

# Table of Contents

## Preface and Organizing Committee

## Chapter 1: Material Science and Engineering

<b>The Composition and Uses of the Building Material</b> Z.J. Zhang	3
<b>Oxidation of CVD Growth Single-Layer Graphene</b> H. Gao and Y. Zhang	7
<b>Microstructure and Corrosion Properties of Mg-Zn-Ca-Zr Alloy for Biomedical Application</b> D.M. Jiang, T.S. Yu, D.H. Jiang, L. Guo and Z.Y. Cao	11
<b>Changes of Natural Frequencies of Industrial Steel Hall due to Simplifications of Numerical Model</b> J.M. Dulinska and P. Boron	16
<b>Fabrication of PbO-Type Structure <math>\beta</math>-FeSe Superconductor Ceramics by Solid State Reaction Method</b> Y.Y. Wu, J. Gao, T. Li and Z.Q. Hua	21
<b>Preparation of Ti-Based Hybrid Membranes and its Application for the Removal of Copper(II) Ions from Water</b> J.S. Liu and X.L. Zhou	25
<b>Size-Dependent Piezoelectric Coefficient <math>d_{33}</math> of Nanoparticles</b> S. Zhang and L. Chen	29
<b>Synthesis and Structure of a Two-Dimensional Metal-Organic Framework: <math>[\text{Fe}(\text{C}_7\text{H}_3\text{NO}_4)(\text{H}_2\text{O})_2]_n</math></b> H.S. Wang and H.F. Suo	33
<b>The Migration and Distribution Characteristics of the COD in the Enriching Process of HPF Coking Desulfurization Waste Solution</b> G.Q. Li, Y.F. Zhang, Z.Z. Li, Y.L. Shi, Y.Z. Wang and L. Wang	37
<b>Research on Cu(II) Transfer Using Supported Liquid Membrane</b> X.J. Yu, F. Zhang, L.Z. Huang, J. Zhao and J. Zhang	41
<b>Study of Coating Binder Migration and Affected Parameters</b> Z.H. Zhen and Z.S. Wang	45
<b>Influence of Sintered Temperature on Spinel <math>\text{LiMg}_{0.06}\text{Mn}_{1.94}\text{O}_4</math> Synthesized by Flameless Liquid-Phase Combustion Method</b> M.M. Chen, H.L. Bai, J.J. Huang, M.L. Yuan, X.Z. Huang, C.W. Su and J.M. Guo	49
<b>The Experimental Study on the Fire Suppression Effectiveness of Water Mist with the <math>\text{FeCl}_2</math> Additives</b> C. Jian, X.Y. Ying and W. Na	53
<b>Structure Studies on Order Assemblage of Manganese<sup>II</sup> Complexes</b> Y. Liu, S.S. Zhang, J. Gao, T.Z. Yang and H.X. Tian	57
<b>Equation of State of Detonation Products Based on Chemical Equilibrium</b> Y.H. Zhao, H.F. Liu and W.W. Pang	61
<b>Dynamic Fracture of Ductile Metals at High Strain Rate</b> W.W. Pang, G.C. Zhang, A.G. Xu and P. Zhang	65
<b><math>\text{Cu}_2\text{S}</math> and <math>\text{AlN}</math> Precipitates in Fe-3%Si-0.5%Cu Steel Produced by Low Slab Reheating Technique</b> Y. Wang, Y.B. Xu, Y.X. Zhang, F. Fang, X. Lu, Y.M. Yu and G.D. Wang	69
<b>Application of Nanoscale Zero Valent Iron Combined with Impatiens Balsamina to Remediation of E-Waste Contaminated Soils</b> Y.Y. Gao and Q.X. Zhou	73
<b>Removal of Reactive Dyes from Wastewater by Magnesium Hydroxide Coagulation Assisted with Ultrasonic</b> S.Y. Liu and J.H. Zhao	77

