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Nota di contenuto	Advanced Materials and Engineering; Preface and Committtess; Table of Contents; Chapter 1: Advanced Materials, Technologies and Applications; Gangue as Flame Retardants for Flexible Poly(Vinyl Chloride); Novel Thermo Thickening Smart Gel with Interpenetrating Polymer and Surfactant Network; Smart and Robust Composite Tube Columns Frames for Offshore Sub-Structure Construction; The Research Process and Application Prospect of the Smart Piezoelectric Materials; Reusable and Efficient Polystryrene-Supported Acidic Ionic Liquid Catalyst for the Synthesis of n-Butyl Acetate An Exploration of Factors Affecting the Preparation of SiO2-Coated - Al2O3 Pearlescent PigmentAssessment of Engineering Properties of Geosynthetics with Seaming Methods; Comparative Study of Physico-Chemical Properties of Pure Polyurethane and Polyurethane Based on Castor Oil; Temperature Effects and pH Value on Free Swell Behaviors of Bentonite Solutions; The Thermal Properties of Unsaturated Polyester Resin Treated with Intumescent Flame Retardants; Chapter 2: Nanomaterials and Nanotechnologies Microstructure of Gold Nano-Crystals from Nanometer to Micrometer Lengthscale in Gold Bulk Metallic GlassNanotechnology and Earth

Construction: The Mechanical Properties of Adobe Brick Stabilized by Laponite Nanoparticles; On Optimal Planning for DNA Nanomechanical Robots; Preparation of Nano Ni2P/TiO2-Al2O3 Catalyst and Catalytic Activity for Hydrodesulfurization; Study on the Nanoemulsion Formulation of Piceatannol and In Vitro Release; The Green Preparation of Nano-Silver Particle by Reductive Polysaccharide
Hybrid Microstructures on Si Surface Formed by Nanosecond Pulse Laser for Broadband AntireflectionComputer Aided Simulation and Prototype Experiment on Nanocoated Products; Influence of Injection Conditions on the Mechanical Property of MWCNTs/ PC Nanocomposites; Nanomechanical Properties of Core-Shell Structured Ni@NiO Nanoparticles Reinforced Epoxy Nanocomposites; Chapter 3: Composites and Alloys; Effect of Injection Conditions on the Electrical Conductivity of MWCNTs/PC Conductive Composites; Influence of Casting Method and Heat Treatment for Corrosion Resistance of Magnesium Alloy AZ91D
Low Temperature Oxidation Behaviors of CNTs/MoSi2 CompositesMicrosegregation Behavior of Single Crystal Superalloy; Modeling the Correlation between Microstructure and Tensile Properties of Ti-17 Alloy Using Artificial Neural Network; One Step Fabrication of Core-Shell Structures in Immiscible Alloys for Thermal Energy Storage; Surface Modification of Titanium Alloys Using Alumina Particles Blasting for Biomedical Applications; Technique Research on High Strength Low Alloy Structural Steel Used in Semi-Rigid Guardrail
The Effect of Co/Pd MgO Supported Catalyst Calcination Temperature on the Yield and Morphology of CNTs via Methane Decomposition

Sommario/riassunto

Collection of selected, peer reviewed papers from the Annual International Conference on Intelligent Materials and Nanomaterials (AIMN 14), April 18-19, 2014, Seoul, South Korea. The 90 papers are grouped as follows: Chapter 1: Advanced Materials, Technologies and Applications, Chapter 2: Nanomaterials and Nanotechnologies, Chapter 3: Composites and Alloys, Chapter 4: Manufacturing Processes, Materials Forming and Machining, Chapter 5: Power systems, Energy and Environmental Engineering, Chapter 6: Applied Mechanics and Engineering Scientists and engineers present 88 papers on advanced materia