

Table of Contents

Preface and Committee

Chapter 1: Materials Science and Engineering

A Computer-Aided Time Reversal Process for Structural Damage Diagnosis U. Lee, Y.J. Jun and I.W. Park	3
A Numerical and Experimental Study of Composite Plates with Delamination under Compression Load J.T. Ruan, S.B. Wang, J.W. Tong, M. Shen, F. Aymerich and P. Priolo	7
A Study on Ceramsite Pre-Wetted Time to Work on the Performance of Ceramsite Aggregate Concrete W.J. Yang, P.X. Jiang and Y. Wang	11
<i>Ab Initio</i> Investigation of the Influence of Single Intrinsic Defect on the Structure, Bulk Moduli and Electronic Properties of V-Doped ZnO Q.B. Wang and C. Zhou	15
Analysis on Degree of Freedom and Singularity of Mechanism Based on Topological Graph Theory J.G. Luo and M.Y. He	20
Application of Dielectric Spectroscopy in ZnO Varistor Ceramics P.F. Cheng, S.T. Li and J.Y. Li	24
Combined Effect of Nano-Clay and Carbon Black on Mechanical Properties and Aging Resistance of Styrene Butadiene Rubber Nanocomposites S.J. He, Y.Q. Wang, J. Lin and L.Q. Zhang	28
Controllable Synthesis of Carbon Spheres Based on Anodic Aluminum Oxide Nano-Template C.J. Wang, P. Yao and G.R. Chen	32
Deformation in Impacted Stitched Composite Plates Subjected to Compressive Load J.T. Ruan, S.B. Wang, J.W. Tong, M. Shen, F. Aymerich and P. Priolo	36
Deposition Mechanism Study of a Novel Electroless Nickel Plating Technique on AZ91D Magnesium Alloy J.G. Qian and T. Zhao	40
Design of Control System for Detection of Sub-Nanometer Wood Flour Based on Neural Network D.Z. Guo, C.M. Yang and Y. Ma	44
Effect of Citric Acid on Cement Hydration B.G. Ma, J. Xiao and H.B. Tan	49
Effect of Coiling Temperature and Cold Reduction Ratio on Microstructure and Mechanical Property of Nb Microalloying Added Phosphorus High Strength IF Steel M.L. Wang, Z.W. Zheng and L. Xiao	54
Effect of Current Intensity on the As-Cast Structure of Cu-3.2%Ni-0.8%Si Alloy during Low Frequency Electromagnetic Casting H.T. Zhang, B.M. Li and J.Z. Cui	58
Effect of Fiber Surface Treatment Techniques on Properties of Short Carbon Fiber Reinforced Phenol Formaldehyde Resin/Graphite Composite Bipolar Plate Y.M. Wang, W.Q. Wang and A.J. Li	62
Effect of High-Energy Shot-Peening on H13 Tool Steel Ion-Nitriding Z.L. Ren and X.H. Wang	67
Effect of Nb₂O₅ Addition on the Physical and Electrical Properties of Lead-Free (Na_{0.5}Bi_{0.5})TiO₃-Ba(Sn_{0.08}Ti_{0.92})O₃ Ceramics C.H. Wang	72
Effects of the Size of Wood Flour on Mechanical Properties of Wood-Plastic Composites H.B. Huang, H.H. Du, W.H. Wang and H.G. Wang	76

Electronic Structure and Optical Properties of La or In Doped SnO₂: First-Principles Calculations	
C.P. Chen and M.L. Qi	80
Encapsulation of Polyethylene for Strontium Aluminate Phosphors to Enhance its Water Resistance	
H. Lin, B.S. Chen, Y.Z. Chen, G.L. Chen, H. Lin, Z.S. Zheng, Z.H. Chen, H.X. Guo, L.F. Huang and Z. Chen	84
Fabrication of PDMS Thin Films Based on Magnetorheological Elastomer	88
Fabrication of Rice Husk Ash/Natural Rubber Composite	
Z.Q. Zeng, H.P. Yu, H.C. Liu, S.Q. Liao and Z. Peng	92
Factors Influencing Acousto-Ultrasonic Approach to Impact Damage in Composite Materials	
H.P. Kong, Z. Zhang and L.F. Li	97
Fatigue Behavior of Medium Carbon Steel by Symmetric Bending Ultrasonic Frequency Method	
W.W. Tang, H. Wang and J.G. Dai	102
Finite Element Modeling of Diamond Indentation Creep in MgO	
J.H. Hu and L. Henshall	106
First Principles Calculations of Electronic and Optical Properties of Al_{1-x}La_xN	
C.P. Chen and M.L. Qi	110
First-Principles Study the Effects of Single Zinc or Oxygen Vacancy on the Electronic and Optical Properties of V-Doped ZnO	
Q.B. Wang and C. Zhou	114
Fusion as an Approach to Enhance Dissolution Rate of a Poorly Water-Soluble Drug (Curcumin)	
D.H. Wan, F. Lin and Q.X. Liao	119
Graphene in Transistor Technology	
J.Y. Cai and X. Wang	123
Growth-Induced Stress in Hard Coating	
Z.Q. Huang, Q.L. Xie, G.H. Huang and P.L. Li	127
High-Definition Imaging and Processing System Based on CMOS Image Sensor	
W.L. Wang	131
Identification of ZnO Defect Structure by PL Spectroscopy	
P.F. Cheng, H.C. Liu and Y.T. Zhang	135
Improvement on Temperature-Sensing Property of Low-Density Polyethylene Based PTC Composites with Static Magnetic Field Treatment	
B.Z. Han, F.L. Ma and C.M. Li	139
Increase the Mechanical Performance of Polyvinylidene Fluoride (PVDF)	
M. Hou, X.G. Tang, J. Zou and R. Truss	144
Influence of Adhesive Dimensions on the Transverse Free Vibration of Single-Lap Adhesive Cantilevered Beams	
B.Y. Xing, X.C. He and M.S. Feng	149
Influence on Hydrogen Evolution Properties of Carbon Supported PtCu-LaO_x Membrane Electrode by Aftertreatment	
B. Yang and N. Huang	153
Magnetic and Transport Properties of the Double Perovskite Sr₂FeMnO₆	
L. Cui and L.J. Yang	157
Magnetorheological Elastomer State and Application	
X. Wang and J.Y. Cai	161
Mechanical Equipment Coordination and Operation Mode of Wuhan-Guangzhou Passenger Dedicated Line Large Cross-Section Tunnel Construction	
Z.M. Xiang and R.A. Yuan	166
Mechanical Properties of a Sandwich Construction Material with Paper Honeycomb Core	
C. Han, W.H. Wang, H.Y. Tan and Y.M. Gao	170
Mechanics Modeling and Analysis of the Wooden Shell on the Electronically Controlled Forestry Walking Robot	
L. Fu, H. Wang and Y. Ma	175
Modification and Characterization of Leather Superfine Powder	
Z.W. Ding, Z.G. Ma, Z.P. Cheng and E.H. Li	180

Morphology of an Interface between Polyetherimide and Epoxy Prepreg M.T. Heitzmann, M. Hou, M. Veidt, L.J. Vandi and R. Paton	184
Multi-Objective Optimization of Actuator Locations and Numbers for Piezoelectric Intelligent Trusses Based on Genetic Algorithm J.J. Zhang, S.J. Zhang, L.L. He and R.Z. Gao	189
Near Field Optical Properties of Individual Ag Nanowire Dimers Encapsulated by Dielectric Layers S.L. Jin, C.L. Du and D.N. Shi	193
New Rural Dwelling Construction Shouldn't Abandon our Traditional Culture G.P. Nie	197
Nonlinear Analysis of FRP SRC Concrete Beams L. Zhou, X.X. Liu, Y. Li and D. Yan	201
Nonlinear Blind Source Separation Using GA Optimized RBF-ICA and its Application to the Image Noise Removal X.M. Wang	205
Numerical Simulation on Framed Anti-Sliding Piles T.H. Qian, H.X. Ding, Z.B. Cheng and F. Chen	209
On the Design and Development of a Novel Real-Time Transaction Price Estimation System C.H. Chen, S.Y. Lin, H.C. Chang and C.C. Lo	213
Optimization on Heat Treatment Process of 45CrMnSi Steel by Orthogonal Test G.Z. Tang, Y.G. Li, H. Yang, Y.Z. Zhang and H.L. Yang	217
Photochromism and Optical Recording of a Novel Photochromic Hybrid Diarylethene Bearing an Isoxazole Unit H.L. Liu, S.Z. Pu, C.B. Fan and H. Li	222
Poisoning Effect of Combined Addition of Fe and Mn on Carbon Inoculation of Mg-3%Al Alloy M.H. Wang, J. Du and W.F. Li	226
Prediction of Porosity of Porous NiTi Alloy from Processing Parameters Based on SVR Q.S. Yan	231
Preparation and Characterization of Heparin-Immobilized Poly(Ether Urethanes) L.M. Lian, B. Leng and X.H. Ma	236
Preparation and Characterization of Hollow Silica Nanospheres L.L. Feng, W. Zhao, J.J. Tong and G.H. Yue	240
Preparation and Luminescent Properties of Nanocrystalline $\text{ZrO}_2\text{:Eu}^{3+}$ by Emulsion Method Y.L. Chen, M. Yan, Y.M. Sun and J.Q. Zhu	244
Preparation and Microstructure of TiB_2/Al Composites H. Jin, Y.T. Zhao, S. Chen and G.R. Li	249
Preparation of ITO Nano-Powder by the Method of Ammonia Complexation L.D. Sun, D.S. Huang, W. Liu, Y. Jiang and R.M. Xiao	254
Preparation of SiC Hollow Spheres by Template Method and its Performance of Purification and Regeneration Z.M. Fan	258
Research of Chinese Named Entity Recognition Using GATE C. Cheng, X.Y. Cheng and J. Hua	262
Research on the Configurations and Singularity of Serial-Parallel Mechanism J.G. Luo and M.Y. He	265
Research on the High-Temperature Compatibility between SiC_f and Mo Substrate H. Zhou, Y.P. Zhang and S.A. Pang	269
Research on the Relationship between Humanity and Machinery J.G. Luo and M.Y. He	274
Research Progress of Mini-Emulsion in the Wood Industry S.C. Zhang, L.J. Wang and J.Y. Pang	280
Some Technologies about Video Compression Y. Hu	284
Sophistication of Taiwan High School Military Training and Education System of Teacher Education Research M.C. Huang, C.Y. Wu and J.R. Tzeng	288

Status, Problems and Countermeasures of Mine Shaft Wall Rupture Mechanism L.W. Jing, J.W. Zhou, L.P. Ye, K.X. Zhao, X.G. Xue and P.W. Hao	292
Stress-Based Health Assessment of Composite Open-End Cylindrical Laminated Shell with Stepped-Lap Repairs J.X. Xu, C. Dou and D.H. Li	297
Study of Dual-Alkali on Sintering Flue Gas Desulfurization Y.Z. Zhang and Y. Xu	304
Study on Clean Leather Deliming Process with Sulfonated Phthalic Magnesium Salt X.H. Qiang, X.J. Tang and H. Zhang	308
Study on Hot Deformation Behavior of TiNiFe Shape Memory Alloy Q. Liu, X.Q. Yin, B. Duan, S.Y. Shong and Y.R. Feng	312
Study on Pore Diameter Regulation of Thiol Functionalized Mesoporous Silica and Cu²⁺ Adsorption Performance X.M. Xue, H.T. Guo, H.T. Wang and S.B. Zhuang	319
Study on Preparation of Chitosan Fiber Grafted with β-Cyclodextrin W.H. Li, J. Guan, M.L. Jing and S.J. Huang	324
Study on Relationship between Building Material and Building Form C.Y. Guo, D.K. Wei and C.Y. Guo	330
Study on the Propertyies of Magnesium-Doped Calcium Polyphosphate Scaffolds Ceramics Y. Zhang, D.S. Kong, C.J. Gu, X.W. Han and T. Qiu	334
Surface Modification of Natural Rubber Latex Film by N-Vinylpyrrolidone Graft Copolymerization Q. Sun, H.P. Yu, Z.Q. Zeng, G. Lu and Y.Y. Luo	338
Surface Stress Measurement of Aluminum Alloy by X-Ray Diffraction Method S.J. Wei and K. Liao	343
Synthesis and Characterization of Soybean Oil Based Unsaturated Polyester Resin Y. Qin, J.R. Jia, L. Zhao, Z.X. Huang, S.W. Zhao, G.W. Zhang and B.F. Dai	349
Synthesis and Fluorescence Switch of a Photochromic Diarylethene Bearing Benzene and Pyridine Unit M. Liu, G. Liu and S.Q. Cui	354
Synthesis and Properties of a Novel Photochromic Diarylethene Bearing Methyl Group Z.P. Tong, S.Z. Pu and S.Q. Cui	358
Synthesis of a New Red Long Persistent Phosphor Sr₂ZnSi₂O₇: Eu³⁺, Lu³⁺ via Sol-Gel Method and Investigation of its Luminescence H. Lin, A.X. Xu, G.L. Chen, Z.S. Zheng, H. Lin, B.S. Chen, L.F. Huang, H.X. Guo and Y. Xu	362
Synthesis of a Novel Photochromic Diarylethene and its Application in Optical Recording Storage T.F. Wang, T. Xiao, W.J. Liu and G. Liu	366
Synthesis of Nano Onion-Like Fullerenes Using Iron Supported on Sodium Chloride as Catalyst by Decomposing Acetylene C.J. Wang, P. Yao and G.R. Chen	370
Synthesis of Nanosized Zirconium Carbide (ZrC) by a Polymeric Precursor Route X.Y. Tao, W.F. Qiu and H. Li	373
Synthesis, Characterization and Properties of a New Octupolar Molecules with Active Hydroxyl Groups X.Y. Qi, Q.Y. Hu, S.M. Wang, F. Yang and P. Yu	377
Synthesis, Fluorescence and Kinetic of a New Photochromic Diarylethene Bearing Condensed Aromatics Moiety R.J. Wang, W.B. Li, W.J. Liu and G. Liu	381
Synthesis, Photochromism Properties of a Hybrid Diarylethene Based on Hydroxyl Group D.H. Jiang, W.J. Liu, S.Q. Cui and G. Liu	385
Synthesis, Properties and Application in Optical Recording of a New Diarylethene Bearing an Isoxazole Unit H. Li, S.Z. Pu and W.J. Liu	389
Taiwan Air Force Logistics System of Research Governance M.C. Huang, C.Y. Wu and J.R. Tzeng	393
Temperature-Regulating Properties of Phase Change Fiber Blended Knitted Fabrics after Laundering W.L. Chen, M.M. He, Y. Gao and X. Wu	397

Temperature Rising Behavior of Oxide Materials Synthesized V-Al Alloy and Slag after Reaction in Microwave Field	
S.P. Liu, J. Li, X.W. Lv, Z.G. Lun, C.G. Bai and S.F. Zhang	401
Tentative Study on Cultural Features of Traditional Buildings in Wanbei Region	
N.L. Jin	407
The 3-D Numerical Simulation of Heat Transfer Process of Finned Copper Tube	
J.H. Zhong, L.M. Jiang and K. Feng	412
The Construction of Car Insurance Business Franchise Model	
H. Che and X.G. Wang	416
The Cyclic Oxidation Behavior of Ti_2AlN and Ti_2AlN/TiN Composites	
M. Yan, Y.L. Chen, Y. Chang and J.X. Jiang	420
The Discrete Error Analysis of GREEN's Function Sampled in Real Space	
T. Bo and X. Yu	424
The Effect of Coatings on the Cyclic Oxidation Behaviour of Ti_6Al_4V at 750°C	
Y.Y. Teng, Q. Chen and L. Xin	428
The Identification, Screening and Floating for BMS in Automobile Insurance	
H. Che and Y. Zhao	436
The Influence of Heat Treatment on Microstructure and Mechanical Properties of Cr15 Super Martensitic Stainless Steel	
X. Liu, K.Y. Zhao, Y.H. Zhou, D. Ye, W. Jiang, Q.L. Yong and J. Su	440
The Influence of Poly(N-vinyl-2-pyrrolidone) on Magnetic Properties of Fept Nanoparticles	
X.Y. Du, Y.Y. Shen and F. Li	444
The Microstructure and Properties of 304L Stainless Honeycombs Fabricated by Extruding and Sintering	
Y. Zhou, H. Peng, M. Xuan and X.Q. Zuo	448
The Model Theory on Structural Mechanics of Cell Disruption Force in the Preparing Process of Superfine Wood-Flour with <i>Cryptomeria fortunei</i>	
D.X. Yang, Y. Ma and C.M. Yang	453
The Natural Neighbour Petrov–Galerkin Method for Stress Analysis of Plates	
H.C. Qu, Y.X. Li and L.L. Chen	458
The Stress and Displacement Analysis of the Cut-Off Wall for the Deep Overburden Dam	
B. Zhang	463
The Test Methods and Application Prospects of Cellosilk Preparation with Physical Methods	
C.M. Yang and Y. Ma	467
The Vehicle License Plate Localization System Based on LabVIEW	
Y. Yuan, C.M. Li and B.L. Li	471
Thermal Environment Simulation of Buildings on the Ground in Low Enthalpy Geothermal Engineering	
Y. Zhang and D.M. Guo	476
Thermoplastic Deformation Behavior of 4032 Al Alloy	
H. Hu, X.D. Kong, Z.H. Shao and X.Y. Wang	481
$Ti_{50}Fe_{22}Ni_{22}Sn_6$ Amorphous Alloy Synthesized by Mechanical Alloying and Spark Plasma Sintering	
Q. Li, Y.Y. Zhu and G. Wang	485
Uncertainty Management of Flatness According to PUMA	
C.X. Li and R.H. Ji	489
Urban Competitive Power Difference Study of the Urban Agglomeration on the West Side of Taiwan Straits on Grey Relational Synthetic Evaluation	
X.S. Zhong, W. Chen and C. Lian	493
Wear Properties of Anode Oxidation Coating in the Surface of ZL101 Aluminium Alloy	
Z.P. Wang and F. Yuan	499
Zr^{4+} Co-Dopant Enhancing Afterglow Green Phosphor of $Zn_2SiO_4: Mn^{2+}$	
B.S. Chen, L.F. Chen, H. Lin, G.L. Chen, Z.S. Zheng, H. Lin, H.X. Guo, Z.H. Chen, L.F. Huang and W.H. Zhou	503
The Air-Kiln Drying Technology Research on Australian <i>Eucalyptus regnans</i> Board	
K.M. Xu, D.Y. Tu, P.X. Peng, Q. Guo and H. Yun	507

Chapter 2: Biology Technology and Materials

A Combined Image Compression and Encryption Scheme H.Q. Yang, C.J. Pu, F. Hu and T. Peng	517
A Computational Study on Residual Strength of Sandwich Composite Panel S.K. Lee, M.Z. Ansari, N. Wang and C.D. Cho	521
A Fuzzy Comprehensive Evaluation Model on the Risks of Coal Enterprises' Trans-Regional Expansion Y. Ma, G.S. Hou and H. Yin	526
A Hybrid Model for Evaluation Computer Network Security Risk in Commercial Bank L.X. Shen, G. Cao and S.Z. Cao	531
A Mathematical Model for Aerobic BAC System to Treating of Drinking Water C.Q. Lin and D.S. Bi	535
A New Algorithm of Fast-Generated Panoramic Images W.C. Na	539
A Note on "Implicit Mann Fixed Point Iterations for Pseudo-Contractive Mappings" H.J. Li and Y.F. Su	543
A Pilot Study on Footwear Biomechanical Effect to Diabetic Patients M. Rong, Y.D. Gu and G.Q. Ruan	546
A Practical Heuristic Algorithm for the Minimum Founder Set Reconstructive Problem J.L. Wu	549
A Study on the Mooring-Line Force Characteristics of Composite-Type Sea Cage C.L. Li	555
A Two-Step Resolution for Preparing Enantiopure (S)-Ethyl Nipecotate F.X. Tang, Y.B. Li, C. Meng and X.Q. Zhao	559
Activity Changes of Several Enzymes during Pepper (<i>Piper nigrum</i> L.) Decortication by Fermentation Using <i>Bacillus subtilis</i> CICC10076 and Natural Water Retting Y.Y. Hou, S.X. Liu, H.B. Xiong and C.F. Li	567
Amphetamine-Induced Locomotion and Brain Stimulation Reward Research and Applications Y.X. Liu	572
An Analysis on the Carbon Content Rate of Natural White Birch in Xiaoxinganling Mountain Area M. Lin, F.R. Li and W.W. Jia	580
An Investigation on the Gaseous and Electrochemical Hydrogen Storage Kinetics of As-Spun Nanocrystalline $Mg_{20}Ni_{10-x}CO_x$ (x=0-4) Alloys B.W. Li, H.P. Ren, Z.H. Hou, X.G. Liu, L.L. Chen and Y.H. Zhang	587
Analysis of <i>DNMT1</i> Gene Polymorphisms in Sporadic Wilms Tumor R. Bai, X.L. Hu, L.S. Zhao, X. Geng and W.M. Zhang	593
Analysis of Tartary Buckwheat Flavonoids Using Electrospray Ionization Tandem Mass Spectrometry X.L. Li and D. Li	597
Analysis on the Operating Characteristics of Solar Water Heater in Combination with Air Source Heat Pump Water Heater A.G. Jiang and X.Z. Wang	601
Antennal Olfactory Responses of <i>Apanteles</i> Sp. (HymenopteraBraconidae) to Herbivore-Induced Plant Volatiles G.C. Wang, H.Y. Liang, X.L. Sun and Z.M. Chen	604
Application of Comprehensive Reinforce Technology in Soft and Crumbly Surrounding Rock in High Stress B.S. Du and L. Ma	608
Application of PLC in the Flue Gas Detection G. Yao, S. Qing, Z.F. Yang, H. Wang and P. He	614
Bioinformatics Analysis and Characteristics of Ser/Thr Protein Kinase Encoded by UL13 Gene of Duck Plague Virus X.X. Hu, A.C. Cheng and M.S. Wang	617

