Record Nr. UNINA9910815191403321 Advances in solid oxide fuel cells VII: a collection of papers presented **Titolo** at the 35th International Conference on Advanced Ceramics and Composites, January 23-28, 2011, Daytona Beach, Florida / / edited by Narottam P. Bansal, Prabhaker Singh; volume editors, Sujanto Widjaja, Dileep Singh Hoboken, N.J., : Wiley, c2011 Pubbl/distr/stampa **ISBN** 1-283-33255-8 9786613332554 1-118-09524-3 1-118-17261-2 Edizione [1st ed.] Descrizione fisica 1 online resource (224 p.) Collana Ceramic Engineering and Science Proceedings Altri autori (Persone) BansalNarottam P SinghDileep, Dr. SinghPrabhakar WidjajaSujanto 621.312429 Disciplina Soggetti Solid oxide fuel cells Fuel cells 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 Advances in Solid Oxide Fuel Cells VII; Contents; Preface; Introduction; CELL/STACK DEVELOPMENT; Recent Development of SOFC Cell and Stack at NTT: Investigation of the Effects of NiO-ScSZ-Laver Insertion on the Current Collection and Catalytic Properties of ScSZ-based Micro-Tubular SOFC; ELECTROLYTES; Effect of Dopants on CeO2 Based Solid State Electrolytes for Intermediate Temperature Electrochemical Devices; ELECTRODES; Electrochemical Phenomena in MEA Electrodes; The Effect of A-Site Stoichiometry on LSCF Cathode Performance and Stability Influence of Operational Parameters on LSCF and LSF Stability

Assessment of the Electrochemical Properties of BSCF and Samarium Doped BSCF Perovskites; Role of Sintering Atmosphere on the Stability of LSM-YSZ Composite; INTERCONNECTS; Crofer 22 APU in Real SOFC

Stacks; Assessment of Chromium Evaporation from Chromia and Alumina Forming Alloys; Effect of Chromium Doping on the Crystal Structure, Electrical Conductivity and Thermal Expansion of Manganese Cobalt Spinel Oxides; Effect of Metallic Interconnect Thickness on its Long-Term Performance in SOFCs Characterization of the Conductive Protection Layers on Alloy Interconnect for SOFCNOVEL CELL/STACK DESIGN AND PROCESSING; Advanced Manufacturing Technology for Solid Oxide Fuel Cells; Production of Current Collector-Supported Micro-Tubular Solid Oxide Fuel Cells with Sacrificial Inner Core; RELIABILITY/DEGRADATION; Numerical Modeling of Cathode Contact Material Densification; Observations on the Air Electrode-Electrolyte Interface Degradation in Solid Oxide Electrolysis Cells; FUEL REFORMING; Carbon Dioxide Reforming of Methane for Solid Oxide Fuel Cells; Author Index

Sommario/riassunto

This book is a collection of papers from The American Ceramic Society's 35th International Conference on Advanced Ceramics and Composites, held in Daytona Beach, Florida, January 23-28, 2011. This issue includes papers presented in the 8th International Symposium on Solid Oxide Fuel Cells: Materials, Science, and Technology on topics such as Cell and Stack Development;

Electrochemical/Mechanical/Thermal Performance; Electrodes; Interconnects; Novel Cell/Stack Design and Processing; and Reliability/Degradation.