

1. Record Nr.	UNINA9910814850803321
Titolo	Smart materials for smart devices and structures : selected, peer reviewed papers from the symposium C, European Materials Research Society, Fall Meeting, Warsaw University of Technology, September 15-19, 2008 // edited by Marcin Leonowicz and Dariusz Oleszak
Pubbl/distr/stampa	Stafa-Zurich, Switerland : , : Trans Tech Publications, , [2009] ©2009
ISBN	3-03813-287-X
Descrizione fisica	1 online resource (206 p.)
Collana	Diffusion and defect data. Pt. B. Solid state phenomena, , 1012-0394 ; ; volume 154
Altri autori (Persone)	LeonowiczMarcin OleszakDariusz
Disciplina	620.1/1
Soggetti	Smart 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	Smart Materials for Smart Devices and Structures; Preface; Table of Contents; Rapid Prototyping Methodologies for Ceramic Micro Components; Finite Element Model of Polyelectrolyte Hydrogels Swelling - Comparison with Experiments; Kinetics of Swelling and Drug Release from PNIPAAm/Alginate Stimuli Responsive Hydrogels; Differential Magnetoelastic Compressive Force Sensor Utilizing Two Amorphous Alloy Ring Cores; Measurements of Strain in Ceramic Components Using Magnetostrictive Delay Line; Magnetomechanical Properties of Terfenol-D Powder Composites A Simulation Study of Magnetostrictive Material Terfenol-D in Automotive CNG Fuel Injection ActuationSMA Thin Strip for Rotary-Driving Element; Structure and Properties of the High Temperature Nitrided/Oxided Surface of Ni-Ti Alloy; Structure and Shape Memory Effect in Annealed Ni-Ti-Co Strip Produced by Twin Roll Casting Technique; Performance of Shape Memory Composite with SMA and SMP; Shape Memory Assemblies Using Ultrasonic Welding; Simultaneous Growth of MWCNTs at Different Temperatures in a Variable Gradient Furnace Suppressed Field Emission Screening Effect and Electric Field Simulation

of Carbon Nanotube-Based Triode Field Emitters; FePt Nanorods and Nanowires for Novel Ferrofluids; Formation of Metal Silicide Nanodots on Ultrathin SiO<sub>2</sub> for Floating Gate Application; Nano-Silicon Sol-Gel Film Refraction Index Modulation with Femtosecond Laser; Urethane Magnetorheological Elastomers - Manufacturing, Microstructure and Properties; Experimental Validation of Numerical Methods of MRE Simulations; Elastomers Containing Fillers with Magnetic Properties; Tensile Stress-Strain Relationships of Magnetorheological Fluids under Various Factors; Texture Analysis of Hot Rolled Ni-Mn-Ga Alloys; Monte Carlo Study of Magnetostructural Phase Transitions in Ni<sub>50</sub>Mn<sub>25+x</sub>Sb<sub>25-x</sub> Heusler Alloys; Microstructure and Magnetic Properties of Two Phase + Ferromagnetic Co-Ni-Al Alloys; Effect of Annealing Conditions on the Structure of Ni<sub>50</sub>Mn<sub>29</sub>Ga<sub>21</sub> Shape Memory Alloy; Sensor of Current or Magnetic Field Based on Magnetoresistance Effect in (La<sub>0.7</sub>Ca<sub>0.3</sub>)<sub>0.8</sub>Mn<sub>1.2</sub>O<sub>3</sub> Manganite Film; Field Dependence of the Refrigerant Capacity for La<sub>0.6</sub>Ca<sub>0.4</sub>MnO<sub>3</sub> Manganite; Magnetic Anisotropy of Nanocrystalline HITPERM-Type Alloys and its Correlation with Application; Magnetic Field Analysis for Magnetron Sputtering Apparatus for Accurate Composition Control; 3D Magnetovision Scanner as a Tool for Investigation of Magnetomechanical Principles; Smart Technologies for Adaptive Impact Absorption; Active Control of Landing Gear Shock Absorber Characteristic Using Magnetoreological Fluids; Keywords Index; Authors Index

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#### Sommario/riassunto

Smart Materials are ones that can respond to environmental stimuli by exhibiting changes in properties (mechanical or physical), structure, composition or function. The growing interest in their development is driven by emerging applications and by the integration of smart materials into industrial systems for civilian, industrial, medical and military applications. Among them are composite multiferroic materials which exhibit two or more ferroic features such as ferromagnetism/magnetostriction, ferroelectricity/piezoelectricity or ferroelasticity/shape-memory effects due to their unusual resp

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