1. Record Nr. UNINA9910143640903321

Titolo	Processing of high temperature superconductors [[electronic resource]] : proceedings of the Processing of High Temperature Superconductors Symposium held at the 104th Annual Meeting of the American Ceramic Society, April 28-May 1, 2002 in St. Louis, Missouri / / edited by Amit Goyal ... [et al.]
Pubbl/distr/stampa	Westerville, Ohio, : American Ceramic Society, c2003
ISBN	1-280-67268-4 9786613649614 1-118-40593-5 1-118-40595-1 0-585-49976-4
Descrizione fisica	1 online resource (415 p.)
Collana	Ceramic transactions, , 1042-1122 ; ; v. 140
Altri autori (Persone)	GoyalA (Amit)
Disciplina	621.3/5 621.35
Soggetti	High temperature superconductors - Design and construction Ceramic materials - Electric properties Electronic books.
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	Processing of High Temperature Superconductors; Contents; Preface; Second Generation Wires; Surface-Oxidation Epitaxy Method for Critical Current Control of YBa2Cu3O7- Coated Conductors; Control of the Sulfur C (2 x 2) Superstructure on {100} Textured Metals for RABiTS Applications; Inclined Substrate Deposition of Magnesium Oxide for YBCO-Coated Conductors; Ion-beam-Assisted Deposition of Magnesium Oxide Films for Coated Conductors; Scaling-up of High-Tc Tapes by MOCVD, Spray Pyrolysis, and MOD Processes; Towards an all Chemical Solution Coated Conductor An Economical Route for Production of High-Quality YSZ Buffer Layers Using the ECONOTM ProcessLatest Developments in Using Combustion Chemical Vapor Deposition to Fabricate Coated Conductors; Growth of YBCO Thick Films on Nd2CuO4 Buffered Substrates; Microstructural

Characterization of High Jc, YBCO Thick Films Grown at Very High Rates and High Temperatures by PLD; Development of Coated Conductors on Biaxially Textured Substrates: The Influence of Substrate Parameters; YBa2Cu3O O7- Films Through a Fluorine Free TMAP MOD Approach
Inclined Substrate Pulsed Laser Deposition of YBCO Thin Films on Polycrystalline Ag SubstratesThe Growth Modes and Transport Properties of YBaCuO Prepared by Batch and Continuous Liquid Phase Epitaxy; Effect of Transverse Compressive Stress on Transport Critical Current Density of Y-Ba-Cu-O Coated Ni and Ni-W RABiTS Tapes; Phase and Microstructure Change of High Critical Current Density TFA-MOD YBCO Coated Conductor; Growth Kinetics and Texture of SOE NiO/Ni and Ni-Based Alloys RABiTS; Ion Texturing of Amorphous Yttria-Stabilized Zirconia to form a Template for YBa2Cu3O7 Deposition
YBCO/YSZ/Hastelloy Superconducting Tapes by IBAD Magnetron DepositionResidual Stress Measurement in YBCO Thin Films; Growth Kinetics and Texture of (Nd,Ce)2CuO4/ NiO Buffers on Ni-Based RABiTS; Ca-Doping of YBCO Thin Films; Demonstration of High Current Density YBCO Films on all Solution Buffers; Bulk Processing; Processing and Properties of Melt Processed Y-Ba-Cu-O Containing Depleted Uranium Oxide; Application of RE123-Bulk Superconductors as a Permanent Magnet in Magnetron Sputtering Film Deposition Apparatus Tailoring Dislocation Substructures for High Critical Current Melt-Textured YBa2Cu3O7Flux Pinning and Properties of Solid-Solution (Y, Nd)1+xBa2-xCu3O7- Superconductors; Studies of Grain Boundaries in Melt Textured YBa2Cu3Ox; High-Tc Bulk-Superconductor-Based Membrane-Magnetic Separation for Water Purification; Bulk Superconducting Function Elements for Electric Motors and Levitation; Processing and Properties of Gd-Ba-Cu-O Bulk Superconductor with High Trapped Magnetic Field; Synthesis and Sintering of MgB2 under High Pressure; Adhesive Coated HTS Wire and other Innovative Materials
Melting Equilibria of the BaF2-CuOx System

Sommario/riassunto

Included in this volume are papers on biaxial and triaxial crystallographic texturing, epitaxial growth on biaxially textured substrates, melt-processing of YBCO, and basic information about HTS materials concerning phase diagrams, measurement of physical properties, characterization, and effects of various defects including grain boundaries on supercurrent transmission.