

Table of Contents

Preface and Committee

Chapter 1: Chemical Materials and Technologies

A Green Method for Synthesis of 5H-thiazolo[3,2-a]pyrimidine Derivatives Catalyzed by [Hnmp]HSO₄ Ionic Liquid S.J. Liu, R. Zhou, H.K. Yue and L.X. Shi	3
A Kind of Novel Chemical Plugging Removal Technology Study for Polymer Flooding Wells J.S. Yuan, G.S. Cao, P. Chen and Y. Gao	7
A Study of Oxalic Acid Adsorption on the Surface of Natural Mica M.Z. Ke, Q. Chen, W.M. Zhou, N. Wu, Q.R. Qian, Z.H. Yuan and X.M. Huang	12
Adsorption Breakthrough Curves for Alkaline-Earth Metal Ions on the Resins in a Fixed-Bed Column H.N. Liu, H.F. Zhang, C. Gao, X.S. Ye and Z.J. Wu	16
Analysis of Certain Phenomena in Tussah Silk Dye-Free Coloration H.B. Shi, Y.Z. Cui, F. Ye, X. Wang and L.H. Lv	21
Application of Molecular Simulation on Wettability and its Alteration M.H. Zhou and W.J. Sun	25
Catalytic Wet Peroxide Oxidation of Dye Wastewater Using Fe₂O₃-CeO₂/γ-Al₂O₃ as Catalyst H.Y. Li, B. Yan, B.X. Zhao and X.L. Zhang	29
Chiral Recognition of L-Carnitine Using Surface Molecularly Imprinted Microspheres via RAFT Polymerization L.T. Hou, J.J. Chen, H.J. Fu and X.L. Fu	33
Combustion Kinetic Analysis of Lignite in Different Oxygen Concentration Y.F. Zhang, X.Y. Chen, Q. Zhou, Q.C. Zhang and C.P. Li	37
Comparison Study on Hospital Wastewater Disinfection Technology L. Chen, H. Zhou, B. Yu and Z.W. Huang	41
Comparison Study on Measuring Ammonia and Nitrogen in Surface Water by Flow Injection and Nessler's Reagent Y.G. Zeng, L. Chen, H.X. Li, J. Huang and B. Yu	46
Effect of Dendritic Architecture on Photochromism of Spiropyran Functionalized Dendrigrft Polybutadiene Y. Zhang, T.J. Yu, Y. Zhang and Y. Li	51
Effect of Hydrolyzed Polyacrylamide Used in Oil Recovery on Characters of Crude Oil C.J. Hou, Q.Z. Jiang, Z.Z. Song, G.R. Tan, S. Zheng and S.H. Li	55
Effect of Ionic Liquid Pretreatment on the Structure and Enzymatic Saccharification of Cassava Stillage Residues L.H. Cui, M. Wang, J.H. Li and Q.H. Wang	59
Effects of Process Parameters on Hydrophobicity of Alumina Surfaces Fabricated by Hard Anodizing J. Li, Q. Li, J.K. Xu and H.D. Yu	64
Flow Field Analysis of PVC Polymerizer H.D. Hao, T.Q. Cheng, Y.F. Zhang, N. Zhu, J.Y. Lei and T. Zhai	68
Influence of Zirconium Oxide on Thermal Degradation and Flame Retardancy of Viscose Fibers C.C. Song, Q. Ji, C.X. Li, F.Y. Quan and Y.Z. Xia	73
Influence on Desulfurization Capacity of Flue Gas Desulfurization Solution J.M. Li, X.L. Zhang, Z.Q. Qiu, J.S. Wang and Y.L. Ren	78
Laboratory Evaluation on Foaming Agent for High-Temperature and High-Salinity Reservoir J.C. Fang, C.L. Dai, K. Wang, Q.F. Ding and S.Y. Wang	82
Laser-Controlled Combustion of Solid Propellant Z. Qin, J. Wu, R.Q. Shen, Y.H. Ye and L.Z. Wu	87

