### **Table of Contents**

#### **Preface and Conference Organization**

## **Chapter 1: Environmental Analysis, Monitoring and Pollution Control Project**

Chip-Based Portable Device for Detection of Microalgae Viability in Ballast Water J.S. Wang, H. Chu, J.Y. Sun, Y.N. Song, J.H. Jiang, X.X. Pan, Y.Q. Sun and D.Q. Li	3
Application of Mixed-Level Orthogonal Design in Determination of Heavy Metals in Soil, for Example Pb X.C. Xue and G. Liu	7
Assessment of Spatial Distribution of Algal Biomass in a Subtropical Lake in China by Modeling of Landsat ETM+ Data Coupled with Field Data	
W.M. Ni, J.Y. Zhang, T.D. Ding and J.G. Qi	12
<b>Atmospheric Pollution: Statistical Models of Predicting SO</b> <sub>2</sub> Concentration in Shanghai D. Xue and Q. Liu	21
Chinese Arctic Yellow River Station Research Monitoring Program. 1. Polycyclic Aromatic Hydrocarbons in Sediment from Svalbard L.P. Jiao, X. Sun and Y. Luo	25
<b>Dew Amount in Marsh Monitoring in the Sanjiang Plain</b> Y.Y. Xu, B.X. Yan and H. Zhu	34
Mobile Vehicle-Borne Environmental Monitoring Based on Environmental Multi-Sensor	
Integration N. Yang, Z.F. Shao and L. Zhang	38
<b>Prediction of Surface SO<sub>2</sub> Concentration in Shanghai Using Artificial Neural Network</b> D. Xue and Q. Liu	44
The Relationship between Pacific SST and Dust Storms in Northern China in Spring J.Y. Wang, Z.S. Zhao, J.Y. Dong, Y. Li, D.S. Li and Y. Tian	48
Time Series Correlation Analysis of Pollution in Marine Environment Waters Y.J. Zhao, M.C. Li, G.L. Li and Y.Y. Cao	52
Time Series Cross Correlation Analysis among Pollution Source and Adjacent Marine Water Environmental Factors M.C. Li and Y.J. Zhao	56
<b>Turbidity Effect on the Fluorescence Determination of Chlorophyll-a in Water</b> J.S. Cui and P.Y. Lv	60
The Study of Carbon Emissions Monitoring System for Inland River Ships J. Zhang, Y.W. Zhang, A.C. Liu and P. Zhang	64
Spatial Variation and Source Analysis of Heavy Metals in Surface Sediments of the Hejiang	
River, China S.P. Wang, Y.H. Wang, R.J. Zhang and D.Q. Xu	71
Study on Distribution and Variation of Heavy Metal Pollution in Guangxi Coastal Seawater during Dry Season	
C.M. Huang, M.F. Guo, P. Xian, L.H. Yang, X. Liu and W.L. Lan	75
Remote Monitoring of Environment by Android Smartphone through Secure Sockets Layer W.D. Huang	80
Characteristics of Atmospheric Methyl <i>Tert</i> -Butyl Ether (MTBE) in Summer in Shenzhen, China	
T.T. Tang, Q.Z. Wei, X.W. Peng, J.L. Huang, J. Zheng, Y.Y. Wang, L.H. Liang and S.Y. Ye	84
Distribution Characteristics and Potential Ecological Risk Assessments and Heavy Metals in Surface Sediments and Water Body of the Yalu River Estuary China Y.Q. Wu and L. Li	88
Evaluate of Heavy Metal Content of some Edible Fish and Bivalve in Markets of Dandong,	
China Z.R. Meng, L. Li and Y.Q. Wu	92

96
)2
)6
1
7
22
32
36
1
١7
53
51
58
72
76
31
37
2
96
١.1
)1
1
23

Study on Hydrodynamic and Erosion-Deposition Change after Artificial Islands Construction	
Y.N. An, K. Yang and J. Li	227
Urban Air Quality Grade Evaluation Based on Cluster Analysis X.Y. Li, Y. Wang, H. Zhang, H.J. Chen and J.T. Zhang	231
The Influence of Soil Moisture Cotent on the Numerical Simulation of Dust Storms J.Y. Wang, L.B. Wei, Z.S. Zhao, X. Li and Z.W. Zhang	235
Life Cycle Analysis on Atmospheric and Vacuum Distillation Process: Energy Consumption and Emissions R.J. Sun, H. Li, K. Chung and N. Ma	239
K.J. Sull, H. Li, K. Chung and N. Ivia	239
Chapter 2: Environmental Chemistry and Biological Researches	
Characterization and Bioinformatics Analysis of C-4 Sterol Methyl Oxidase from <i>Monascus</i> purpureus	247
J.N. Yao, N.Q. Liao and H.M. Li  Analysis of DNA Damages of Gonadal Cells of <i>Hemicentrotus pulcherrimus</i> in Petroleum	247
Hydrocarbons	0.71
J.Š. Han, X.L. Lv, Y.L. Gao, X. Gao and D.Q. Xiong  Desorption Kinetics and Difference in Removal Enhancement of PAHs in Aged Soils by	251
Tween 80 H.L. Li, R.H. Qu, X.M. Han and J.J. Chen	257
Effects of Elevated CO <sub>2</sub> and O <sub>3</sub> Concentrations on Isoprenoid Emissions from <i>Pinus</i>	
tabulaeformis D.W. Li, Y. Shi, X.Y. He and Y.G. Zu	264
Identification and Bioinformatics Analysis of Cysteine Synthase from the Filamentous Fungus, <i>Monascus purpureus</i> N.Q. Liao, J.N. Yao and H.M. Li	272
Impact of Inorganic Anions on Cadmium Fractions in the Soils M.S. Geng, Y.Y. Hou, W.Y. Gao, H. Zhang and Z.W. Wang	276
Distinguishing Single Nucleotide Polymorphisms of DNA Using Fluorescent Oligonucleotide Probe Containing 2-Aminopurine L. Bai, H. Qin and Y.G. Jiao	281
Effect of NaCl Stress on the Photosynthetic Attributes of Atriplex centralasiatica H. Fan, X. Yun, L. Li, X.K. Liu, J. Zhang and B.S. Wang	285
Effect of Phosphate and Sulfate on the Solubility of Na <sub>2</sub> SO <sub>4</sub> in Supercritical Water X.Y. Tang, S.Z. Wang, M.M. Ren and P.P. Sun	290
Plackett-Burman Design for Media Nutrients of Biocontrol Lysinibacillus xylanilyticus BPM1 against Aflatoxin K. Wang, P.S. Yan and L.X. Cao	295
Proteomics Study on Heavy Metal Contaminated <i>Bellamya aeruginosas</i> in Poyang Lake	293
X.J. Zhu, W. Chen and J.H. Li  Evaluation of the Anti-Hypoxia and Anti-Fatigue Effects of Ganoderma lucidum	299
Polysaccharides L. Luo, L.M. Cai and X.J. Hu	303
Influence of Polysaccharides from <i>Lycium barbarum</i> Fruits on Exercise Tolerance and Free Radical Metabolism in Liver of Mice after Exhaustive Exercise L.M. Cai and B.B. Wang	307
Low Light Affacting Alkaloids Accumulation and Related Biosynthetic Pathway Genes Expression in Leaves of <i>Catharanthus roseus</i> Seedlings Y. Liu, D.W. Li, Z.H. Zhang and Y.G. Zu	311
Surfactant-Enhanced Washing of Aged PAH Contaminated Soils: Comparison between	311
Nonionic Surfactant and Anionic Surfactant H.L. Li, R.H. Qu, X.M. Han and J.J. Chen	316
Research on the Isolation, Identification and Degradation Characteristics of Two Hydrocarbon Degrading Strain	
F.M. Wang, T.T. Sun, S.K. Zhao, B.Y. Lv, J.B. Liu, X.F. Shi and L. Huang	322

Cloning of <i>MeCWINV3</i> Promoter from Cassava and Transient Expression Analysis in Tobacco	
Y.P. Hu, J. Liu, Y. Zhou, W.R. Xia, R.M. Li, R.J. Duan, S.P. Fu, X.W. Hu and J.C. Guo	326
Expression of p38 MAPK in Acute Lung Injury Induced by LPS in Mice K.X. Qin, Y. Wang and H.G. Jian	332
Interaction of 4-Nitroaniline with Serum Albumin Y.Q. Liang and Y. Zhang	337
Effect of Acid Stress on the Behavior of Soil Nematodes D.D. Liu, Y.L. Cui, C.F. Liu, X.L. Gao and Y.Y. Xia	341
Effects of pH and Temperature on the Degradation of Polycarbonate in Water H.Y. Si, T.C. Xiang and R.T. Wang	346
The Immunohistochemical Staining Results of Three Different Decalcified Liquid on Tooth Specimens S.F. Zhai, J. Pan, Z. Ma, F. Liang, T. Huang, L.P. Hou and Y.X. Qin	349
Perchlorate Removal in Biodegradable Polymers Bioreactor	343
F. He, H.H. Zhou and X.J. Wang	353
An High-Efficient Method for Synthesizing N,N'-Dialkyl-Imidazolium Salts J. Hu and Y.S. Zheng	357
Content Changes of Carbon and Nitrogen during the Decomposition of Mire Wetland in Xiaoxing'anling in Northeast China	
J.G. Li, H. Sun, M. Tao, Q.S. Wang, W.M. Tan, W. Xie and Z.H. Liu  Particle Size Fraction and Arsenic Partitioning in Tailings and Sediments in Lianhuashan	361
Tungsten Mine, Southern China W.J. Lin	365
Biological Synthesis of Triangular Pd Nanoplates by Aqueous Extract of Syzygium	
samarangense Leaf D.H. Sun, P.Y. Li and X.L. Li	370
Using Bacteria Addition and Reusing Retting Water Technologies to Accelerate Flax Degumming	
J.P. Ge, P.F. Liu, H.Z. Ling, B.Y. Cai, G. Song and W.X. Ping Effect of Salt Stress on the Salt Secretion in <i>Aeluropus littoralis</i>	374
G.L. Han, M.L. Liu and N. Sui	380
Effect of Chilling and Low Irradiance on Antioxidant System of Suaeda salsa Z. Yang and N. Sui	385
The Study in Sap Flow Characteristics and Photosynthetic Characteristics of Haloxylon Ammodendron and Tamarix in the Gurbantunggute Desert S.D. Xu, X.L. He, G. Yang, J.C. Chen, W.X. Yang, S. Chen and C. Wang	390
<b>Experimental Study of CO<sub>2</sub> Sequestration Using Glycinate-TEA</b> W.F. Zhang and J.H. Shu	396
Adsorption of Phosphate in Aqueous Solution with Steel Slag J.X. Tang, L.N. Sun, Y.P. Yun, M.M. He, M.H. Lian and Q. Luo	401
<b>Performance and Microbial Community of Aerobic Granular Sludge Bioreactor</b> X. Zhao, J.M. Shen, Z.L. Chen and X.C. Wang	405
Preparation and Photocatalytic Degradation of Malachite Green by Photocatalyst SrBi <sub>4</sub> O <sub>7</sub> under Visible Light Irradiation Y.C. Yang, X.Z. Wang and J. Qu	411
Alkali Precipitation Properties of Magnesium Lignosulfonate Isolated from Acid Sulfite Pulping Waste Liquor	416
X.M. Kou, R.F. Yang, J. Lu and Y.J. Liu  Study on Decolorization of Methyl Orange Dye Wastewater by DC Stream Discharge with	410
MgO-CuO-Al <sub>2</sub> O <sub>3</sub> Catalyst H.D. Xie, C. Su, C.Y. Wang, L.D. Wang, S.H. Liu, X.Y. Zhang and N. Liu	420
Kinetics and Mechanism of Platinum Pressure-Cyanide Dissolution J.S. Zhao and J.H. Dai	424
<b>Optimization of Process for Extraction of Yellow Pigment from Almond Shell</b> F.J. Wang	429
Construction and Calibration of Physical Filtration Equation of Biological Aerated Filter S.B. Zhang, L.P. Qiu and H.L. Li	433

<b>Sonochemical Composition of Humic Substances with Magnetic Nanoparticles and H<sub>2</sub>O<sub>2</sub></b> S.L. Wang, M. Dan, S. Wu, N. Zhou and Q. Zhang	439
Isolation and Identification of Main Microorganisms in Different Water Systems in Northern Hangzhou, China	
D.Y. Zhang, X.L. Xu, Y. Lu, X.Y. Shen, H.Y. Xu and W.L. Hu	445
Sexual Reproduction and Plasticity Analysis of Two Ecotypes Leymus chinensis on Heterogeneity Soil C. Zhou, Z. Zhang, S. Zhang and Y.F. Yang	450
Mechanism of Cu <sup>2+</sup> Ions Removal from Aqueous Solution with PBTCA Modified Fe <sup>0</sup>	
Nanoparticles J.W. Feng and Y.X. Xu	454
Highly Selective Oxidation of Cinnamaldehyde to Benzaldehyde by Hydrogen Peroxide in Mild Conditions	0
Y.M. Nie, Y.P. An, C.H. Peng and X.D. Yao	458
Different Filter Material on the Northeast Biological Iron Manganese Removal Effect of Groundwater in the Countryside J. Liu, H.L. Zhang, K. You and Y.S. Yuan	465
Synthesis and Performance of Chelating Agents-Fly Ash for Heavy Metalions Remove Y. Wang, Z.N. Liu, Y. Guan, L. Chen and Z.Q. Lu	469
Adsorption Effect of NO <sub>3</sub> <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> and PO <sub>4</sub> <sup>3-</sup> about As (V) on the Porous Biomorph-Genetic Composite of Fe <sub>2</sub> O <sub>3</sub> /Fe <sub>3</sub> O <sub>4</sub> /C with Eucalyptus Wood Template	
L.W. Xie, B. Huang, Y.H. Huang, S. Cao, Z.Q. Zhu and Y.N. Zhu	473
A Novel Bi-Based Photocatalytic Material for the Degradation of Organic Pollutants under Visible Light N.L. Zhu, J.J. Shi, R.S. Hu and C. Li	477
Comprehensive Control of 7-Amino-Cephalsporanic Acid Dust in Drying Workshop	1,,,
J.F. Zhang, X. Liu, L.M. Hou and Q. Liu	481
Chapter 3: Environmental Safety and Health	
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-	
	487
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-Response Model	487 491
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-Response Model Y. Dou, R.N. Chen and W.L. Zhou Numerical Simulation of College Dormitory Ventilation Airflow	
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-Response Model Y. Dou, R.N. Chen and W.L. Zhou Numerical Simulation of College Dormitory Ventilation Airflow H.X. Li, C.C. Tang, G.H. Feng and R.Y. Gao The Effects of Indoor Air Speed on the Thermal Comfort of Human Body in Winter	491
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-Response Model Y. Dou, R.N. Chen and W.L. Zhou  Numerical Simulation of College Dormitory Ventilation Airflow H.X. Li, C.C. Tang, G.H. Feng and R.Y. Gao  The Effects of Indoor Air Speed on the Thermal Comfort of Human Body in Winter J.L. Wang and L. Chen  System Construction Improvement of the Ability of Marine Disaster Prevention	491 495
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-Response Model Y. Dou, R.N. Chen and W.L. Zhou  Numerical Simulation of College Dormitory Ventilation Airflow H.X. Li, C.C. Tang, G.H. Feng and R.Y. Gao  The Effects of Indoor Air Speed on the Thermal Comfort of Human Body in Winter J.L. Wang and L. Chen  System Construction Improvement of the Ability of Marine Disaster Prevention Y. Luo, X. Liu, R.S. Wu and Y.J. Wu  Assessment of Urban Human Settlements of Jinan City	491 495 501
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-Response Model Y. Dou, R.N. Chen and W.L. Zhou  Numerical Simulation of College Dormitory Ventilation Airflow H.X. Li, C.C. Tang, G.H. Feng and R.Y. Gao  The Effects of Indoor Air Speed on the Thermal Comfort of Human Body in Winter J.L. Wang and L. Chen  System Construction Improvement of the Ability of Marine Disaster Prevention Y. Luo, X. Liu, R.S. Wu and Y.J. Wu  Assessment of Urban Human Settlements of Jinan City F. Luo  Comprehensive Evaluation Method of Air Quality in Car R.J. Wang, Y.Y. Xu and Q.M. Si  The Degradation Dynamics of Acetamiprid in Hainan Cowpea and the Soil J.K. Liu, C.Y. Wu, X. Deng and Q.F. Li	491 495 501 505
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-Response Model Y. Dou, R.N. Chen and W.L. Zhou  Numerical Simulation of College Dormitory Ventilation Airflow H.X. Li, C.C. Tang, G.H. Feng and R.Y. Gao  The Effects of Indoor Air Speed on the Thermal Comfort of Human Body in Winter J.L. Wang and L. Chen  System Construction Improvement of the Ability of Marine Disaster Prevention Y. Luo, X. Liu, R.S. Wu and Y.J. Wu  Assessment of Urban Human Settlements of Jinan City F. Luo  Comprehensive Evaluation Method of Air Quality in Car R.J. Wang, Y.Y. Xu and Q.M. Si  The Degradation Dynamics of Acetamiprid in Hainan Cowpea and the Soil J.K. Liu, C.Y. Wu, X. Deng and Q.F. Li  Health Effects of PM <sub>10</sub> in the City Group of Beijing, Tianjin and Tangshan S.H. Cen, J.K. Zhang, S.S. Yang, L.Y. Shao and X.Y. Song	491 495 501 505 509
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-Response Model Y. Dou, R.N. Chen and W.L. Zhou  Numerical Simulation of College Dormitory Ventilation Airflow H.X. Li, C.C. Tang, G.H. Feng and R.Y. Gao  The Effects of Indoor Air Speed on the Thermal Comfort of Human Body in Winter J.L. Wang and L. Chen  System Construction Improvement of the Ability of Marine Disaster Prevention Y. Luo, X. Liu, R.S. Wu and Y.J. Wu  Assessment of Urban Human Settlements of Jinan City F. Luo  Comprehensive Evaluation Method of Air Quality in Car R.J. Wang, Y.Y. Xu and Q.M. Si  The Degradation Dynamics of Acetamiprid in Hainan Cowpea and the Soil J.K. Liu, C.Y. Wu, X. Deng and Q.F. Li  Health Effects of PM <sub>10</sub> in the City Group of Beijing, Tianjin and Tangshan S.H. Cen, J.K. Zhang, S.S. Yang, L.Y. Shao and X.Y. Song  Research Advancement of the Joint Toxicity of Heavy Metals Mixture J. Wu, L.Y. Mo, L.T. Qin, Z.Q. Zhu and Y.N. Zhu	491 495 501 505 509 513
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-Response Model Y. Dou, R.N. Chen and W.L. Zhou  Numerical Simulation of College Dormitory Ventilation Airflow H.X. Li, C.C. Tang, G.H. Feng and R.Y. Gao  The Effects of Indoor Air Speed on the Thermal Comfort of Human Body in Winter J.L. Wang and L. Chen  System Construction Improvement of the Ability of Marine Disaster Prevention Y. Luo, X. Liu, R.S. Wu and Y.J. Wu  Assessment of Urban Human Settlements of Jinan City F. Luo  Comprehensive Evaluation Method of Air Quality in Car R.J. Wang, Y.Y. Xu and Q.M. Si  The Degradation Dynamics of Acetamiprid in Hainan Cowpea and the Soil J.K. Liu, C.Y. Wu, X. Deng and Q.F. Li  Health Effects of PM <sub>10</sub> in the City Group of Beijing, Tianjin and Tangshan S.H. Cen, J.K. Zhang, S.S. Yang, L.Y. Shao and X.Y. Song  Research Advancement of the Joint Toxicity of Heavy Metals Mixture J. Wu, L.Y. Mo, L.T. Qin, Z.Q. Zhu and Y.N. Zhu  Yunnan Haba Snow Mountain Ecological Safety Evaluation Based on the Landscape Ecological Pattern	491 495 501 505 509 513 519 532
A Study on Coastal Ecosystem Health Assessment in Qingdao Based on Press-State-Response Model Y. Dou, R.N. Chen and W.L. Zhou  Numerical Simulation of College Dormitory Ventilation Airflow H.X. Li, C.C. Tang, G.H. Feng and R.Y. Gao  The Effects of Indoor Air Speed on the Thermal Comfort of Human Body in Winter J.L. Wang and L. Chen  System Construction Improvement of the Ability of Marine Disaster Prevention Y. Luo, X. Liu, R.S. Wu and Y.J. Wu  Assessment of Urban Human Settlements of Jinan City F. Luo  Comprehensive Evaluation Method of Air Quality in Car R.J. Wang, Y.Y. Xu and Q.M. Si  The Degradation Dynamics of Acetamiprid in Hainan Cowpea and the Soil J.K. Liu, C.Y. Wu, X. Deng and Q.F. Li  Health Effects of PM <sub>10</sub> in the City Group of Beijing, Tianjin and Tangshan S.H. Cen, J.K. Zhang, S.S. Yang, L.Y. Shao and X.Y. Song  Research Advancement of the Joint Toxicity of Heavy Metals Mixture J. Wu, L.Y. Mo, L.T. Qin, Z.Q. Zhu and Y.N. Zhu  Yunnan Haba Snow Mountain Ecological Safety Evaluation Based on the Landscape	491 495 501 505 509 513 519

A New Montmorillonite/Humic Acid Complex Prepared in Alkaline Condition to Remove Cadmium from Waste Water	
Y.Y. Hou, M.S. Geng, X.F. Zeng and Z.W. Wang	547
Adsorption Behaviors of Acid Dyes by Water-Insoluble Crosslinked Cationic Starch M. Zhang, B.Z. Ju, S.F. Zhang, X. Zhang and Z.H. Cui	552
The Treatment of Concentrated Landfill Leachate from Membrane-Based Processes by Supercritical Water Oxidation	560
Y.M. Gong, S.Z. Wang and Y.H. Li  An Innovative Method with Optimized Treatment for Killing Algae in Ballast Water  Treatment Based on Ion-Exchange Membrane Electrolysis	560
J.Y. Sun, J.S. Wang, M.Q. Li, H.C. Yuan and X.X. Pan	565
An Equal Sustainable Area Model for Harvesting <i>Eichhornia crassipes</i> in Environmental Phytoremediation L. Sun and Z.S. Zhu	569
Microbial Communities in Anaerobic Acidification-Denitrification and Methanogenesis Process for Cassava Stillage Treatment L. Xie, C. Ji, R. Wang and Q. Zhou	573
Nutrient Recovery from Piggy Wastewater by Enhancing Struvite Crystallization Process T. Zhang, C. Fang, P. Li and R.F. Jiang	579
Effect of Sulfate and Redox Mediator on Reduction of AO7 in Upflow Anaerobic Filter (UAF)	504
L. Han, Y. Wen, N. Ding and Q. Zhou	584
Effects of Alkali-Pretreated Plant Biomass on Nitrate Removal in Subsurface-Flow Constructed Wetlands M.X. Zhang, X.C. Yu, Y. Wen and Q. Zhou	590
Simultaneous Removal of Nitrate and Pentachlorophenol from Drinking Water Using	
Wheat Straw as Carbon Source X.M. Wang, T.L. Qiu, M. Gao, M.L. Han and J.L. Gao	596
Supercritical Water Oxidation of Fulvic Acid as a Model Organic Compound in Landfill Leachate Y.M. Gong, S.Z. Wang, L.L. Qian and Y.H. Li	600
The Effect of Aeration Rate on COD Removal from High Salinity Wastewater in SBR	000
Process	605
G.F. Chang, W. Hong, X. Bian, B. Liu, X. Tan and Y. Su	605
The Effect of Temperature and Loading Rate on the Ammonia Nitrogen Removal in Horizontal Subsurface-Flow Constructed Wetlands with Different Vegetation and Substrate X.C. Yu, M.X. Zhang, Y. Wen and Q. Zhou	609
Research on Numerical Simulations of Pollutant of Sewage Y. Wang, W. Ye and M.C. Li	615
The Analysis of Adsorptive Ability of Pb, Cd by Acorus calamus Y. Li, S.H. You, X. Jin and Z.Y. Lin	619
Chapter 4: Environmental Restoration and Purification Engineering	
Mining Spoils Area Ecological Restoration Progress in China and Overseas H.J. Ren, P.K. Liu, J.T. Liu, Y.H. Fu, R.Y. Zhang and W.Y. Li	625
Performance Analysis of Ozone Catalytic Oxidation Sludge and Landfill Leachate J. Yin, Z. Wang, L.J. He, W.Y. Wang and L. Liang	629
Plus a Plant Regulator of Food Waste and Sludge Mixed Aerobic Composting Study J. Yin, L.J. He, Z. Wang and L.J. Chen	634
Remote Gas Emission Flux Sensing in a Thermal Power Plant Using Shadow Image	
Processing H. Neff, E. Uwe Kurt Melcher, J. Macêdo Fechine Régis de Araújo, S. de Brito Espinola, A. Gomes Teixeira Júnior, S. Trajano Feitosa, G. de Brito Espinola and S. Vinícius da Costa	629
Cândido  Determination of Alkaline Phosphatase in Activated Sludge	638
J. Yin, Y.M. Wang and J.H. Wang	643
Removing Oil Pollution on Water by New Burning Technique L.A. Jin, Y.N. Liu, X.G. Liu and G.H. Lan	648

Study on the Selected Lignite Using as Organic Carbon in the Treatment of Nitrate Contaminated Groundwater	
T.L. Jiang, D. Li and H.L. Wang	652
Removal of Heavy Metal Ions from Aqueous Solution by Raw and Modified Diatomite W.S. Linghu and J.M. Cui	656
<b>Phosphorus Dynamic Adsorption from Wastewater by Iron-Oxide-Coated-Zeolite</b> Z.J. He, Y.Q. Lu, L. Zhu and F.M. Qiao	660
A Study of Removing 4-Toluene Sulfonic Acid in Wastewater Treatment by Aerobic Bio-Fluidized Bed	
Z. Huang, Y.D. Song, Y.X. Zhou, X.W. He and J. Xu	665
The Performance Impact of Hair Dyeing Sewage on Biological Treatment J. Yin, Y. Kai, W. Liu, Y. Hu and F.X. Meng	672
Ultrasound Assisted Removal of Unstable Form of Cu and Ni from Contaminated Soil C.L. Zhang, A.K. Agadzi, X.T. Fei and T. Li	678
<b>Experimental Study on Non-Backwashing Dynamic Membrane Bio-Reactor</b> X.S. Xie and P. Shang	682
Experiment Research on Industrial Saline Wastewater Treatment Base on Evaporative Concentration Method	
Z.Y. Wang, Y.Q. Zhao, Z.Y. Li, F. Zhang, Q. Fan, Z. Wu, Y. Li, J. Du and C.Z. Zhao	686
Industrialization of Pollution-Purifying Agriculture to Control Non-Point Source Pollution in Poyang Lake Area Z.W. Wu and X.W. Lu	690
Start-Up of the Anaerobic Fluidized Bed	070
X.M. Sun, J.Y. Liu and Q. Qiao	695
Validate the DSSAT Model on Winter Wheat under Conservation Tillage Treatments in the West Henan, China X.H. Lu, H. Bai and H.Y. Liu	699
A Method for Computing Return on Investment of Ecological Restoration of Coastal Mud	0,7,7
Flat L. Sun and Z.S. Zhu	709
Audit Evaluation on the Environmental Influence of Military Action Y. Zhou and H. Liu	713
Chapter 5: Ecological and Environmental Protection	
Allelopathic Effect of Sargassum fusiforme on Growth of Karenia mikimotoi C.Y. Yuan, Y. Zhao, S. Yang and Q.M. Cui	721
Coral Reefs Damage Assessment due to Oil Pollution in Egyptian Water E.H. Hegazy, A.K. Mehanna, M.Y. Omar, H. Elkilani and A.A. Hassan	725
On the Experience of Enterprise Energy Conservation and Emissions Reduction in	
Developed Countries and the Enlightenment to China J. Lv, J.L. Liu, J. Ma and P. Liu	729
Preparation of Activated Carbon Loaded with Ferric Oxide Hydrate and its Absorption for Arsenic	725
Y. Chen and Z. Guo  Study on the Effects of Demostic Severe on Soluble Protein Content of Ports Constructed	735
Study on the Effects of Domestic Sewage on Soluble Protein Content of Parts Constructed Wetland Plants M. Lu, J. Zhao, L.D. Feng, K.K. Li, X.M. Zhao, H.M. Yan, T.Y. Guo and P. Zhao	741
Multispecies Phytoremediation on Degradation of PAHs in Soils L.J. Yang, X. Yuan, S.W. Pan and Y.X. Wu	745
Effects of Phosphate Rock on Absorption and Accumulation of Heavy Metals of Ryegrass in Heavy Metal Contaminated Soil Y.Z. Wang, Z.Q. Zhao and G.Y. Jiang	752
The Content and Contamination Characteristic of Heavy Metals in Road Greenbelt Soil H.X. Du, J. Zhang, L. Wang and X. Bai	758
A Review on Water Eutropication: The Causing Factors and Purifying Technologies	138
F.L. Zhao, Q.F. Li, X. Yang and J.K. Liu	763

Residual Characteristics of Organochlorine Pesticides in Vegetable Soils from the Middle of Yuanmou	
S.S. Chen, X. Deng, J.K. Liu, Q.F. Li and C.Y. Wu	769
Predictive Comprehensive Carrying Capacity Assessment for Marine Reclamation with Hydrodynamics, Ecology and Sediment M.C. Li, Q. Si, G.L. Li and Y. Wang	774
The Quantitative Analysis Methods and Application of Environmental Impact on Railway Location	
R.J. Zhang and F. Han	778
The Optimal Extraction Path of Exhaustible Resources under Environment Control X.X. Yan, J.S. Zhang and S.H. Zou	783
Analysis of Implementation the Key Technologies of Green Manufacturing J.Y. Huang and H.Y. Zhu	787
A New Ecological Flow Assessment Method Based on Spatial-Temporal Variability and Transferability C.W. Li and L. Kang	791
Chapter 6: Waste Disposal and Recycling	
Variation of PAHs, PCBs and OCPs Contents and Influencing Factors in Sludge Landfill	
Process Y. Zhu, M. Zhang, Z. Han and S.P. Feng	797
A Study on the Establishment of Demolition Waste DB System by BIM-Based Building Materials	006
J.W. Park, G.W. Cha, W.H. Hong and H.C. Seo  Current Situation and Prospect of Comprehensive Utilization of Red Mud	806
R.R. Yi and W. Cao  Research on the Disposal Strategy of Waste Textiles	811
H.Y. Xue, X.J. Zhang and Y.Q. Wang  Effects of the Amount of Additives on Sludge Composting in Northern Cold Regions K. Zhao, Y. Zhang, Y. Yan and B. Wang	817 821
The Application of New Separation Technology - Molecular Distillation Regenerated of Waste Heavy Oil	021
Z.J. Fu, H.F. Huang, H. Wang and R. Sun	826
Influence of RAP Content on Pavement Performance of Hot Plant Recycling Asphalt Mixture H. Lin, Y. Zhuang and G.W. Hu	830
Optimal Design of Salt Water Recycle System with Non-Filler Evaporating Tower Y.Q. Zhao, Z.Y. Li, L.Y. Zhang, Y.Q. Liu, J.N. Zhu, Z. Lin and F.X. Li	834
Study on Conditions Optimization of Surplus Sludge and Nutrient Soil Co-Composting J.L. Li, C.Q. Shan, H. Zhang and J.B. Yang	840
Research on Measure of Energy-Saving and Environmental Protection in Foundry Industry J.G. Li and Q. Zhang	845
Treatment of Mariculture Wastewater Using Constructed Wetlands under Antibiotic Interference	
Q.S. Wang, J.G. Li, C.J. Wang, X.P. Cai, H. Sun and M. Tao	849
The Growth Performance of Duckweed and Removal Rate of Nitrate and Phosphorus in Sewages with Different Processes	854
Q.T. Zhang, Z.J. Zhang, J. Ma and J. Xiang	034
Chapter 7: Disaster Prevention and Mitigation	
Research on Derivative Nature of Emergencies in Beijing F. Zhao, Y.J. Liu, J.C. Zhao and X.Q. Dong	863
Study on the Modal of Media Emergency Science Communication in Public Health Emergency	047
J.C. Zhao, X.Q. Dong, Q. Wu and L.J. Zhang	867

Research on Fire-Fighting Capability of Rural Villagers R.X. Gao, S.C. Tian and H. Zhang	871
Research on Gas Emission Combination Forecast Method Based on Improved AHP L. Wang, S.C. Tian, X. Wang, Y.M. Chen and R. Wang	876
Research on the Safety Evaluation of Large Recreation Facilities Based on BP Neural Network	004
Y. Zhang, Z.R. Wang, Q.Q. Zuo, X.D. Zhang and X.D. Li	881
A Positive Study of Risk Behavior Based on Dynamic Panel Data K.Q. Liang	887
Chapter 8: Hydrology, Water Resources Engineering and Water Supply	
An Analysis of Temporal and Spatial Distribution Characteristics of Water Resources in Guangdong Province, China Q. Zhou and Y. Pang	895
Applicability Evaluation of WASMOD in Tarim Basin J.Y. Peng, Z.L. Li and Z.X. Xu	902
Environmental Kuznets Curve, Flood Disaster of China and Stormwater Resource Reuse C.F. Huang and J. Zhou	907
Review of Research on Water Accounting L. Jia, H. Gan and C.H. Qin	911
The Influence of Jidong Iron Ore Exploitation on Regional Groundwater Environment X.S. Liu, L.L. Zhang, S.Q. She, B. Zhao, D.J. Liu and Y. Wang	916
Statistical Relation between Environmental Parameters in Ireland and Precipitation across UK	021
X. Li and Y. Pan <b>Product Water Footprinting: Application with Milk Products at Brand Level</b> C.C. Xu, Y. Wu, H. Jia and F. Chen	921 925
Risk Assessment of the Debris Flow Gully in Tibet Southeast by Set Pair Analysis Method P.Q. Wang, J. Xu, W.W. Ye and S.J. Guo	930
Supply of Quasi-Public Products under Private Participation in Western Region - An Example from Decentralized Wastewater Recycling Y.W. Guo and X.J. Liu	935
An Experimental Study of the Flow Structures in Vegetated Open Channels X.Y. Hu, K. Jiang, H.Q. Ren and X.X. Shen	941
An Innovative Study on the Fluid-Sloshing Wave-Energy Conversion System (FSWECS) H.H. Lee, T.C. Wu and Z.Y. Wu	950
An Oxygen Isotope Study of Seasonal Trends in Jinxiuchuan River of Jinan South Mountain	
Y.S. Wang, Z.H. Xu and S.F. Dong	954
Analysis of Water Movement through an Unsaturated Soil Zone in Jinan Southern Mountain Using Stable Oxygen and Hydrogen Isotopes Y.S. Wang and Z.H. Xu	958
Restoration of Eco-River in Hefeng Village X.H. Zhu and Z.B. Jiang	963
The Experimental Investigation on Transportation Characteristics of LNAPLs in 2-D Porous Sand Tank	
H.L. Liu and L.Y. Mo	967
Geophysical Methods Investigation of Contaminant in Underground Water Environment S. Zhang and H.L. Liu	971
Study on the Water Resources Efficiency from the Economic Perspective X.F. Wang, X.Y. Ding and W. Li	975
Study on Control of Water Quality of Poyang Lake C.B. Wu and X.H. Zeng	979
Study on Characteristics of Water Waves in Bohai Sea Using SWAN Model D.S. Wang, X.C. Lv and D.K. Yuan	983
Soil Macropore Structures and their Effect on Preferential Flow M.X. Liu, W.H. Cui, D. Wu, L.J. Liao and W.Z. Du	990

Modified Extended Hyperbolic Mild-Slope Equations H.C. Pan and Z.G. Zhang	995
Research on Water Saving Irrigation and Optimal Allocation of Water Resources C. Hu and D.S. Li	1000
Driving Force and Influence of Habitat Conditions on <i>Tubifex tubifex</i> (Oligochaeta, Tubificidae) Drift in Source Water	
F.D. Hou, F. Wang and X.B. Nie	1005
Hydraulic Regime Analysis of On-Off Valve Regulation L.B. Liu, Y.M. Liu, W. Huang, C.L.M. Bao and Y. Zhao	1009
Analysis of Difference of Water Use Efficiency in China L.L. Che and X. Han	1015
The Effect of Applied Magnetic Field on the Mine Water Coagulation Z. Guo, J.G. Cui and G. Wei	1021
Establishment and Application of a Comprehensive Evaluation Model for Management of Water-Saving Irrigation Developing Level Based on Set Pair Analysis - Si Chuan Province as Example	
Y.H. Lou, N.B. Cui and H.X. Yang	1027
Optimization of Multi-Objective Crop Pattern Based on Water and Fertilizer Resources Allocation	
Z.K. Hu, C. Liu, W.H. Zhuang, T.G. Liu and Z. Li	1034
Influences and Countermeasures of the Shale Gas Exploitation on Water Environment Q.L. Guo, S.H. Tang, Y. Wan and E.P. Fan	1039
<b>Chapter 9: Forest Cultivation and Plant Protection</b>	
<b>Development of Plant Genetic Diversity by Biotechnology and Genomics</b> H.Q. Wu, Z.H. Li, X. Zhou, H.D. Zhang, J.L. Li, Y.X. Li and Y.M. Zhang	1047
Potential Geographic Distribution Areas of <i>Mononychellus mcgregori</i> in Guangxi Province H. Lu, F.P. Lu, X.L. Xu and Q. Chen	1051
Response of Stomatal Conductance to Vapor Pressure Deficit in Leaves of Four Trees at the Campus of Shandong University	
J. Li, X.G. Wang, G.Z. Zhang, X.W. Hou and X.M. Li	1055
Abies georgei Population Structure and Dynamics of the Baima Snow Mountain, Yunnan, China R. Zhao, X.Q. Deng, G.S. Wu and L. Li	1059
A Structure Model of Urban Forest Recreation Behavioral Intentions S. Tang, H. Tang and L. Zhou	1065
Analysis on Growth Characteristics of <i>Poa viridula</i>	
C. Zhou, Z. Zhang, J.Y. Guo and S. Guo  Characteristics of Soul Setting of Two Footsman Lawrence on Heterogeneity Soil	1072
Characteristics of Seed-Setting of Two Ecotypes <i>Leymus chinensis</i> on Heterogeneity Soil C. Zhou, J.F. Zhu, H. Liang, Z. Zhang and Y.F. Yang	1076
A Study on Sustainable Development of Yunnan Bamboo Industry C.M. Hui, Y. Hui, X.Y. Yang and F. Chen	1080
A Study on the Conservation and Development of <i>Dendrocalamus sinicus</i> Form Yunnan, China	
C.M. Hui, X.Y. Yang, N. Liang and F. Chen	1084
Effects of Ozone and Drought on Physiological Characteristics of Three Seedling Types in South China	1000
L.H. Ye, Q.J. Li, L. Xue, G.W. Lie, X.L. Hou and H.Y. Chen  The Characteristics of Power as Communication Processing and its Communication from Number	1089
The Characteristics of Bamboo Germplasm Resources and its Conservation from Yunnan, China C.M. Hui, N. Liang, X.Y. Yang and F. Chen	1098
Response of Sugar Beet to Salinity during the Stages of Seedling Emergence and Plant	1070
Growth Y. Liu, T.T. Fu, N. Sui, T.L. Ding, X.H. Du, J. Song and B.S. Wang	1102
Molecular Cloning and Computational Analysis of Rice OsEm Gene	1102
J. Fan, M.Y. Huang, X.Y. Zhang, Z. Liang and C.H. Xu	1109

### **Chapter 10: Biomedical Engineering**

A Microfluidic Cytometer for Quantitative Evaluation of Radiation Dose by γ-H2AX J.S. Wang, Y.N. Song, J.Y. Sun, H. Chu, J.H. Jiang, X.X. Pan, Y.Q. Sun and D.Q. Li	1119
A Study on Kinetic Changes when Applying Vibratory Stimulation on Somatosensory for	
Gait M.H. Park, H.J. So, S.H. Kim and D.W. Kim	1123
A Study on the Development of Liquid Cell Smear Device Used in the Early Detection of Cancer Cells	
H.Y. Oh, S.H. Kim and D.W. Kim	1129
A Portable Diagnostic and Treatment System of Abnormal Gait Using Acceleration and Gyroscope Signal H.J. So, S.H. Kim and D.W. Kim	1133
The Analysis of Body Movement during a Fall by Using a Wireless Sensor Module and the Development of a Fall Detection Algorithm S.H. Kim and D.W. Kim	1137
Synthesis of Selenium Nanoparticles in the Presence of Oyster Polysaccharides and the Antioxidant Activity M.T. Yang, F. Li, Y.C. Wang and Q.Y. Liu	1143
Cultivation Technique of Selenium-Enriched Cordyceps militaris	1113
H. Zhang, H.M. Zhang, L. Han and S.H. Wang	1147
Study on Fermentation Regularity of Lingwu Long Jujubes at Different Maturity L. Chen, T.Y. Wang, X.H. Li, Z.R. Ma, Q. Li, M.M. Hao, Y.Y. Li, X.H. Huang and H.H. Chen	1151
Chapter 11: Geographic Information Science and Remote Sensing	
A Study on Heat Island Effect of Coastal Zone in Qingdao Based on RS and GIS Y. Dou, R.N. Chen and W.L. Zhou	1157
Digital Drainage Network Model of Ebinur Lake Basin of Bortala Mongol Autonomous Prefecture Based on DEM Data X.L. Liu, J.G. Li, X. Li, Q.L. Wang, L.F. Zhang and W.L. Liao	1161
A New Matching Algorithm Based on Characteristic Points of Epipolar Line A.H. Xu, A. Tao, J.J. Zhuo and L.Q. Sun	1166
Analysis and Study on GNSS Data in the Three Gorges Area Z.G. Jia, G. Liu and W. Wang	1171
The Classification of Land Use and Land Cover in Shangri-La Based on Decision Tree Automatic Threshold Classification Method W.J. Xi and R.B. Ma	1178
A Kind of Auxiliary System Affiliated Ground Penetrating Radar Based on Road Disease Detection	1170
Y.H. Xia, F. Yang and X.L. Xu	1182
A Parallel Simulation Method for Performance Analysis of GNSS H.T. Hou, Q. Li, C. Wang, Q. Chang and W.P. Wang	1187
Functional Dependency Network Analysis of Security of Navigation Satellite System Y. Wang, W.X. Zhang and Q. Li	1192
The Research of the Ground Penetrating Radar Wave Velocity Estimation Method Based on QR Decomposition	1197
X. Qiao, W.J. Ji, K. Zhu and F. Yang  Research of Transformation Models between Urban Independent Coordinates and CGCS2000 Coordinates	119/
Q.W. Meng and L. Meng	1202
Influencing of Coordinate Transformation on Based CGCS2000 on Topographic Map with	
Large Scales Q.W. Meng and L. Meng	1207
Comparing of Coordinate Transformation Based on Total Least Squares and Least Squares O.W. Meng and L. Meng	1211

The Modeling and Simulation of Constellation Availability Based on Satellite Reliability S.S. Zhou, J. Jiao and Q. Sun	1215
Chapter 12: Geology and Geoscience, Prospecting and Exploration of Mineral Resources	
Characteristics of Tight Oil in the Dolomicrite Reservoir: A Case Study of Xingouzui Formation, Jianghan Basin, China	
M.Y. Zhou, L.M. Wei, J.R. He, Q.M. Pei, W. Li and Y. Tian	1223
Coalfield Structures and Occurrence Tectonic Unit of Coal in Hunan Province, China J.Q. Tan, D.Y. Cao, Z.H. Zheng and L.M. Chen	1229
Fast Reconstruction of Velocity Structure for Seismic Logging G.H. Han, P. Yun, X.L. He, R.P. Liu and C. Li	1233
Hierarchical Fuzzy Comprehensive Evaluation for CBM Favorable Areas in Western Guizhou and Eastern Yunnan L.L. Guo, D.Z. Tang, H. Xu, S. Li and Y.J. Meng	1238
<b>Depositional Model and Development Significance of Clastic Reservoir</b> W.F. Liu, S.L. Liu and H.Y. Han	1245
Development and Prototype Features of Evolution in the Yangtze Basin	
Y. Yuan and Z.T. Liao	1249
Chapter 12: Geology and Geoscience, Prospecting and Exploration of Mineral Resources	
Micro-Pore Characteristics and its Control Factors Analysis of Chang8 <sub>1</sub> Reservoir of Huanjiang Area	1055
B.X. Li, Y.T. Cao and W.Z. Ma  Remaining Oil Distribution and Development of Chao(4 Plack in Chao(4 Plack in Chao(4 Plack))	1257
Remaining Oil Distribution and Development of Chao64 Block in Chaoyanggou Oilfield Q. Xu	1262
Most Extreme Curvature and its Application to Seismic Structural Interpretation Z.H. Zheng, J.Q. Tan and K. Liu	1266
Study on Gold Metallogenic Series in Zhejiang Segment of Qinhang Metallogenic Belt, China	
B.J. Jia, L.Y. Zhou, Z.G. Chen, C. Jin, J.F. Qian, Y.G. Ma, W.D. Zhou and X.Y. Zhu	1270
Research on Diagenetic Facies Based on Diagenetic Effect in the Low Permeability Sandstone Reservoir - A Case from C8 <sub>1</sub> Reservoir in Huanjiang Region, Ordos Basin C. Wang, Z.G. Jin and C.Z. Liu	1274
Water Saturation Model Optimization after Polymer Flooding S. Yan	1280
Sandbody Prediction by Frequency Spectrum Analysis in High-Resolution Sequence Framework of the Third Section of Qingshankou Formation, Xingxi Oil Field Z.C. Wang, H. Liu, L. Zhang and Y. Li	1284
Analysis of Sedimentary Facies Model - The Cretaceous Bottom Conglomerate of Xinjiang Junggar Basinludong Area as an Example	1204
B. Xiao, J. Li and Y.H. Fan	1289
Applied the Prestack Fracture Prediction Technique in HSX Region Y. Wang and G. Zhang	1293
The Geological Characteristics and Potential Evaluation of Yunnan Zhenkang Luziyuan Mining Area	
B. Xiao, J. Li and Y.H. Fan	1299
Metamorphic Buried Hill Fracture Reservoir of Characterization and Evaluation W.F. Liu, S.L. Liu and L.X. Sun	1303
Geologic and Geochemical Conditions of Shale Oil of Paleogene in NanPu Sag of Bohai Bay Basin	
R. Luo, M. Zha, C.H. Gao and H. He	1307
Petrophysical Study on Carbonate Reservoir W.F. Liu, S.L. Liu and H.Y. Han	1313

Methods of Identifying Reservoir Fractures in the Petroleum Industry J.M. Du, X.L. Zhang, G.R. Zhong, C.Y. Luo, Q. Ding and W.C. Nie	1317
Research on Volcanic Rock Types and Characteristics in Ou Area W.H. Yi, J.J. Zhang, C.Z. Liu and Y.L. Yang	1322
Inversion-Phase Tectonic Styles and its Oil and Gas Geological Significance in Hailar Basin S.C. Zhang, H. Sun and W. Fang	1326
The Shallow-Water Delta Deposit and Exploration Significance in Huanghekou Depression H.Z. Yu and J. Wang	1333
Lacustrine Facies Sedimentary Characteristics of Guantao Formation in Zhanhua Sag J. Wang and Z.G. Li	1337
<b>Integrated Study of 3D Gas Reservoir Geological Modeling of North in Su11 Block</b> Z.G. Jin, D. Zhang and D.Z. Tang	1341
Remaining Oil Development Study of a Nature Water Drive Reservoir in the High Water Cut Stage J.H. Wang and W.N. Zhang	1346
Jiyuan Oilfield Wangpan Mountain Chang 8 Reservoir Characteristics and Modification Evaluation	
M. Wang, R. Hu, Y. Zou, M.X. Lu and B.W. Han  Application of Numerical Simulation Research in Chang110 Block	1351
J.T. Yu, J.L. Zhang, J. Xie and L.Y. Li	1355
Application of Facies-Controlled Physical Property Modeling in Oubei Block, Jinhu Depression	
P.P. Chen, J. Xie, C.L. Li, M.Q. Wang, Y.D. Liu and B.C. Li	1359
Fatigue Analysis of Wenchuan Scientific Drilling BHA under Complex Conditions S.L. Tang, L.H. Sun, L. Yang and W. Zhang	1363
Chapter 13: Mining Engineering	
Analysis of Inducing Factor of Thin Seam Rock Burst in Xinxing Mine Z.P. Jin, T. Qin and Z.W. Liu	1371
Apply Roof-Broken the Blasting Technique to Control Rock Burst Z.W. Liu and C.B. Hao	1377
Cutting Roof Roadway Regional Stress Characteristics Numerical Analysis of Thin Coal Seam Group Z.W. Liu and T. Qin	1382
Determination Method of the Supporting Intensity of Fully-Mechanized Face in Deeply Inclined Medium-Thickness Seam	
Z.P. Guo, H.Q. Duan, F. Feng and G.Y. Zhang  Experimental and Modeling Study on the Strength of Tailings Backfill in Underground	1386
Mine G. Huang, S.J. Cai, Y.D. Zhang and D. Wu	1390
Numerical Simulation and Analysis of Rock Burst Induced by Roof Movement T. Qin, Y.L. Liu, C.J. Dong and P. Wang	1394
Numerical Study on Seepage Mechanism of Rock Failure H.L. Liu and T. Qin	1399
Numerical Simulation Study on Influence Factors of the Filling Body Stability in Partial-Filling Mining Z.P. Guo, W.P. Huang, F. Feng, S.S. Yan and C. Han	1403
The Changing Rule of Rock Strength under True Triaxial Condition Z.K. Wen, K.M. Wei, J.Q. Hu and Y.L. Fang	1410
The Strength Effect of Pre-Cracked Rocks at Different Angles K.M. Wei, J.Q. Hu, Z.H. Zheng and Y.L. Fang	1414
Research on the Rules of Overlying Rock Movement by Similar Material Simulation in Fully Mechanized Top Coal Caving Mining with High Cutting Height J.K. Liu, C. Dong, S.Q. Zhang and Y. Zhang	1419
To Construct the Evaluation System of Foreign Investment Environment of Mining Enterprises in China W.J. Wu and W. Wang	1426

Research on the Underground Pressure Behavior Law of Repeated Mining Working Face under the Gob of Small Colliery	
C.X. Hu, J.K. Liu, Q. Li and Y. Žhang	1434
Stability Analysis of Gob Roof and Rock Movement Prediction J. Gong, N.L. Hu and X. Cui	1441
Research Review on the Value of Coalmine Safety Investment Based on Real Option X.P. Zhao and S.C. Tian	1447
Assessment for Safety Capability of Mine Team Leader Based on AHP and GRA C. Liu, S.C. Tian and J. Liu	1452
The Practice and Innovation of Coal Dust Control Technology in Comprehensive Tunneling Face	
X.J. Zhu, H.Y. Zhang and Y. Wang	1457
Chapter 14: Technologies of Mineral Processing	
A Study on Leaching of Zinc Oxide Ore in Ammonium Sulfate Solution D.D. Wu, S.M. Wen, J. Yang, Y.J. Wang and C. Lv	1463
Factors of Extracting Lithium from Lepidolite by Sulfate Roasting and Dilute Sulphuric Acid Leaching	1467
X.Z. Kong, H. Ye and Y. Qin  Research on Flotation of Copper Sulfide Ore in Yunnan Province	1467
T.M. Zhang, J.J. Fang, T.G. Jiang, S. Wang and Y.B. Mao	1471
Industrial Experiment Research on a Vibration Lamella Thickener's Application to Concentration of Tailings	
C.C. Shang Guan, X.L. Zhou, D.Y. Sun and P.X. Zhang	1476
Study on Mineral Processing Technology of Coal Pyrite in Yunnan M.M. Li, Y.H. Shao and S. Xu	1480
Recovery Cu from a Copper Oxide Ore by Flotation and Leaching C. Lv, S.M. Wen, S.J. Bai, Y.J. Wang and C.Y. Chen	1484
Study on Flotation of Refractory Phosphorite at Normal Temperature C.C. Shang Guan, X.L. Zhou, D.Y. Sun and P.X. Zhang	1488
Flotation of Sulphide Copper Ore of Sifangjing in Huidong T.M. Zhang, J.J. Fang, T.G. Jiang, S. Wang and Y.B. Mao	1493
Research on Cationic Reverse Flotation of Magnetic Concentrate Using a Flotation Column W.Z. Wang, F.P. Li and Q.L. Meng	1497
Experimental Study on Low Temperature Flotation Recovery of Apatite from a Magnetic Tailings	4.504
W.Z. Wang, B. Liang and J.R. Zhang  Experimental Research of the Packed Flotation Column on Reverse Flotation about a	1501
Hematite Ore	
W.Z. Wang, L.P. Chen, L.B. Zhao and Q.F. Zhang  Experimental Investigation on Flotation of Refractory Copper Oxidized Ore	1505
Y.B. Mao, S.M. Wen, J.J. Fang, Z.C. Wei, T.M. Zhang and T.G. Jiang	1509
Chapter 15: Technology of Oil and Gas Extraction	
Characteristic of the Volatile Arsenic in Natural Gas and its Novel Determination Method Z.X. Liu, D.Z. Tang, Q.T. Yan, H. Xu, S.Y. Wang, R. Xu and S. Wu	1515
Application of Well Temperature Logging in Coalbed Methane Well Fracture Effectiveness Evaluation	
X.Y. Xiong, D.Y. Cao, Y.T. Jiang, L.H. Bian, W. Wang, L. Wang and Q. Liu	1522
Geological Characteristics and Implementation Results under Tight Layer's Mixed Water Fracturing in Ordos Basin	1.500
M. Wang, R. Hu, T.D. Shen, M.X. Lu and B.W. Han Simple Analysis of Low Permeability Sandstone Reservoir Stable Production	1528
Countermeasures - Taking Jiyuan Oilfield Yuan 214 Chang 4-5 Reservoir as an Example M. Wang, R. Hu, T.D. Shen, B.W. Han and M.X. Lu	1532

The Complementary Technologies to Improve Polymer Flooding Efficiency for Class II Reservoirs of Daqing Oilfield	
J.H. Feng and Y. Liu	1537
Method for Calculating Dynamic Reserves of Water Drive Gas Reservoir with Considering of Water-Sealing Gas X. Zhang and W.H. Liu	1542
Prediction Method of Production Performance of Gas Well X. Zhang and W.H. Liu	1547
Theoretical Model and Application of Nodal Analysis in Layered Water Flooding Regime - Take Bi-Layer Reservoir as an Example L. Wang, G.W. Qin, R. Wang, W.B. Xu, R. Gao, R.X. Guo and Y.B. Fan	1552
The Oil Displacement Mechanism of Viscoelastic of High-Concentration Polymer in Lamadian Oilfield W.X. Wu and D. Zhang	1558
Experimental Study on Effect of Temperature on Heavy Steam/Oil Relative Permeability L.P. He, P.P. Shen, Q.C. Gao, M. Chen and X.Y. Ma	1562
Comparative Study between Foreign and Chinese in Oil and Gas Resources Tax J.S. Wang and T. Wang	1567
Chapter 16: Urban and Rural Planning and Design	
An Analysis on the Current Market of Non-Agricultural Construction Land in Urban and Rural Areas of China	
Y. Yuan, L. Ma, G.H. Yang, J.T. Liu, W.Y. Li, G.B. Jing and Z.Q. Xiang  Analysis on the Relationship between Specialization and Innovation of Technology in	1573
Chinese Cities L. Xia and J.Y. Hu	1577
Analysis on the Crowding-Out Effect of Tourism and Regional Differences J.N. Wang, Y.K. Wan and S.C. Dong	1581
Analysis on the Relationship between the Effect of Diversity and Innovation of Technology in Chinese Cities L. Xia and C.C. Liu	1590
<b>Influential Factors of Sustainable Development of Rare Earth Industry in Sichuan</b> L. Wei and A. Pan	1595
Measurement of Contribution Rate of Construction Land Scale to the Secondary and Tertiary Industry Growth - A Case Study of Guangxi Province F.R. Li and A.Q. Sun	1600
Study on the Spatial Pattern of Urbanization Level and Economic Development Level in Shandong Peninsula Urban Agglomeration B.Y. Shan and F. Meng	1607
Research on the Evaluation Method of Space Service Level of City Public Landscape Facilities C.Y. Li, H.N. Bi and Y. Bao	1612
Research on the Measurements of the Disequilibrium Degree of the City Traffic Supply and Demand	1012
Y.K. Gao, X.L. Zou, M. Li and L.L. Tian	1616
Urban Green Planning and Sustainable Development: A Case of China X.S. Dou, J. Wang and Y.T. He	1622
Resource and Environment Constraints and Sustainable Urbanization Development in China X.S. Dou, J. Wang and Y.X. Zhang	1627
Strategy Research on Sustainable Development of Urban Form in Western Sichuan Plain C.Y. Yang, B. Gao and Y.M. Peng	1632
Study on Methods of Re-Development of Urban Old Settlements from View Point of "Well-Being of People's Livelihood"	1032
C.J. Chen, C.G. Wang and Y.Z. Huang	1636
Study on Sustainable Construction Characteristics of Sichuan Vernacular Architectures C.Y. Yang and S. Min	1641

Study on the Method of Landscape Ecological Design for the Urban Furniture B. Feng and P. Xia	1645
On the Coordinated Development of Land Utilization and Traffic Demand in Mountain High-Density City - A Case Study of Chongqing Main City L. Lai and Z.X. Li	1649
Discussion on Evolution of Focal Points of China's Urbanization: Based on Keywords Analysis of Papers from CNKI during 1992-2011	
J. Li, S.C. Dong, Z.H. Li, Q.L. Mao, Y.B. Huang, F. Wang, P. Guo and J.N. Wang	1656
Evaluation on the Sustainable Development of Chengdu's Urban Form L. Chen and Y. Mao	1665
Research of Contradiction between Energy Use and Industrial Development of Underdeveloped Regions in Northwest - Yinchuan City in Ningxia Autonomous Region as an Example	
Q. Dong Research on the Expropriation Compensation Scope of Farmland in China	1670
Y. Yuan, H.L. Chen, J.H. Long, L. Ma, J.T. Liu, X.Y. Li, Y.M. Yuan and Q.S. Wan	1675
Determination and Classification of the Damaged Cultivated Land Boundary a Case Study at Yanzhou, China X.L. Xu, F. Yang and Y.H. Xia	1679
A Study on the Evolution Rule and Culture Analysis of the Spatial Form of Ancient Towns	1079
in Yuanshui River Basin H. Zhou, G.Z. Wu and D.X. Hu	1684
Numerical Simulation of Ground Surface Settlement Induced by Open-Cut Subway Station	1004
Y.H. Guo and K.P. Hou	1689
Stability Analysis of Main Structure for an Open-Cut Metro Station Y.H. Guo and K.P. Hou	1693
<b>Vibration Reduction Analysis of an Old Residential District under Vehicle Load</b> B. Huang, T.D. Xia and P.F. He	1697
Architectural and Technical Development Speculations W.B. Liu and S.H. Ai	1703
Numerical Simulation of Human Thermal Comfort with Different Thermal Boundary	1,05
Conditions in Buildings Q.L. Peng, Z.H. Qi, X. Gan and C. Li	1707
A Study on the Psychological Structure Model of Garden Aesthetics Evaluation Y.Q. Wu and X.Y. Xiong	1713
Study on Landscape Configuration Arts of Urban Winter Garden Z.P. Deng, Q.S. Ying, Y.Y. Mo, P.C. Zhang, C.F. Wu and Y.J. Lu	1723
Analysis and Prevention Measures of Pollution Sources in Modern Architecture	1720
Y.L. Zhao On the Interior Space Design of "With and Without"	1728
M. Zhou	1731
Architectural Art Design in Visual Field of Ecological Aesthetics Y. Bao and B.H. Xu	1734
The Impact of the Folk Art on the Formation of Traditional Dwellings in Western Sichuan W.Y. Dong and R.F. Zhang	1738
Numerical Study on Stability of Square Perforated Cubic Artificial Reef C.G. Liu and W.J. Shao	1742
A Study on the Regional Differences and Influence Factors of Inbound Tourism Economy in Inner Mongolia of China Z. Zhang, J.X. Zhang, K. Chen, F.W. Ma and T. Kuang	1746
Thinking of Rural Ecological Environment Problems	1/40
Z. Zhao and C.Y. Chen	1752
Current Situation of Energy and Indoor Environment in Rural Buildings of Northeast China	
T.T. Zhang, Y.F. Tan, X.D. Zhang and C.K. Niu	1756
Landscape Architectural Design of Ecological Sightseeing Park B.H. Xu and Y. Bao	1760

# Chapter 17: Sustainable Development, Circulary and Low-Carbon Economy

An Empirical Study on Low-Carbon Economy by Urbanization - Taking Chongqing for Example	
R. Fu, J.L. Hu and Y.S. Quan	1767
Research on Eco-Development Stage and Niche Construction of Logistics Industry in China Z.Q. Gu, Y. Liu and Y. Fang	1771
Study on the Policy System in Eco-Industrial Parks in China Y. Zhang, Y. Yao and Q. Qiao	1776
<b>Study on the Spatial Organization of Organic Agricultural Enterprise Network in China</b> B.X. Gu, Y.H. Wang and Y.P. Li	1782
The Analysis on Spatial Network of Organic Agriculture Certification Center in China Y.P. Li, Y.H. Wang and B.X. Gu	1791
Coupling Coordinative Degree of Tourism-Economy-Environment System - Take Resource-Based Cities in Shanxi Province as a Case P. Guo and S.C. Dong	1798
Review of Study of Ecological Risk Management H.J. Yang and L.Y. Wang	1806
<b>Ecological Civilization Construction in ChinaOrigins, Concepts and Paths</b> Y.J. Hu	1810
Sustainable Development of Agricultural Product Logistics C.J. Wang and M.R. Wang	1817
Analysis on the Carbon Emission (CE) Arising from the Direct Energy Consumption (EC) of Beijing's Construction Industry J.S. Jia, Q. Chen and L.L. Hu	1822
World Expo 2010 Promotes the Reduction in Carbon Emissions of Urban Transport L.H. Zeng and G.M. Li	1826
An Analysis of Decoupling of Economic Development and Environmental Pressure Based on the Park Level: A Case of TEDA W.N. Bai, Q. Qiao, Y. Yao, Q.H. Sun, Y.Y. Song and Y. Xu	1831
Waste-to-Energy Technology Assessment for Household Cooking Fuel in Phnom Penh Capital City of Cambodia M.S. Ju, S. Mam and J.Y. Kim	1840
The Resource-Conserving and Environment-Friendly Industrial System Development Pattern of Hunan Province	
X. Wang and J.J. Liu  Research of Knowledge Transfer Mechanisms and Environmental Uncertaint towards	1844
Renewable Energy in Thailand C.W. Tsou, P. Supakarapongkul, S. Pornjirattikal and Y.T. Huang	1850
Study on Carbon Emissions and Economic Growth Based on Elasticity Decoupling Theory in China over 2000-2011 R.G. Fan and Y. Wu	1853
The Measurement of Environmental Performance and Economic Performance Based on Catastrophe Theory: Case Studies of Thermal Power Industry and Steel Industry in China L.J. Li, W.J. Li, S. Li and G.Y. Qiu	1858
Research on Environmental Tax to Affect the Economic Development and GHG Mitigation in Beijing, China	
Y. Zou, J.N. Song, T. Mizunoya, H. Yabar and Y. Higano	1871
Sustainable Development: The Evaluation of a Typical Steelworks in China Based on Emergy Theory L.Y. Yang, W. Wei and H. Bai	1879