<b>Preparation of Hydrophobic Microporous Polypropylene/Isotactic Polypropylene Blending Membranes via Thermally Induced Phase Separation for Vacuum Membrane Distillation</b>	
N. Tang, S. Zhang, L. Zhang, P.G. Cheng and J.J. Li	81
<b>Anodic Behavior of Pb-Ag-Ca-Sr Alloy in Zinc Electrowinning</b>	
X.T. Yuan, X.D. Lv, Y.G. Zhou, Z.Q. Hua, Y. Lei, L. Wang and T. Li	85
<b>Effect of Extrusion Route on Grain Refinement during ECAP Process</b>	
C.Y. Ban, H.T. Gao, C.Q. Li, D. Han and J.Z. Cui	90
<b>Influence of Caustic Soda Flakes-Phosphogypsum on Activation and Microstructure of Carbide Slag-Flyash</b>	
Q.R. Ding, Y.Y. Ma, X. Xiang, H. Cao and X.J. Chen	94
<b>Study on the Performance of Mg/Al Composite Anode</b>	
X. Liu, X.Q. Liu, M.L. Chen, L. Ou and B.R. Hou	98
<b>Effects of Insolation on Optical Properties of Tricot Invisible Curtain</b>	
W.L. Chen, D.H. Yi, L.Y. Wan and H.F. Li	102

## **Chapter 2: Civil Engineering, Building and Construction Materials and Technologies, Architecture and Geoengineering Applications**

<b>Analysis of the Reinforced Masonry on Shear Capacity</b>	
Y. Yu, X.J. Zhuang, Y.F. Zhang and Z.Q. Yuan	109
<b>Comparative Analysis of the Reinforced Masonry Structure Bearing Capacity with Different Methods</b>	
Y. Yu, L. Wang, Y.F. Zhang and Z.Q. Yuan	112
<b>Experimental Study on Simply Supported Reinforced Concrete after Fire</b>	
X. Han, D.F. Zhao and Z.K. You	116
<b>Analysis of Crack Patterns of 500MPa Reinforced Concrete Beams</b>	
Z.H. Li and X.Z. Su	120
<b>Study on Rain Water Drainage System Plan Based on SWMM</b>	
B. Gao and B.Y. Zhuang	125
<b>Study on Causes and Solutions of Cracks on Concrete Hollow Block Wall</b>	
Q.S. Zhang	129
<b>Three-Dimensional Numerical Simulation Analysis of Security of the Underground Diaphragm Wall Based on the Ring Beam Supporting System</b>	
G. Zhou, K.S. Ding, S.J. Yi and Z.G. Fan	133
<b>Discussion on the Site Selection of Handan History Settlements</b>	
F. Wang, C.H. Yang and H. Chen	138
<b>Research Status on Muddy Water Seepage Theory</b>	
Z.F. Song and Q.H. Cui	142
<b>Genetic Algorithm for Searching for Critical Slip Surface in Gravity Dams Based on Stress Fields</b>	
J.Y. Chen, S. Wang, Q. Xu and J. Li	146
<b>Normalized Soil Deformation Induced by Underlying Bedrock Fault</b>	
Q.P. Cai, Y. Huang and F.Y. Meng	150
<b>Finite Element Analysis of the Destroy of Pressure Reducing Cone's Column in the Cement Silo</b>	
K. Hu and D.G. Kong	155
<b>The Study on Heating Running Schemes of Solar Energy Combined with Municipal Heating</b>	
Y.A. Ao, G. Li, W.X. Kong and Q. Feng	160
<b>Influencing Factors and Control Measures of the Saturation Line of Tailing Dams</b>	
Z.F. Song and Q. Wang	165
<b>Experimental Study on the Rutting Deformation Mechanism of Asphalt Pavement</b>	
Y. Ye and H.K. Chen	169
<b>Experimental Study of Performance of Self-Stress Lightweight Aggregate Concrete Filled Steel Tubes after Exposure to Fire</b>	
J.C. Xu, P.F. Ren, H.L. Tong and X.T. Wang	173
<b>Study of Post-Fire Performance of Steel Fiber Reinforced Ceramsite Concrete Filled Steel Tubes</b>	
P.F. Ren, J.C. Xu, J.Q. Lu and X.T. Wang	177

