

1. Record Nr.	UNINA9911018892503321
Titolo	Synthesis, properties, and crystal chemistry of perovskite-based materials : 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	9786613649553 9781280672620 1280672625 9781118408476 1118408470 9781118408483 1118408489
Descrizione fisica	1 online resource (219 p.)
Collana	Ceramic transactions ; ; v. 169
Altri autori (Persone)	Wong-NgW (Winnie)
Disciplina	666
Soggetti	Perovskite (Mineral) 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.
Nota di contenuto	Synthesis, Properties, and Crystal Chemistry of Perovskite-Based 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-O 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 LaGaO<sub>3</sub> 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 Bi<sub>3</sub>Ti<sub>1.5</sub>WO<sub>10</sub>; Electric Field-Induced Intersections of 90° Domain Walls in Tetragonal Ferroelectric Crystals  
Structural Transformations in Bismuth TitanatesDielectric Property of Oxynitride Perovskites Containing Ta<sup>5+</sup>; High Energy Density Ferroelectric Glass-Ceramics; Incongruent Vaporization of AgNbO<sub>3</sub>; Author Index; Keyword Index

---

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 capacitors, 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

---