Minimization of the Disinfection by-Product Precursors in Treated Waters Exposed to Ozone and Chlorine	91
S.C. Yue, L.J. Zhao, X.D. Wang, Q.S. Wang and F.H. He	
Molecular Design and Synthesis of Wettability Alteration Chemicals	96
M.H. Zhou and W.J. Sun	
New Insight into Wettability Alteration to Gas Wetness: Core Experiment and Modeling	100
M.H. Zhou and W.J. Sun	
Numerical Simulation Study on the Key Influencing Factors of Water-Invasion Performance for the Gas Wells with Bottom-Water	104
Z.J. Li, J.Q. Li and W.D. Yan	
Plywood with Soy Protein - Acrylate Hybrid Adhesive	108
C.N. Jin, S.C. Zhang, J.Y. Pang and Z.G. Gao	
Preparation of Anti-Fouling Poly(Lactic Acid)(PLA) Hollow Fiber Membranes via Non-Solvent Induced Phase Separation	112
P. Shen, K. Tu, C.Y. Yang, J. Li and R.X. Du	
Preparation of Supported Fe/SiO₂ Catalyst and its Catalytic Performance for Wastewater Treatment	117
H.Y. Li, B. Yan, B.X. Zhao and X.L. Zhang	
Preparation of Two Magnetites and Application for the Removal of Fluoride from Waters	121
Q. Yang, J. Wang, L.Y. Zhou, H.X. Zeng and S.Y. Wei	
Removal of Manganese(II) Ions from Wastewater by H₂O₂ as Oxidant	125
W.Q. Yang, J. An, J.G. Yin, X.L. Yuan and W.T. Xia	
Research on Treatment of the Micro-Polluted Reservoir Water with Ozone Oxidation	129
Q.F. Liu	
Separation of Methyl Propionate-Methanol-Water by Salting-Out Extraction	134
Y.F. Cao and D.L. Fan	
Study on Experiments of Anion Exchange Resin Column for Purification of Hydrogen Peroxide	140
G.Y. Luan, W.P. Gao and P.J. Yao	
Study on Influencing Factors of Rapid Identification of Drainage Oil by Conductivity Method	144
B. Wang, S. Han, S.H. Tong, Y. Xiao, X. Li, H.J. Cao, X.F. Zhao and J.N. Li	
Study on Volatile Evolution during the Eucalyptus Pyrolysis by Using TG-FTIR Analysis	148
D.Z. Fu, Y. Tang, Z.H. Fu, H.L. Zhang and W. Li	
Study on Mechanical Properties of Gun-Propellants with RDX.doc	154
J. Liu, S. Cheng, Y.H. Wang, Z.L. Ma and Z.L. Xiao	
Study on the Physical and Chemical and Mechanical Pulping Characteristic of Cotton Stalk Fiber	158
L.X. Li and H.T. Chen	
The Application of DOW Method for Production Risk Evaluation in Chemical Enterprises	162
B. Mu, L. Wang, T.C. Wang, X.X. Wang and J.G. Zhu	
The Development of Microporous in Coal by Spontaneous Combustion	166
J.Y. Di, E.X. Gao, X.L. Sun, H.J. Niu and M.Z. Guo	
The Evaluation of Decentralized Wastewater Reuse Based on Environmental Accounting	170
X.J. Liu and Y.J. Wei	
The Oxidation Behavior of Heavy Oil and Sands	174
Q.S. Hao, D.S. Ma, C. Zan, H. Jiang and L.J. Ye	
The Present Situation and Future Trend of the Applications of TiO₂ in the Wastewater Treatment	178
B. Wang, S.H. Tong, S. Han, Y. Xiao, X. Wei, P.W. Guo, Y. Zheng, W.J. Xu and H.S. Wang	
The Study of the Influence of Sulfur on the Catalyst Structure in Low Temperature Claus Processes	182
J.J. Li, L.M. Huang and J.L. He	
Water and Oil Dual-Absorption Composite Resins Prepared from High Internal Phase Emulsion	186
S. Zhu, X.G. Luo, L.B. Ma, Y.N. Xue, N. Cai, Z. Fu and F.Q. Yu	
Adsorption of 4-Chloro-2,5-Dimethoxy Nitrobenzene by Activated Pyrolytic Char from Pine Sawdust	190
W. Xiao, R.D. Zhang, Y.B. Song, R.P. Han and Y.Q. Li	