<b>Research of Post-Fire Mechanical Property of Steel Fiber Reinforced Ceramsite Concrete Filled Steel Tubes after Exposure to Fire</b> H.L. Tong, T.H. Wang, J.Q. Lu and X.T. Wang	181
<b>Study of Post-Fire Axial Compressive Behavior of Self-Stress Ceramsite Concrete Filled Steel Tubular Short Columns</b> J.Q. Lu, H.L. Tong, J.C. Xu and X.T. Wang	185
<b>Numerical Analysis of Fire Performance of a Spacial Pre-Stressed Steel Structure in Fire</b> T.H. Wang, J.C. Xu, H.L. Tong and X.T. Wang	189
<b>Analysis of FRP Chimneys Liners under Wind and Seismic Load</b> A.X. Ding, A.Q. Ni and J.H. Wang	193
<b>Mechanical Behaviors of Square Timber Columns Reinforced with AFRP under Axial Compression</b> S.C. Yuan, J.F. Dong and Q.Y. Wang	198
<b>The Effect of Human Activity on the Distribution of Soil Nitrate Nitrogen in Unsaturated Zone</b> H.Y. Gao, L.H. Yang, T. Li and Z.P. Guo	202
<b>Wind-Induced Vibration Control of Benchmark Model with Damper</b> H.N. Fan, Q. Lin and J.L. Zhang	206
<b>Chinese Traditional Garden of Water and the Chinese Culture</b> Y. Dong and Y. Zhou	211
<b>Instantaneous Stochastic Optimal Control of Seismically Excited Structures Based on Time Domain Explicit Method</b> X.P. Li, C. Yu, J.Y. Zhang, J.J. Zhou and L.M. Zhang	215
<b>A Construction Technology for Buildings Horizontal Movement</b> J.M. Liu	219
<b>The Different Pavement Combination Deflection Change Law Discuss</b> J.H. Gao	223
<b>Static Load Test of Frame-Structure Slab</b> J.F. Su and Y.F. Xu	227
<b>Application of the CRD Method in Construction of an Ultra-Shallow, Ultra-High Section and Large-Span Mined Tunnel</b> J.F. Su and Y.F. Xu	231
<b>The Engineering Geological Characteristics Evaluation of the Weak Soft Soil of the Xingheng Highway Test Section</b> C.Y. Liu, J. Li, S. Shen and P.C. Zhang	235
<b>Application of Superiority Evaluation Method in Engineering Bidding Evaluation</b> Z.L. Guo and X.F. Yang	239
<b>Dynamic Response Sensitivity Analysis of Asphalt Pavement to Moving Point Loads</b> X.M. Zhang, Z.C. Sun, H.X. Xue and Y.D. Wang	243
<b>Comparative Analysis on Seismic Performance of Steel Frame with Different Forms of Symmetric Enhanced Nodes</b> L.T. Dong and Y. Wang	247
<b>Innovation of Utility Tunnel Nodal Design Taking Utility Tunnel in Laiyuan as Example</b> F. Wang, L. Liang, H.J. Han and Y. Lu	252
<b>Influence Analysis of the Incorrect Construction Sequence on Concrete Strength of Cast-in-Place Piles</b> Z.Q. Zhu, J.X. Wang and Z.X. Feng	255
<b>Heat Damage of High-Temperature Rock Tunnel by Weighted Residual Method in Tibet Plateau</b> L.N. Ma, S.H. Yan, R.L. Zhang and T.G. Li	259
<b>The Technique for Simulation of Broken Defects in Model Pile Tests</b> C.H. Wang, C.L. Zhang, G. Wang and J. Su	264
<b>The TBM and Space-Curved Belt Conveyor in Jinping-II</b> W. Yuan and D.M. Zhang	269
<b>Mathematical Analysis on Helicoids Architectural Form</b> Z. Yi and C.Z. Yuan	273
<b>Research on Application of Slow-Down Dome in Rural Highway Security Engineering</b> Z.D. Guo, S.L. Liu and Z.Y. Wu	278

