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Titolo	Materials, mechanics and information engineering : selected, peer reviewed papers from the 2014 3 rd International Conference on Chemical, Mechanical and Materials Engineering (CMME 2014), October 24-25, 2014, Riga, Latvia / / edited by Khaniittha Wongseedakaew and Qi Lu
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Collana	Applied Mechanics and Materials ; ; ; Volume 729
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Soggetti	Materials - Research Mechanics, Applied - Data processing Electronic books.
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 index.
Nota di contenuto	Materials, Mechanics and Information Engineering; Preface and Committee; Table of Contents; Chapter 1: Materials Science and Materials Engineering; Lightweight Gypsum-Based Material, Foamed by Lime Dust and Acid Agent; Experimental Researches of Fe-Cr Alloys and Cu-Zn Alloys Used for Microsurgical Instruments Manufacturing; First-Principle Study on the Structural Phase Transition, and Electronic Structures of Cobalt under Pressure; A New Pre-Treatment with Phosphoric Acid and Hydrofluoric Acid of Electroless Ni-P Plating on Mg Alloy SEM-EDS Analysis of Composite Al ₂ O ₃ -ZrO ₂ Ceramics Eroded with SiC Particles Research of Soldering Silicon Substrate with Solder Type Sn-Ag-Ti; Surface-Crosslinked Guar Gum-g-Sodium Polyacrylate Superabsorbents: Swelling Characteristics and Mechanics Performance; The Study of Cement Composites with Inbuilt Hazardous Waste; Selected Properties of Fiber Concrete after Heat Loading; Verification of the Possibility of the Use of Secondary Raw Materials of Tubular Solar Panels as Fillers of Polymer Industrial Floors; Heat Resistance Increase of Chromium Cast Iron by Modifying

An Investigation about Welding Parameters of Polypropylene Matrix Composite; Review the Research Trends and Application in Car Body of Aluminum Foam; L-Proline-Catalyzed Synthesis of Amino Thiazoles; Synthesis of α -Hydroxy Amides; Chapter 2: Applied Mechanics; Multi-Objective Optimization of Stacking Sequences for Laminated Composite Beams by Genetic Algorithm; Research Progress and Prospects for Vehicle Dynamic Stability Parameters; Review of Research Progresses in Unsteady Aerodynamic Model; Increase Pressure and Homogeneity of Die Castings from EN AC 47100 Alloy; Measurement of Physical and Mechanical Properties of High-Speed Heated Casting Cores; The Formation of Cracks in Cast-Iron Molds during the Casting of Zinc Blocks; Experimental Determination of Thermal Kinetic Parameters in Case Study of Tubes with Smooth and Structured Surface; Carrying Capacity Analysis and Numerical Simulation of Steel Reinforced Concrete Based on ANSYS; The Current State-of-the-Art in the Field of Material Models of Concrete and other Cementitious Composites; Chapter 3: Manufacturing and Mechanical Engineering; The Research on Thermal-Mechanical Coupled Analysis and the Lightweight Design of Engine Exhaust Valve; Simulation of Lateral Extrusion of Spline Form Based on the Software DEFORM-3D; Artificial Neural Network Modeling of Injection Upsetting Load Prediction; Study on Energy Balance of Three-Cylinder HCPE; Structure Principle and Property of Internal Combustion Stove; Simulation Analysis and Experiment Research on Vehicle Interior Adaptive Active Noise Control System; A New Steering-by-Wire System Driving by Electric Wheels; Failure Investigation of the Disc Harrow Profiles and Redesigning by CATIA Analysis

Sommario/riassunto

Collection of selected, peer reviewed papers from the 2014 3rd International Conference on Chemical, Mechanical and Materials Engineering (CMME 2014), October 24-25, 2014, Riga, Latvia. The 42 papers are grouped as follows: Chapter 1: Materials Science and Materials Engineering; Chapter 2: Applied Mechanics; Chapter 3: Manufacturing and Mechanical Engineering; Chapter 4: Computational Methods and Information Technologies
