I. Record Nr. UNINA9910831076703321

Titolo Advances in electronic ceramic materials [[electronic resource]]: a

collection of papers presented at the 29th International Conference on Advanced Ceramics and Composites, January 23-28, 2005, Cocoa Beach, Florida / / editors, Sheng Yao ... [et al.]; general editors,

Dongming Zhu, Waltraud M. Kriven

Pubbl/distr/stampa Westerville, Ohio, : American Ceramic Society, c2005

ISBN 1-282-31457-2

9786612314575 0-470-29125-7 0-470-29164-8

Descrizione fisica 1 online resource (230 p.)

Collana Ceramic engineering and science proceedings, , 0196-6219 ; ; v. 26,

no. 5

Altri autori (Persone) KrivenWaltraud M

YaoSheng ZhuDongming

Disciplina 620.14

621.381

Soggetti Ceramic materials

Composite materials Electronic ceramics

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 Electronic Ceramic Materials; Contents; Preface; Emerging

Sensor Technology Based on Electroceramics; Zirconia-Based Gas Sensors Using Oxide Sensing Electrode for Monitoring NOx in Car Exhaust; Interfacial Processes of Ion Conducting Ceramic Materials for Advanced Chemical Sensors; Metal-Oxide Based Toxic Gas Sensors; Thermally Stable Mesoporous SnO2 and TiO2 Powders for Semi-

Conductor Gas Sensor Application; DC Electrical-Biased, All-Oxide NOx

Sensing Elements for Use at 873 K; Photo-Deactivated Room

Temperature Hydrogen Gas Sensitivity of Nanocrystalline Doped-Tin

Oxide Sensor

PTCR-CO Ceramics as Chemical SensorsFull Range Dynamic Study of

Exhaust Gas Oxygen Sensors.; Advanced Dielectric Materials Phenomena: Dielectric Properties of nm-Sized Barium Titanate Fine Particles and Their Size Dependence: The Effect of Starting Powders on the Giant Dielectric Properties of the Perovskite CaCu3Ti4012; Dielectric and Microstructural Properties of Ba(Ti1.xZrx)Os Thin Films on Copper Substrates; Effect of A-Site Substitutions on the Microstructure and Dielectric Properties of Bismuth Sodium Titanate-Based Ceramics Exhibiting Morphotropic Phase Boundary High Q (Ba, Sr)TiOs Interdigitated Capacitors Fabricated on Low Cost Polycrystalline Alumina Substrates with Copper MetallizationMicrowave Dielectric Materials; Ionic Distribution and Microwave Dielectric Properties for Tungstenbronze-Type Like 6a6.3xR8+2xTi18054 (R = Sm, Nd and La ) Solid Solutions; Crystal Structure Analysis of Homologous Compounds ALqTi4015 (A=Ba, Sr and Ca) and Their Microwave Dielectric Properties: Effects of Ionic Radii and Polarizability on the Microwave Dielectric Properties of Forsterite Solid Solutions Microwave Characterization of Calcium Fluoride in the Temperature Range 15-300KHigh-Quality 2 Inch La3Ga5.5Ta0.5 O14 and Ca3 TaGa3 Si2O14 Crystals for Oscillators and Resonators; Growth of LaAlO3 Single Crystal by Floating Zone Method and its Microwave Properties: General Topics in Electronic Ceramics: Effects of Niobium Addition on Microstructural and Electrical Properties of Lead Zirconate Titanate Solid Solution (PZr 9%) .; Enhanced Density and Piezoelectric Anisotropy in High Tc PbNb206 Based Ferroelectric Ceramics Electrical Properties of Quaternary Pyrochlore Ruthenates for Thick-Film ResistorsMeasurement of Complex Permittivity of Low Temperature Co-Fired Ceramic at Cryogenic Temperatures; Author Index

## Sommario/riassunto

The focus of this collection is on recent research and development related to a variety of sensor technologies as well as the latest advances concerning the synthesis and characterization of dielectric, piezoelectric, and ferroelectric materials.