<b>Research against the Effect of Inertia Loads on Dynamic Responses of a Simply Supported Beam</b>	
X.M. Zhang and Y.D. Wang	283
<b>The Influence of Lateral Fill on Foundation Bearing Capacity of High-Stacked Culverts</b>	
W.L. Wang, S.J. Cui and J.P. Zhao	287
<b>The Creep Impact on the Performance of Super-Long Reinforced Concrete Structures</b>	
H.C. Wang, Z.T. Xu and W.T. Liu	291
<b>Economic Analysis on Concrete-Filled Steel Tube Structure</b>	
J.M. Liu	295
<b>Numerical Analysis on the Influence of Joints Inclination on the Characteristics of Deformation and Stability of Tunnel</b>	
X.S. Tang, Y.F. Wang and Y.R. Zheng	299
<b>Experiment and Analysis on Influence of Moisture Content on the Mechanical Characteristics of Residual Soil of Granite</b>	
H. Hu and X.X. Zheng	306
<b>Macro-Mechanical Parameters Analysis of Rock Slope Based on the Partition Classification Method</b>	
J. Wang and C.J. Peng	310
<b>Effect of Temperature on the Quality of City Sewage Sludge Shale Brick Products</b>	
B.Z. Huang, X.Q. Li, J.Z. Zhu, B.B. Huang, H.L. Wu and Q.Q. Guan	316
<b>Research Progress of Self-Cleaning Architectural Coatings</b>	
Z.Q. Zhang	320
<b>A Study on the Change Law of Fundamental Frequency of Rigid Pavement</b>	
X.M. Zhang, H.X. Xue, Q. Dong and Z.C. Sun	324
<b>Design and Application of Long-Short-Pile Composite Foundation</b>	
Z. Fan, Y.C. Zhang and H.K. Liu	329
<b>Experimental Study of Strengthening of Reinforced Concrete Beams with Externally Bonded GFRP Sheets</b>	
H.K. Liu, Z. Fan and Y.C. Zhang	333
<b>Analysis on In-Plane and Out-Plane Instability Coupling of Steel Bowstring Arch Bridge with Box Section Single Rib</b>	
X.R. Wang, J.K. Jin and G. Yang	337
<b>A Thick/Thin Plate Element Based on the Area Coordinate Analytical Trial Functions</b>	
L. Wang, Y.L. Lu, H.R. Lou, J. Wei and M. Zhu	341
<b>Approximate Theoretical Analysis on Excavation Disturbed Zone of a Soft Rock Slope in Suining-Ziyang Expressway Engineering in Southwestern China</b>	
X.S. Cao, Y.Y. Hu and S.X. Liu	347
<b>Stability Analysis on Surface Layer of an Expansive Clay Slope with Consideration of Expansive Pressure</b>	
X.S. Cao, Y. Zhou and S.X. Liu	353
<b>Analysis on Calibration System of SBI Test for Building Materials</b>	
K. Tian	358
<b>Numerical Simulation for Progressive Collapse of Continuous Girder Bridge Subjected to Ship Collision Based on Three-Stage Simulation Method</b>	
L. Tian and F. Huang	362
<b>Research on Template Concrete Board Security of Early Removal Connection Attached Support-System</b>	
F.L. Zhao, Y. Tian, Q.P. Li and X.L. Wang	367
<b>The Research of Innovative Expression on the Materials of Building Skin</b>	
W. Fan and W.J. Liu	371
<b>Experimental Study on Bond Characterization of Hybrid-Bonded FRP to Concrete Interfaces</b>	
K. Liu	375
<b>Study on Axial Force of Multi-Stage Fracturing String in Horizontal Wells</b>	
H.Q. Zhang, B.K. Gao, X.Z. Han, X. Qin and W. Wang	381
<b>Analysis of the Impact of City Construction Load on City Geology Security</b>	
Z.H. Dai, M. Yu and X.R. Zhao	386

<b>Research on Surface Overpressure and Deformation of Underground Frame Beam under Internal Blast Loads</b>	
T. Li and Q.Y. Jiang	391
<b>Surface Overpressure Distribution and Dynamic Response of the Retaining Wall of the Underground Structure Subjected to Inner Explosion</b>	
L. Tian and P. Deng	396
<b>Study of Grouting Reinforcement to Disturbance Soft SOIL Caused by Large Diameter Slurry Shield Construction</b>	
J.M. Zhu and H.F. Cheng	401
<b>Stury of Post-Failure Constitutive Relation Based on SMP Criterion</b>	
J.M. Zhu, Z.X. Wu, Q. Zhao and C. Yang	405
<b>The Research on Earth Pressure behind Inclined Retaining Wall Considering Arching Effects</b>	
J.M. Zhu and Q. Zhao	410
<b>ANSYS Analysis of Early Removal Template Support-System Security</b>	
F.L. Zhao, X.L. Wang, Q. Ran and Q.P. Li	414
<b>Axial Force Analysis of the Single Pile Based on FLAC3D</b>	
C. Chen, L. Zou and H.B. Shen	418

