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Nota di contenuto	Multi-Functional Materials and Structures Engineering; Preface, Organizing Committee; Table of Contents; Preparation and Characteristics of Nanocrystalline Diamond Film by Using of MPVCD; Mechanical and Friction-Wear Properties of MoS2 Al-Matrix Self-Lubricating; Shear Stress Analysis of Long-Span Steel Bridge Deck Asphalt Pavement Using FEM; Prediction of Resilient Modulus for Hot Mix Asphalt Based on Artificial Neural Network; Application of Improved BP Neural Network Model in Uplift Pressure Monitoring; Selective Catalytic Reduction of Nitric Oxide with Fe-Mn-Ce Metal Oxide-Based Catalysts Research on Parameter Simulation of Pulse Discharge Current in Permanent Magnet Motor MagnetizationExperiment and Simulation of Eddy-Current Loss inside Copper Shielding of Transformers under DC Biasing Condition; Characterization and Humidity Sensing Application of ZnO-TiO2 Nanocomposite; A Method for Initial Stress Analysis of Micro Vessel Wall; A Friction Damper with Continuously Variable Post-Sliding Stiffness; Research on Impact Localization in Composite Materials Using Array Signal Processing and Lamb Wave; Safety Following Space Modeling and Speed Control on Highway

Effect of Annealing Temperature on the Optical and Structural Properties of Ge Doped ZnO Films
 The Application of Neural Network in Dam Safety Monitoring; Research on Springback Compensation in Age Forming Technology of Integral Panel; The Method to Unfold Integral Skin-Panel Based on CATIA; Design and Application of 40m T- Beam Installation with Steel Trestle Bridge Made by Type- 64 Military Railway Girder; Model Updating of Full Prestressed Concrete Beam Based on Bayesian Theory; The Application of CAD/CAE Integration Simulation Technology in Dynamic Analysis for Bearing
 Synthesis and Characterization of CuInS₂ and CuInSe₂ Compounds by Vacuum Sintering Method
 Effect of Treatments of Microwave Radiation and Steaming on Color of Larch Wood; Synthesis of High Strength and Well-Defined PEG-Based Hydrogel Networks via Click Chemistry; The Effect of Varying Degrees of Radial Meniscal Tears on the Knee Contact Stresses: A Finite Element Analysis; Ab Initio Studies of Nb Doping Effect on the Formation and Diffusion of Oxygen Vacancy and Ti Interstitial in Rutile TiO₂; First-Principles Study of Nb Doping Effect on the Diffusion of Oxygen Atom in -TiAl
 Chemical Modification of Polyester Fibers with Amide-Siloxane Film and its Antimicrobial Property by Electro-Less Silver Plating
 Defect Induced by Heated Treatment in Silica Fiber Material; Ablation Properties Experiments of C/SiC Throat-Insert in Operational Environment of Rocket Engine; Experimental Investigation on Throat Insert's Thermal Shock Resistance Using C/C Composite in Solid Rocket Motor; Optimization of Parameters for CO₂-Gas Shielding Arc Welding Based on the Double Weights Neural Network; The Influence of Different SHS Reaction Systems on the Properties of the Ceramic
 Modeling of Biomimetic Robotic Fish Propelled by Passive Tail with Suitable Rigidity

Sommario/riassunto

This volume comprises papers presented at the 2011 International Conference on Multi-Functional Materials and Structures Engineering (ICMMSE2011), June 11-12, 2011, Suzhou, China. The aim was to provide a platform where researchers, engineers, academics and industrial professionals from all over the world could present their research results and development activities in the fields of multi-functional materials and structures engineering. The result is an eminently up-to-date guide to these topics. Review from Book News Inc.: MFMS 2010, held in September, in Jeonju, Korea, was the third such c
