1. Record Nr. UNINA9910787245403321

Titolo	6th Forum on New Materials : proceedings of the 6th Forum on New Materials, part of CIMTEC 2014-13th International Ceramics Congress and 6th Forum on New Materials, June 15-19, 2014, Montecatini Terme, Italy. Part A / / edited by Pietro Vincenzini, World Academy of Ceramics and National Research Council, Italy ; co-edited by Antonino S. Arico, CNR-ITAE, Italy [and ten others]
Pubbl/distr/stampa	Faenza, Italy : , : TTP, , [2014] ©2014
ISBN	3-03826-690-6
Descrizione fisica	1 online resource (291 p.)
Collana	Advances in science and technology, , 1662-8969 ; ; volume 93
Disciplina	620.14
Soggetti	Ceramics Ceramic materials Ceramic engineering
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	6th Forum on New Materials - Part A; Preface; Table of Contents; Chapter 1: Fuel Cells; Chapter 1-A - Solid Oxide Fuel Cells; Development of a Subscale Hydrogen Generator Unit for SOFC as APU for Naval Applications; Spin-Coated La0.8Sr0.2Ga0.8Mg0.2O3- Electrolyte on Infiltrated Anodes for Biogas Utilization; Copper Doped Lanthanum Strontium Ferrite as Cathode for La0.8Sr0.2Ga0.8Mg0.2O3; Biogas Reforming for Hydrogen Production: Performance of Ni/La-Ce-O Catalysts Electrical and Electrochemical Properties of La2-xCaxNiO4+ and La2-xCaxNiO4+-Ce0.8Sm0.2O1.9 Cathode Materials for Intermediate Temperature SOFCsChapter 1-B - Polymer Electrolyte Fuel Cells; Activity and Durability of PEFCs Alloy Core-Shell Catalysts: Role of Surface Oxidation; Nitrogen Doped and Functionalized Carbon Materials as Supports for Catalysts in Electro-Oxidation of Methanol; Electrocatalysts Based on Iron Phthalocyanine and Polyindole Supported on Carbon Nanotubes for Oxygen Reduction in DMFCs; Chapter 1-C - Direct Alcohol Fuel Cells (Duramet Workshop)

The Long Way of Achieving a Durability of 20,000 h in a DMFC SystemImproved Durability and Cost-Effective Components for New Generation Direct Methanol Fuel Cells - DURAMET Project; Direct Methanol Fuel Cell Stack Design and Test in the Framework of DURAMET Project; Composite Anode Catalysts Based on PtRu and Metal Oxide Nanoparticles for DMFCs; Chapter 2: Hydrogen Production and Storage; Chapter 2-A - Hydrogen Products; Ceria Based Materials with Enhanced OSC Properties for H2 Production by Water Splitting Reaction Effect of Doping of Fe into TiO2 Layer in Fe2O3/TiO2/FTO System for High Performance of Water SplittingOptimization of Hydrogen Production by Co-Culture of Clostridium beijerinckii and Rhodobacter sphaeroides Bacteria; Plasma Chemical Reactor for Hydrogen Production; Chapter 2-B - Hydrogen Storage; Activated Carbon Fibre Monoliths for Hydrogen Storage; Hydrogenation of Nanocrystalline Mg2Ni Alloy Prepared by High Energy Ball-Milling Followed by Equal-Channel Angular Pressing or Cold Rolling; Atomistic Models of Long-Term Hydrogen Diffusion in Metals
Hydrogen Technologies and Applications: SafetyA Millimeter Scale Reactor Integrated PEM Fuel Cell Energy System with an On-Board Hydrogen Production, Storage and Regulation Unit for Autonomous Small Scale Applications; Chapter 3: Batteries, Supercapacitors and Thermoelectrics; Study of New Active Materials for Rechargeable Sodium-Ion Batteries; Relating Electrochemistry of New Organic Materials for Batteries and Fundamental Understanding through DFT Calculations; Hydrothermal Synthesis of Corn Cob-Like LiFePO4/C as High Performance Cathode Material for Lithium Ion Batteries Detecting Aging Phenomena in Commercial Cathodes for Li-Ion Batteries Using High Resolution Computed Tomography

Sommario/riassunto

Collection of selected, peer reviewed papers from the 6 th Forum on New Materials, part of CIMTEC 2014-13th International Ceramics Congress and 6 th Forum on New Materials, June 15-19, 2014, Montecatini Terme, Italy. The 42 papers are grouped as follows: Chapter 1: Fuel Cells, Chapter 1-A - Solid Oxide Fuel Cells, Chapter 1-B - Polymer Electrolyte Fuel Cells, Chapter 1-C - Direct Alcohol Fuel Cells (Duramet Workshop), Chapter 2: Hydrogen Production and Storage, Chapter 2-A - Hydrogen Products, Chapter 2-B - Hydrogen Storage, Chapter 3: Batteries, Supercapacitors and Thermoelectrics, Chapter 4: