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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 MoS ₂ 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-TiO ₂ 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
