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Collana	Applied Mechanics and Materials, , 1660-9336 ; ; Volume 597
Disciplina	620.1
Soggetti	Mechanics, Applied Materials science Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes indexes.
Nota di contenuto	Advance Materials Development and Applied Mechanics; Preface, Committees and Sponsors; Table of Contents; Chapter 1: Nanomaterials and Technologies; The Study of High Efficiency Photovoltaic Devices with Metal Nanoparticles; Thermal Bubble Nucleation in a Nanochannel: An Experiment Investigation; Effect of Cosurfactants on Pore Sizes of Continuous Highly Ordered Mesoporous Silica Nanofibers; Influence of Uniaxial Stress on the Stress-Strain Curve Measured by Nanoindentation; The Preparation and Characterization of ZnO/Graphene Nanocomposites Study of Nano Coating Micron Calcite Reaction Process and Influence Factors Resistances of Nano-Titanium Dioxide on the Ultraviolet Aging of Poly(butylene succinate); Advances of Study on the Developments and Applications of Carbon Nanotubes; Monte Carlo Simulation of the Dispersion of Carbon Nanotubes in Cement Matrix; Preparation and Antibacterial Activity of Silver Doping Nano Zinc Oxide; Preparation of Amorphous Silicon Carbide Nanostructures via Solvothermal Method; Doped TiO <sub>2</sub> Nanotube for Lithium Ion Battery

Chapter 2: Advanced Material, Composite Materials and its Applications and Technologies  
Information Systems for Composite Materials: Requirements and Challenges; Mechanical Properties of DGEBA/Amidoamine Blend at Non-Stoichiometric Ratios; Research on Adsorption Kinetics Models' Fitting Values of H<sub>2</sub>O<sub>2</sub> Oxidated Loofah Sponge on Methylene Blue; Thermal Tuning of Vibration Band Gaps in Thin Phononic Crystal Plates with Nitinol; Synthesis of Cu<sub>2</sub>ZnSnSe<sub>4</sub> Compounds Using Solvo-Thermal Method; The Effect of Guide Sleeves on Shear Behavior of 3D Weaving Composites  
The Microstructure and Mechanical Properties Research of FeCrWMoV-Series High Temperature Self-Compensation Lubricating Composite Materials  
Continuously Large-Scale Preparation of Multi-Layer Graphene Grown on Polycrystalline SiC Microspheres; Effects of Mechanical Alloying on Microstructure and Properties of Powder Injection Moulded SiCp-Reinforced Aluminium Composite; Hydrothermal Synthesis and Upconversion Properties of Yb<sup>3+</sup>, Tm<sup>3+</sup> Co-Doped Gd<sub>6</sub>MoO<sub>12</sub> Phosphor with Regular Morphologies; A First-Principles Study of Electron-Phonon Coupling of OsB<sub>2</sub>  
Photoluminescence and Energy Transfer from Sm<sup>3+</sup> to Eu<sup>3+</sup> in Na<sub>3</sub>YSi<sub>2</sub>O<sub>7</sub> Phosphor for Light-Emitting Diodes  
Compressive Properties of Corevo® Foam under Uni-Axial Loading Based on Experimental and Numerical Analysis; Fine Spin Filtering Effect in Co-Phthalocyanine Molecule Induced by the Spin Polarization of Co Atom; Recent Developments in Molecularly Imprinted Solid Phase Extraction Technology; Effect of Cooling Rate on the Microstructures and Mechanical Properties of Mg-Y Alloys; Observation of Corrosion Resistance of 13Cr-2Ni-2Mo Stainless Steel Quenched by Induction Heating  
Study on the Use of Fleshings-Derived Collagen in Post Tanning Operations

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### Sommario/riassunto

Collection of selected, peer reviewed papers from the 2014 the 3rd International Conference on Advanced Materials Design and Mechanics (ICAMDM2014), May 23-24, 2014, Singapore. The 114 papers are grouped as follows: Chapter 1: Nanomaterials and Technologies, Chapter 2: Advanced Material, Composite Materials and It's Applications and Technologies, Chapter 3: Films, Coating and Surface Engineering, Chapter 4: Machinning and Forming Materials Technologies, Other Manufacturing Technologies, Chapter 5: Applied Mechanics and Construction Engineering, Chapter 6: Robotics, Control System and Measureme

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