Biosorption of <i>Bacillus Circulans</i> and <i>Bacillus Mucilaginosus</i> on the Surface of Diaspore , Kaolinite and Quartz	
D.S. Sun, H. Bao, H. Chen, X.Z. Zhang and J.H. Nie	628
Calculation of Biological Material's Shrinkage during Convective Drying Using Fractal Model	
S. Zhang, J.R. Chen and X.X. Liu	632
Cellulose Purified by an Efficient and Environmental Friendly Method for the Production of NCC	
H. Zhang, J. Zhang, S.P. Song and J.W. Pu	637
Characterization of Codon Usage Bias in UL13 Gene of the Duck Plague Virus	
X.X. Hu, A.C. Cheng and M.S. Wang	641
Comparative Analysis of p53 and K-ras Gene Mutations in Gastric Cancer Tissue	
A.M. Zhang, K. Sun, R. Wang and H. Xie	651
Comparison of Biomass and Oil Productivity of Selected Microalgae in Livestock Wastewater	
Y. Shen and W.Q. Yuan	655
Construction of a Class of Nonseparable Compactly Supported Wavelets with Special Dilation Matrix in $L^2(\mathbb{R}^4)$	
N. Li	659
Corrosion Behavior of Epoxy Coating/Carbon Steel System under the Wet-Dry Cycles	
X. Zhang and B.G. An	663
Determination on Crystallinity of Ionic Liquids Pretreated Biomass	
H.X. Xie, J. Prausnitz and X.L. Wu	668
Diversity and Composition of Ground-Dwelling Beetles in Cold Temperate Zone Wetland, Nanwenghe National Reserve, Northeast China	
B. Zhang and C.X. Hu	672
Effect of Auxiliary Starters on Quality of the Reduced Fat Mozzarella Cheese	
H.P. Liu, C.L. Cao, L. Ji, Y.W. Xu and F.R. Wei	678
Effect of Fly Ash on Expansion Properties of Concrete Added with Expansive Agents	
S.J. Huang, Z.C. Ge, L. Zhou and J.L. Zhou	684
Effect of Internal Recycle Ratio on the Phosphorus Removal Efficiency of Anaerobic/Anoxic/Oxic (A^2/O) to Low Concentration of Organic Substance Wastewater	
N. Wang, Y.H. Jiang and B.F. Li	688
Effect of Somatic Cell Count on Low-Fat Mozzarella Cheese Structure	
H.P. Liu, F.R. Wei, Y.H. Wei, J. Dong and C.L. Cao	692
Effect of Succinylation on Aqueous Enzyme-Assisted Extraction of Oil from Soybean	
W. Liu, L.Z. Jiang, Y. Li and X.N. Sui	696
Effect of Thermal Oxidation Temperature on Rutile Structure Formation of Biomedical TiZrNb Alloy	
S. Izman, A. Shah, M.R.A. Kadir, E.M. Nazim, M. Anwar, M.A. Hassan and H. Safari	704
Effects and Mechanism of Organic Acids on Aluminum Availability of Dark Brown Forest Soil	
F.X. Cui, J.F. Song, Y.F. Guo and J.Z. Xu	709
Effects of Organic Acids on Chlorophyll Contents and Photosynthesis of <i>Fraxinus mandshurica</i> Seedlings	
J.F. Song, H.Y. Qi, X.Y. Cui and H.M. Peng	713
Effects of Storage Conditions on the Shelf Life of Liquid-Smoked Tilapia (<i>Oreochromis niloticus</i>) Fillets	
S.J. Chen, L.H. Li, C.H. Xue, X.Q. Yang, Y.Y. Wu, S.X. Hao, J.W. Cen and B. Qi	717
Effects of Zeolite Modified LDPE Film on Banana Fresh Keeping	
D.L. Li, Q.P. Shi and W.C. Xu	724
Elaboration of an Electroporation Protocol for <i>Lactobacillus brevis</i>	
Y. Zhang, K. Cheng, Q. Gao and N.F. Gao	729
Epidemiological Investigation of Influenza a Viruses in Laboratory Swine and Dogs in Shanghai	
X.H. Yang, X.F. Wei, J.H. Hu, X.W. Liu and S.J. Chen	733
Evaluation the Performance of Two Kinds Bamboo Laminated of Wind Turbine Blades Composite	
X.D. Huang and Y. Liu	737

Experiment of L-Phenylalanine Fermentation in New Bioreactor S. Xu	742
Experimental Study on Aging Oil Dehydration Technology Optimization in Yushulin Oilfield W.L. Zheng and R.S. Pang	746
Exploration on the Method of Marine Mechanicals' Condition Monitoring in the Equipments' Fault Diagnoses J. Zhang, Y. Liu and C. He	750
Fabrication and Characterization of Core-Shell Structured Composite Nanofibrous Scaffolds by Coaxial Electrospinning Q. Ye, K.H. Zhang, S.B. Ke, C.L. Wang, H.Y. Zhang and J.Y. Wang	754
Factors Influencing Seed Germination of <i>Sorbus pohnuashanensis</i> Hedl L. Yang, Y.H. Li and H.L. Shen	758
Failure Process Analysis on Overload of Arch Dam Y. Xia, Y.Y. Yu, Z.Q. Zhang and X.L. Zhao	762
Filler Materials Used in Kyphoplasty and Vertebroplasty for Osteoporotic Vertebral Compression Fractures B. Zhang and M. Dai	766
Fruit and Seed Development of <i>Sorbus pohnuashanensis</i> Hedl L. Yang, Y.H. Li and H.L. Shen	772
Functional Study of AcoX, an Unknown Protein Involved in Acetoin Catabolism Z.J. Xiao, Y.L. Huang, X.K. Zhu and S.L. Qiao	776
Gaseous and Electrochemical Hydrogen Storage Kinetics of as-Spun Nanocrystalline $Mg_{20}Ni_{10-x}Cu_x$ ($x = 0-4$) Alloys Y.H. Zhang, B.W. Li, H.P. Ren, X. Li, G.F. Zhang and D.L. Zhao	780
Gaseous and Electrochemical Hydrogen Storage Performances of Nanocrystalline and Amorphous $Mg_{20-x}La_xNi_{10}$ ($x=0-6$) Alloys Prepared by Melt-Spinning H.P. Ren, B.W. Li, Y. Zhang, Z.G. Pang, Z.H. Hou and Y.H. Zhang	786
Generalized System for Relaxed Cocoercive and Involving Projective Nonexpansive Mapping Variational Inequalities G.H. Gu and Y.F. Su	792
Generate Breath Flow Having Fractal Signal Feature Using Weierstrass Function Combination M.C. Li and Z.H. He	796
Grey Comprehensive Assessment Based on the Middle Reaches of the Yangtze River Cities Residents Travel Force of the Potential D.Y. Yang, Y. Luo and X. Yang	800
Identification of Cell Apoptosis Morphology Induced by Oligosaccharides H.L. Guo, H.Y. Zhao and Y.Y. Sun	805
Impacts of Nitrogen (Urea) Fertilization on Cadmium Accumulation Nitrate Contents and Nutritive Values in Chinese Cabbage L. Zhao, F.J. Wang, H. Yang, Y.X. Duan and C. Zhu	809
Influence of Contents of Carbon and Phosphorous on the Crumbling Phenomena of Si-Al-Fe J. Zhang and Y.X. Song	818
Introduction to Social Research Methods X.T. Zhao and Y. Zhao	824
Isolation and Identification of Nitrite-Degrading Lactic Acid Bacteria from Salted Fish Y.Y. Wu, F.J. Liu, L.H. Li, X.Q. Yang, J.C. Deng and S.J. Chen	828
Levofloxacin Release, Antibacterial Activity and Cytotoxicity Studies on a Novel Wound Dressing J. Guan, L.Z. Dong, S.J. Huang, W.H. Li, Z.H. Li, J.M. Wu, M.L. Jing and X.Z. Zhang	835
Lipid Extraction from Microalgae <i>Scenedesmus dimorphus</i> by Wet-Milling Process Using Response Surface Approach Y. Shen and W.Q. Yuan	842
Measure Scheme According to Siemens PLC Z.F. Yang, S. Qing, G. Yao, H. Wang, Z. Shi and P. He	847
Metabolic Flux Analysis and Optimal Control in the Process of Ectoine Fermentation L.H. Zhang, X. Zheng and Y.J. Lang	851