Adsorption of Neutral Red by Pyrolytic Char from Pine Sawdust Y. Shang, J.H. Zhang, Y.K. Li and R.P. Han	195
Analysis of Temperature Field of PVC Polymerization Reactor H.D. Hao, N. Zhu, Y. Gao, T.Q. Cheng, J.Y. Lei and T. Zhai	200
Effects of Different Zeolite Cluster Model on the Simulation of Benzene Adsorption by ONIOM3 Method X.Y. Sun, D. Qiao, L. Qiang and S.G. Xiang	204
Flame Retardant Properties of Viscose Fibers Containing Talcum Powder C.X. Li, Q. Ji, C.C. Song, F.Y. Quan and Y.Z. Xia	208
Investigation into Coating Surface Free Energy and Microstructure of Coated Paper Related to Pigment Y. Li, W.J. Gu and B.G. He	212
Natural Dye from <i>Garcinia dulcis</i> (Roxb.) Kurz Bark and Application on Silk Fabric by Using Pad-Batch Dyeing: A Study on Mordant Concentrations Efficiency R. Mongkholrattanasit, N. Rungruangkitkrai, N. Tubtimthai, N. Sasivatchutikool and N. Punrattanasin	216
Preparation and Characterization of $\text{La}_2\text{Ti}_2\text{O}_7\text{:Pr}^{3+}$-Coated Pearlescent Pigment with Fluorescent W.M. Zhou, Q. Chen, M.Z. Ke, N. Wu, Q.R. Qian, H.J. Zhang, Z.H. Yuan and B.Q. Huang	220
Preparation of a New Type Cleanup Additive Z.L. Wang, J.B. Gao, H.M. Fan, B.C. Li and H.T. Zhang	224
Removal of Phosphorus from High-Phosphorus Iron Ores by Sodium Roasting J. An, W.Q. Yang, X.L. Yuan and W.T. Xia	228
Study on Solid Surface Sizing Agent for Paper Z.S. Wang, W.L. Yu and H.X. Dong	233
Study on the Photocatalytic Oxidation of Reactive Brilliant Blue X-BR with Lanthanum-Modified ZnO-TiO_2 L. Zhu, Y.F. Xiao and X. Wang	237
Study on the Pigging Process of Rich Gas Pipeline W.Q. Wang, K.F. Fan, Y.F. Wan, M. Wu and L. Yang	242
Synthesis and Characterization of Luminescence Eu^{3+}/Polyurethane Composite Material K. Sheng, J.L. Wang, Y. Li, Y.H. Wang, M.X. Xu and A.J. Liu	247
Synthesis and Properties of Composite Membranes for Polymer Electrolyte Membrane Fuel Cells A.N. Chesnokova, O.V. Lebedeva, Y.N. Pozhidaev, N.A. Ivanov and A.E. Rzhechitskii	251
UV Protection Property of Colorant from Lac for Silk Fabric Dyeing by Cold Pad-Batch: The Influence of Metal Mordants Concentration R. Mongkholrattanasit, N. Rungruangkitkrai, N. Tubtimthai and N. Sasivatchutikool	257
Evaluation of NO_x Removal from Simulated Flue Gas by "Absorption-Oxidation-Reduction" Method B.L. Li, M.Y. Li, H.H. Liu, G. Cao, G. Ren, L. Song and X.D. Ye	261

