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Note generali	"As part of the symposium a Joint Session was held with Symposium I--Metal Based Nanomaterials, Thin Films and Surfaces. This volume includes the abstracts of this Joint Session as well as the abstracts of the Plenary Session."--P. [ix].
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	From Nanopowders to Functional Materials; Table of Contents; Luminescence Properties of Neodymium-Doped Yttrium Aluminium Garnet Obtained by the Co-Precipitation Method Combined with the Mechanical Process; High-Pressure Induced Structural Decomposition of RE-Doped YAG Nanoceramics; Formation of Core-Shell Nanoparticles by Laser Ablation of Copper and Brass in Liquids; Laser-Induced Size and Shape Transformation of Silver Colloidal Nanoparticles ; Direct Electrochemical Activity and Stability of Capped Platinum Nanoparticles; Precipitation of Nickel Hydroxides from Nickel Dodecylsulphate Microstructural Characterization of BaTiO3 Ceramic Nanoparticles Synthesized by the Hydrothermal TechniqueHybrid HAp-Maleic Anhydride Copolymer Nanocomposites Obtained by In Situ Functionalisation; Review on the Production and Synthesis of Nanosized

SnO<sub>2</sub>; Phase Stability in Nanocrystalline Zirconia; Natural Opal as a Model System for Studying the Process of Biomineralization; New Nano-Sized Sensing Drug and Its Clinical Application; Nanostructure, Nanochemistry and Grain Boundary Conductivity of Yttria-Doped Zirconia; Wavelength Tunable Random Laser  
Potential of Nano-Sized Rare Earth Fluorides in Optical Applications  
Luminescence of ZrO<sub>2</sub> Nanocrystals; Additional Absorption in the Multiply Scattering Absorbing Media; Lateral Size of Self-Patterned Nanostructures Controlled by Multi-Step Deposition ; Hydroxyapatite Growth on Glass/CdSe/SiO<sub>x</sub> Nanostructures; Spectroscopic Ellipsometry and Raman Studies on Sputtered TiO<sub>2</sub> Thin Films; Formation of Thallium Sulphide Layers on Polyethylene (PE) Sulphurised in a Solution of Higher Polythionic Acid; Polymer Matrix Composites with Particles of TiC Obtained by a Sol-Gel Method  
Self-Organization and Dynamic Characteristics Study of Nanostructured Liquid Crystal Compounds  
CBN Composites with a Nanosized Binding Phase; Microstructure and Mechanical Properties of Spark Plasma Sintered ZrO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-TiC<sub>0.5</sub>N<sub>0.5</sub> Nanocomposites ; Effect of Sintering Temperature on Structure and Properties of Al<sub>2</sub>O<sub>3</sub>/Ni-P Composites with Interpenetrating Phases; Plenary Session Abstracts; Joint Session Abstracts; Keywords Index; Authors Index

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### Sommario/riassunto

Research and development in the whole area of nanomaterials, including thin films, nanowires, nanocrystals, nano-composites and nanostructured bulk materials, continues to increase year by year. More and more attention is being focused on research which will permit greater control of structures at the nanometer level, in order to ensure that the desired functional properties can be obtained. The aim of the present book was to enable those working at the cutting-edge of research to present and debate the progress currently being made, in the theory and application, of functionalised nanoparticl

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