Modification of Bleached Softwood Pulp with Xylanase M. Du, X.P. Li and W.G. Li	855
Optimization of Culture Conditions for Improving the Biomass of <i>Agaricus brunnescens</i> Y. Wang, L.T. Ban, Z. Li and J.X. Wu	859
Over-Expression of a NAD-Malic Enzyme Gene from Rice in <i>Arabidopsis thaliana</i> Confers Tolerances to Several Abiotic Stresses H. Zhou, S.K. Liu and C.P. Yang	863
Parameter Optimization of Classroom Energy-Saving Controller Based on Fuzzy Multi-Objective Optimization Algorithm Y.Z. Wang, J. Chen, L.L. Wang and Q.X. Meng	867
Pattern Recognition of <i>Fructus cnidii</i> Toxicity Study with Chemometrics Packages of R Software Z.F. Shi, L. Wang, Y.F. Feng, W. Rui and L. Han	871
Physiological Responses of Kuerle Fragrant Pear Fruit to Different Atmospheres in Storage G.G. Chen, Y. Jiang and Z.X. Chen	875
Pile Dwelling Culture of the Concrete - the Preliminary Explore of Pile Dwelling-Style in Sipsong Panna L. Na, R.B. Hu, W.J. Li and X. Ye	879
Prediction of Antigen Epitopes on Protein Surfaces Based on Support Vector Machine P.P. Sun, W.H. Chen, X. Wang, B. Liu and Y.H. Lv	884
Preliminary Fractionation and Derivatives Changes of Myoglobin from Tilapia (<i>O. niloticus</i>♀×<i>O. aureus</i>♂) Dark Muscle with Ammonium Sulfate J.W. Cen, S.X. Hao, L.H. Li, X.Q. Yang, H. Huang, S. Hong, Y. Wei and J.Y. He	890
Preparation and Drug Release Properties of IBU-Loaded Mesoporous Calcium Silicate Hydrate (CSH) Spheres Y. Dong, H.W. Yuan, Y.R. Ni, C.H. Lu and Z.Z. Xu	894
Preparation and Evaluation of the Pegylated Cerebrolysin H.W. Wang, Z.W. Sun and R.H. Zhang	898
Preparation Cordierite-Mullite Composites with Iron Tailing F.F. Li, W.C. Yang, M.X. Zhang, L.F. Zhang and Y. Shen	902
Production of Nanoaluminium Hydroxide from Iron Tailing and Characterization F.F. Li, M.X. Zhang, J. Du, G.Q. Hou and Y. Shen	907
Purification, Properties and Mass Spectrometry Analysis of Two Novel Thermotolerant Endoglucanases from <i>Bacillus akibai</i> 1-2 S.L. Liu and M. Xing	911
Recognition Patterns Construction of Coronary Heart Disease Patients with Qi Deficiency Syndrome Based on Artificial Neural Network Q. Shi, H.H. Zhao, J.X. Chen, Y. Yang, C.L. Zheng and W. Wang	916
Research of a New Model to Optimize Resource Allocation S.J. Li and H. Ma	921
Research on Resistance of Aphis Glycines in Hei Longjiang Province Q. Wang, W.J. Xu, S.C. Yan and C. Wang	926
Response Surface Methodology for Optimization of the Extraction Technology of Pigment from Black Rice Z.F. Chen and X.L. Lv	930
Seismic Record Simulation of the Coalbed in HTI Media Y.C. Zhao, H. Wang and Y. Sun	935
Serum Proteins Opsonization and Phagocytic Uptake of PEG-Modified PLGA Nanoparticles: Effect of Particle Size A.S. Yang, W. Liu and X.L. Yang	939
Simulation of Temperature Field of Soil Inside Drilling around a Vertically Buried Single-U-Tube Ground Heat Exchanger Z.Y. Du	943
Solvothermal Synthesis and Magnetic Properties of Fe₃O₄ Microspheres D.H. Sun, J.L. Zhang and D.X. Sun	947
Study of Oxygen Transfer Process of Starch Wastewater in the Shaking Bioreactor P. Lan, L. Zhong, M. Li, L.H. Lan, T. Xie and A.P. Liao	951
Study of RNA Secondary Structure Prediction Algorithms Y. Sun, S.H. Ye and H.W. Lu	955

