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Autore	Sîrbu Nicuor Alin
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Nota di contenuto	Intro -- Advanced and Functional Materials and Friction Stir Welding Technologies -- Preface -- Table of Contents -- Chapter 1: Functional Ceramics -- Effect of Bi ³⁺ and Fe ³⁺ Ions Substitution on Electrical Response of BaTiO ₃ Ceramic -- Structural Refinement, Dielectric and Electromechanical Properties of (1-x)NBT-xKBT Piezoceramics in the Morphotropic Phase Boundary Region -- Impedance Spectroscopy and Study of Electrical Properties of Pb(Zr _{0.52} Ti _{0.48}) _{1-x} FexO _{3-x} (0x0.20) Ceramics -- Effect of Pb _{0.8} La _{0.2} Ti _{0.95} O ₃ Doping on the Electrical and Dielectric Properties of CCTO Compound Synthesized by Hybrid Method -- Chapter 2: Advanced Materials -- Study of Polymer Inorganic Composites for Electromagnetic Radiation Absorption Using Potassium Titanates -- Optimization of the Technology of Creating Sensitive Gas Sensors Based on Zinc Oxide -- Thermohydraulic Analysis of Aqueous Dispersions Effectiveness with TiO ₂ and Al ₂ O ₃ Nanoparticles in a U-Shaped Geothermal Probe -- Potentiometric (pH-Metric) Methods of Studying Acid-Base Properties on the Surface of Dispersed Materials -- The Relationship between Specific Electrical Resistance and the Readiness of Coal Coke -- Optimal Process Parameters of the Binder to Reduce Air Pollution and to Improve the

Emission Effect from Composite Production -- Study of Smart Bioactive Humic-Polymeric Hydrogel Transdermal Materials -- Chapter 3: Friction Stir Welding Technologies -- Development of the Working Techniques Required to Apply Friction Stir Welding in Liquid Environment -- Friction Stir Welding in Liquid Working Environment (SFSW) of EN AW 1200 Aluminum Alloy -- Computer Aided Thermal Analysis of the FSW Tool Geometry -- Fracture Characteristics of EN AW 1200 Tensile Test Specimens Joined with FSW and SFSW Processes -- Friction Stir Spot Welding of Steel Structures - A Brief Review. Mechanical Properties of Welded by Friction Stir Welding Aluminium Alloy AA 5754 -- Finite Element Modeling and Verification of the Plunge Stage in Friction Stir Welding -- Influence of Welding Tool Geometry on the SFSW Joint Dimensions of the EN AW 1200 Aluminium Alloy -- Keyword Index -- Author Index.

Sommario/riassunto

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