## Progress in Environmental Science and Engineering

Selected, peer reviewed papers from the 2nd International Conference on Energy, Environment and Sustainable Development (EESD 2012), October 12-14, 2012, Jilin, China

von Qunjie Xu, Yanzhong Ju, Honghua Ge

1. Auflage

Trans Tech Publications 2013

Verlag C.H. Beck im Internet: www.beck.de ISBN 978 3 03785 550 8

## **Table of Contents**

**Preface and Conference Organization** 

## Chapter 1: Environmental Chemistry, Biology and Technology

Growth Inhibition of Two Typical Red Tide Microalgae ( <i>Karenia mikimitoi</i> and <i>Alexandrium tamarense</i> ) by Antialgal Substances from <i>Gracilaria lemaneiformis</i> and its <b>Isolation and Identification</b> Y.Y. Sun, S.Z. Xu, J. Zhang and B.L. Yan	3
	3
Decolorization of Reactive Brilliant Blue KN-R by Immobilized Cells of <i>Rhodocyclus gelatinosus</i> M. Chen, C.Z. Zhang, Y. Shen and G.R. Zu	9
Effects of Colloids on the Nitrogen Fixation Rates in Surface Water in Beibu Gulf of China A.R. Zheng, D. Chen and Z.L. Lian	15
Enzymatic Treatment Effects on Waste Activated Sludge from Pulp and Paper Industry K. Zhang, C.J. Wu, J.C. Chen and G.H. Yang	20
The Effects of Turbulence on the Polysaccharides Content and Colony Formation of <i>Microcystis</i> under Different Nutrition Conditions M. Li and W. Zhu	25
Effects of Fluctuating Salinity on the Growth and Physiology of <i>Ulva pertusa</i> J. Xu, G.L. Guo, J.F. Shi and Y. Shi	31
Pentafluorophenyl Hydrazine as a Derivatization Agent for the Determination of Twenty Carbonyl Compounds in the Atmosphere C.J. Xie, P. Xie, J. Li and L.S. Yan	36
The Uranium Biosorption by Chlorella Pyrenoidosa and its Physiological Responses to	50
Uranium J. Sun, G.P. Yu and Y. Li	40
Screening of Actinomycetes from Marine Environments and the Inhibitory Activity against Pathogen <i>Staphylococcus aureus</i> P.S. Yan, J. Ren and C.H. Wang	44
<b>Analog Computation of Forms of Plutonium Presence in Aqueous Solution</b> J.H. Lei	48
Screening and Degradation Characteristics of Anthracene-Degrading Strains S.S. Liu, X.Y. Liu, X. Liang, F.H. Liu, J.C. Zou and J. Wei	52
Influence of pH Value and Dispersants on the Alumina Suspension Stability H.Y. Liu and W.K. Zhao	56
Biotransformation of 1-Hydroxychlordene by White Rot Fungus and Detection of	
Metabolites P.F. Xiao and R. Kondo	60
Removal of Vapor-Phase Elemental Mercury over a CuO/AC Catalyst	
J.W. Wang, X.J. Kong, R.B. Du and Y. Dong  Preparation and Photocatalytic Activity of Heteropolyacid Supported on Titanium Dioxide	64
Photocatalysts M.J. Piao, K. Xu, J.L. Hu and L. Zhang	68
Preparation, Purification and Identification of Antioxidant Peptides with Bienzyme Hydrolysis from Rice Bran Protein	
D.J. Mei, G.P. Yu and A.M. Sun	72
Recovering Gold from a Gold-Bearing Pyrite by Flotation and Chemical Process Q. Li, B.L. Ge, J. Liu and C. Zhu	81
Photoelectrocatalytic Degradation of Benzoquinone Using Different Cathode Materials X.L. Zeng, M.Y. Li, L. Song and B.Y. He	86
Effect of 1,4-Dichlorobenzene on Soil Microbial Populations and Enzyme Activities H.X. Liang and Z.X. Li	90
<b>Fe-Modified ZSM-5 and β Zeolites for Direct N<sub>2</sub>O Decomposition</b> Q.H. Guo, J. Li and Y.X. Li	94

Effects of Interaction between PAMAM and Polyoxometalates on Catalytic Performance for Oxidation of Isobutyraldehyde	100
Q.Q. Song, X. Zhang, Q.F. Huang and S. Lin  The DFT Quantum Chemistry Study of Hexafluorobenzene	100
H.Y. Pei, A.F. Gao and Z.Y. Zhu	106
Study on Nutrients Uptake Kinetics of Typical <i>Enteromorpha</i> Algae from Lianyungang C.Y. Wang and H.Q. Xie	111
Effect of Cell Cycle Phase on Sf9 Cell Activity and Autographa Californica Multiple Nucleopolyhedrovirus Infection Y.H. Zhang, W. Wei, P. Xu, Q. Qin, J. Chen, X.Z. Chen, X.P. Chen and X.H. Zhao	115
Influence of Humic Acid on Toxicity of Malachite Green to Aquatic Plant Z. Zhang, K. Zhou, X.L. Shao, X.Y. Wu, Y.M. Zou and L.Q. Yang	120
Cloning, Expression and Characterization of a Novel Iron Superoxide Dismutase from Magnetospirillum magneticum AMB-1	
X.Q. Li, Q.L. Wang and Y.M. Xue	124
Enhanced Biotransformation of Dinitrotoluene by Mediator-Functionalized Polypyrrole Composites J. Wang, G.F. Liu, H. Lu, J.T. Zhou and L. Li	129
Effects of Different Nitrogen Levels on the Yield and Water Use Efficiency of Tobacco X.H. Shao, W.N. Wang, T.T. Chang, L.H. Chen, B.J. Deng and Y.F. Wang	133
Fermentation Production of EM Active Calcium and its Performance for the Prevention on Blossom-End Rot in Facility Tomato Cultivation	
J.N. Chen, X.H. Shao, T.T. Chang, L.H. Chen, W.N. Wang and C. Yin	138
Study on the Hydrogeochemical Characteristics of Different Depth Groundwater by the Sulfate Isotope Method Y. Dou and G.C. Hou	144
The Response of <i>Ruditapes philippinarum</i> for Thermal Discharge H. Yang and L.L. Ding	149
Study on Compost Conditions and Nitrogen Changes of Poultry Dung with Banana Tree Y.B. Zhang, Q.F. Li and X.X. Tang	153
<b>Determination of Phthalate Acid Esters in Water and Sediment Samples by GC–MS</b> X.L. Shao, Y.M. Zou, F.X. Wang, Z. Zhang, S.M. Wang, S.L. Han, S.S. Wang, Y. Chen, X.Y. Wu and Z.L. Chen	157
Investigation on the Effect of an Divalent Electrolyte on the Flocculation of SDBS with Al <sup>3+</sup> J. Yan, D. Wang, F.F. Yang and D.M. Yao	163
Brief Analysis of the Sludge Bio-Drying Process H.F. Zou, Y.C. Fei, L. Zhao and J.X. Fu	169
The Effect of Glucose on <i>Saccharomyces cerevisiae</i> Cell Biosorption of Strontium under Simulation Culture Conditions	
M.X. Liu, F.Q. Dong, D. Zhang, W. Kang, H.F. Wei, Q.B. Gou, Y. Sun and X.G. Du	173
Synthesis and Bioactivities of Poly N-Arenely-N'- (1,4-Butenelydioxycarbonyl)thioureas W.H. Wang, H. Zhong, X.Y. Deng and G.Y. Liu	177
Effects of Simulated Acid Rain and Aluminum Enrichment on Growth and Photosynthesis of Tea Seedlings X.H. Duan, X.F. Hu, F.S. Chen and Z.Y. Deng	181
Influence of Triton X-100 and SDBS on the Sorption of Streptomycin Sulfate from Soil H.M. Zhao, Y.L. Liang and W.Y. Zhao	186
<b>Degradation of Humic Acid Using a CdS/TiO<sub>2</sub> Nanotubes Electrode</b> M.J. Sun, Y.Q. Wang and Q. Tu	190
Kinetic and Equilibrium of Biosorption of Methylene Blue by Sunflower Straw L.P. Chen and S.Q. Dalai	194
Study on Variation Trends of Heavy Metals Contents in Process of Sludge Energy Utilization	40-
Y. Xie, T. Zhang, C.L. Xu, Y.F. Hui and W.J. Ou Yang	198
Cloning, Expression, Purification, and Characterization of an Organophosphate-Degrading Enzyme in Escherichia Coli J.B. Wang, D.C. Chen, D.X. Hu, X.F. Su and X.M. Tang	203

