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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	From the contents: Methods for Comprehensive Characterization of Radar Absorbing Materials -- Pump Control System using Microcontroller and Short Message Service (SMS) Gateway for Flood Prevention -- Obtaining and Study Of Pt/C Electro-Catalyst -- Effect of an Electromagnetic Waves Scattering by Multiple Infinite Cylinders on Formation of Photonic Nanojet -- New Ge-Related Center in Nano- and Microcrystalline High-Quality HPHT Diamonds -- Dielectric Characteristics of Solid Solutions of Binary System (1-x)BiFeO ₃ - xPbTiO ₃ -- The Effect of Electroless Plating on Aluminum Metal Matrix Composite Reinforcement Bottom Ash Coal on the Density and Porosity for Propeller Applications -- Non-Thermal Effect of High-Voltage Nanosecond Pulses on Kimberlite Rock-Forming Minerals Processing --

The Behavior of the Elastic Properties in SBN:61 Single Crystal Doped with Cobalt at Changing of Sample Polarization Degree -- Stress Assessment for a Pipeline Segment with Volumetric Surface Defects Repaired Using Composite Materials -- Investigations of the Capability to Heavy Metals Adsorption Humic Acids -- IMF Features of FP1 EEG Signal Using EMD Methods for Cerebral Palsy.

Sommario/riassunto

This book presents 50 selected peer-reviewed reports from the 2016 International Conference on "Physics and Mechanics of New Materials and Their Applications", PHENMA 2016 (Surabaya, Indonesia, 19–22 July, 2016). The Proceedings are devoted to processing techniques, physics, mechanics, and applications of advanced materials. As such, they examine a wide spectrum of nanostructures, ferroelectric crystals, materials and composites, as well as other promising materials with special properties. They present nanotechnology approaches, modern environmentally friendly piezoelectric and ferromagnetic techniques, and physical and mechanical studies of the structural and physical-mechanical properties of the materials discussed. Further, a broad range of original mathematical and numerical methods is applied to solve various technological, mechanical and physical problems, which are interesting for applications. Great attention is devoted to novel devices with high accuracy, longevity and extended possibilities to work in wide temperature and pressure ranges, aggressive media, etc., which show improved characteristics, defined by the developed materials and composites, opening new possibilities to study different physico-mechanical processes and phenomena.
