Record Nr. UNINA9910830284503321 Synthesis, properties, and crystal chemistry of perovskite-based **Titolo** materials [[electronic resource]]: proceedings of the 106th Annual Meeting of the American Ceramic Society, Indianapolis, Indiana, USA (2004) / / editors, Winnie Wong-Ng ... [et al.] Pubbl/distr/stampa Westerville, Ohio, : American Ceramic Society, c2005 **ISBN** 1-280-67262-5 9786613649553 1-118-40847-0 1-118-40848-9 Descrizione fisica 1 online resource (219 p.) Collana Ceramic transactions;; v. 169 Altri autori (Persone) Wong-NgW (Winnie) Disciplina 666 Soggetti Perovskite materials Ceramic materials 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 indexes. Synthesis, Properties, and Crystal Chemistry of Perovskite-Based Nota di contenuto Materials; Contents; Preface; Novel Applications of Perovskite Materials; Bismuth-Based Perovskite Structure Solid Solutions with FerroelectricMorphotropic Phase Boundaries for Piezoelectric Applications; The Wagon Wheel Transducer as a Vector Sensor and a Directional Projector; Effect of Cathode Materials on the Performance of Single Chamber Solid Oxide Fuel Cells and Module: Perovskite Type Buffers for YBCO Coated Conductors; Polarization Dynamics Over Broad Time and Field Domains in Modified Ferroelectrics Ba(ZrxTi1-x)O3:MgO Composites for Field and Frequency Tunable ApplicationsProcessing, Texture and Grain Boundaries in Perovskites; Microstructural Aspects of Inclined Substrate Deposition Templates for Coated Conductors; Twins in Superconducting Melt-textured Grown Y-Ba-Cu-0 as Related to Critical Current Densities; Characterization of Lanthanum Chromite Powders Obtained by Combustion Reaction; The Effect of Processing Conditions on the Dielectric Properties of Lead

Magnesium Niobate-Lead Titanate Ceramics

An Investigation of Electric Field-Induced Microcracking and Toughening in Piezoelectric CrystalsCrystal Chemical and Physical Related Issues, Synthesis and Crystal Growth; Homogeneity Region and Crystal Structure of Sr and Mg Containing LaGa03 at Temperatures between 1100°C and 1500°C in Air; Phase Equilibria of the Lead-Magnesium-Titanate and Lead-Niobium-Titanate Systems at 1000°C and 1 atm; Ferroelectric Behavior in the Aurivillius Phase Bi3Ti1.5W0. 5Og; Electric Field-Induced Intersections of 90° Domain Walls in Tetragonal Ferroelectric Crystals
Structural Transformations in Bismuth TitanatesDielectric Property of Oxynitride Perovskites Containing Ta5+; High Energy Density Ferroelectric Glass-Ceramics; Incongruent Vaporization of AgNb03;

## Sommario/riassunto

The number of ceramic materials with a perovskite type structure is large and of considerable technological importance due to their rich crystal chemistry and structure-property relationships. Applications include multilayer capacitators, piezoelectric transducers, PTC thermistors, electrooptical modulators, optical switches, dielectric resonators, thick film resistors, electronic sensors, electrorestrictive actuators, magnetic bubble memory devices, laser host materials, ferromagnetic materials, refractory electrodes, second harmonic generators, batteries, ceramic electrodes, thermoelectric d

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