Study on Crown of Main Coniferous Species in Natural Secondary Forest S.L. Jiang, F.R. Li, W.W. Jia, Y. Xu and Y.L. Zhao	961
Study on Gastric Juice Secretion by Electroacupuncture at Zusanli Point on Rabbits under Action of Cimetidine Y. Peng and J. Li	972
Study on Optimization of the Culture Conditions for Four <i>Rhodopseudomonas spp.</i> C.B. Xu, X.K. Sun, Y.Y. Li, Y.G. Wang and X.L. Meng	976
Study on Reproduction of Color Information of Print Media Based on Chromaticity Measurement W.G. Chen and W.L. Wang	980
Study on Temperature Field of L-Phenylalanine Fermentation in Heat Pipe Bioreactor S. Xu	984
Study on the Subcellular Localization of GAPDH in Rice (<i>Oryza sativa</i>) J. Su and X.Y. Zhu	988
Study on the Turbulent Injury Principle of Blood in the High-Speed Spiral Blood Pump Z. Yun, C. Xiang, X.Y. Tang and F. Shi	992
Study on Well-Kill Calculation Model with Deep-Water Engineer's Method Z. Zhi, T.P. Xiao and J.H. Fu	996
Suppression of Novel Andrographolide Derivatives on Murine Splenic T Lymphocyte Proliferation Z.W. Jiang, Y.N. Wang, H.W. Xu, J. Zhao, G.F. Dai and H.M. Liu	1000
Synthesis and Characteristics of Interpenetrating Polymer Network Hydrogels Based on Konjac Glucomannan with Different Molecular Weights and Poly(acrylic acid) X. Yao, X.G. Luo and B.C. Han	1004
The Bioconcentration of Marine Debris in Pacific Garbage Patch Y.M. Pan, Z. Zhang and Q.L. Cao	1008
The Influence of Amount of Wood Fiber on New Flame-Retardant Melamine-Urea-Formaldehyde (MUF) Composite Foam Y.F. Ma, W. Zhang, L. Li, M.M. Zhang, Z.H. Cheng, C.P. Wang and F.X. Chu	1012
The Leakage Detection Method of Water Supply System by Regional Model H.L. Zou	1018
The Optimization of Extraction of Cordycepin from Fruiting Body of <i>Cordyceps militaris</i> (L.) Link H. Zhang, J.W. Wang, S.Z. Dong, F.X. Xu and S.H. Wang	1024
The Photophysical Properties of Pyropheophorbide-a in Different Laser Light and PDT Efficiency for Eca-109 Cell <i>In Vitro</i> H.J. Mao, Z.L. Chen and Y. Ye	1029
The Research of Controlled Rolling and Cooling Process in X70 Grade Pipeline Steel with Vanadium Microalloying X.Y. Ye, K.H. Zhang and J. Zuo	1033
The Research of Petroleum Contaminated Site Media for Adsorption of Petroleum Pollutant W. Wang and X.S. Su	1038
The Research on Ragweed Extracting Solution to Rats Acute Toxicity and Protective Enzymatic Activity of Rats' Liver X.Q. Zhang, G.C. Zhang, Y. Bao, B. Zhao and Q.S. Zhang	1042
Three-Dimensional Damage Analysis of Concrete Surrounding the Spiral Case in the Nuozhadu Hydropower Station Z. Li and L.X. Zhang	1048
To Enhance the Production of Human-Like Collagen II by Amino Acid Addition Using Response Surface Methodology L. Guo, Y.E. Luo, D.D. Fan and R. Xu	1054
Towards a Magnetic Articulated Needle Y.Z. Wang, Z.G. Zhou, Y.H. Chen and H.F. Huang	1060
Unilateral Versus Bilateral Kyphoplasty for Osteoporotic Vertebral Compression Fractures B. Zhang, M. Dai and Y.M. Tang	1064

Chapter 3: Chemical Engineering and Materials

"Resource Saving and Environment Friendly" Urban Planning Multiple Decision-Making Research

J.H. Wang and J.Z. Huang 1071

(n, m) -Strongly Gorenstein Projective, Injective and Flat Modules

J.M. Xing 1076

3D Numerical Simulation of Flow Field in a Circular Secondary Clarifier

W.L. Wei, P. Zhang and Y.L. Liu 1080

A Full-Scale Study on Preozonation of Typical Source Waters in North China

S.C. Yue, Q.S. Wang, S.S. Li, Y.R. Zhang, Y.F. Liu and J.F. Lu 1084

Adsorption Capacity of Cr(VI) by Modified Fly Ash from Aqueous Solution

R. Liu, X.X. Hang and C.Y. Wang 1089

Adsorption of Copper (II) from Solution by Wheat Husk in Batch Mode

Y.L. Liu, X.R. Zhao, D. Ma, Y.F. Li and R.P. Han 1093

Adsorption of Copper Ions from Wastewater by Carboxymethylcellulose Sulfate

Y. Yu and F.Y. Huang 1098

Analysis and Research of Direction Relation Based on Fuzzy Description

Y.S. Liu and Y. Li 1102

Analysis of Internet Bar Use Evaporative Air-Conditioning and Ventilation of Thermal Comfort

H. Xiang, W. Wang and S. Wu 1106

Analysis on Chemical Reaction Rate of Iron and Molten Tin

H.B. Li, Q.X. Huang, J.M. Wang, H.L. Gui and Q. Ma 1110

Application of Hyperbranched Polymer with Terminal Amino in Dyeing Process of Microfiber Synthetic Leather

L.F. Ren, G.H. Zhao, T.T. Qiang, J.X. Wang and X.C. Wang 1114

Biomass of *Phragmites australis* and Effect Factors Analyzing in Zha Long Wetland

T. Zeng and H. Huang 1119

Bioremediation of PCBs-Contaminated Soil Using Halophilic Bacteria

Z. Zhao and S.G. Zhuo 1124

Characterization of Xanthan Production under Solid State Fermentation on Polyurethane Foam

Z.G. Zhang and H.Z. Chen 1128

Color Development Reaction Research of Melamine in Milk

X.Q. Sun, S.L. Qiao, Z.X. Liu and L.L. Kong 1133

Comparision of *Bupleurum scorzoneri folium* Willd. Grouping from Different Habitats Based on Pattern Recognition with R Software

W. Rui, H.Y. Chen, Y.F. Feng, Z.F. Shi and M.M. Jiang 1139

Complexs of Poly(1-vinylimidazole-co-methyl methacrylate) and Copper Ion as Catalysts for the Oxidation of Ethylbenzene

G.Z. Li, J.B. Li, C. Han, J.K. Zhang, L.J. Liang, H.Y. Zhou and J. Liang 1143

De-Colorization of Acid Deep Blue P-2RB by Boron-Doped Diamond Micro-Array Disc Electrode

D.J. Zhong, Y.L. Xu and J.P. Jia 1149

Degradation of 3-Nitrophenol with Sodium Acetate as Co-Substrate in an Upflow Anaerobic Sludge Blanket Reactor

Z.L. She, L.L. Li, Y.J. Zhu, T. Xie, L.N. Jiang and M.C. Gao 1153

Discussion the Mechanism of Sulfur and Phosphorus Doped TiO₂

T. Zeng, H.J. Liu and Z. Shu 1157

Effect of Acoustic Intensity on Plate Polymeric Membrane

W. Xiong, P. Cui, M.J. Yin and Y.Z. Chen 1161

Effect of Different Ending Fermentation Technologies on Microbial-Stability of Italian Riesling Low Alcohol Sweet White Wine

