

1. Record Nr.	UNINA9910790325103321
Titolo	China Postdoctoral Forum on Materials Science and Engineering : selected, peer reviewed papers from the 2010 China Postdoctoral Forum on Materials Science and Engineering, October 19-21, 2010, Zhengzhou, China / / edited by Deliang Chen
Pubbl/distr/stampa	Durnten-Zurich : , : Trans Tech, , [2011] ©2011
ISBN	3-03813-596-8
Descrizione fisica	1 online resource (318 p.)
Collana	Advanced materials research, , 1022-6680 ; ; volume 266
Altri autori (Persone)	ChenDeliang
Disciplina	620.11
Soggetti	Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	China Postdoctoral Forum on Materials Science and Engineering; Organizing Committees; Table of Contents; Fabrication of Hierarchical SnO <sub>2</sub> Nanocrystals and their Sensing Properties to Volatile Organic Compound Vapors; Composition-Dependent Ultraviolet up-Conversion Luminescence in Yb <sup>3+</sup> -Ho <sup>3+</sup> Co-Doped Germanium- Phosphate Glasses; Solvothermal Synthesis of Phase-Pure CuInS <sub>2</sub> Hierarchical Nanostructure Using Single-Source Molecular Precursor; Characterization and Photocatalytic Activity of N, Cd-Codoped TiO <sub>2</sub> ; Morphology-Controlled Synthesis of 1D ZnO Nanostructures by Hydrothermal Technique Study on the Electrochemical Performance of Carbon-Coated LiFePO <sub>4</sub> Prepared by Sol-Gel MethodEffects of pH and Dispersant Concentration on Properties of Li <sub>1.075</sub> Nb <sub>0.625</sub> Ti <sub>0.45</sub> O <sub>3</sub> Aqueous Suspension; Synthesis of Surface-Modified Oil-Soluble Silica Nanospheres and Investigation of their Tribological Behavior; Study on the Radial Resistivity Variation of the Gas Doped Floating-Zone Single-Crystal Silicon; Viscoelastic Analysis of Asphalt Mastic Based on Micromechanics; Temperature Dependent Photoluminescence of Fe-Doped TiO <sub>2</sub> Nanowires Prepared by Hydrothermal Method Optimized Synthesis of Water-Soluble and Small-Size CdSe Quantum DotsFabrication of Needle Nano-ZnO in the Pores of Expanded

Graphite; Synthesis and Performance of Porous TiO<sub>2</sub>; Preparation and Thermal Conductivity of Y<sub>2</sub>Ce<sub>2</sub>O<sub>7</sub> Ceramic Material; Fabrication and Characterization of Ceramic Floor Tiles from Coal Gangue; Study on Heat Treatment of Aluminum Nitride (Y<sub>2</sub>O<sub>3</sub>) Ceramics Sintered at High Pressure; Experimental Study on Lump Iron Ores as Sintering Hearth Layer; Grain Size Control and Ethanol Sensing Properties of Calcined SnO<sub>2</sub> Nanoparticles  
 Zn<sub>0.9</sub>Co<sub>0.1</sub>O/ MCM-41 Composite: Synthesis and Magnetism  
 Development of Microstructure of Semi-Solid A356 Alloy by Alternating Electromagnetic Stirring; Effect of Ni<sub>70</sub>Mn<sub>25</sub>Co<sub>5</sub> or Fe<sub>55</sub>Ni<sub>29</sub>Co<sub>16</sub> on the Growth of Type-II a Large Diamonds with Al as Nitrogen Getter; Experimental Research and Numerical Simulation Analysis of Sodium Expansion in TiB<sub>2</sub>-Carbon Cathodes during Aluminum Electrolysis; Sulfation of Calcined Raw Meal in the Kiln Inlet Housing for the Cement Industry; Study on Non-Isothermal Crystallization Kinetic of Tundish Covering Fluxes  
 Synthesis of Hollow Carbon Hemispheres in the Magnesium Carbonate-Metallic Li System with the Help of CHBr<sub>3</sub>  
 Study on Carburizing and Quenching Cracks of Large Low-Alloy Gears; Effects of Fineness on Activity Character of Fly Ash; Ultra Convenient Synthesis of Lanthanide Based Magnetic-Fluorescent Hydrogels for Multimodal Cellular Imaging; Grey Prediction on Sheared Edge Quality in Precision Blanking Process for Micro IT Parts; Shear Behavior of CFRP Prestressed Concrete Beams without Stirrups  
 Numerical Simulation of a First Normal Stress Difference-Based Model for Shear-Induced Crystallization of Polyethylene

---

#### Sommario/riassunto

These peer-reviewed papers deal with the scientific and technical aspects of ceramic materials, metallic materials, alloys, polymers and computational materials science. The aim of the proceedings was to provide up-to-date data for scientists and engineers working in the materials field. The book will also be a good learning resource for graduate students in the related specialties of Chemistry and Materials Science. Review from Book News Inc.: Selected and peer reviewed, 69 papers examine such topics as fabricating hierarchical stannic oxide nanocrystals and their sensing properties to volati

---