Chapter 2: Materials in Mechanical Engineering

Application Study of Viscoelastic Damping Material for the Anti-Galloping of Overhead Transmission Lines N. Sun, K.J. Zhu, B. Liu, S.C. Liu and L. Liu	269
Effect of Latent Heat Related to Solidification Kinetics on Heat Transfer during Solidification of Al Alloy S.J. Lee	273
Effect of Ozone Application to Microbial Contaminated Samples of In-Use Metalworking Fluids K. Gerulova, O. Tatarka, T. Stefko, Z. Szabova and J. Fiala	277
Effect of the Electrode Shape on Properties of GaN-Based LED Chips H. Kuang, S.A. He, Y. Luo, X.Q. Zhang and Z.H. Xiong	283
Effects of Temperature and Mineralizer on In_2O_3 Crystals Synthesized by Hydrothermal Method W.L. Zheng and W. Yang	287

Fabrication of Nanostructured Ni Film with Superhydrophobic Property J.Y. Liao, H. Li and X.B. Zhang	292
Hydrothermal Synthesis of $Zn_{1-x}Co_xO$ Room Temperature DMS W.L. Zheng and W. Yang	296
Influence of Furnace Cooling Time on Precipitation of β-$Mg_{17}Al_{12}$ Phase of AZ91 Magnesium Alloy J. Zhang, G.J. Nan, H.H. Li, W.F. Zhao, Z. Cao and M. Zhang	300
Morphological and Compositional Changes in the SiO_2/SiC Interfacial Layer Induced by Thermal Annealing of Different Temperature Z.Q. Zhong, L.D. Zheng, S.Y. Wang, L.P. Dai and G.J. Zhang	304
Research on Pinholes in Aluminum Foil Q.W. Dai, D.F. Zhang, X. Chen, J.R. Dong and F.S. Pan	308
Research on the Influence of Drying Method on Ink Penetration of Coated Paper Y. Li, W.J. Gu and B.G. He	312
Research Progress on Heat Treatment Processes of 7000 Series Aluminum Alloy L.P. Zhong, L. Zhao and L. Zhou	316
Structure and Properties of r-PET/TPEE/LDPE-g-AA Blends Q.L. Huang, H.J. Zhang, W. Zhang and X.T. Lin	320
Study on Coupling Effect of Hydrogen Pressure Stress Field of Micropores in the Heavy Forgings F.S. Du, J. Li, J.K. Fan, Y. Li and T.Y. Tan	324
Study on Microwave Curing and Mechanical Properties Quartz/UPR Composites X.W. Kong, Z. Yin and J.H. Wang	329
The Creep Properties of Materials and Finite Element Method H.J. Chen	337
The Effect of Acrylonitrile Content on the Abrasion Behavior of Unfilled Nitrile Rubber Z.Q. Cao, D.G. Wang and Q. Zhou	341
The Influence Factors of Silicon Steel Magnetic Property L. Shang, H.L. Yang, H. Xu and Y.G. Li	345
The Microstructure and Rheological Properties of the Crosslinked Polymer Microspheres H.L. Chen, X.Y. Zheng, X.J. Li, Q.Q. Wei and Q.Z. Jiang	349
Viscoelastic Properties of Constant Viscosity Natural Rubber with Mercaptan Z.Q. Zeng, H.P. Yu, Q.F. Wang, F.Y. Wei and H.C. Liu	353
Refractory Metal and its Preparation H. Xu, H.L. Yang, Y.K. Wu, L. Shang and Y.G. Li	359
Research of Complex PZT Film Base on Shear Mode Energy Harvesting X.J. Chen, C.J. Qiu, H.M. Liu, Y.W. Dou and S.S. Cao	363
The Optimization Research on Hollow-Core Photonic BandgapFiber CoreTransversal Radius D.J. Xu, H.R. Song, W. Wang and Y. Fan	370
Study on Residual Stresses and Fatigue Properties of Friction Stir Welding Joint T. Zhang, Y.T. He, Q. Shao, B. Hou and C. Gao	374
Numerical Simulation of Micro Flow Field on Biomimetic Sharkskin Micro-Grooved Surface Y.H. Luo and Y.F. Liu	378
Velocity Profile of Viscous-Elastic Fluid in Eccentric Annulus with the Internal Rod Moving Axially L.L. Liu, W.D. Hao, S.R. Yang, L.H. Wang and D. Xu	382