<b>Experimental Study on the Removal of Flue Gas Mercury by Coal Fly Ash under UV Light Conditions</b>	
J.H. Fang, X. Li, J. Zhou, J. Wu, J. Chen, P. He, J.X. Ren, W.G. Pan, X.W. Dai, X. Zhao and Y. Han	210
<b>Influencing Factors of Chromium Ion Stability in Microbe Culture Media</b> Y.X. He and X.M. Chen	215
Effect of Inoculation Exogenous Microorganisms on <i>Ophiopogon activities</i> Q.F. Li, Z.Q. Ma, Q.Y. Li and H. Song	220
Screening of a Thermophilic Hydrocarbon-Degrading Bacterial Consortium and Community Structure Analysis Q.Y. Liu, L. Li, D.F. Zhao and C.C. Zhao	225
Stressed Response of Submerged <i>Elodea nattalii</i> under Eutrophication Growth Conditions H.F. Xiong and Q.L. Tan	229
<b>Desorption of Cadmium from Soils Enchanced by Citric Acid</b> Y.S. Li, X.J. Hu and X.Y. Song	235
The Improvement of Thermotolerance in Tall Fescue and Perennial Ryegrass Pretreated with Exogenous $H_2O_2$ J. Zhang, Y. Wang, H.F. Yang and J.L. Li	239
Influence of Sulfate Reducing Bacteria on Corrosion of Steel Q235 during Natural Evaporation in Soils X. Wang, J. Xu and C. Sun	243
The Improvement of Thermotolerance in Tall Fescue and Perennial Ryegrass by Activating the Antioxidative System	
J. Zhang, Y. Wang, H.F. Yang and J.L. Li Measurement of Reducing Sugar in Black Liquor by Dual Wavelength Spectrophotometry	249
L. Ge, J. Lu, R.F. Yang and Y.J. Liu  Adsorption Characteristics of L-Phenylalanine in Drinking Water by Granule Activated	254
Carbon F. Shang, X.L. Zhou, Z.X. Zhou, C.Y. Hu, J. Zhang and Y.M. Zhao	259
The Effect of Magnesium Ions on the Hydrogen-Producing Bacteria in the Water during the Ecological Restoration Process Y. Feng, G.H. Li, H.Y. Mei and L.S. Zhang	264
Simultaneous Determination of Triclocarban and Triclosan in Environmental Water by Using SPE Combined with HPLC-ESI-MS C.L. Yi, W.L. Guo and X.K. Wang	268
Corrosion of Stainless Steels in the Marine Splash Zone S.I. Bailey and X. Li	272
Crevice Corrosion Studies on Corrosion Resistant Alloys in Stagnant Natural Seawater L.L. Machuca, S.I. Bailey and R. Gubner	276
Fluorescence Titration of Loosely Bound Extracellular Polymeric Substances with Cu (II) from Hongfeng Lake Sediment	200
J. Li, J. Long and F.X. Kang  Effect of Disused Battery on Germination Characteristics of Wheat H. Zhang, Z.T. Xu, Y.L. Han and Z. Chen	280 284
The Effects of Selenium on Toxicity of Copper on Rape C.Y. Chao and D.J. Ma	288
Isolation and Genetic Identification of Dibenzothiophene Degrading Bacteria from Contaminated Soil	
L. Li, C.C. Zhao, Q.Y. Liu and Y.B. Zhang  The Self-Decay Characteristics of Chlorine Dioxide in Water  X.J. Li, D.N. Jiang and Y.J. Zhang	<ul><li>292</li><li>296</li></ul>
Decolourization of Alizarin Red by Persulfate	300
S.X. Li, W. Hu and C.D. Wang  Distribution of Cadmium in Aloe Vera and its Hazard Impact on the Antioxidant Activity  Z. Cai, X.L. He, D.F. Lu, X.L. Qiu and W.C. Yue	306
Immobilization and Ammonia Removal of Photosynthetic Bacteria P.R. Zhan and W. Liu	311
Study of Ecotoxicity of Nano Ni(OH) <sub>2</sub> in <i>Carassius auratus</i> Z.X. Dai, Y. Yin and S.H. Wang	315

Photocatalytic Reduction of CO <sub>2</sub> over Cd <sub>x</sub> Zn <sub>1-x</sub> S Photocatalysts X.F. Bai and X.D. Li	319
Effects of Nitrogen Deposition on Soil Microbial Biomass, Microbial Functional Diversity and Enzyme Activities in Fir Plantations of Subtropical China Y.H. Yuan	323
Degradation of Nonylphenol Polyethoxylates and its Microflora Structure in an Anoxic-Oxic Activated Sludge Process Y.H. Xie, T. Zhu, X.J. Liu, H. Liu and J. Han	331
Study on Culture and Mutational Screening of Pholiota Adipose S.Q. Xie, Y.L. Quan, Y.S. Liu and C.G. Zhang	337
Simulation Analysis of Suppressing Lightning Overvoltage in Automatic Weather Station Collector by Ferrite X.G. Gan, L. Chen and S. Wei	341
The Performance Characteristics of Anaerobic Baffled Reactor (ABR) Fermentation System	
G.C. Zheng, Z.J. Tian, J.Z. Li, L. Wei, A.K. Jha, J.B. Guo, H.F. Lu and Y. Jin	347
<b>Degradation of Ciprofloxacin in Aqueous Solution by the Fenton Process</b> J.F. Yang and H.H. Chen	352
Impact of Glycerol Concentration on Lactic Acid Fermentation W. Malee, N. Pisutpaisal and S. Boonyawanich	356
<b>Decomposition Characteristics of Hydrogen Peroxide in Sodium Hydroxide Solution</b> T.X. Guo, Y. Zhao, S.C. Ma and S.T. Liu	359
Treatment of Palm Oil Mill Effluent by Electrocoagulation Process T. Suwannarat, N. Pisutpaisal and S. Boonyawanich	363
A Novel Liquid Mixture in Iron Chemical-Biological Process Using Immobilized Acidithiobacillus ferrooxidans	
Y.J. Wang, H. Li, A. Wei and D.P. Li  Personal on Proportion of Nano Fo. O. Person Computation Computer Ligand	368
Research on Properties of Nano-Fe <sub>3</sub> O <sub>4</sub> -Based Coagulation Complex Ligand R.K. Jia, P. Yang, S.Z. Lin and N. Bai	372
Research on Catalytic Degradation of Organic Wastewater Using CoFeMgO Non Homogeneous Fenton	
R.K. Jia, C. Yang and S.Z. Lin	376
Error of Acid Rain Research, Effect of Atmosphere CO <sub>2</sub> Ignored Z.M. Chen, W. Xie and H.Y. Zhang	381
The Effect of Drying-Rewetting on Soil Nitrogen Nitrification Y.Y. Zheng, X.S. Song and X.X. Zhao	385
Effect of Oxalic Acid on the Adsorption of Fluoride by Phosphate Rock from Aqueous Solution	
Y. Wang, X.Q. Dong, B.H. Zhou and Z.B. Xu	390
Effects of PH and Metal Cations on the Oxidation of as(III) by Pyrolusite X.K. Tang, S.H. Wu, H.T. Ren, S.Y. Jia and X. Han	394
Degradation of <i>p</i> -Nitrophenol by <i>Arthrobacter</i> Sp.Wy Isolated from the Parathion-Methyl Contaminated Site	
D.X. Cheng, Y.J. Wen, H.N. Ying and H.J. Ren Screening of the Bacterium for Chlorobenzene Degradation and its Enzymatic Properties	398
X. Niu, C. Ding, J.L. Yan and B.R. Yang	404
Survey of Nitrite in the Naturally Fermented Sour Pickled Cabbages in Northeast of China M. Zhang, J.R. Wu, X. Li, C.C. Yang and X.Q. Yue	409
Electrochemical Reduction Behavior of Nitrobenzene in Binary Composite Ionic Liquids Mixtures S. Chen, L. Chen, Y.S. Bai, X.B. Mao, Y.Q. Chu and C. Ma	413
Correlation Studies of Dissolved Oxygen in the IVCW System Changes and Removal of	115
Nitrogen J.K. Zhang, Y. Lang and M.J. Li	417
Effect of Ca <sup>2+</sup> and Fe <sup>3+</sup> Addition on Nitrification-Denitrification Process in a Membrane Bioreactor	
M.J. Sun, H.H. Wang and H.F. Zhang	422
The Leaching Effect of Cement Hydration Products	128

Determination of Formaldehyde Based on the Fading Reaction of Bordeaux R by Flow Injection Spectrophotometry	
L. Su, W. Wei, J.L. Guo, Z. Liu and L.S. Liu	436
Cladophora Spp. as an Indicator of the Salinity in Tidal River S.P. Chang, Y.C. Lee, C.S. Lee and N.H. Kao	440
Study on the Kinetic Spectrophotometric Determination of Selenium (IV) on Oxidation of Neutral Red with Potassium Periodate and its Application Z.R. Zhou and L.Z. Zhang	446
Selective Separation of Praseodymium(III) by Di-(2-Ethylhexyl) Phosphoric Acid Using the Complexing Agent	
S.H. Yin, W.Y. Wu, F.Y. Zhang, Q. Zheng and X. Bian	452
Nitrogen Use Efficiency of Atractylodes Lancea Plantlets <i>In Vitro</i> under Different Inorganic Nitrogen Levels Y.Y. Wu, K. Zhao, Y. Chen, P. Jing and H.C. Xu	457
Synergistic Effect of Xylanase and Chemical Bleaching Agent on Bleaching Properties of KP Pulp	
Z.Q. Pang, C. Yang, J.C. Chen and G.H. Yang	462
Photosynthesis and Antioxidant Capacity in Barley Seedlings under the Combined Toxicity of Cadmium and Aluminum T.R. Guo	467
	.07
<b>Chapter 2: Environmental Materials and Processes</b>	
Compatibilization of Polypropylene/Corn Starch Plasticized with Diethanol Amine J.H. Qiu, P.G. Song, S.Y. Fu, X.X. Ge, B. Huang and J.B. Feng	475
The Application of Epichlorohydrin-Dimethylamine Polymer Flocculant for Tannery Wastewater Treatment Y. Niu, Z.W. Ding, B.Z. Cheng and Y.F. Chen	480
Corrosion of Reinforced Concrete in Accelerated Tests W.Y. Zhang, R.Y. Zhang and L. Xi	485
Study on Flushability Testing of Wood Pulp Composite Spunlaced Nonwovens Y. Tang and X.Y. Jin	490
Preparation of Waterborne Epoxy Resin Emulsion H.R. Zhou, X.J. Liu, C. Guo and Y.F. Yang	494
Density Functional Theory Study of Interaction between CO and Oxygen Carrier Fe <sub>2</sub> O <sub>3</sub> @SBA-15	
W.Y. Li, Q.L. Chen and T.G. Mi	498
Material Election and Ecological Design for Furniture Products Based on the Principles of Green Manufacturing	502
Q.M. Zhang and W.M. Zhang  Borax Modify Phenol-Formaldehyde Resin as Wood Adhesives	502
R.H. Lin, X.F. Zhu, X.B. Wang and Z.Z. Gao	507
Study on Adsorption Property of Collagen Fiber Loaded Hyperbranched Polyamide-Amine Toward Cr (VI) X.C. Wang, F.F. Zhang and T.T. Qiang	514
Strength Enhancement of Sludge Based Geopolymer by Si/Al Ratio Variation Z.X. Yang, J.M. Zhao, K.H. Hwang, S.J. Shin and H.R. Lee	518
The Performance Test of Composite Zeolite Filter M.W. Li, Y.Z. Yu and L. Cheng	522
Research on the Correlation between Mercury and Sulfur Content in Coals Q.Y. Liu, Y.R. Zhang, L.L. Zhao, Y.Y. Yan, Q.F. Li, J. Wu, J.X. Ren, S. Zheng, Y.S. Li and R.X. Zhang	526
Study on the Nano Material Produced by Diisopropylamine or N Butyl Alcohol as Exchange	
Solvent L. Mei, H.Y. Peng, S.Y. Song, Y.H. Sun, Q.T. Liu, K. Zhang and Y.G. Shi	530
Effect of Dye Dispersion Preparation on Disperse Dyeing Performance on Polyester Fabric B. Siriphet, J. Suesat and P. Suwanruji	534

Synthesis of Organic-Intercalated Zn/Fe Layered Double Hydroxides from the Electroplating Wastewater X.X. Ruan, S. Huang and H. Chen	538
Synthesis and Characterization of Cyclic Carbonate from CO <sub>2</sub> W.Y. Zhang, H.B. Liu and F. Lin	542
The Combustion Synthesis of Nanoscale Ceria-Doped Calcia Solid Solution J. Xu, Q.H. Chen, X.P. Liu, B.Q. Huang and Q.R. Qian	547
Adsorption of 2,4-Dichlorophenol on Meta-Aramid/Poly (acylic Acid) Composite Nanofibrous Membranes	551
Q.J. Zhou and R. Xu  Preparation of TiO <sub>2</sub> /AC and Investigation of its Photocatalytic Activity  X.F. Zhang, Z.Z. Yang, X.L. Dong, X.X. Zhang, C. Ma, H.C. Ma, M. Xue and F. Shi	551 556
Preparation of Porous BiVO <sub>4</sub> and its Photocatalytic Degradation of MB under Simulated	330
Sunlight X.F. Zhang, L.L. Du, X.L. Dong, X.X. Zhang, C. Ma, H.C. Ma, M. Xue and F. Shi  Photocatalytic Degradation of Ammonia Nitrogen in Aquaculture Wastewater by Using	560
Nano-ZnO Tana Tana Tana Tana Tana Tana Tana Ta	564
K.S. Song, X.C. Yu, D.D. Hu, X. Zheng and J.Y. Guo  Investigation into the Blocking Effect of Reactive Dye Combinations in Exhaust Dyeing of	304
Cotton P. Suwanruji, R. Sidarkote and J. Suesat	569
Research and Applying Evolution of High Efficient Water-Reducing Agent for High Performance Concrete Z.J. Wang and J.B. Liang	573
BaO-Modified Pd-Based Catalyst for Methanol Oxidation X.Q. Zhang, M. Zhao, Z.X. Ye, S.Y. Liu and Y.Q. Chen	577
Effect of Different Process on the Pulping Properties of Salix Psammophila P-RC APMP L. Qu, J.C. Chen, G.H. Yang and Y. Xue	581
The Photocatalytic Activity of Bi <sub>20</sub> TiO <sub>32</sub> for Degradation of Organic Pollutants in Different Water Quality	<b>5</b> 06
X.H. Sun, X. Yu, L. Sun and L. Wang  Dyeing and Fastness Properties of Natural Dyes on Cotton Grafted with  Monochlorotriazine-β-Cyclodextrin	586
P. Hernhow, P. Suwanruji, T. Karpkird and J. Suesat	590
Chapter 3: Environmental Safety and Health	
Dispersion Prediction Model for Instantaneous Release of Hazardous Chemicals under Variable Wind Conditions	<b>.</b>
L. Ren, J. Chen, Z. Du and J.G. Bai  Effects of Cultivation Age and Fertilization on Cd Accumulation in Greenhouse Soils,	597
Northeast China Y. Shi, J. Wang, G.Y. Chi and X. Chen	603
<b>3D-QSAR Study on Toxicities of Substituted Phenols against Vibrio Qinghaiensis(Q67)</b> P. Sun, H. Liu, G.H. Zhao, J. Tan and F.Y. Wang	607
Study on Forest Eco-Security early Warning in Chang-Zhu-Tan Region Based on the GM (1, 1) Model	(12
X.P. Mao, C.H. Chen, Y. Lu and W. Meng  Analysis of Health Benefits from Reducing Vehicle Emissions: A Case Study from China	612
Y.T. Wang and L. Hansson  Road-Related Air Pollution Health Risk Assessment and Economic Evaluation	620
X.C. Qin, B.C. Dong, Y. Shen and S.G. Shao	624
The Response of Plant-Parasitic Community to Grazing Disturbance Gradien of Meadow Grassland T. Hai	630
A Study on the Ecological Risk of Polluted River Sediments in Rural Area L. Chao, S. Chen, X.M. Lang and C. Hu	634

Polybrominated Diphenyl Ethers in Urban Surface Dust and Soil in Shanghai, China: Profiles, Possible Sources and Health Risk Assessment Z.Y. Chen, J. Ma, M.H. Wu and J.Q. Lei	642
Research for Analysis of Fire Data Based on the Grey Relation W.F. Cao	650
Study on Comprehensive Gas Control Technology of High-Gas Fully Mechanized Caving Face W. Cheng, H.Y. Wang and L.L. Sun	655
Detection and Analysis of Microbial Contamination in Central Air Conditioning System of a University	
H.X. Li, B.N. Li, G. Geng, W. Xiao and W. Wang  A Study on Impact of Air Pollution upon Public Physical Fitness	661
X.Q. Luan and Y.C. Dong  Study on Integrated Evaluation of Urban Ecosystem Health of Old Industrial Relocated	665
Area M.L. Li, M. Wang and Y.R. Yu Three Powellal Pivors World Natural Heritage Hangebox District Feels ricel Security	669
Three Parallel Rivers World Natural Heritage Hongshan District Ecological Security  Assessment H. Li, S.Q. Wang, W.X. Wang, Q. Duan and G.Y. Li	673
Water Poverty Theory and its Application in Urban Water Security L. Gong and C.L. Jin	677
Airborne Quinones Caused Cytotoxicity and DNA Damage in Human Vascular Endothelial Cells	
Y. Shang, L. Zhang and L.L. Fan  Cytotoxicity and Genotoxic Effects of Organic Extracts from Traffic-Related Particulate	681
Matter in Human Vascular Endothelial Cells Y. Shang, L.L. Fan and L. Zhang	686
Directional Blasting Demolition of Thick-Wall Brick Chimney with 65 Meters High H.W. Li, Z.R. Guo, W. Liu and T.F. Han	691
Effects of Hot Environment on Human Oxygen Delivery under Different Labor Intensity Y.P. Sun and N. Zhu	695
Risk Evaluation for Bird Strike in Zhengzhou Airfield Based on the Danger Level to Aircraft F.R. Zhao, Z.Y. Yuan and T.W. Zhang	699
Status and Analysis on Cognition and Handling Ability of Natural Disasters in Nursing Undergraduates	704
M. Xu, H. Xin, C. Zhao and N. Zeng  The Influence of ±800 KV Cirque Grounding Electrode Circuit Commwassioning on Aquatic Ecological Environment	704
X.D. Wang, G.X. Shen, S.Q. Hu and Q.J. Zhao  The Ways to Construct Healthy of Ecological Infrastructure Base on Environmental	708
Hazard J.X. Sun and X.Q. Zhou	712
Security Evaluation of Urban Water Resource: The Case of Hangzhou, Zhejiang Province K.Y. Wan	716
Toxicity Studies of Ionic Liquids and Heavy Metal Compounds to MCF-7 and Photobacteria Q67 C.L. Wang, X.W. Zhu and S.S. Liu	721
Study on Modelling in Biosphere for Performance Assessment on HLW Disposal Repository in China G.H. Qiu	725
Spatial Distribution and Pollution Risk Analysis of Electromagnetic Radiation in Changchun City	
Y.W. Gao and H.L. Zhu  Study on Assessment of High Temperature and Humidity in Working Environment on Human Health	733
Y.P. Sun and N. Zhu	739

Fault Tree Analysis on Ship Dangerous Chemicals Leakage Emergency in Three Gorges	
Reservoir Area H.Y. Li and G.B. Wu	743
The Concept and Types of Human Climate Migration from the Perspective of Climate Risks S.J. Chen and Z.J. Cao	748
Dynamic Simulation on Longitudinal Temperature Distribution of Tunnel Ceiling Based on Moving Fire Source J. Deng, S.R. Li and Z.X. Yan	752
A Novel Ranking Procedure Based on Risk Percentile Index and Concentration (rrpic) of Chemicals F. Chen and S.S. Liu	762
Fault Tree Analysis on Radiation Hazards in Underground Uranium Mines and Prevention Countermeasures	
Y.J. Ye, D.X. Ding, F. Li and S.Y. Wang  On Geo-Environment Deterioration Triggered by Earthquake Disaster — The Case of Anjiagou Debris Flow in Miansi Town, Wenchuan County, Sichuan Province	766
J. Hu and X.Z. Yang	771
On the Application of FLUENT for Numerical Simulation NG Dispersion B. Zhang, W.Q. Wu, J.W. Zhang, G.F. Yu, X. Feng and W.F. Wu	777
Mixture Toxicity of Copper and Selected Organophosphorus Pesticides to <i>Vibrio qinghaiensis</i> spQ67	705
X.C. Huo, S.S. Liu and M.C. Wang	785
Children's Health Risk Assessment of Lead Exposure B. Zou, M. Wang and Y.Q. Luo	790
The Combined Effects of Endotoxin and PM <sub>2.5</sub> on Cytotoxicity and Reactive Oxygen Species Generation in A549 Cells Y. Shang, L.L. Fan and L. Zhang	794
Comparing Deterministic and Probabilistic Risk Assessment at a Coking Plant Site in China X.Y. Jia, T.X. Xia, M.S. Zhong and J. Liang	798
Study on the Diffusion Properties of Heavy Metal Copper Ion in Sandy Soil in Hangzhou, China	
Z.Y. Zhang, D.Z. Wu and Q.M. Cai	804
Chapter 4: Environmental Planning and Assessment	
Evaluation Model of Ground Water Vulnerability and its Application J. Xu, L.G. Xu and L. Dong	811
Characteristic Analysis on Mountain-Valley Wind in Deep Valley W.Y. Wang, N. Chen and X.J. Ma	817
Evaluation Heavy Metals Pollution in Topsoil around Dalate Power Plant in Erdos J.X. Zhang, J. Xu and Y. Mo	825
<b>Application of GIS Technique in Environmental Impact Assessment</b> X. Li, Z.Z. Xu, Y.T. Qiu, J.Y. Qi and S.C. Tang	831
The Study on Land Use Disaster Prevention Plan Based on Storm Surge Risk Regionalization in Jiangsu Coastal	
Z. You and Q.F. Jiang	836
The Application of Fuzzy Delphi Expert Method on Urban River Ecosystem Assessment C.I. Wu and P.F. Wang	841
Water Security Dynamic Assessment Based on Entropy-Markov Chain Model H.Q. Ma, S.F. Wang and C. Li	845
Methodological and Empirical Research on Evaluation of Electricity Ecosystem Harmony Development	040
L.H. Lv, H. Luo and B.L. Zhang  Shifosi Reservoir Water Environmental Assessment Based on Grey Clustering  L.Don, T. Long and V. Liv	849
J. Pan, T. Leng and Y. Liu  Lybon Creenspace Distribution and their Fee Service Valuation Evaluation for Vangtra	857
Urban Greenspace Distribution and their Eco-Service Valuation Evaluation for Yangtze River Delta K. Peng	862

<b>Evaluation of Environment Impact of PCDL Aliphatic Hyperbranched Polyurethane</b> X.C. Wang, Y.Q. Fu and J. Li	868
Comprehensive Water Quality Evaluation Based on Variable Fuzzy Model L.N. Ke, Q.M. Wang, Y.H. Li and Y.Q. Cao	872
Fluid-Solid Coupling Analysis on Aquatics Hub Cutter Y.D. Wang and W.L. Shen	880
Assessment on Water Environment Quality of Jilongshan Sea Area in Zhanjiang in Winter Y.Y. Liu, Z.H. Li, X.J. Liang, Y.P. Lin, R.H. Wu and G.P. Ye	884
Case Study on Sewage Treatment Measures of Technical Reform Project in a Company X.H. Sun, J.Q. Zhou, Y. Liu and P. Zhao	888
Research Progress of River Water Quality Simulation P. Li, L. Wang, X.X. Zhang and F. Ma	894
Indicator's Weight Determination of Evaluating Reclamation's Impact on Marine Resources C. Hu and D.Y. Yu	900
Research on Assessment and Classification for Major Hazard Installation of Dangerous Chemicals	004
Z.M. Luo  Evaluation of Water Pollution of Hotels Surrounding Dongchang Lakes in Shandong  Province of China	904
Y.B. Zhu, X.F. Xia and J.H. Li	910
Chapter 4: Environmental Planning and Assessment	
Application of Bayesian Theory to Water Quality Comprehensive Assessment M. Liu and J. Lu	917
Field Measurement and Analysis of the Micro Climate of a Campus Square Y.Y. Huang and S.C. Deng	923
Evaluation of Ecological Risk on Soil Heavy Metals Pollution of Qingyuan H.M. Zhang, H. Zhang, A.M. Song, J.Q. Qin and M.W. Song	928
Distribution Characteristics and Ecological Risk Assessment of Arsenic in the Surface Sediment of Bohai Sea L.K. Zhang, H. Yang and W. Jin	932
Regulation Based on the Carrying Capacity of the Water Environment and Water Quality Information System Model Research H.Y. Wang, J. Deng, K. He and Z.H. Wang	936
Fuzzy Synthetic Evaluation for Wetland Water Quality Appraisal in Poyang Lake, China L. Yao and J. Hui	941
Application of Principal Component Analysis (PCA) for the Estimation of Source of Heavy Metal Contamination in Sediments of Xihe River, Shenyang City J.S. Yang, X.J. Hu, X.X. Li, H.Y. Li and Y. Wang	948
Comet Assay Determine DNA Damage Baseline Level of Mollusca Hemolymph Cells in Poyang Lake and Surrounding Waters L. Xu, K. Zhou, C.H. Zhou, S. Ouyang and X.P. Wu	952
Regional Environmental Capacity Study for Jiaxing City C.L. He, W. Liu, X.G. Wu and W. Luo	961
The Comprehensive Evaluation on Energy Conservation and Emission Reduction about the Efficiency on Industry of Jiangsu Province G. Wang and F.F. Gao	965
An Optimal Model for Carbon Dioxide Emission Control in the Low-Carbon Urban Agglomeration Based on Sustainable Development of Economy, Society and Environment (2): A Case Study	
L. Wang, Z. Sun, Z. Li, W.J. Zhao and Y. Li  An Optimal Model for Carbon Dioxide Emission Control in the Low-Carbon Urban	970
Agglomeration Based on Sustainable Development of Economy, Society and Environment (1): Modeling Construction T.Y. Pang, Z. Sun, Z. Li, W.I. Zhao and Y. Li	975

Distribution and Potential Risks of Frequent HABs Off Zhejiang J. Lu, Y. Zhou, J. Yu, J.X. Wu, H. Long, C.Y. Zheng and G.N. Zeng	980
Soil Heavy Metals Content and Pollution Evaluation in Sixian City D.S. Xu and H.M. Su	987
Research of Optimization Scheduling Technology in Environment Emergency Resources Based on GIS	
Z.A. Jiang, W. Yi and J. Wen	991
Study on Planning of Recycling Reverse Logistics System and the Campus Based Case Study	
T.Y. Jiang, J. Teng, D. Sha and J.J. Qiao	996
Particle Size Distribution Characteristics of Lead in Street Dust and its Assessment Q. Li and Y.F. Han	1017
Chapter 5: Environmental Analysis, Modelling and Monitoring	
A Model to Determine the Location of Heavy Metal Contaminant Source Z.J. Wang, H. Wang, H.L. Gao and P. Zhang	1023
Spatial Variability of Nitrogen and Phosphorus in Wetland Soils of the Yellow River Delta, China	
C. Huang, J.H. Bai, J.J. Wang, Q.Q. Lu, Q.Q. Zhao, X.F. Ye and H. Gao	1028
Statistical Analysis of Weather Effects on PM <sub>2.5</sub> W. Dai, J.Q. Gao, B. Wang and F. Ouyang	1033
Preliminary Analysis of High-Fluoride Groundwater in Aksu Prefecture, Xinjiang, China Q. Li, R.L. Jia, J.L. Zhou and G.Y. Yang	1041
The Research and Design of Modern Agricultural Greenhouse Environment Test System Q. Liu, S.C. Yang, X.G. Lian and J. Wang	1047
Simulation and Analysis of Groundwater Environment in Shenfu New Town J. Pan, Y. Liu and T. Leng	1051
<b>Modeling the Dynamics of Chlorophyll-a in Bohai Bay Using a Bayesian Network Approach</b> X.F. Xu, H.T. Nie and J.H. Tao	1056
Synthesis of Two Different Sizes of CdTe Quantum Dots for Detection of Copper(II) in Seawater	1060
H. Wang, Y. Su, W. Wang, L. Wang and F. Yang  The Hybrid Method to Predict Biochemical Oxygen Demand of Heibe Biver in China	1060
The Hybrid Method to Predict Biochemical Oxygen Demand of Haihe River in China X. Zhang, H.L. Jiang and Y.Z. Zhang	1066
Changes in Environment Influence and Use Efficiency of Fertilizer Nitrogen in the Yangtze River Basin	1070
G.W. Ma, X. Bao and Y.Y. Wang Simulated Analysis of Exploiting Space Flow Field on the Environmental Wind Influence in	1070
the Open Pit Mine	1050
J.L. Liu, H.G. Shen, Z. Liang, R. Zhou and M. Fang  Perceived and Measured Adaptive Thermal Comfort at an Outdoor Shaded Recreational	1078
Area in Malaysia R.A. Nasir, S.S. Ahmad and A.Z. Ahmed	1083
Experimental Investigation for Tunnel Thermal Environment L. Shi, H.M. Chen and X.M. Yu	1087
Effects of Roof Insulation on the Thermal Conditions of a Medium Scaled Tropical Enclosed Giant Freshwater Prawn ( <i>Macrobrachium rosenbergii</i> ) Hatchery A.K. Kamarudin, M.S. Kamarudin, S.S. Ahmad and E. Salleh	1091
The Spatiotemporal Variations of Suspended Sediment Concentration in Le'an River Catchment of Poyang Lake Basin	
Z. Wang, Q. Zhang, X.L. Xu and H.Y. Gao	1099
$\begin{array}{l} \textbf{Optimization of the Spectrophotometry Analysis Conditions of the Permanganate Index} \\ \textbf{J. Zhao, W. Zhang, M.J. Sun and X.S. Wei} \end{array}$	1103
Reconstructing the History of Heavy Metal Pollution by Tree-Ring X.G. Zhao, Z.G. Huang, Y. Yang and L. Yao	1109
Online Determination of Anionic Surfactant in Environmental Water L. Wei and Y.C. Dai	1113

Life Cycle Inventory Analysis of Offshore Drill Cuttings Management Options X. Ding, H.Y. Li and S.G. Xiong	1117
<b>Based on the Content of the Wastewater Treatment Network Monitor System Research</b> G. Wang, J.J. Guo, Y.L. He and H.F. Du	1121
Research about Agricultural Monitoring Based on the 3G Technology & Embedded System Y.L. Ma	1126
<b>Research on Bridge Maintenance Decision-Making Based on Sustainable Development</b> Y.M. Wu and Y.Z. Wu	1130
Study of the COD Release in the Sediment of Tang He Reservoir Z.P. Li, X.Y. Li and Y.J. Li	1134
Application of Bayesian Networks for Diagnosis Analysis of Modified Sequencing Batch Reactor	
D. Li, H.Z. Yang and X.F. Liang	1139
Grape Growing Factors Analysis Based on Wireless Sensor Network Q.K. Chen and G. Zhang	1146
Temporal and Spatial Patterns of Temperature and Humidity in <i>Taxodium distichum</i> Shelterbelts of Jiangmen, South China L. Zhang, Z.Y. Su and X.L. Wang	1150
Implementation of Corrosion Intelligent Monitoring and Durability early Warning Expert System for the Large Marine Environmental Engineering Concrete Structures G.H. Dong, J.B. Xiong, S.N. Wang and Z.H. Fan	1155
The Analysis and Evaluation of Heavy Metal Pollution in Wastewater of Tungsten Mine	
Area W.M. Wu, S. Deng and H.Y. Du	1162
Rapid and Sensitive Competitive Fluorescence Immunoassay for the Detection of Chlortetracycline Residues in Environment Y.X. Yuan, Z.H. Li and G.Z. Jiao	1166
A Design of Remote Monitoring System for Radioactive Environments in Difficult Terrain	
Y.Q. Cui, F.L. Kong and Y. Li	1170
Analysis on Pb, Cd, Cr, As, Mn Emission and Control Technology of Typical Industries T. Yue, F. Wang, B.J. Han, P.L. Zuo and F. Zhang	1176
Study on Distribution of Gas Concentration in Air Return Corner Based on Co-Kriging Interpretation G. Wang, H. Guo and L.L. Sun	1188
Contents and Distributions of Heavy Metals in the Surface Sediments from Northern Beibu Gulf	
Y.H. Li, A.R. Zheng and Z.K. Ma	1194
Study on Detection of Environmental Air Pollution by Differential Optical Absorption Spectrometry	
Y.Z. Yu and X.Y. Zhou	1199
Chapter 6: Environmental Restoration Engineering	
Filtration Performance of Particle Removal from Gas with Ceramic Candle Filter H.X. Li and B.G. Gao	1205
Oxidative Degradation of Dimethyl Phthalate (DMP) by Persulfate Catalyzed by Ag <sup>+</sup> Combined with Microwave Irradiation D.D. Sun, X.X. Yan and W.P. Xue	1209
Experiments on the Kinetics and Activation Mechanism of CO <sub>2</sub> Loaded MEA-MDEA Aqueous Solutions	
D. Fu, L. Wei and X. Fei  Numerical Simulation Studies of Plant Communities? Effects on Outdoor Wind	1213
Numerical Simulation Studies of Plant Communities' Effects on Outdoor Wind Environment in Residential District B. Hong, L.H. Hu and Y.J. Qu	1218
Plant-Microorganism Combined Remediation for Sediments Contaminated with Heavy	
Metals S. Chen, L. Chao, L.N. Sun and T.H. Sun	1223

