

1. Record Nr.	UNISA996212928803316
Titolo	Environmental issues and waste management technologies in the ceramic and nuclear industries X [[electronic resource]] : proceedings of the 106th Annual Meeting of the American Ceramic Society : Indianapolis, Indiana, USA (2004) // editors, John Vienna, Connie Herman, Sharon Marra
Pubbl/distr/stampa	Westerville, Ohio, : American Ceramic Society, c2005
ISBN	1-280-67540-3 9786613652331 1-118-40843-8 1-118-40844-6
Descrizione fisica	1 online resource (282 p.)
Collana	Ceramic transactions ; ; v. 168
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Disciplina	666.0286 666/.028/6
Soggetti	Ceramic industries - Environmental aspects Nuclear facilities - Environmental aspects Ceramic industries - Waste disposal Ceramic materials - Environmental aspects Radioactive waste disposal
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"A symposium on Environmental Issues and Waste Management Technologies in the ceramic and nuclear industry took place in Indianapolis, IN, April 18-21, 2004."--p. viii.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Environmental Issues and Waste Management Technologies in the Ceramic and Nuclear Industries X; Contents; Preface; Nuclear and Hazardous Waste Forms and Fuels- Processing and Technology; Vitrification Testing and Demonstration for the Hanford Waste Treatment and Immobilization Plant; Bubbling as a Means to Enhance Joule Heated Ceramic Melter Production Rates for Vitrifying Radioactive Wastes; High Level Waste Processing Experience with Increased Waste Loadings; DWPF Glass Air-Lift Pump Life Cycle Testing and Plant

Implementation

Corrosion Resistance of Metal Electrodes in an Iron Phosphate Melt Fluidized Bed Steam Reforming (FBSR) of Organic and Nitrate Containing Salt Supernate; Steam Reformation of Sodium Bearing Waste: Pros & Cons; ANSTO's Waste Form Research and Development Capabilities; Stabilization of Arsenic-Bearing Iron Hydroxide Solid Wastes in Polymeric Matrices; Effect of Thermal Treatment Conditions on Microstructure and Composition of High Temperature Reactor Fuel Kernel; Glass Waste Forms-Modelling, Properties, and Testing Predicting Phase Equilibria of Spinel-Forming Constituents in Waste Glass Systems Liquidus Temperature and One Percent Crystal Content Models for Initial Hanford HLW Glasses; Dependency of Sulfate Solubility on Melt Composition and Melt Polymerization; Evaluation of Glass from The DWPF Melter; Redox Activity of Rhenium in Silicate Glasses; Analysis of Defense Waste Processing Facility Products with Laser Induced Breakdown Spectroscopy; The Structural Chemistry of Molybdenum in Model High Level Nuclear Waste Glasses, Investigated by MO K-Edge X-Ray Absorption Spectroscopy Ceramic Waste Forms-Formulation and Testing Alpha Decay Damage in Ceramic Waste Forms-Microstructural Aspect; Charge Compensation in Ca(La)TiO₃ Solid Solutions; Hollandite Ceramics: Effect of Composition on Melting Temperature; Chemical Durability of Iron-Substituted Hollandite Ceramics for Cesium Immobilization; Titanate Ceramics for Immobilization of U-Rich Wastes; Waste Form Development for the Solidification of PDCF/MOX Liquid Waste Streams; Solidification of Sodium Bearing Waste Using Hydroceramic and Portland Cement Binders Grout Formulations For Closing Hanford High-Level Waste Tanks-Bench-Scale Study Chemical Solution Deposition of CaCu₃Ti₄O₁₂ Thin Films; Author Index; Keyword Index

Sommario/riassunto

These proceedings capture advances in the state of knowledge in nuclear and waste materials science and technology. In addition, the proceedings addresses the environmental issues associated with ceramic processing. Included are the status of environmental issues and their solutions, both current and proposed.