Chapter 3: Biotechnologies and Microbiology, Pharmacology, Biomaterials and Tissues

Analysis and Evaluation of Nutrient Composition of the Factory Farming Jade Perch Y. Wei, Y.Q. Zhao, S.X. Hao, J.W. Cen, H. Huang, W.L. Lin and L.H. Li	389
Bioinformatic Analysis of Codon Usage Bias in the ompC Gene of <i>Salmonella pullorum</i> X.Y. Bao, G.Y. Xu, L. Fan, M.G. Liu, Y. Zhou and K.C. Pan	394

Bio-Synthesis of GABA by <i>Streptococcus thermophilus</i> QYW-LYS1 Isolated from Traditional Fermented Yoghurt	
H. Liu, J. Zhang, W.Q. Yang, Z.Y. Liu, X. Chen, H. Guo, B.Y. Liu, C.G. Zang, Y.C. Liu, J.C. Liu and H. Guan	401
Canine Pregnancy Test and Diagnostic Research on Obstetric Diseases Based on B Ultrasound Application	
W. Yao	405
Comparison of the Effect of Sterilization Pretreatment Using Four Different Bacteriostatic Agents on the Quality of <i>Penaeus vannamei</i>	
Y. Wei, Y.Q. Zhao, S.X. Hao, X.Q. Yang, H. Huang, W.L. Lin and X.Q. Yang	409
Coupling Analysis of Electroencephalogram Based on Mutual Mode Entropy	
N. Ji, J.F. Dai and J. Wang	415
Determination of Content of the Four Alkaloids and the Total Alkaloid in Co-Dergocrine Mesyiate Tablets by HPLC	
H.K. Yue, M. Chang, S.J. Liu and R. Zhou	419
Effect of <i>Armillaria mellea</i> on Blood Lipid Levels and Antioxidant Enzymes Activity in High Fat Mice	
Y.H. Yang, G.Q. Zheng, J. Tang, Y.M. Wang, C.W. Zhu, H.Y. Ji, X.M. Xu and A.J. Liu	423
Effect of Complex Food Environment on Production of Enteriocin IN 3531 with <i>Enterococcus faecium</i> IN3531 as a Starter in Chinese Fermentation Paocai Making	
W.L. Liu, L.W. Zhang, J. Shi and H.X. Yi	429
Effect of Sulfate Concentration on Biohydrogen Production by Enriched Anaerobic Sludge	
B. Wang, Y.N. Yin, R. Cheng, Q. Zhang, L. Wang, Y. Yang and J.L. Wang	433
Effects of Huachansu Parenteral Emulsion on Immune Function in Mice	
X. Liang and J. Zhang	437
Expression Profile Analysis and Target Gene Prediction of Three Conserved MicroRNAs in Resistant <i>Gossypium hirsutum</i> Cv. KV-1 Responding to <i>Verticillium dahliae</i>	
X.H. He, M. Shi, Q. Sun and Y.F. Cai	441
Extract of Housefly (<i>Musca domestica</i>) Maggot Anti-Inflammatory Parts could Regulate the Proliferation and Migration of TNF-α- Stimulated Human Umbilical Vein Endothelial Cells	
F.J. Chu, H.Y. Ma, X.B. Jin and J.Y. Zhu	446
Isolated Strains of Nontuberculous Mycobacterium Interfere with Immune Responses Associated with Mycobacterium Bovis BCG Vaccination	
C.F. Wang, H.R. Qi, X.Y. Jiang, H.X. Ma, A.D. Qian and C.F. Wang	450
Laboratory Research on Enhancing Oil Recovery of Three Bacteria D1-3	
M.M. Cheng, G.L. Lei, J.Y. Liu and J. Yang	455
Microbial Production of 1,3-Propanediol by a Newly Isolated <i>Citrobacter freundii</i> Strain CF-5	
Y. Yu, L.T. Shi, W.Y. Guo and H.J. Yang	459
Modified Synthesis of 2-Ethoxycarbonyl-3,4-Diethyl-Pyrrole and the Corresponding Octaethylporphyrin	
Q.F. Liu	465
Optimization of Fermentation Conditions for Chinese Fermentation Paocai with <i>Enterococcus faecium</i> IN3531 as a Starter by Single Factor Method	
W.L. Liu, L.W. Zhang, J. Shi and H.X. Yi	471
Optimization of Operation Parameters of Dry Anaerobic Co-Digestion from Animal Manure and Straw in a Batch Reactor	
L.J. Shi, W.L. Liu, H.F. Liu and W.Y. Zhang	475
Physical Properties and Antimicrobial Activity of a Poly(Lactic Acid)/Poly(Trimethylene Carbonate) Film Incorporated with Thymol	
Y. Wu, M.W. Yuan, J.Y. Yang, Y.Y. Qin, M.L. Yuan and J.X. Cao	481
Physicochemical Characteristics of Bacteriocin Produced by <i>Pediococcus pentosaceus</i> H6	
J.L. Sun, H. Liu, H.X. Zhang and Y.H. Xie	485
Phytochemical Study and its Quantity and Quality of Fresh and Freeze-Dried Young Coconut Juice (<i>Cocos nucifera</i> L.)	
P. Rattanaburee, T. Amnuakit, N. Radenahmad and J. Puripattanavong	490
Preparation and Performance of Controlled-Release Tablets of Sasanquasaponin-Sodium Alginate-Hydroxypropyl Methyl Cellulose	
X.Z. Liu, X.Z. Liu, Z.F. Lai, Y.X. Song and L. Zhai	494

