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Nota di bibliografia	Includes bibliographical references at the end of each chapters and indexes.
Nota di contenuto	Advances in Materials Science; Preface, Technological Committees and Sponsors; Table of Contents; Chapter 1: Nanomaterials and Nanotechnologies; Application of the Nanostructured Carbon Coatings for Improvement of Functional Properties of Medical Polyurethanes; The Dispersion of MWCNTS in Acetone Solution of SAN; Removal of Paraquat from Aqueous Solutions Using Multi-Walled Carbon Nanotubes: Kinetic, Isotherm and Thermodynamic Studies; Effect of Nanostructured Oxide Coatings on Tensile Properties of Cast Pure Magnesium Multifunctional NaYF <sub>4</sub> :Yb <sup>3+</sup> , Er <sup>3+</sup> @Au Nanocomposites: Upconversion Luminescence, Temperature Sensing and Photothermal Therapy Comparative Studies for the PAMAM/RE and HPAE/RE (RE=La, Nd, and Eu) Based on Molecular Dynamics Simulations; Facile Synthesis and Photocatalytic Properties of Mini Nanoparticle CdS Quantum Dots/Boron and Nitrogen Co-Doped TiO <sub>2</sub> Transparent Photocatalyst Emulsion; Nanomagnetic Particle Anchored to Monodispers Porous Microspheres for Pectinase Immobilization; Effect of Noble Metal Nanoparticles in SERRS Measurements of Water-Soluble Porphyrins In Situ TEM Manipulation and Property Study of Cd <sub>2</sub> Ge <sub>2</sub> O <sub>3</sub>

Nanowires Structures and Performances of PA6/PVA Nanofibers  
Membranes from Electrospinning; A Simple Solvothermal Synthesis of Spherical  $Y_2O_3:Eu^{3+}$ ; Antibacterial Potential of Silver Nanoparticles Capped with Poly(4-styrenesulfonic acid-co-maleic acid) Polymer;  
Chapter 2: Thin Films; Synthesis, Characterization and Thermal Properties of  $SiO_2/Pi$  Composite Film; Fabrication and Characterization of Al/Ni Multilayer Films;  $SiO_2ZrO_2$  Thin Films as Low Temperature  $NO_2$  and  $O_3$  Sensors  
Preparation and Characterization of  $Cd_{1-x}Zn_xS$  Thin Films with Chemical Bath Deposition  
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Effect of Oxygen Content in Powders on Microstructure and Mechanical Properties of WC-FeAl Composites Fabricated by Vacuum Sintering Technique  
Influence of Chlorine Additives on Combustion Rate of Pulverized Coal Injection; Friction Stir Processing of Cast Iron Using Cermet Tool; Welding-Brazing Characteristic in Electron Beam Joining Vanadium Alloy and Stainless Steel; Improvement of Wet Milled TiC-FeAl Alloys; Application of Orthogonal Experiments Design to Optimize Process Parameters in the Alloy Heat Treatment; Study on Clinching for Similar and Dissimilar Titanium Alloy  
The Effect of Enhanced Solution Treatment on Microstructures and Properties of 6013 Type Aluminum Alloy

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Sommario/riassunto

Collection of selected, peer reviewed papers from the International Conference on Advances in Materials (ICAM 2014), December 13-14, 2014, Shanghai, China. The 167 papers are grouped as follows:  
Chapter 1: Nanomaterials and Nanotechnologies; Chapter 2: Thin Films; Chapter 3: Metal-Based Materials, Alloys and Metallurgical Technology; Chapter 4: Crystallography, Chemical and Cathode Materials; Chapter 5: Polymers and Composite Materials; Chapter 6: Biomaterials and Biotechnologies; Chapter 7: Materials and Technologies in Environmental Engineering; Chapter 8: Building Materials and Technologies

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