Y. Cui, W. Lv, J.F. Liu and B.J. Wang 1165

Effect of Temperature on Electricity Generation of Single-Chamber Microbial Fuel Cells with Proton Exchange Membrane Y.L. Tang, Y.T. He, P.F. Yu, H. Sun and J.X. Fu	1169
Effect of Ultrasonic Intensity on the Degradation of Phenol Solution M.J. Yin, P. Cui, Z. Hu, Y.Z. Chen and W. Xiong	1173
Effect on Catalytic Activity and Characterization of Content of V₂O₅-WO₃ by Chemical Vapor Deposition M. Yang, B. Ou and L.J. Yan	1177
Effects of Nd Doping on the Photocatalytic Behavior of Cu₁₁O₂(VO₄)₆ M. Wang, Q. Liu and Q. Xing	1181
Effects of Promoters on Properties of Cu-Zn-Al Catalyst for Selective Hydrogenation of Cinnamaldehyde to Cinnamyl Alcohol C.Y. Li, X.Y. Li and Y.F. Guo	1185
Effects of Reaction Temperature on Hydrocracking of Asphaltene over NiMo/γ-Al₂O₃ Y.X. Zhao and B. Shen	1189
Electrostatic Discharge of Aviation Oil and Damage Protection W.H. Tang, H.W. Yang, S.L. Yang and C. Wu	1193
Engineering Study on the Nutrient Removal Process of ECOSUNIDE Y. Li and N. Meng	1198
Ethanol Extraction of Flavonoids from Mungbean Skin after Twin-Screw Extrusion Process B. Du, Y.L. Jiao, Z.Q. Huang, L.K. Mao, Y.Y. Fan, H.X. Wu, L.B. Jiang and G.M. Yang	1203
Experiment Investigation Absorption of Mercury by Modified Fly Ash Dust Layer Attaching on Filter H. Wang and Y.F. Diao	1212
Experimental Study for ABR to Treat the Domestic Sewage J. Zhao, Y.S. Shi and Q.J. Lu	1217
Experimental Study on Resistance Influencing Factors of Clean Filter Material Used in Air Purification J. He, H.G. Shen, Y.R. Wu and M. Fang	1224
Extraction and Purification of Astaxanthin from Shrimp Shell with Alkaline-Organic-Solvent Method H.C. Liu, P. Li, G. Wang, H.P. Yu, Z.Q. Zeng and D. Yang	1231
Facile Fabrication of Nanosized Nickel Powder via Solid-State Reaction at Low Heat and its Catalytic Performance L. Hong, W. Bin, F.C. Tao and Q. Xia	1235
Ferric Nitrate Suppresses Internal Phosphorus Loading in Municipal River J.J. Huang, Y.H. Li and Y.J. Gao	1242
Game-Theoretic Analysis of Ecological Restoration Y.Y. Lv	1247
Graft Modification of Collagen with Acrylonitrile in Concentrated Zinc Chloride Aqueous Solution Z.H. Zhang, R.J. Sun, Z.H. Zhang and Y.W. Wang	1251
Hydrothermal Treatment and its Influence on the Structure of Nitrogen Doped Titania Z. Shu, T. Zeng and H.J. Liu	1255
<i>In Vitro</i> Antitumor Activities of Low Molecular Sea Cucumber <i>Stichopus japonicus</i> Peptides Sequentially Hydrolyzed by Proteases X.Q. Zhou, C.H. Wang and A.L. Jiang	1259
Influences to Forest Fire Occurrence of Climate Change: A Study in Ta He Forestry Bureau in Great Xing'an Mountain T. Zeng and H. Huang	1263
Kinetics and Thermodynamics of Adsorption of Copper Ions from Aqueous Solutions onto Carboxymethylcellulose Sulfate Y. Yu and F.Y. Huang	1268
Mechanism Study on Forming Flake Silver Tin-Oxide Composite Powder Y. Wang and Z.J. Du	1273
Microencapsulation of Styrene/Epoxydiacrylate via <i>In Situ</i> Polymerization of Melamine-Formaldehyde H.P. Wang	1279

Mine Dust Concentration Measurement Method Based on Model of Dust Concentration and Humidity	
L.C. Zhuang, M.X. Pang and X.Z. Cheng	1283
N-Doped Cu₁₁O₂ (VO₄)₆ Photocatalyst Prepared by Sol-Gel Method	
M. Wang, Q. Liu and Q. Xing	1287
New Progress of Plate Model of Chromatogram: Five Distinct Plate Numbers	
D.L. Zhang, J.J. Ke and L.Z. Lu	1291
Numerical Simulation of 2D Flood Fluid on Unstructured Grid	
Y.L. Pan, W.L. Wei and Y.L. Liu	1295
Numerical Simulation of Hydraulic Characteristic of Oxidation Ditch	
W.L. Wei, B. Lv and Y.L. Liu	1300
Nutrient Removal from Polluted River Water by Using Vertical and Horizontal Subsurface Flow Constructed Wetlands	
E. Shi, Z.L. She, T. Xie, J. Wu and X.H. Fu	1304
Optimized Environmental Conditions for Petroleum Degradation of Strain B1 by Orthogonal Test	
C.X. Wu, H.T. Zhang, B.H. Zhou, L. Gao, H. Deng, X. Xu and Y.S. Wang	1308
Organic/Inorganic Self-Assembled Film Based on a Perylenetetracarboxylic Diimide Derivative/CdS	
D.P. Li, Y.Z. Wang and Y.L. Chen	1313
Penetration Performance of Melt-Blown Polypropylene Electret Nonwoven Web against DEHS Aerosols	
H.M. Xiao, G.J. Chen and Y.P. Song	1318
pH of N,N-Dimethylformamide in [Bmim][BF₄] and [Bmim][PF₆] Ionic Liquids	
B. Guo, L. Gao, E.H. Duan, A.L. Ren and J.Z. Chen	1322
pH of Toluene in [Bmim][BF₄] and [Bmim][PF₆] Ionic Liquids	
A.L. Ren, D.D. Zhang, E.H. Duan, B. Guo and J.Z. Chen	1328
Photosynthetic Characteristics for Mongolian Scots Pine Plantation and its Relation with Environmental Factors	
J. Zhang and Z.G. Liu	1334
Piemarker Unsaturated Polyester Composite Reinforced with Piemarker Fiber	
C.X. Zhang, H.B. Huang, C. Chen and W.H. Wang	1341
Polymerization of Lactide Catalyzed by Diketiminato Iron (II) Alkoxide Complex	
Y.F. Li, Q. Wu and M.L. Gao	1346
Preliminary Study of Carbon Emission Reduction Benefits of MSW Separate Collection in Liuzhou	
G. Zuo, H.B. Chen, Y. Hu, M. Li and X.F. Li	1350
Preparation and Characterization of Magnetic Coal-Based Activated Carbon in the Presence of Fe₃O₄	
J. Zhang	1355
Preparation and Properties of 1,8-Naphthalimide Derivatives Grafted onto Chitosan	
G.H. Zhang, L.J. Liu and W.L. Sun	1359
Preparation of Fully Biodegradable Poly(L-lactide) and Poly(ethylene succinate) Blend and its Crystallization Property	
X. Fan	1363
Preparation of Nitrogen-Doped TiO₂ /Slide Glass Photocatalyst and Application for Determination of Chemical Oxygen Demand of Pesticide Phoxim in Circulating Photoreactor	
J.F. Niu, B.H. Yao and Z.F. Jin	1367
Preparation of Peppermint Oil Sustained Microcapsules by Intra-Liquid Desiccation	
H.K. Yue, M. Chang, R. Zhou and J. Li	1371
Preparation of Polysilicate Aluminium Ferric (PSFA) Using Effluents and its Application on Banknote Printing Wastewater Treatment	
Z.M. Qiu, D.J. Liu and J.M. Qiu	1376
Preparation of the Modified Mesoporous Beta Materials and its Application in Wet Catalytic Degradation of Methyl Orange	
J.Q. Xu, F. Guo, J. Li and X.J. Quan	1381
Reflections on Carbon Tax on Way to Carbon Dioxide Emissions	
X.Y. Zhang, Y.L. Qiu and P.L. Shen	1385

