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Titolo	Adaptive, active and multifunctional smart materials systems : selected, peer reviewed papers from CIMTEC 2012 - 4th International Conference on Smart Materials, Structures and Systems, June 10-14, 2012, Terme, Italy / / edited by Pietro Vincenzini [and eight others]
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Collana	Advances in science and technology ; ; volume 77
Altri autori (Persone)	VincenziniP. <1939->
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Nota di contenuto	Adaptive, Active and Multifunctional Smart Materials Systems; Preface and Committees; Table of Contents; Chapter 1: Smart Inorganic Materials Systems; Integrated Piezoelectrics for Smart Microsystems - A Teamwork of Substrate and Piezo; Modeling of 3D Magnetostrictive Systems with Application to Galfenol and Terfenol-D Actuators; Impact of Sputter Deposition Parameters on the Leakage Current Behavior of Aluminum Nitride Thin Films; Dielectric Properties of Ba1-xLaxTi1-x/4O3 Ceramics with Different La3+ Content; Multilayer Ceramic Capacitors Based on the PMN-PT-PFN Solid Solution Ceramics PMN-PT-PFN for Multilayer CapacitorsComparison of the Long-Term Stability of TiO2 Hydrosols with Different Concentration of Nanoparticles; Study on the Fabrication of Visible Light Response Type N-Doped TiO2 Photocatalyst by SPS; Chapter 2: Stimuli Responsive Polymers and Gels; Recent Progress in Disposable Ion-Selective Sensors for Environmental Applications; Hydrogel Sensors for Process Monitoring; Calix[4]Arenes Appended with Thioamide Moieties as Powerful Tool for Heavy Metals Recognition Enhanced Piezoelectric Properties of Electrospun Poly(vinylidene fluoride)/ Multiwalled Carbon Nanotube CompositesNovel Adaptive

Damping Systems Based on Magnetorheological Fluids; A Model Reference Adaptive Control of a Magnetorheological Fluid Brake; Modeling and Analysis of the Electrorheological Fluids (Suspension Flow) with Aligned-Structure Reformation; Chapter 3: Luminescent and Chromogenic Materials Systems; Chromogenic Windows; Tristriazolotriazines with -Conjugated Segments: Star-Shaped Fluorophors and Discotic Liquid Crystals; Thermotropic Materials for Adaptive Solar Control
Synthesis, Characterization and Luminescent Properties of New Coordination Polymers Based on p-tert-Butylcalix[4]Arene-Tetracarboxylic Acid and Lanthanide CationsChapter 4: Multifunctional Composites and Porous Materials Systems; Poly(vinylidene fluoride) Interleaves for Multifunctional Fiber Reinforced Composites; Superhard TiB2 - Based Composites with Different Matrix Fabricated from Elemental Powders by SHS-p-HIP; Optimization of a Pyrolysis Procedure for Obtaining SiC-SiCf CMC by PIP for Thermostructural Applications; Magnetoactive Superhydrophobic Foams for Oil-Water Separation
Highly Porous Polymeric Foam of Maleimide-Termiated Poly(arylene ether sulfone) Oligomers via High Internal Phase EmulsionsSurface Modification of High Internal Phase Emulsion Foam as a Scaffold for Tissue Engineering Application via Atmospheric Pressure Plasma Treatment; Characterization of Ti-27Nb-13Zr Alloy Produced by Powder Metallurgy; Influence of Hydrochloric Acid Concentrations on the Formation of AgCl-Doped Iron Oxide-Silica Coreshell Structures; Lectinhistochemistry Evaluation of Bone after Implantation with Macroporous Titanium Samples; Chapter 5: Non-Volatile Memory Devices
Inorganic Nanoparticles for either Charge Storage or Memristance Modulation

Sommario/riassunto

The 55 peer-reviewed papers collected here together offer a plenitude of up-to-date information on ""Adaptive, Active and Multifunctional Smart Materials Systems"". The papers are conveniently arranged into: Chapter 1: Smart Inorganic Materials Systems, Chapter 2: Stimuli Responsive Polymers and Gels, Chapter 3: Luminescent and Chromogenic Materials Systems, Chapter 4: Multifunctional Composites and Porous Materials Systems, Chapter 5: Non-Volatile Memory Devices, Chapter 6: Multiferroics, Chapter 7: Metamaterials, Chapter 8: Graphene, Chapter 9: Multifunctional Materials for Energy Harvesting