### **Chapter 3: Transportation and Traffic Engineering, Environmental Engineering, Urban and Landscape Planning**

<b>Characterization of Heavy Metals in the Surrounding of Municipal Solid Waste Incinerator (MSWI) and Health Risks Assessment via Inhalation in Shenzhen Nanshan, China</b>	
H.L. Zhang, Y.H. Chen, J.Y. Qi, B.G. Lin and J.D. Fang	425
<b>An Explorative Study on Landscape Design of Urban River Channels Based on Ecological Restoration</b>	
M. Lu and J. Zhou	429
<b>Characteristics Analysis of Solar Radiation Distribution in Hefei Region</b>	
C.X. Liu	433
<b>On the Water Environment of Kaifeng City of the Northern Song Dynasty</b>	
H.Q. Li and Z.Y. Song	437
<b>Evaluation of Health Effects of Fine Particulate PM<sub>2.5</sub>: A Review</b>	
C.M. Bu, L.P. Wang, L.Q. Huang and J. Tang	441
<b>Research of Agricultural Non-Point Source Pollution and Prevention Measures</b>	
P.P. Shen, L.H. Yang, Z.P. Guo and H.C. Liu	445
<b>Queue Spillback in Braess's Paradox Considering Dynamic Traffic Assignment</b>	
H. Wei and J.F. Dai	449
<b>Uncertain Factors and their Effects that Need Considering in Fire Engine Routing: A Short Review</b>	
J. Wang, H.M. Zhou, M. Liu and Y.E. Ge	454
<b>Study on Risk Factors for Transport Crashes Involving Fatigued Professional Drivers</b>	
W.S. Fan and J.P. Xu	458
<b>The Research on Mineralization of Desalinated Water by Dissolving Ore for Entering into Municipal Water Supply Network</b>	
N. Tang, W. Wang, L. Zhang, P.G. Cheng, J.Q. Gong and G.H. He	463
<b>Influences of Biochar Aging Processes by Eco-Environmental Conditions</b>	
L.L. Kong and Q.X. Zhou	467
<b>Research on Relationship between Air Permeability and Structure Parameter of Basalt Woven Filter Fabric</b>	
W.L. Chen, W.D. Sui, H.F. Li and L.Y. Wan	471
<b>Long-Term Carbon Sequestration and Environmental Immobilization of Biochar: A Review</b>	
M.M. Wang and Q.X. Zhou	475
<b>License Plate Location Based on Texture Analysis and Projection Approach</b>	
J. Liu, J. Xiang and F. Liao	479

<b>The Ranking of Optimization Schemes of Public Traffic Line Network Based on Set-Pair and Entropy Analysis</b>	
L. Hong and S.Y. Qu	484
<b>Based on the Tropical Island of Hainan Land Use Types IDRISI Spectral Characteristics</b>	
K. Zhang, H.F. Wang and Z. Li	488
<b>Cultural Planning for Urban Spaces: Cultural Turn of Contemporary Urban Planning</b>	
L. Huang and W.M. Zhao	492
<b>Research on Designing for Low Carbon and Liveable Residence in Subtropical Region (Southern Guangxi Province in China)</b>	
L. Wang, J.M. Chen and Q.S. Zhu	497
<b>The Practice of the Symbolic Significance in Landscape Design</b>	
Y. Li	502
<b>Overview of Space Synergy of Urban Building Complex</b>	
Z.D. Wang, Y. Zhang and Y.R. Liu	506
<b>Public Bicycle System Station Deployment and Scale Prediction</b>	
J.F. Dai, X.L. Zhao and J.X. Lin	510
<b>Research on the Critical Attributes of Travel Mode Choice Utility Function</b>	
Q. Zhang and W.T. Wu	515