Prokaryotic Expression and Identification on the ag85a and mpb70 Fusion Gene of <i>Mycobacterium bovis</i>	
X. Liu, C.F. Wang, H.X. Ma, Y.H. Gao, J.N. Guan, J.M. Lin, B.F. Luo, B. Ai and X.Y. Jiang	498
Properties of Anaerobic Activated Sludge in Biohydrogen Production Reactor	
Z. Qin, G.Y. Bai, Q. Zhang, Y.Y. Cui and C.Y. Zhang	503
Regression Analysis between Ash Content and Ultimate Analysis Indexes for Bio-Fuels from the Biomass Power Plant	
Z.H. Fu, B. Wang, G.Z. Sun, W. Li and L. Liu	507
Research on Attention EEG Based on Jensen-Shannon Divergence	
Z.X. Zhang, S.Q. Xu, E.N. Zhou, X.L. Huang and J. Wang	512
Screening and Mutation Induction by DBD Plasma of Potassium-Solubilizing Bacteria	
X.L. Zhu, L.P. Dong, J.Q. Liu, S.J. He and H.H. Du	516
Simultaneous Separation and Determination of Aconitine Compounds in <i>Radix aconiti praeparata</i> by High Performance Capillary Zone Electrophoresis	
S.Y. Gao, L. Wang, Y. Zhang and H. Li	522
Stability and Toxicology of the Controlled-Release Tablets of Sasanquasaponin-Casein	
X.Z. Liu, X.Z. Liu, Z.F. Lai, Y.X. Song and C.M. Zhai	526
Structure-Based Virtual Screening of Compound Library for Anti-Estrogen Breast Cancer Candidates	
X.Y. Li, X. Liu, C.F. Du, H.J. Luo, W.Q. Deng and N.Y. Huang	531
Study on Hydrolysis Conditions of <i>Lactobacillus bulgaricus</i> on Casein Sodium by Method of Response Surface and the Antioxidant Activity of Hydrolysates	
Z.Y. Liu, W.Q. Yang, H. Liu, J. Zhang, C.G. Zang, Y.C. Liu and H. Guan	535
The Application of PCR-DGGE Technique in Sheep Intestinal Microbial Diversity Research	
S. Yuan, Y.H. Xie, H.X. Zhang, Z.X. Lian, H.B. Han and H. Liu	540
The Effects of Floating Granulosa Cells Density on the Developmental Competence of Bovine Oocytes: A Study Using the Well-in-Well Culture System	
W.G. Feng, C.E. Ren and Z.F. Pan	544
Two New Natural Products from the Roots of <i>Raphanus sativus</i> L.	
S.B. Wu, F. Wang, X.B. Jin, T. Liu, L.R. Wu, W. Wang, D. Mei, Z. Zheng and J.Y. Zhu	548
Use New PDLA/PRGD Nerve Conduits for Promoting Peripheral Nerve Regeneration	
T. Qiu	553
Using 2D-PAGE and Mass Spectrometry (LC-MS/MS) for Embryo Proteins Analysis in <i>Antheraea pernyi</i>	
Y. Wang, Y.R. Jiang and L. Qin	556
Comparison of Chemical Properties and Ni Release of Stainless Steel and Nickel Titanium Wires	
W. Wichai, N. Anuwongnukroh and S. Dechkunakorn	560
Determination of Picogram Levels of Levodopa in Pharmaceutical Preparations and Biofluids by Flow-Injection Chemiluminescence	
Y. Zhang and S.Y. Gao	566
Fast Testing Methods on the Performance of Laser Confocal Micro-Raman Spectroscopy System for Cell Analysis	
X.C. Meng and L.Q. Zhu	570
Molecular Cloning and Structure Analysis of MpARF, an ADP-Ribosylation Factor in <i>Monascus purpureus</i>	
L. Gao and B.Y. Zhu	574
Preparation of 4,6-Trichloromethyl-2-(p-Acetobiphenyl)-1,3,5-Triazine	
Y. Zhang, H.W. Song, T.T. Liu, M. Du, S.X. Xu and W.L. Li	578
Startup of Seawater Anaerobic Ammonia Oxidation Reactor	
J. Wang, J.A. Hao, A.J. Zhang, B. Yang, T.X. Jiang, X.Z. Zhang, X.Q. Zhang and Y.S. Zhang	582
Surface Characteristics, Chemical Composition and Ni Release of NiTi Wire in Different pH	
P. Tua-Ngam, S. Dechkunakorn and N. Anuwongnukroh	586
Synthesis, Characterization and Antitumor Activities of Cis-Chlorogenic Acid[(1R,2R)-1,2-Cyclohexanediamine] Platinum(II)	
J. He, Q.K. Wang, X.J. Li and S.P. Pu	593
The Purification of Industrial Alkali Lignin with Xylanase	
L.X. Dai, H.M. Lu and L.P. Zhang	598

