

1. Record Nr.	UNINA9910140871003321
Titolo	Advances in solid oxide fuel cells VI : a collection of papers presented at the 34th International Conference on Advanced Ceramics and Composites, January 24-29, 2010, Daytona Beach, Florida / / edited by Prabhakar Singh [and three others] ; The American Ceramic Society
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2010 ©2010
ISBN	1-299-18628-9 0-470-94398-X 0-470-94397-1
Descrizione fisica	1 online resource (176 p.)
Collana	Ceramic Transactions ; ; v.528
Disciplina	621.312429 666
Soggetti	Solid oxide fuel cells Ceramic materials Composite materials Electronic books.
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 at the end of each chapters and index.
Nota di contenuto	Advances in Solid Oxide Fuel Cells VI; Contents; Preface; Introduction; Solid Oxide Fuel Cell (SOFC) Based Power Systems for Mobile Applications; Micro-Tubular Solid Oxide Fuel Cells with Embedded Current Collector; Durability Improvement of Segmented-in-Series Cell Stacks for Small Scale SOFCs; Perovskite Materials for Use as Sulfur Tolerant Anodes in SOFCs; Preparation and Characterization of LSCF (La _{0.58} Sr _{0.4} CO _{0.2} Fe _{0.8} O _{3.a})/ GDC (Ce _{0.8} Gd _{0.2} O ₂) Cathode for IT-Solid Oxide Fuel Cell; Effects of Geometrical and Mechanical Properties of Various Components on Stresses of the Seals in SOFCs Stability of Materials in High Temperature Water Vapor: SOFC Applications Oxygen Diffusion in Bi ₂ M ₄ O _g (M = Al, Ga, Fe) Systems and the Effect of Sr Doping in Bi ₂ -2XSr ₂ XM ₄ O _{9_x} Studied by Isotope Exchange Experiments and IR Absorption; Aqueous Processing for Self

Standing YSZ Films for SOFC Studies; Synthesis and Sintering of Yttrium-Doped Barium Zirconate; Use of Hydrocarbon Fuel for Micro Tubular SOFCs; Phase Diagram of Proton-Conducting Ba(Zr_{0.8-x}Ce_xY_{0.2})O_{2.9} Ceramics by In Situ Micro-Raman Scattering and X-Ray Diffraction
Electrical Conductivity of Composite Electrolytes Based on BaO-CeO₂-GdO_{1.5} System in Different Atmospheres
3D CFD Analysis for Solid Oxide Fuel Cells with Functionally Graded Electrodes; Fabrication and Properties of Nano-Structural Bi₂O₃-Y₂O₃-ZrO₂ Composite;
Author index

Sommario/riassunto

The Seventh International Symposium on Solid Oxide Fuel Cells (SOFC): Materials, Science, and Technology was held during the 34th International Conference and Exposition on Advanced Ceramics and Composites in Daytona Beach, FL, January 24 to 29, 2010. This symposium provided an international forum for scientists, engineers, and technologists to discuss and exchange state-of-the-art ideas, information, and technology on various aspects of solid oxide fuel cells. A total of 75 papers