## **Chapter 4: Biomedical, Bioinformatics, Biology Systems and Medical Informatics**

<b>Effect of Three Major Polyphenols in Red Wine on Sodium Channel Current in Mouse Dorsal Root Ganglia Cells</b>	
Y.L. Wu, Y.P. Ding and Y. Tanaka	525
<b>Determination of the Content of Imperatorin in Radix Angelicae Dahuricae and Evaluation of the Measurement Uncertainty in Using High Efficiency Liquid Chromatography</b>	
M. Zhang, J.Y.X. Qin and S.L. Yang	530
<b>AAM Based Facial Feature Region Segmentation in Traditional Chinese Medicine Complexion Diagnosis</b>	
J.J. Wu, J.J. Yan, F.F. Li, Y.Q. Wang, R. Guo and G.P. Liu	535
<b>Effects of Solvents and Extraction Methods to Extraction of Fructus Leonuri</b>	
T. Li, Z. Ming, Y. Shen, G. Lv and X. Sun	539
<b>Study of SMA as Protective Colloid on the MF-Resin Micro-Encapsulation</b>	
Z.H. Zhen and C.H. Dong	542
<b>Diatom Distributions in the Eastern Yangtze River and the Main Lakes, Jiangsu Province, China, and their Significance for the Forensic Diagnosis of Drowning</b>	
Y. Zhou, Y.Z. Wang, J.W. Huang, H.P. Wang, S.L. Hu, C. Liu, J.F. Wen, X.T. Zhang, S.C. Wang and W.L. Dai	546
<b>Biological Effects of p53 Mutation W248 and H175 on MCF-7 Cells</b>	
X.Y. Zhou, Y.J. Liu and D. Li	550
<b>Microwave Extraction of Triterpene Glucoside from Fructus Leonuri</b>	
G. Lv, Z. Ming, Y. Shen, T. Li and X. Sun	555
<b>Study on the Antimicrobial Effect of the Extracts of Fruits of Herba Leonuri</b>	
Y. Shen, Z. Ming, G. Lv, T. Li and X. Sun	558
<b>Mitotic Catastrophe Induced by Chelidonine on Human Gastric Carcinoma SGC-7901 Cells</b>	
Z.Y. Qu, X. Zou, J.W. Zhao and Y.B. Ji	562
<b>Population Genetic Data of 21 Autosomal Loci in Guangdong Han Population</b>	
S.L. Li, C. Liu, H. Liu, C.H. Liu and W.X. Weng	566
<b>New Wound-Dressing Coaxial Electrospun Nanofibers Dressing</b>	
F. Cheng, J. Gao, L. Wang, Y.H. Yao and C.L. Zeng	570
<b>Interference Elimination of Sulfide Determination by Iodometry</b>	
L. Wang, G.Q. Li, Y.F. Zhang, Z.Z. Li, Y.L. Shi and Y.Z. Wang	575
<b>A RS/GIS-Based System for Monitoring Malaria Epidemic</b>	
L. Sun and Z.S. Zhu	579
<b>An Images-Fusion Method of Malaria Epidemic Remote Sensing</b>	
L. Sun and Z.S. Zhu	583

<b>The Role of Beclin1 Gene in Autophagy and Apoptosis Induced by Ionizing Radiation in MCF - 7 Cells</b>	
Y.L. Qi, Y.J. Liu and D.L. Zhao	587
<b>Effects of Ginkgo Biloba Extract on Liver Protection for Type 2 Diabetic Rats</b>	
X.S. Li, R.Y. Wu, W.M. Pan and Y. Hu	590
<b>Effect of Chelidonine on the Expressions of Cdk1 and CyclinB1 Proteins in SGC-7901 Cells</b>	
Z.Y. Qu, X. Zou, J.W. Zhao and Y.B. Ji	594
<b>Antibacterial Activities of Chemical and Biological Food Preservatives towards Food Spoilage <i>Bacillus</i> among and within Species</b>	
X.T. Yang, J. Wang, Y.H. Liao, I. Kaleem, C. Li and X.H. Zhou	598
<b>Study on Apoptosis of Human Promyelocytic Leukemia HL-60 Cells Induced by Fucosterol via Death Receptor Pathway</b>	
Y.B. Ji, D.X. Song and C.F. Ji	607
<b>Study on Apoptosis of Human Promyelocytic Leukemia HL-60 Cells Induced by Fucosterol via Mitochondrial Pathway</b>	
C.F. Ji, Y. Li and Y.B. Ji	611
<b>EEG-EMG Signal Processing and Analysis for the Neuromuscular Activity Patterns with Three Motion Modes under Two Time Intervals</b>	
N.N. Li, T.C. Zhai, S. Liu, A.S. Fu, R. Xu, S. Qiu, P.H. Li, Q. Xu, P. Zhou, L.X. Zhang, B.K. Wan, X.J. Jiao, S.G. Chen and D. Ming	615
<b>Colorimetric Detection of Melamine Based on Poly-Thymine Stabilized Gold Nanoparticles</b>	
C. Jin, H.M. Zhao, M. Liu, J.P. Tian and X. Quan	619
<b>An Integrated Clustering Algorithm and its Application in Surgical Navigation</b>	
S.J. Yan	623

## **Chapter 5: Automation Methods in Industry and Manufacture, Modelling and Analysis**

<b>Study on the Application of Video Surveillance System of Expressway Construction Based on 3G</b>	
Y. Xiao, J. Xiang and Y.F. Chen	629
<b>Development of Floating Offshore Wind Turbine and the Mooring System</b>	
X.L. Zhao and W.M. Gong	634
<b>Analysis on Dynamic Response of the Foundation Pit Supporting Structure under Vehicle Loads</b>	
H.Z. Qiu, J.M. Kong and Y. Zhang	638
<b>Research of Small and Medium-Sized Motor Yacht Form Design Based on Imagines Acknowledge Theory</b>	
M.Y. Zhou, G.L. Dai, J.X. Cheng and Y. Hu	643
<b>Dynamic Analysis of the Wind Turbine Tower</b>	
C. Chen, H.B. Shen and M. Wang	651
<b>Modal Analysis of Wind Turbine Blades Based on ANSYS Modeling</b>	
C. Chen, M. Wang and L. Zou	655
<b>A Bearing Fault Diagnosis Method Using Fusion of Lie Group Classifier and GA</b>	
S.Y. Zhao, W. Tao, G. Xin and Y. Liu	659

## **Chapter 6: Computing and Information Science**

<b>Study of High Dimensional Orthogonal Vector-Valued Wavelet with Scale 4</b>	
W.Q. Yang	665
<b>Study and Application on Airport Clearance Based on Secant Method in Gauss Projection Algorithm for Inverse Solution</b>	
X.M. Zhang, Y. Liu, G. Li and F. Xia	669
<b>Prediction of Detonation Velocity of Aluminized Explosive by Artificial Neural Network</b>	
Y.Q. Jiang, Y.G. Liu, X. Tian and G.B. Li	673
<b>Plate Character Segmentation Algorithm Based on Projection Feature and Prior Knowledge</b>	
J. Liu, J. Xiang and C.L. Xu	677

<b>Accelerative Genetic Algorithm-Based Parameter Optimization in Storm Intensity Formula</b> Z.L. Guo and R. Zhang	682
<b>Experimental and Numerical Study on the Suppression of Pool Fire with Water Mist</b> C. Jian, X.Y. Ying and W.Y. Sheng	686
<b>Research on the Distribution Route Optimization of Agricultural Product Logistics Based on Particle Swarm</b> J. Liu, J. Xiang and G.L. Zou	690
<b>The Experimental Study on Extinguishing Aircraft Cabin Fire by Water Mist</b> C. Jian, X.Y. Ying and T.Z. Jie	697

## **Chapter 7: Management Engineering**

<b>Corporate Strategic Choice Basing on Externality Internalization</b> S.L. Pi and H.L. Lan	703
<b>Evaluation the Environmental Awareness of Listed Companies by FAHP</b> S.M. Chen and M. Bu	707
<b>Tourism Marketing Strategies for Chongqing University City</b> Y.L. Jiang and E.F. Tang	712
<b>A Study on Incentive Mechanism for Star Hotel Employees against the Background of IT Application</b> D.H. Li	716
<b>The Whole Process Tracking Audit of Municipal Engineering Cost</b> Y.T. Ma and C.J. Ma	720
<b>Approaches and Processes of the Project Management</b> H. Xie and A.Y. Zhang	724