Transesterification of Natural Lecithin Catalyzed by Isopropylamine H.Y. Li, B. Yan, X.L. Zhang and B.X. Zhao	603
Design, One-Pot Synthesis, and Evaluation of 7<i>H</i>-Thiazolo[3,2-<i>b</i>]-1,2,4-Triazin-7-One Derivatives as Dual Binding Site Acetylcholinesterase Inhibitors S.J. Liu, L.X. Shi, J.Y. He and L.B. Cui	607
Evaluation of Copper, Zinc and Chromium Contents of Some Wild Edible Mushrooms in Miyi Y. Zhang, S.J. Jiang and G. Yang	611
Expression of Cytosolic Glyceraldehyde-3-Phosphate Dehydrogenase in Response to Rice Blast Infection J. Su, C.Y. Wang, S. Chen and X.Y. Zhu	615
Properties of Three Commercial Orthodontic Round Stainless Steel Wire N. Tangit, S. Dechkunakorn, N. Anuwongnukroh, P. Churnjitapirom and P. Tua-Ngam	619
Protective Effect of Ginsenoside Rb1 Mixing with Several Lung Flush Solutions on Pulmonary Ischemia-Reperfusion Injury F.W. Lin, C. Zhang, Q. Zhang, K.P. Cheng, N. Gao, Z.G. Han and Y. Zhao	625
Study on Preparation of Star PLGA Cucurbitacin-Loaded Microsphere and its Properties Y. Zhang, H.W. Shao, Y. Liu and X.Y. Han	630
Genetic Toxicity of Berberine on Mouse Heart C.B. Xu, L. Wang, X.J. Hui, X.P. Ma, X. Bi and Q. Zhao	634

