1. Record Nr. UNINA9910831036703321

Titolo	Dielectric films for advanced microelectronics [[electronic resource] /] / edited by Mikhail Baklanov, Martin Green, and Karen Maex
Pubbl/distr/stampa	Chichester, England ; ; Hoboken, NJ, : John Wiley & Sons, c2007
ISBN	1-282-34620-2 9786612346200 0-470-01794-5 0-470-06541-9
Descrizione fisica	1 online resource (510 p.)
Collana	Wiley series in materials for electronic and optoelectronic applications
Altri autori (Persone)	BaklanovMikhail GreenMartin MaexKaren
Disciplina	621.381
Soggetti	Dielectric films Microelectronics - 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 index.
Nota di contenuto	Low and ultralow dielectric constant films prepared by plasma-enhanced chemical vapor deposition / A. Grill -- Spin-on dielectric materials / Geraud Dubois, Robert D. Miller, Willi Volksen -- Positron annihilation spectroscopy / David W. Gidley, Hua-Gen Peng, Richard Vallery -- Structure characterization of nanoporous interlevel dielectric thin films with x-ray and neutron radiation / Christopher L. Soles ... [et al.] -- Ellipsometric porosimetry / Mikhail R. Baklanov -- Mechanical and transport properties of low-k dielectrics / J. L. Plawsky ... [et al.] -- Integration of low-k dielectric films in damascene processes / R. J. O. M. Hoofman ... [et al.] -- ONO structures and oxynitrides in modern microelectronics : material science, characterization and application / Yakov Roizin, Vladimir Gritsenko -- Material engineering of high-k gate dielectrics / Akira Toriumi, Koji Kita -- Physical characterization of ultra-thin high-k dielectric / T. Conard, H. Bender, W. Vandervorst -- Electrical characterization of advanced gate dielectrics / Robin Degraeve ... [et al.] -- Integration issues of high-k gate dielectrics / Yasuo Nara -- Anisotropic conductive film (ACF) for advanced

	microelectronic interconnects / Yi Li, C. P. Wong.
Sommario/riassunto	The topic of thin films is an area of increasing importance in materials science, electrical engineering and applied solid state physics; with both research and industrial applications in microelectronics, computer manufacturing, and physical devices. Advanced, high-performance computers, high-definition TV, broadband imaging systems, flat-panel displays, robotic systems, and medical electronics and diagnostics are a few examples of the miniaturized device technologies that depend on the utilization of thin film materials. This book presents an in-depth overview of the novel developments mad

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Record Nr.	UNINA9910808276503321
Titolo	Advanced structural and functional materials for protection : selected, peer reviewed papers from the Symposium T on Advanced Structural and Functional Materials for Protection, International Conference on Materials for Advanced Technologies (ICMAT2011), International Convention & Exhibition Centre June 26 - July 1, 2011, Singapore / / edited by Ma Jan and Santhiagu Ezhilvalavan
Pubbl/distr/stampa	Durnten-Zurich, Switzerland : , : Trans Tech Publications, , 2012 ©2012
ISBN	3-03813-698-0
Descrizione fisica	1 online resource (149 p.)
Collana	Solid State Phenomena, , 1662-9787 ; ; Volumes 185
Altri autori (Persone)	JanMa EzhilvalavanSanthiagu
Disciplina	623.38
Soggetti	Smart materials Textile fabrics - Technological innovations
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 at the end of each chapters and indexes.
Nota di contenuto	Advanced Structural and Functional Materials for Protection, ICMAT 2011; Preface; Table of Contents; ZnO Nanostructures for Sensor Applications; Wave Scattering Phenomena for Health Monitoring of

Hard-to-Inspect Defects ; Thermoelectric Properties of N-Type Bi2Te2.7Se0.3 and P-Type Bi0.5Sb1.5Te3 Films for Micro-Cooler Applications; Atomic Layer Deposition of Thin Inorganic Coatings onto Renewable Packaging Materials; Corrosion Resistance of Pulse-Electroplated Ni-W Alloys; Development of Piezoelectric Diaphragm Pump
Multiwalled Carbon Nanotubes Reinforced Portland Cement Composites for Smoke DetectionImproved Electrical and Mechanical Properties of Niti/TiOx/PZT/TiOx Thin Film Heterostructures; Investigation of Trapped Charges-Induced Stain Formation on RF-PECVD Diamond-Like Carbon Films; Athermal Martensites, Temperature-Time-Transformation Diagrams and Thermal Hysteresis: Monte Carlo Simulations of Strain Pseudospins; Developing Woven Enhanced Silk Fabric for Ballistic Protection; Effect of In Doping on Thermoelectric and Magnetoresistive Properties of ZnO Films Prepared by RF Magnetron Sputtering
Fabrication and Spectroscopic Properties of Transparent Yb:YAG Laser CeramicsOn the Design of Bi-Layer Armor Materials; Fabrication and Properties of High Quality Transparent Ho:YAG Ceramics; Fabrication and Upconversion Luminescence of Highly Transparent Er:YAG Ceramics; Electro-Optic Properties of (100)-Oriented (Pb,La(Zr,Ti)O3 Thin Film; Novel Piezoelectric Tactile Sensor Materials with Improved Properties; ZnO Surface Acoustic Wave Sensor for the Enhanced Detection of DMMP; Study on the Growth and Corrosion Resistance of Manganese Phosphate Coatings on 25Cr2Ni4WA Alloy Steel
Investigating the Thermoelectric and Structural Properties of Bismuth Telluride Thin Films for Harvesting Energy from Waste HeatMechanical Properties of AlCrTiSiN Coatings Developed by Cathodic Arc for Protection Applications; Evolution of Microstructures on GTA Welded AISI304 Subjected to Hot Corrosion at 700°C under Na2SO4 + V2O5 (60%); Assessment of Mechanical and Corrosion Properties of GTA Welded Monel 400 Plates Exposed to Air Oxidation at 700°C
Enhancing the Char Resistant of Expandable Graphite Based Intumescent Fire Retardant Coatings by Using Multi-Wall Carbon Nano Tubes for Structural SteelEffect of Sputtering Process Parameters on the Thermoelectric Properties of P and N-Type Bi2Te3 Films; Damage Monitoring in Realistic Structures Using Lamb Waves; Effects of Sintering Temperature and Cooling Rate on Mechanical Properties of Powder Injection Molded 316L Stainless Steel; Developing New Sol-Gel Surface Treatments Formulation for Bonded Repair of Aircraft
Green Inhibitors: Anti Corrosive Propensity of Garcinia mangostana for Aluminum 1100

Sommario/riassunto

This collection of 37 papers describes materials for protecting civilians and soldiers against vehicle collision, blast-damage, fragmentation and unconventional attack. They also treat multi-functional materials for enhancing civilian and soldier performance under extreme conditions. The detailed topics include the atomic-layer deposition of thin inorganic coatings into renewable packaging materials, the development of woven enhanced silk fabric for ballistic protection, novel piezo-electric tactile sensor materials having improved properties, enhancement of the char resistance of expandable g