Mass Transfer Process in Nonporous Tubular Membrane for Extraction of Phenol with Caustic Stripping Solution	1000
M. Xiao, X.J. Hu and S.F. Li	1229
Biodegradation of 2, 4-Dinitrotoluene by <i>Pseudomonas fluorescens</i> sp. Isolated from a Nitrobenzene Contaminated Soil Z.H. Huang, X. Pu, H. Zhang, F. Yuan and Z.L. Liu	1233
Simulation to Investigate the Reasons for the Sediment Deposition in the Upper Reach of the Deepwater Navigation Channel in the Changjiang River Estuary J. Gu, W. Chen, X. Qin, D.Q. Ma, X.L. Wang and J.Z. Yang	1237
Application of Iron Oxide Based Nanomaterials (NMs) in Magnetic Assisted Chemical Separation (MACS) Processes for Water/Wastewater Treatment H. Guo, F. Ma, X. Feng, X. Lou and M.O. Tade	1242
Experimental Study on Formation of Oil-SPM Aggregates J. Sun, C.C. Zhao, D.F. Zhao and J.B. Liu	1252
Effect of Ozonation and Hydrogen Peroxide Oxidation on the Structure of Humic Acids and their Removal P.K. Jin, X.C. Wang and F. Bai	1256
Research on Enzymatic Reaction Kinetics for Sugar Factory Wastewater Treatment	1230
C.Y. Jin, Z.Y. Liu, K. Hu and W.X. Huang	1260
<b>Study on Filtration Performance of Rotary Disc Filter with Different Filter Discs</b> J.X. Hou and Y.C. Zhang	1265
Dynamic Analysis of the Restoration Ecological Economic Value for Vegetation Restoration in Xiaoliang, Tropical China	
Y.N. Yu and S.L. Peng	1270
Study on Asphalt Solidification of Hospital Waste Incineraten Fly Ash L. Wei and Y.C. Dai	1277
Study on Removal of Phosphorus by Constructed Infiltration Pond with Shale Ceramsite Fillers	
B. Xu and H.Y. Pei	1281
Removal of Methylene Blue from Wastewater Using Zeolite from Fly Ash C.N. Wu, Q. Ling, L. Wang, W.H. Li, Y.C. Tang, Y. Tao, F.K. Pan and Y. Li	1286
Nitrate Reduction in an Intensified Electrochemical System: Effects of Different Metallic Particles	
W.W. Huang, C.P. Feng and B.G. Zhang	1290
Environmental Capacity Study for Hangzhou Urban Agglomeration C.L. He, W. Liu, X.G. Wu and X.J. He	1296
A Pilot Study of Municipal Wastewater Treatment by Integrated A <sub>m</sub> O <sub>n</sub> Process J. Shen, M. Dong, C.Q. Liu, X.S. Kang, Y.H. Zhang and M. Wang	1300
The Landscape Ecological Reconstruction Design of Urban Landfill D. Lv, X.X. Zhang and M. Deng	1305
Advanced Treatment of Chemical Wastewater by Using a Combination of Ultrafiltration	
and Reverse Osmosis System J.D. Zhou, P. Yang, C.J. Yang, B. Lai and Y.H. Zhang	1309
Study on System Coupling Effects of Ecological and Economic in Mining Subsidence Reclamation Area	
J.F. Qu, G. Li and S.L. Zhang	1315
The Study of Biological Combination System to Remedy the Polluted River H.T. Shang, Q. Yang, S.H. Fang and B.Q. Jin	1321
Comparison and Selection of Different Medium on the Effect of Improving Soil  Deodorization  Z.Y. Yu. J.Y. Huang, H.Z. Li, W.P. Chan and W.C. Wang.	1220
Z.X. Xu, J.X. Huang, H.Z. Li, W.B. Chen and W.G. Wang  The Comparative Analysis on Construction and Operation of Urban and Country Sewage	1328
Treatment Plants in Guangxi Z.H. Xu, G.W. Cheng, J.J. Meng, N.S. Liang and X.J. Qin	1333
Optimization for Water Outlet of an Ozone Contactor by Computational Fluid Dynamics J.X. Yang, J. Li and W.Y. Dong	1338
The Effect of PHA on Enhanced Biological Phosphorus Removal W. Han, L. Vuan, L. Chai, K. Zhao and G. Z. Li	1343

Effect of Flow Field Distribution on the Clogging of Subsurface Flow Constructed Wetlands Z.X. Song, S.Y. Bai and J. Xu	1349
Radial Oxygen Loss and Pollutants Removal of Plants Cultivated on Ecological Floating Beds	
H.B. Li, X. Wang and Y.H. Li	1354
Study on <i>In Situ</i> Bioremediation of Polycyclic Aromatic Hydrocarbon Contaminated Farmland Soil H. Wang and H.B. Li	1359
Study of Degradation of Phenol by Fenton Reagent under Sunlight	1337
S.T. Jiang, X. Chen, W. Su and T.F. Tang	1364
The Pretreatment by the Fe/Cu Catalyzed Inner Electrolysis System for Enhancing Biodegradability of the Mixed Wastewater	1270
L. Sun, G.H. Yan, C.Q. Xu, D.Y. Guo, Y.X. Lv and Q. Xiao  Modelling the Activated Studge Flaggulation Process Using Population Polance Model	1368
Modelling the Activated Sludge Flocculation Process Using Population Balance Model (PBM) Z.L. Li	1372
Sulfur Transformations during Supercritical Water Oxidation of Methanthiol and Thiirane	
H.H. Ma, S.Z. Wang and L. Zhou	1377
Chapter 7: Pollution Control (Air, Water, Solid)	
Chapter 7. I onution Control (An, water, Sonu)	
Study on Removal of Organic Matters in Surface Water by Adsorption Resin SD500 X.D. Zhao, Y.F. Gong and Z. Zhou	1383
Simulation of Air Quality and Pollution Control Countermeasures of Chengdu Urban	
Agglomeration W.Y. Wang, N. Chen and X.J. Ma	1387
Clarification of High-Salinity Mine Water with Plants	1367
B. Gao, Q.Y. Feng and X.D. Li	1398
Research on the Implementation and Analysis of High-Turbidity Raw Water Pre-	
Treatment with a Barrier Board J.L. Chen, Y.K. Chang, Y.H. Shen and K.L. Chen	1402
Improvement of Inflow Water Quality of Dian Lake Treated by Constructed Wetlands	1702
C.X. Yang, J.R. Yang and H. Li	1409
Effect of over-Fire Air Velocity on the Aerodynamic Characteristics in a Cold Model of an Arch-Fired Boiler with New over-Fire Air Arrangement G.K. Liu, Q.Y. Zhu and X.Y. Zhu	1416
Study on BOF Gas Dedusting Technology at Contemporary Steel Plant	1410
H. Zhou, F.M. Zhang, D.G. Zhang and L.Y. Zhang	1422
Activities of Activated Sludge Affected by Pharmaceutical Wastewater in a Membrane	
Bioreactor Y.H. Ding, Q. Wang and H.Q. Ren	1426
Research on the Implementation and Analysis of High-Turbidity Raw Water for Particle	1 120
Pre-Treatment with a Barrier Board J.L. Chen, Y.K. Chang, Y.H. Shen and K.L. Chen	1432
Research on Hydrogen Sulfide Adsorption by Oil Shale and its Spent Char	1.52
H. Qin, C. Yao, H.P. Liu, Q. Wang and C.X. Jia	1439
The Research on the Adsorptive Capability and Adsorption Isotherm of Modified Talcum Powder to Methylene Blue	
W.L. Liu, S.L. Zhao, S. Cui, S.C. Yang and L.Y. Shang	1443
<b>Distribution Regularity of Organic Concentration in Multi-Flora Bioreactor</b> S.S. Ai, D.J. Bian, Q.K. Ren, Y. Zuo and L.G. Wan	1449
<b>Start-up and Cultivation of A2N Denitrifying Phosphorus and Nitrogen Removal System</b> M.F. Niu, H.J. Jiao, L. Xu, Y. Yu and J. Wei	1454
Application and Influencing Factors of Complex Microbial Inoculants in Wastewater Treatment	
J. Tang, J.N. Chen, J.X. Fu, H.M. E and M. Fan	1459

