

1. Record Nr.	UNINA9910829090903321
Titolo	Ceramic materials for energy applications : a collection of papers presented at the 35th International Conference on Advanced Ceramics and Composites, January 23-28, 2011, Daytona Beach, FL / / edited by Yutai Katoh ... [et al.]
Pubbl/distr/stampa	Hoboken, NJ, : Wiley, 2011
ISBN	9786613337559 9781283337557 128333755X 9781118095386 1118095383 9781118172391 1118172396 9781118172414 1118172418
Edizione	[1st ed.]
Descrizione fisica	1 online resource (212 p.)
Collana	Ceramic Engineering and Science Proceedings
Altri autori (Persone)	KatohYutai
Disciplina	620.14 621.381
Soggetti	Ceramic materials Ceramic materials - Environmental aspects
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	Ceramic Materials for Energy Applications; Contents; Preface; Introduction; CARBON MATERIALS AND FUEL CERAMICS; Irradiation-Induced Dimensional Change and Fracture Behavior of C/C Composites for VHTR Application; R&D and Irradiation Plans for New Nuclear Grade Graphites for Application to VHTR; CRYSTALLINE, AMORPHOUS, AND COMPOSITE MATERIALS FOR WASTE IMMOBILIZATION; Functionalized Silica Aerogels: Advanced Materials to Capture and Immobilize Radioactive Iodine; Layered Double Hydroxides for Anion Capture and Storage; Bottom-Up Design of a Cement for Nuclear Waste Encapsulation

FUEL CERAMICS AND IRRADIATION EFFECTS Microstructural Analysis of Secondary Phases in Silicon Carbide Fabricated with SiC Nano-Powder and Sintering Additives; Measurements of Irradiation Creep Strain in Silicon Carbide Irradiated with Silicon Ions; JOINING AND INTEGRATION OF CERAMIC STRUCTURES; Preliminary Results on Joining of Thin SiC/SiC Composites by Silicides Compounds and Local Heating; Joining of NITE SiC/SiC Composite and Tungsten for Nuclear Applications; PROCESSING; Integrated R & D of SiC Matrix Ceramic Composites for Energy/Environmental Application

Effects of Two-Step Sintering on Densification and Performance of Near-Net Shaped NITE-SiC/SiC Composites CERAMICS FOR ELECTRIC ENERGY GENERATION, STORAGE, AND DISTRIBUTION; Ceramic Processing for Dense Magnesium Diboride; Investigation on Phase Transformation of YBCO-In₂O₃ Composite Superconductor Cooled Down via Different Routes; Morphologies and Electrochemical Capacitor Behaviors of Co(OH)₂/Polyaniline Composite Films; Optimization of Spark-Plasma-Sintering Conditions for Maximizing Figure of Merit of La-Doped SrTiO₃; ADVANCED MATERIALS AND TECHNOLOGIES FOR RECHARGEABLE BATTERIES

Design of (Thio) Phosphates for High Performance Lithium Ion BatteriesLithium Ion Conductive Solid Electrolyte with Porous/Dense Bi-Layer Structure for All Solid State Battery; Autogenic Reactions for Fabricating Lithium Battery Electrode Materials; 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 Ceramics for Electric Energy Generation, Storage and Distribution; Advanced Ceramics and Composites for Nuclear and Fusion Applications; and Advanced Materials and Technologies for Rechargeable Batteries symposia.
