

1. Record Nr.	UNINA9910841542003321
Titolo	Advances in materials science for environmental and nuclear technology II [[electronic resource] /] / edited by S.K. Sundaram ... [et al.]
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, 2011
ISBN	1-283-24023-8 9786613240231 1-118-14451-1 1-118-14452-X 1-118-14449-X
Descrizione fisica	1 online resource (350 p.)
Collana	Ceramic transactions, , 1042-1122 ; ; v. 227
Altri autori (Persone)	SundaramS. K
Disciplina	620.14
Soggetti	Ceramic materials Nuclear 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	Advances in Materials Science for Environmental and Nuclear Technology II; Contents; Preface; CLEAN ENERGY: MATERIALS, PROCESSING, AND MANUFACTURING; Slag Characterization for the Development of New and Improved Service Life Materials in Gasifiers using Flexible Carbon Feedstock; Characterization of Electrochemical Cycling Induced Graphite Electrode Damage in Lithium-Ion Cells; Titanium-Dioxide-Coated Silica Microspheres for High-Efficiency Dye-Sensitized Solar Cell; Effect of Titanium and Iron Additions on the Transport Properties of Manganese Cobalt Spinel Oxide Effect of Hydrogen on Bending Fatigue Life for Materials used in Hydrogen Containment SystemsInvestigation of Secondary Phases Formation Due to PH3 Interaction with SOFC Anode; PEN Structure Thermal Stress Analysis for Planar-SOFC Configurations under Practical Temperature Field; Electroless Coating of Nickel on Electrospun 8YSZ Nanofibers; Effect of Surface Condition on Spallation Behavior of Oxide Scale on SS 441 Substrate used in SOFC; Effect of Fuel Impurity on Structural Integrity of Ni-YSZ Anode of SOFCs

Strategies to Improve the Reliability of Anode-Supported Solid Oxide Fuel Cells with Respect to Anode Reoxidation; Mixed Composite Membranes for Low Temperature Fuel Cell Applications; Carbonate Fuel Cell Materials and Endurance Results; MATERIALS SOLUTIONS FOR THE NUCLEAR RENAISSANCE; Characterization of Core Sample Collected from the Saltstone Disposal Facility; Incorporation of Mono Sodium Titanate and Crystalline Silicotitanate Feeds in High Level Nuclear Waste Glass; Radiation Resistance of Nanocrystalline Silicon Carbide; Performance of a Carbon Steel Container in a Canadian Used Nuclear Fuel Deep Geological Repository; Development of Ceramic Waste Forms for an Advanced Nuclear Fuel Cycle; Determination of Stokes Shape Factor for Single Particles and Agglomerates; Glassy and Glass Composite Nuclear Wasteforms; Advances in Materials Corrosion Research in the Yucca Mountain Project; Creep Studies of Modified 9Cr-1Mo Steel for Very High Temperature Reactor Pressure Vessel Applications; Developing the Plutonium Disposition Option: Ceramic Processing Concerns; Pore Structure Analysis of Nuclear Graphites IG-110 and NBG-18; GREEN TECHNOLOGIES FOR MATERIALS MANUFACTURING AND PROCESSING; Modified Powder Processing as a Green Method for Ferrite Synthesis; Novel Method for Waste Analysis using a Highly Luminescent (II) Octaphosphite Complex as a Heavy Metal Detector; Geopolymer Products from Jordan for Sustainability of the Environment; Leaching of Calcium Ion (Ca²⁺) from Calcium Silicate; Green Energy and Green Materials Production Activity and Related Patents; Micro Patterning of Dielectric Materials by using Stereo-Lithography as Green Process; Author Index

Sommario/riassunto

This book contains 29 papers from the Clean Energy: Fuel Cells, Batteries, Renewables; Green Technologies for Materials Manufacturing and Processing II; and Materials Solutions for the Nuclear Renaissance symposia held during the 2010 Materials Science and Technology (MS&T'10) meeting, October 17-21, 2010, Houston, Texas. Topics include Batteries; Corrosion and Materials Degradation; Fuel Cells & Electrochemistry; Fossil Energy Materials; Solar Energy; Waste Minimization; Green Manufacturing and Materials Processing; Immobilization of Nuclear Wastes; Irradiation and Corrosion Effects; and Mate