Application Status and Economic Analysis of Active Coke Flue Gas Desulfurization Technology	
D. Yang  Come Model of Treatment and Assessment of Savege in the Perional	1463
Game Model of Treatment and Assessment of Sewage in the Regional L.X. Cao	1469
Control of Hg <sup>0</sup> Re-Emission from Simulated Wet Flue Gas Desulfurization Liquors by Sodium Dithiocarbamate C.M. Chen, L.X. Jiang, S.T. Liu and Y.Z. Jiang	1473
The Experimental Study of the Traditional Chinese Medicine Wastewater Treatment by Microwave-Fenton H.M. Cui and L.F. Ke	1478
Isolation and Characterization of Aerobic Denitrifying Bacteria X.L. Xu, X.Y. Shen, D.Y. Zhang, Y. Lu and F.L. Hao	1482
Study on Municipal Wastewater Treatment by a Submerged Membrane Bioreactor	1487
Y.H. Zhang, M. Wang, Z.Y. Guo, J. Shen, Z.B. Zhang, L.Z. Xing and L. Li  Effect of Operation Conditions on Performance of Treating Actual Domestic Wastewater	1407
Bioreactor at Ambient Temperature H.Y. Lu and C.J. Dong	1491
The Experimental Research on Treatment of Cr (VI) -Containing Wastewater by N-Doped Nano-TiO <sub>2</sub>	1.407
S.Q. Wang and D.L. Zhang The Emission Performance Research and Analysis of Diesel Engine Fueled with Biodiesel	1497
Hybrid Fuel G.F. Wu, J.Y. Luan, Y.H. Jia and D.H. Jiang	1501
<b>Application of Porous Ceramic Filtration on Ballast Water Treatment</b> M.X. Zhang, X.J. Tang and Y.M. Zhu	1505
A Research on the Activated Sludge Acclimation X.N. Zhang, S.Q. Ding and J.R. Xu	1509
Study on the Polyaspartic Acid Derivative Synthesis and the Scale Inhibition Performance of Calcium Carbonate	
G. Lu and Y. Huang	1513
The Research Progress of Flocculants in Sewage Sludge Dewatering L. Cheng, Y.Z. Yu, Y.X. Zhou, H.D. Zhang and M.W. Li	1518
Study on Treatment of Acrylic Fiber Wastewater with Microbial Fuel Cell Y.L. Zhan, X. Guo, B.B. Zheng, J. Duan, S.H. Guo and G.X. Yan	1522
Effects of Water and Fertilizer Managements on Yield, Nutrition Uptake of Rice and of Nitrogen and Phosphorus Loss of Runoff from Paddy Field	1.505
D.F. Huang, P. Fan, W.H. Li, L.M. Wang, X.J. Lin and X.X. Qiu  Application of the Flow Simulation for the Optimization Analysis of SCR DeNOx System of	1527
Coal Power Plant X.L. Ye and D. Yang	1533
<b>Technology of Modified Orange Peel Adsorption Treatment in Wastewater Containing Zinc</b> R.Y. Jia, Y.H. Lin and W. Zhang	1540
Calculation Methods and Application of a Hydrodynamic-Based Marine Pollution Mixing Zone J. Zhang and X.L. Sun	1546
Study on the Enhanced Bio-Denitrification in a Full-Scale WWTP with MSBR Process R.J. Deng, J.S. Zhang, Z.J. Qu and W. Lu	1551
Study Status and Focus about CO <sub>2</sub> from Municipal Wastewater Treatment Z.M. Chen, W. Xie and H.Y. Zhang	1556
Kinetics of TiO <sub>2</sub> /Polyurethane Films for Degradation of Organic Pollutants in Water R.K. Jia, Y. Yu, S.Z. Lin and N. Bai	1560
Research Progress on Producing Sludge Activated Carbon Doped with Ce B. Yan, L.H. Zhang, W. Jiang and A.X. Jiang	1565
Treatment Effects of A-F/PDM Composite Coagulants to Taihu Lake Prechlorinated Algae-	1505
Containing Water in Winter X L. Zhao, Y J. Zhang, X X. Li and C. Liu	1569

Studies on Anoxic Aerobic Alternate Frequency of Oxidation Ditch for Removing Nitrogen and Phosphorus	
Y.H. Zhou	1573
A SEM Water Pollutants Emissions Reduction Optimization Model for Pollutant Total Amount Control in a Region J.Y. Wen, Y. Hu, Z. Sun, Z. Li and Y. Li	1579
Removal of Ammonia Nitrogen in Biological Aerated Filter (BAF) Filled with Smaller Ceramsite Particles	-2,,
B. Zu, Y.Z. Li, J. Xu, X.C. Liu and Q.W. Yang	1583
Construction of Recombinant E.coli Expressing a Thermophilic Catalase and its Application in H <sub>2</sub> O <sub>2</sub> Wastewater Treatment Y.H. Chang, C.H. Shi, Y. Zhou and H. Luo	1588
The Experimental Study of Using Calcium Silicate Slag to Recover Phosphorus in Polluted Water	
Z.Y. Luan, H.B. Qi and D.H. Li	1595
Modeling and Optimization Research of CFB-FGD Based on Improved Genetic Algorithms and BP Neural Network Z.B. Ren, L. Sun and Y. Deng	1601
Characteristics and Treatment of Reed Pulping Medium Wastewater by Membrane Bioreactor	
N. Li, F.L. Yang, M.H. Niu, Q.W. Ping, J. Zhang and H.Q. Shi	1605
Inquisition to Several Issues in Performance Test of SCR Flue Gas Denitration System R. Xu, Z.M. Mei, M.Q. Zhao and H.X. He	1610
Degradation of Reactive Black 5 in Aqueous Solution by Double-Dielectric Barrier Discharge	
S.F. Mei and Y.N. Liu	1616
Preparation and Photocatalytic Properties of CdS/ZnS/TiO <sub>2</sub> Photocatalyst X. Mou, C. Rong, X.L. Dong, X.X. Zhang, C. Ma, X.F. Zhang, H.C. Ma, F. Shi and M. Xue	1620
Removal of Co-Present Cr(VI) and Cu(II) by Fe <sup>0</sup> P.H. Rao, W. Zhang and Q. Zhou	1624
Study on the Synergistic Effect of the Measures for Air Pollution Reduction B. Gao, Z.Q. Fu, P. Shen, N. Wu and Y. Xie	1628
<b>Prospect Analysis of Air Pollutants Synergistic Reduction in Iron and Steel Industry</b> P. Shen, Z.Q. Fu, J. Ye and B. Gao	1634
Orthogonal Experiments for Optimizing Adsorption Process of Methyl Orange onto Granular Activated Carbon	1639
W.F. Dong, L.H. Zang and Q.L. Feng  Experimental Study on Treatment of Hospital Waste Incineraten Fly Ash by Solidification	1039
Process with Cement L. Wei and Y.C. Dai	1645
Study on Treatment of Hospital Waste Incineraten Fly Ash by Solidification Process with Asphalt and Chemical Additive in Combination	4 6 7 0
L. Wei and Y.C. Dai	1650
<b>Design of Photovoltaic Enterprise Wastewater Treatment Engineering</b> Y.B. Zhao, H.P. Chen and T. Yang	1658
Influence Factors of Remediation of Benzene in Groundwater by Air Sparging S.Y. Zhang, C. Lv, Q.L. Meng, M.Y. Sun and J.S. Xu	1662
Preliminary Research on Chrome Pollution in Farmland Surface Soil around Gold Mining	
Area L. Zhang and L. Zhang	1667
Inhibitory Effects of Simultaneous Chemical Phosphorus Removal on Microbial Activity in the Unitank Process	
Z. Zhou, Y. Chen, C. Xing, S.W. Chen, F. Tong and J.R. Wang	1672
A Fuzzy Control Method Combined with Optimal Feed-Forward for Dry Desulfurization of Slurry Fluidized Bed Boiler A.P. Jiang, Q. Ding, J. Wang, W. Lin and Z.S. Jiang	1676
Research on Heavy Metal Pollution Sudden Emergency Processing Method in Water	
Environment X.G. Ma, Z. Pei, J.P. Sun, J.X. Fu, Y.L. Tang and R.X. Zhang	1682

Study of Cadmium Wastewater Treatment with Polymer PHA Containing Hydroxamic Acid Groups	1.60.6
B. Wang Kinetic Analysis of COD Removal from Actual Domestic Wastewater in an Expanded	1686
Granular Sludge Bed (EGSB) Reactor C.J. Dong and Q.Y. Pan	1691
Biological Phosphorus Removal Characteristics in a Full-Scale Unitank Wastewater Treatment Plant	
Z. Zhou, W.R. Shao, C. Xing, Z. Li, P.Q. Guan, T. Zhou and Z.C. Wei  Adsorption Behaviors of Chlortetracycline on Granular Activated Carbons	1696
M.C. Zhang, W. Wang, C.J. Huang and A.M. Li  Application of Improved Genetic Algorithm in Determination of Parameters of S-P Water	1701
Quality Model  B.X. Liu, X.L. Lai, Q. Cao and X. Cheng	1705
Electrosorption Desalination by Activated Carbon Fibers Electrode	1710
G.Z. Zhou, X. Wang, Z.F. Wang, S.Q. Pan and S.X. Li  Vertical Distribution and Pollution Characteristics of Soil Heavy Metals in a Relocation	1/10
Paint Factory H. Hu, Y.Z. Feng, Y. Yang, S.G. Wang and C.L. Li	1718
Occurrence and Fate of Polycyclic Aromatic Hydrocarbons in the Anaerobic-Anoxic-Oxic Wastewater Treatment Process H.M. Sun, W.J. Tian and Y.M. Wang	1722
Kinetics Research of Wheat Straw Atmospheric Pressure Pulping with Microwave Radiation	
H. Zhu and H.X. Qiao	1726
The Research on Preparation of Modified Bentonite and Adsorption of Crystal Violet in Dyeing Wastewater Y. Chen, S.S. Yang, Z.J. Gong and D.M. Wang	1731
Impacts of Ultrasound and Ozone Disinfection of WWTPs Secondary Effluent Y. Zhao, Z.F. Li and Y. Zhang	1735
Nitrification of Municipal Wastewater by Suspended Medium Bioreactor X.Y. Bian, X.S. Kang, M. Kong, Y. Li, Y.H. Zhang and Z.B. Zhang	1739
Study on Municipal Wastewater Treated by Biological Aerated Filter X.Y. Bian, X.S. Kang, Y. Li, M. Kong, Y.H. Zhang and Z.B. Zhang	1743
<b>The Feasibility Analysis of Applying SCR Technology to Regenerative Combustion System</b> Z.J. Tian, S.P. Jin, T. Li, Z.B. Hao and W.Q. Wen	1747
The Application of Vertical Anti-Seepage in Modern Landfill S.H. Ye, H.B. Dan, Y.D. Tang, Y.J. Mao, J.J. Luo and Y. Ding	1751
<b>Phenol Degradation by TiO</b> <sub>2</sub> <b>Nanotubes Film Electrode Electrocatalytic Technology</b> S.X. Qian, Y. Gao, G.L. Lin, J.C. Ni, Y.P. Wu and Y. Zhang	1756
Start-up and Steady Operation of Shortcut Nitrification System to Treat Wastewater L. Xu, X. Wu, M.F. Niu, S. Li, H.J. Jiao and J. Wei	1760
Experimental Study of the Effects of Fuel Quality and Pollution Control Devices on SOF and PAHs Emissions in PM for HD Diesel Engine W. Li, H.Y. Lu and H.S. Guo	1764
Performance of a Subsurface Wastewater Infiltration System (SWIS) Using a Novel Biosubstrate	1.770
Y.H. Li, H.B. Li, X. Wang and T.H. Sun Feasibility Study of Municipal Wastewater Treatment by a Subsurface Infiltration System	1770
in Northeast, China H. Li, Y.H. Li, X. Wang and T.H. Sun	1774
Physical-Chemical Experimental Study for FGD Wastewater of Coal-Fired Power Plant L.Q. Yin, S.S. Zhang, P. Kang and H.N. Zhao	1778
Removal of Perfluorooctanoate from Water by Polyaluminium Chloride Coagulation L. Yang, L. Zhao, P.Y. Liu, Z.S. Li and Q. Chang	1784
Promoting Influence of Organic Carbon Source on Chromate Reduction by <i>Bacillus</i> sp. W.H. Xu, Y.G. Liu, G.M. Zeng, X. Li and W. Zhang	1789
Atomization Feature of Liquid-Column Tower L.J. Fang and Y.C. Chang	1795