Chapter 4: Materials and Technologies in Construction

Axial Compression Behavior of Masonry Prisms Considering the Influence of Mortar X.H. Zhou	641
Application Research on Horizontal Static Load for Elastic Long Pile S.Y. Ma, W.Y. Yu and L. Cao	645
Calculation Method of Flexural Capacity under Limitation Failure of SRHC Beams Strengthened with FRP L. Zhou, X.M. Nie and Y.H. Bai	649
Embedment Strength of <i>Pinus</i> sp. Wood to Metal Pins D.H. Henrique de Almeida, T.H. Hendrigo de Almeida, J.C. Molina, F.S. Ferro, A.L. Christofóro and F.A.R. Lahr	653
Engineering Characteristics of Expansive Soil and its Improved Research Development Z.J. Wang and J.B. Liang	657
Influence of Anti-Rutting Agent on the Pavement Performance of Asphalt Mixture F. Gao and Q.S. Zhang	662
Influence of Proportion Polyol/Pre-Polymer Castor-Oil Resin Components in Static Bending Properties of Particleboards Produced with <i>Pinus</i> sp. F.S. Ferro, D.H. de Almeida, A. Magalhães de Souza, F.H. Icimoto, A.L. Christofóro and F.A.R. Lahr	667
New Steel Fiber Concrete Mechanics Parameters and Contact Explosion Tests T. Ge, Z.G. Zhang and Q. Li	671
Numerical Analysis of Initial Support and Secondary Lining Contact Pressure of Phyllite Tunnel X.Z. Li, G.F. Wang, X.L. Li and Z.R. Zhu	675
Numerical Simulation of Bored Pile on Foundation Pit Support in Soft Soil Deposits J. Wang, X.Q. Liu, X.C. Xie and H.J. Qi	679
Optic-Energy Performance of Innovative and Traditional Materials for Roof Covering in Commercial Buildings in Central Italy A.L. Pisello	685
Particleboard Produced with Sawmill Waste of Different Wood Species L. Simal Alves, S.A.M. da Silva, M. dos Anjos Azambuja, L.D. Varanda, A.L. Christofóro and F.A.R. Lahr	689
Soil Infiltration Characteristics under Different Land at Western Yunnan Plateau D.H. Qi and Z.Q. Liu	694

Study on Analysis and Application of Horizontal Static Load Test Results for Elastic Long Pile	
Y.Z. Huang, S.B. Zhang and W. Yang	698
The Activation of Steel Slag and its Application in Construction and Building Materials	
L.L. Li, F.Q. Zhao and S.J. Liu	702
The Rivalry between Old and New Material in Creating Local Environmental Features - Illustrated by the Protection and Remediation of Traditional Environmental Features in Jingmai Village, Lancang County	
Y. Su, T.Y. Li and X.Q. Qi	706
The Shear Capacity Calculation of Steel Reinforcement High-Strength Concrete Short Columns Restrained with FRP	
L. Zhou, X.C. Wang and Y.H. Bai	711
The Permeability of Three Kinds of Improved Soil in Northwest Area and its Application in Foundation Treatment	
W.F. Liu and Z.P. Yang	716
Experimental Study of Volume Features of Gyratory Compaction of Asphalt Mixture	
F. Gao	720