Relationship Research between Crystallization Quantity of Emulsion Explosive and Desensitization Degree under Dynamic Pressure W.Y. Huang, H.B. Wu and S.L. Yan	1389
Removal of Reactive Blue (RB2) from Aqueous Solution by Chitosan/Diatomite Biocomposite Y. Chen, Z.R. Tang, Y. Wen, C. Xu, L. Li and Q. Zhou	1394
Research on Oily Sludge Pyrolysis Residue to the Adsorption of Biologically Treated Oil-Field Wastewater Y.S. Wang, C.X. Wu, H.T. Zhang, Z.L. Chen, G.Q. Yuan, X. Xu and F.Q. Xue	1398
Research on Performance of Vetier (<i>Vetiveria zizanioides</i>) Cellulose Micro/Nano Fibrils Isolated by High Intensity Ultrasonication X. Wang, Y. Wu and J.T. Huang	1405
Research on Technology of Catalyzed Oxidation Desulphurization with Manganese Sand Fixed Bed Y.F. Guo, C.Y. Li and F.M. Song	1409
Ru-Catalyzed Arene Hydrogenation: A Highly Efficient and Selective Process for Preparing Trans-Trans Isomer of 4,4'-Diamino-Dicyclohexy Y.X. Wang, D.D. Li, X. Huang and Y.J. Zhao	1413
Screening of <i>Lactobacillus delbruekii</i> Subsp. <i>Bulgaricus</i> with Weak Post-Acidification Capacity by Natural and Induced Mutation S. Zhang, L.W. Zhang and X. Han	1417
Solubility and Micronization of Ganciclovir F.X. Tang, Y. Zhang, S.N. Lin and Z.L. Guo	1421
Studies on Chemical Constituents from the Aerial Parts of <i>Saururus chinensis</i> Y.M. Luo, Z.L. Zhang and Y.M. Zuo	1427
Study of Low Detonation Velocity Explosives Used in Explosion Welding W.Y. Huang, S.F. Yuan and H.B. Wu	1431
Study on Application of the Blends of Nitrile Rubber with Acrylate Rubber in the Coat-Metal Sealing Gasket Z.M. Qiu, C.Y. Qin and J.M. Qiu	1438
Study on Coupled Oxidation and Microwave Process in Treating Urban Landfill Leachate by Fenton and Fenton-Like Reaction B.H. Jiang, Y. Zhao, Y. Jin, X.M. Hu, L. Jiang and X.M. Li	1443
Study on Curing Characteristics of Low-Toxicity Urea-Formaldehyde Resin S.M. Wang and J.Y. Shi	1447
Study on Design and Innovation of New-Type Environment-Friendly Landscape Environmental Sanitation Facilities J. Xu and C.M. Gao	1451
Study on Determination of Grease Content Inner Leather by Ultrasonic-Combining-Soxhlet Extraction Method X.M. Luo, P.N. Li, G.H. Zhao and D.Q. Wu	1456
Study on Jet Fuel's Silver Strip Corrosion Property and its Analytic Technology with Sulfide Compounds L.P. Tong, Y.W. Fei and H.W. Yang	1462
Study on Microclimate Effect by Revegetation on Concrete Slop in Guandi Hydropower Station Z.Y. Xia, F.X. Dai and J.L. Chen	1466
Study on Microwave-Assisted Synthesis of Ionic Liquids Based on Dialkylimidazolium H. Zhu, Y.M. Li and X.F. Wan	1471
Study on Nanometric Machining Mechanism of Monocrystalline Silicon by Molecular Dynamics H. Guo	1475
Study on Removing the Floating Oil on the Surface of Wood Vinegar Y.J. Wang, Q. Yu, L.S. Shen, J. Li, H. Yao, Y.F. Li and L. Yu	1479
Study on Synthesis and Characterization of a Fluorescence Probe and its Application for Determination of Superoxide Anion Radical Y.Q. Zhao, H. Lin, L.H. Li, X.Q. Yang, S.X. Hao, J.W. Cen, Y. Wei, B. Qi and H. Huang	1483

Study on the Antimicrobial Properties of ZnO Suspension against Gram-Positive and Gram-Negative Bacteria Strains L.L. Zhang, B. Chen, L.L. Xie and Z.F. Li	1488
Study on the Effect of Collagen Color Fixing Agent on Leather Dyeing Performance L.F. Ren, X.F. Zhang, X.C. Wang and T.T. Qiang	1492
Study on the Preparation and Performance of Natural <i>Polygonum Cuspidatum</i> Sieb.et Zucc Pigments Dyed PBS Composite J. Song, M. Zhang, Y. Tian and S.S. An	1497
Surface Modification of Acid Activated Polyamide Fiber by Immobilizing Collagen X.C. Wang, P.Y. Wang, T.T. Qiang and L.F. Ren	1501
Synthesis and Photochromism Properties of a Novel Hybrid Diarylethene W.J. Liu, W.P. Wang, C.B. Fan and G. Liu	1506
Synthesis and Properties of a New Type Diarylethene Bearing Benzo[b]thiophen Aryl Unit S.H. He, S.Z. Pu and S.Q. Cui	1510
Synthesis and Properties of a Novel Photochromic Compound with a 1,3-Dioxolane S.Q. Cui, D.D. Xu and S.Z. Pu	1514
Synthesis of a Novel Photochromic Diarylethene for Polarization Multiplexing Holographic Recording L.Q. Wang, S.Z. Pu and L.S. Yan	1518
Synthesis of Lignin-Based Dithiocarbamate and its Performance in Pb²⁺ Removal L.H. Liu, J. Cao and B. Li	1522
Technology of CO₂ Capture and Purification from Electric Plant and Boiler Emission Gases for CO₂ Injection EOR X.J. Zhang, Q.L. Li, Q.F. Li, J. Zhang and G.W. Chu	1528
The Discussion of Plan about Water Conservation and Afforestation of Xiaanxi Artificial Aggregate Production System in Three Gorges Project Z.Y. Xia, W.N. Xu and J.L. Chen	1532
The Effect of Asymmetrical Electric Double Layer on Pressure of Hydrodynamic Lubricating Film Q.Y. Zuo, H. Ping and G.K. Gyimah	1536
The Effects of Sulfate Reducing Bacteria on Crevice Corrosion Behavior of Q235 Steel P. Zhao, J.X. Yang, D.Y. Du, C. Sun and J. Xu	1541
The Effects of Treated Wastewater Irrigation on Soil Health Y. Yu, B. Wen, Y. Yang and Z.H. Lu	1545
The Free-Form Surface Five-Axis Machining Global Interference Detection and Adjustment of Cutter Shaft P.C. Wu, F.C. Xia and H.N. Tu	1550
The Influences of Main Ingredients of the Reclaimed Water on Calcium Carbonate Scale in Recycling Cooling System G.H. Yue, L.M. Shang, L.P. Wang and L.L. Feng	1554
The Instability Mechanism of the Down TuDiLing Landslide R.J. Li, Q. Xu, W. Zheng and H.C. Lin	1558
The Relationship between Furized Gypsum Fly Ash Three Constituent Mixture Subtle Structure and Performance J.Y. Sun and X. Gu	1562
The Stability Analyses of Unsaturated Slope Based on the Sarma Method R.J. Li, Q. Xu, W. Zheng and H.C. Lin	1569
The study on Characteristics of Surface-Active Polymer Y.F. Sui	1574
TiO₂/Ti Electrode Preparation, Characterization and its Photoelectrocatalytic Stability Y.L. Xu and J.P. Jia	1579
Treatment of Train Laundry Wastewater for Recycling C.N. Liu and D.S. Bi	1583
Treatment of Wastewater Containing High Concentration Ammonia-Nitrogen by Electrochemical Oxidation Process Y.F. Li and Y.H. Duan	1587
Validation of the Pseudo Imprinted Microspheres for Solid-Phase Extraction of Acyclovir from Swine Tissue F.X. Qiao and H.Y. Yan	1591