<b>Experimental Research on Recycling Treatment Process of Citrate Wastewater</b> J. Wang, L.F. Fan and D. Fan	1801
Oxidation of Phenol by Persulfate Activated with UV-Light and Ag <sup>+</sup> D.D. Sun, H. Zheng and W.P. Xue	1806
Short-Cut Nitrification and Denitrification Treatment for High Strengh Ammonium Wastewater Using a Pilot-Scale "Anoxic-Anaerobic-Microaerobic-Aerobic (A <sub>2</sub> O <sub>2</sub> )" System J.L. Gao, B.N. Lv, Y.X. Yan and J.P. Wu	1810
The Study of Aluminum Sulfate Purifying Effects for Papermaking Wastewater H.C. Yang, J.Z. Han, W.Q. Jiang, Q. Wang, S.L. Ding and Y.X. Zhang	1816
Pond Sediments Zn Content Distribution and its Pollution Assessment in Sixian County of Anhui Province	1020
D.S. Xu and Q. Li  Study on the Treatment of Nitrogen Oxides by Compound Bio-Filter  Z.F. Liu and D.H. Pang	1820 1824
Nitrogen Removal from Contaminated Water by Two Aquatic Plants X.Y. Fu and X.Y. He	1829
Review on Disinfection Pretreatment Processes to Remove Water N-Nitrosodimethylamine Disinfection by-Products	
J. Zhang and C.Y. Hu	1833
Adsorption of Copper in Aqueous Solution by Modified Peanut Shell Y. Chen, Z.J. Gong, S.S. Yang and C.Y. Sun	1837
Hydrothermal Preparation, Characterization and Photocatalytic Properties of C, N Co- Doped ZnO/ZnS Composites Y.H. Fu, K. Teng, X.L. Dong, C.L. Yu, C. Ma and H.C. Ma	1841
Aerobic Degradation of Nitrobenzene by Immobilization of <i>Streptomyces albidoflavus</i> in Polyurethane Foam	
Y. Qi, C.L. Zheng and Y.H. Yang	1845
Mechanism of Siltation on Check Dam in West of Henan Province G.Z. Wang, J.G. Qu, R. Shuang, L. Wang and S.Y. Zhang	1853
Research of In-Use Passenger Car Exhaust Pollutant Statistical Characteristics — Take Unburned Hydrocarbon for Example A. Xu and X.M. Qiao	1859
Removal of Low Concentration Chromium (III) from Aqueous Solution with 4 Microbial Biosorbents	1072
X. Li, Y.L. Sun, L. Zhou, J.F. Wang and W.J. Li	1863
Investigation of Thermodynamic Equilibrium of MSWI Fly Ash during High-Temperature Treatment J. Ding	1871
The Electric Catalysis Oxidization Treatment of Anion Surfactants in Wastewater C.Y. Jing and S.H. Ling	1876
C. I. ving und S.H. Zing	1070
Chapter 7: Pollution Control (Air, Water, Solid)	
Parameter Inversion of Tritium Migration Based on Parallel Genetic Algorithm Y. Cao, W.K. Wang, T.L. Wang and Y.J. Wang	1883
Study on the Pollution Characteristic of VOCs in Ambient Air of Chengdu H.W. Yuan, H.L. Yin, Y. Huang, S. Qian, Z.W. Xie, Q.K. Su and Q. Qin	1889
Case Study of Nanjing Inner Ring on Air Pollution Dispersion from Roadway Tunnel Portals	1005
S.J. Miao and D.F. Fu  Ammonia Escape Inhibited by NHD in the Process of Carbon Capture Using Ammonia	1895
Ammonia Escape Inhibited by NHD in the Process of Carbon Capture Using Ammonia Solution S.C. Ma, H.H. Song and Y.X. Sun	1901
Adsorption of Phthalates on the Inorganic Medium of Aquatic Environment J.J. Liu, H.Y. Chen, J.T. Liu, Y.X. Zhang and J.C. Sun	1905
A Device for Protecting the Optical Windows of the Moored Radiometer from Biofouling	-, 00
C. Li. W. Cao and Y.Z. Yang	1910

CED Simulation of the Liquid Column Flow Field of Double Contact	
CFD Simulation of the Liquid-Column Flow Field of Double Contact L.J. Fang and Y.C. Chang	1915
Analysis of Storage Capacity of Artificial Lake in Wu Lian City Z.J. Gao, Y. Tian, H.H. Cui, X. Zhu, Y.M. Ma and J.J. Li	1920
Water Quality Model Parameters Estimation Based on Particle Swarm Optimization	
Algorithm W.Y. Xu, B.X. Liu, X. Xu, N. Hu, H. Hu and Y. Zhu	1925
Selection of Oil Gas Recovery Projects in Oil Depot Based on Grey Matter Element Analysis X.G. Zhao, Y. Zhou, J. Zheng, D.P. Gao and L. Zhao	1930
<b>Study on Explosive Wastewater Treatment by Supercritical Water Oxidation</b> S.J. Chang, Y.C. Liu and X.Q. Yang	1934
Color Removal of Reactive Brilliant Blue KN-R Simulated Dye Wastewater by Using Novel Flocculants	
J.Z. Li, X.Y. Yuan, M. Tian, H.R. Ji and W. Jiang	1939
Removal of Nitrogen and Phosphorus in Lightly Polluted Urban Landscape River by Aquatic Ornamental Plant	1042
D.Q. Chen, X.Z. Liu, Y.Q. Chen, A.B.D.A. Maimai Ti and H. He  The Study of Copper (II) Removal from Aqueous Solutions by Adsorption Using Corn Stalk	1943
Material  Z.J. Gong, W. Zhou and Z.P. Qiu	1950
Hazards and Treatment Methods of Large-Scale Livestock Sewage Pollution in China	1930
Z.B. Bao, D.C. Jin and H.J. Teng	1954
Study on Direct Electrochemical Preparation of Ferrate by Plate Diaphragm Electrolytic Cell	
L.J. Xi, X.Y. Wang and W.Y. Zhang	1958
Establishment of the Lakes and Reservoirs' Model X.G. Ma, J.P. Sun, Z. Pei, Y.N. Gao, J. Tang, J.X. Fu, Y.L. Tang and R.X. Zhang	1962
Water Repellency and Corrosion Resistance for High-Temperature Filter Fabrics Based on a Fluorinated Finishing Composition N. Zhang, X.Y. Jin, Q.F. Ke and B.T. Li	1967
Adsorption Behaviors of Hydroquinone onto Porous Adsorbents Z.Y. Zhu, B. Li, H.S. Wu, W. Liu and J. Wei	1971
A Review of Impacts of Agricultural Non-Point Source Pollution on Microbial Community in Riparian Zone X.M. Gong, J. Dong and W.J. Tian	1975
Investigation of the Kinetics of Sulfite Oxidation on by-Production Recovery Process in	1913
WFGD	1000
H.J. Xu, S.F. Wang, W.G. Pan and R.T. Guo  A Preliminary Study on Pb Contamination in Soil and Plant in Zhaoyuan City	1980
L. Zhang and L. Zhang	1986
Speciation Analysis of Inorganic Arsenic in Coal Samples M. Sun, G.J. Liu, Q.H. Wu and W. Liu	1991
Spatial Concentration Variation of Contaminants in a Residential Kitchen and the Effect of	
Makeup Air System X. Jia and B. Yi	1996
Research on the Removal Results of Hydrogen Sulfide of the Treatment of Coal Gasification Wastewater Biogas in the Anaerobic Biotrickling Filter C.Y. Xu and H.J. Han	2000
Research on the Treatment of Coal Chemical Wastewater by Activated Sludge Process with Fixed Biological Media Process and Strains	2000
C.Y. Xu and H.J. Han	2006
Treatment of Power Plant Sewage Based on Simultaneous Nitrification and Denitrification in SBR  T. Vang. W.V. Zhang, L.H. Zhang, P.V. Wu and S. Vang.	2012
T. Yang, W.Y. Zhang, L.H. Zhang, P.Y. Wu and S. Yang  Degradation of Aqueous Safranine T Solution by DC Glow Discharge Plasma at	2012
Atmospheric Pressure Air F.Q. Wang, A.H. Gao and F. Cheng	2017

