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Nota di contenuto	Advanced Electron Microscopy and Nanomaterials; Organizers; Invited Speakers; International Advisory Committee; Picture; Table of Contents; Topic 1: Multifunctional Nanocomposites; Precession Electron Diffraction Assisted Orientation Mapping in the Transmission Electron Microscope; TEM Characterization on the Nanocomposite Al 7075 and Silver Nanoparticles Synthesized by Powder Metallurgy; Synthesis of Plasticizer-Based Ferrofluid and its Use in the Preparation of Magnetic PVC Nanocomposite Effect of Type and Concentration of Ionomer Compatibilizer on the Hdpe/ Ionomer/ Clay Nanocomposites MorphologyElemental Analysis of a Heterogeneous Polymeric System by EDS: Detection of the Compatibilizer Agent Containing Si Atoms and Silver Nano-Particles (AgNP s) in High Impact Polystyrene; Dielectric Properties of PMMA-SiO ₂ Hybrid Films; Synthesis and Characterization of Magnetic Polyurethane Nanocomposite Foams; Topic 2: Smart Materials; Preparation of Electrospun Barium Titanate - Polyvinylidene Fluoride Piezoelectric Membranes; Topic 3: Nanoparticles: Synthesis and

Applications

Preparation and Properties of CoFe₂O₄ Synthesized by the Modified Citrate-Gel MethodAlumina-Copper Composites with High Fracture Toughness and Low Electrical Resistance ; Obtaining NiHCF Nanoparticles Using a Reverse Micellar System; Iron Oxide Nanoparticles Obtained from a Fe(II) - Chitosan Polymer Film; Synthesis and Characterization of Branched Gold Nanoparticles; Surface Modification of ZnO Nanoparticles; Topographical Characterization of Electrodeposited Nickel Nanoparticles on an Indium Tin Oxide on Glass Thin Film

Analysis of Nanocrystalline Intermetallic Compounds from their X-Ray Diffraction PatternsStudy of Hafnium (IV) Oxide Nanoparticles Synthesized by Polymerized Complex and Polymer Precursor Derived Sol-Gel Methods; Preparation of Nano-Ceramics via Aqueous Sol-Gel Method Modified with Surfactants: An Overview; On the Influence of Silver Nanoparticles Size in the Electrical Conductivity of PEDOT: PSS; Topic 4: Structure Phenomena and Modeling; Electron Diffraction Study of Pentagonal Cross-Sections Nanowires; Topic 5: Growth of Thin Films Study on the Microstructure and Electrical Properties of Pb(Zr_{0.53} Ti_{0.47})O₃ Thin-FilmsFormation of Si Nanocrystals in Thin SiO₂ Films for Memory Device Applications; Fe₂O₃ Thin Films Prepared by Ultrasonic Spray Pyrolysis; Synthesis and Atomic Force Microscopy Contact Current Images of Aluminum Doped ZnO Thin Films; Structural and Morphological Properties of HfxZr_{1-x}O₂ Thin Films Prepared by Pechini Route; Topic 6: Semiconductors and Optoelectronic Materials; Extended Crystallographic Defects in Gallium Nitride Structural Characterization of Poly(Sodium 4-Styrene Sulfonate)/CdS Semiconductor Nanoparticle Composites

Sommario/riassunto

The aim of this special volume was to bring together scholars, from diverse regions of the world, whose scientific achievements bear witness to their outstanding contributions to current developments in, and applications of, electron microscopy as applied to materials science and nanomaterials research. The topics covered include: Multifunctional Nanocomposites, Smart materials, Nanoparticles: synthesis and applications, Structure phenomena and modeling, Growth of thin films, Semiconductors and optoelectronic materials, Other Nanomaterials and Interdisciplinary Topics. This edition thus provid
