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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]
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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 La _{0.8} Sr _{0.2} Ga _{0.8} Mg _{0.2} O ₃ -Electrolyte on Infiltrated Anodes for Biogas Utilization; Copper Doped Lanthanum Strontium Ferrite as Cathode for La _{0.8} Sr _{0.2} Ga _{0.8} Mg _{0.2} O ₃ ; Biogas Reforming for Hydrogen Production: Performance of Ni/La-Ce-O Catalysts Electrical and Electrochemical Properties of La _{2-x} CaxNiO ₄₊ and La _{2-x} CaxNiO ₄₊ -Ce _{0.8} Sm _{0.2} O _{1.9} 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 System Improved 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 Splitting Optimization 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: Safety A 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 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. 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:
