ti5O12 and LiFePO4) for Lithium Ion Batteries through Microwave Enhanced Processing TechniquesLithium Storage Characteristics in Nano-Graphene Platelets; In-Situ Impedance Spectroscopy of LiMn5Ni0.4CrO.1O4 Cathode Material; Cu2(ZnxSn2-x)(SySe1-y)4 Monograin Materials for Photovoltaics; Determination of the Diffusion Coefficient of Lithium Ions in Graphite Coated with Polymer-Derived SiCN Ceramic; Nano-Aggregate Synthesis by Gas Condensation in a Magnetron Source for Efficient Energy Conversion Devices
Modeling Nanoparticle Synthesis by Gas Condensation in a Nanocluster Source for Applications in Photovoltaic and Hydrogen Fuel CellsCarbon Encapsulated-Iron Lithium Fluoride Nanocomposite as High Cyclic Stability Cathode Material in Lithium Batteries; The Ortho-Phosphate Arrojadite as a New Material for Cathodes in Li-Ion Batteries; SOLAR; A Novel Purification Method for Production of Solar Grade Silicon; Metallurgical Refining of Silicon for Solar Applications by Slagging of Impurity Elements; Ocean Thermal Energy Conversion: Heat Exchanger Evaluation and Selection
Synthesis of Solar-Grade Silicon from Rice Husk Ash-An Integrated ProcessSuitability of Pyrolytic Boron Nitride, Hot Pressed Boron Nitride, and Pyrolytic Graphite for CIGS Processes; Materials Selection and Processing for Lunar Based Space Solar Power; Cu2ZnSnSe4 Thin Films Produced by Selenization of Cu-Zn-Sn Composition Precursor Films; HYDROPOWER; Martensitic Stainless Steel OCr13Ni4Mo for Hydraulic Runner; Advanced Composite Materials for Tidal Turbine Blades; NUCLEAR; Immobilization of Tc in a Metallic Waste Form; Development of Iodine Waste Forms using Low-Temperature Sintering Glass
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Sommario/riassunto

This useful, one-stop resource for understanding the most important issues in materials challenges in alternative and renewable energy. The logically organized and carefully selected articles give insight into materials challenges in alternative renewable energy and incorporate the latest developments related to materials challenges in alternative renewable energy, including hydrogen, batteries and energy storage materials, hydropower, and biomass.