Treatment of Imidacloprid Pesticide Wastewater by Microwave-Assisted Catalytic Oxidation	
X.Y. Bi, H.Y. Yang, P.S. Sun and X.Y. Xu	2023
Research on Synergistic Effect of Microwave Irradiation-Fenton Oxidation Coupling Coagulation Process to Treat Dye Wastewater G.L. Zhang, B. Yang, X.J. Xu and Y.Q. Cui	2028
Study of Mercury Re-Emission from Simulated Wet Flue Gas Desulfurization Liquors Y.Z. Jiang, C.M. Chen, L.X. Jiang, S.T. Liu and B. Wang	2033
Study on Bioremediation of Oil Contaminated Wetlands in Daqing Oil Field Development	
<b>Zones</b> J.F. Wang, W.P. Xu, L. Xu, X.T. Liu and F.Y. Yang	2038
Removal of Organic Acids from Pharmaceutical Condensate by Reverse Osmosis Membranes X.M. Sun, Q. Qiao and J.Y. Liu	2043
Study on Shortcut and Simultaneous Nitrification and Denitrification under Low	2043
<b>Temperatures</b> J.X. Fu, X.C. Zhang and P.F. Yu	2047
Study on Literature Analysis on UV/H <sub>2</sub> O <sub>2</sub> Technology from 1969 to 2011 M. Li, H. Xu, S. Dai and Z.Q. Liang	2053
Emissions and Control Technology of PM <sub>2.5</sub> in Coal-Fired Power Plant F.Q. Li, X.F. Zhang, J.X. Ren, Y.C. Li, H. Cui and Z. Li	2058
Degradation of Disperse Blue 2BLN Dye Wastewater by Pulsed Corona Discharge	
Combined with Ozone Process H.A. Zheng, J.S. Liu and L.L. Pan	2063
The Nitrogen and Phosphorus Removal and Sludge Yield Comparative Study under Anaerobic/Aerobic and Anaerobic/Anoxic Conditions Y.J. Li, L.P. Sun and M. Ji	2068
The Research of Microbial Remediation of Oil Pollution Wetland — Aim at the Oil	2000
Pollution of Daqing Oil Field the Wetland J.F. Wang, L. Xu, W.P. Xu and X.T. Liu	2074
The Effects of Inlet Charge Component on the Formation of Soot in Diesel Engine Y. Zhao, Z. Wang, M.D. Li and R.N. Li	2079
Township Sewage Artificial Wetland Depth Treatment Engineering Design J.F. Xie, Y.L. Yang and J. Li	2085
Coagulation/Ultrafiltration Process for Treatment of Da Huofang Reservoir Water in Low Temperature and Low Turbidity Period J.X. Fu, Y. Yang, Y.N. Gao, X.G. Ma and L.J. Teng	2090
Mobility of N and P in Phosphogypsum Pile and its Impact on Surface Water Quality in	2090
Guizhou Province, Southwestern China H.B. Luo, F. Liu, J. Zhu and Q. An	2096
Assessment of Lake Sediments Properties and Contaminations Level N.N. Nik Daud, N.S. Anuar, Z. Yusoff and A. Ahsan	2100
NOx Reduction by <i>In Situ</i> Catalytic Reduction in the Combustion Process of Coke Y.G. Chen, H.J. Han, J. Lu, J.L. Li, Y. Chen and B.H. Wang	2104
Mechanism and Experimental Research on Treatment of Coal Chemical Wastewater by External Circular Anaerobic Reactor H.F. Bao, Y.W. Li, Y.S. Zhao, L.Y. Zhang and Y.Z. Pan	2109
Effect of Additives on Wet Flue Gas Desulphurization X.Z. Liu, C.M. Chen, S.T. Liu and D.C. Tang	2115
Modeling of Carbon Dioxide Measurement on Cement Plants J.X. Peng, L. Huang, Y.B. Zhao, P. Chen, L. Zeng and W. zheng	2120
Effects of Biochar Amendment on the Dynamics of Enzyme Activities from a Paddy Soil Polluted by Heavy Metals Y. Yang, J.L. Yan and C. Ding	2129
Research and Practice on BF Gas Dry Type Dedusting Technology at Contemporary Blast Furnace	
F.M. Zhang	2134

A Study on Analyzing the Pollutants of Construction Wastewater in Northern Section of Qinling Tunnel of the YinHanJiWei Project and its Treatment Processes H.F. Li, P.K. Jin, L.P. Jin, D. He and X.B. Wang	2138
The Influence of Coagulant on the Membrane System C.B. Zhang, J.S. Wang and T.L. Sun	2144
The Study on the Effect of Water Vapor for the Decarbonization Capacity of CaO R.G. Wei, J. Mei, J.Q. Gao, H.W. Chen and C.B. Wang	2149
Experimental Study on Using Settling Velocity to Determine the Dewater Performance of Gypsum Slurry in Flue Gas Desulfurization	21.52
X.F. Dong, G.F. Shen, D.M. Li, X.X. Zhou and W.L. Wu  Research on Development and Characterization of Fly Ash Aggregate for Water Treatment	2153
N.J. Wu, X.L. Zhou, D.J. Wang, R.J. Zhu and H. Li	2157
Chapter 8: Waste Disposal and Recycling	
Research on Techniques of Environment Comprehensive Management and Municipal Solid Waste Filling Mining	2167
X.G. Zhang, X.Y. Jiang and B.L. Zhang	2165
Trial Study on EV Battery Recycling Standardization Development H. Yu, T.Z. Zhang, J. Yuan, C.D. Li and J.M. Li	2170
<b>Study on the Performance of Modified UASB Process Treating Sewage</b> S.J. Zhang, N.R. Liu and C.X. Zhang	2174
Theoretical Calculation and Analysis on the Gasification and Melting Process of MSW with Oxygen-Enriched Air	
J. Zhao, S.Z. Wang, Z.Q. Wu and L. Chen	2179
Effects of Sewage Sludge Compost Application on Abandoned Mine X.W. Ma, W.F. Ma, J.J. Wang, D.M. Han and H. Guo	2183
<b>Development Countermeasures of the Reverse Logistics Service Chain of Electronic Waste</b> H.L. Sun, H. Chen and Y.F. Xue	2187
Research to Deal with the Pulping Black Liquor by Using Aspergillus niger L. Yang, R.F. Yang, J. Lu and Y.J. Liu	2192
Experimental Study of Coagulation Treatment of the Arsenic-Containing Rural Drinking Groundwater	
J. Liu, H. Yang, Y. Zuo, Z.M. Ren and D.J. Bian	2197
Supercritical Water Oxidation of Lurgi Coal Gasification Wastewater and Evaluation of the Combined Process with Gasification Y.Z. Wang, S.Z. Wang, Y. Guo, D.H. Xu, Y.M. Gong, G.X. Yu and H. Yu	2203
Effects of Air Remnant on Temperature and Pressure in Medical Waste Sterilizer	2203
D.C. Jin, Z.B. Bao, H.J. Teng and Y. Li	2211
<b>Study on the Classification and Recycling Mode of Retired or Scrapped Equipment</b> M.F. Ni, L.X. Kang, Z. Wang and S.L. Liu	2216
Properties of Heat Treatment Alkaline Pulping Black Liquor with Aluminum Chloride L. Ge, J. Lu, R.F. Yang and Y.J. Liu	2220
The Flocculation Properties of Magnesium Lignosulfonate in Red Liquid L. Yang, R.F. Yang, J. Lu and Y.J. Liu	2224
<b>Study on Dynamic Optimization Model of Surplus Gas Distribution in Iron and Steel Plant</b> J. Song, A.C. Zhang and H.K. Zheng	2228
Experimental Study on Separating Aviation Kerosene from Oily Wastewater by Using	
Microwave Radiation G.Y. Jiang, Y.J. Hu, S.Y. Chen and J.J. Xu	2232
A Risk-Based Optimal Designing Model for the Grading Recycling Price of 'Urban Mineral' Resources	
X.Q. Geo, L. Li and X.Z. Yun	2237
Research on the Reutilization Technology of the Brine from Vinylidene Chloride Synthesis G.M. Cao, F. Hong, M. Sheng, X.D. Shuai and L. Hu	2242
Study on Flocculation and Sedimentation of Fine and High-Silicon Bauxite Tailings S.M. He, H.Y. Xie, Y.X. Jiang and T. Xiong	2246

The Treatment Way of Chinese Passenger Transport Excrement Z.M. Chen, W. Xie and H.Y. Zhang	2251
Reduction Efficacy of Activated Sludge by Electrochemical Oxidation L. Wang, C.M. Li, X.S. Li and L.J. Wang	2255
Screening of Reverse Osmosis Membranes for the Treatment of Pharmaceutical Condensates	
X.M. Sun, Q. Qiao and J.Y. Liu	2259
Recycling of Waste Hard Alloy via Electrochemical Dissolution Method G.Z. Zhou, Z.F. Wang, X. Wang and S.X. Li	2263
Extraction of Poly-Phosphate from the Activated Sludge with Thermal Treatment for Phosphorus Recovery M.Y. Zhang, A.M. Hao and T. Kuba	2268
Factors Influence on Shrinkage of High Calcium Fly Ash Geopolymer Paste P. Kamhangrittirong, P. Suwanvitaya, W. Witayakul, P. Suwanvitaya and P. Chindaprasirt	2275
Outline of Research on Interactions between Microorganisms and Geological Disposal of High-Level Radioactive Waste	2213
X.M. Chen, J. Zhu, W. He and X.G. Luo	2282
Producing Lightweight Aggregates by Incorporating Waste LCD Glass with Reservoir Sediments	2205
C.W. Tang, S.Y. Wang, C.K. Cheng and C.H. Huang	2287
Study on Blended Spinning Solution Composed of Chrome Shavings Extract and Polyvinyl Alcohol N.H. Dan, W.H. Dan, S.W. Xiao and J.K. Wang	2292
The Analysis and Improvement Recommendations for Recycling Waste Materials in	22)2
University Town S.X. Zhang and T. Zhang	2298
Hydrogen-Rich Gas Production from Microwave Pyrolysis of Sewage Sludge at High	
Temperature W.Y. Deng, X.L. Wang, W.C. Yu and Y.X. Su	2302
Treatment Mechanisms and Operation Conditions of Arsenic Removal from Copper Smelting Effluent Using Combined Process of Aeration Micro-Electrolysis and Flocculation Y.Q. Liu, Y.B. Feng, X.Y. Wang, J. Wang and X.J. Xu	2307
Analysis and Countermeasure to the Present Status of End-of-Life Vehicles Recycling and Disassembling in Jiangsu Province F.S. Zuo, X.T. Fei, Y.J. Min, Z.X. Qiu and M.S. Wan	2319
Assessment of the Effects of Combined Fe/C Microelectrolysis–Electro-Fenton on the Acrylonitrile Removal from Analogue Wastewater	2319
M.Z. Hu and Z.H. Shen	2323
<b>Fabrication of Biphasic Calcium Phosphate Bioceramics from the Recycling of Bone Ash</b> N.H. Lee, K.H. Hwang and J.K. Lee	2328
Treatment of Refinery Wastewater with Isolated Biological Aerated Filters: A Pilot-Scale	
Study J.G. Huang, L. Zhong and W.Y. Xie	2332
Primary Study on Microbial Fuel Cell Using Refinery Oil Wastewater as Fuel X. Guo, Y.L. Zhan, S.H. Guo, G.X. Yan, S.X. Sun, R.M. Geng and L.J. Zhao	2342
Technology Innovation of Used Automotive Electronic Control Components Recycling in China	
J.J. Wang and M. Chen	2346
The Effect of Organic Compounds on the Recovery of Ammonium by Struvite Precipitation from Swine Anaerobic Digester Effluent J.D. Liu, Z.X. Xu, W.G. Wang and W. Jin	2350
Preparation of Expanded Graphite Using Recycling Graphite Rods by Microwave	
Irradiation H.L. Hua, Y. Wang, Y.J. Wang, S.J. Ruan, C. Zeng, T. Zhang, M.C. Zhu, Y.C. Zhang and D.X. Li	2356
Municipal Solid Waste Leachate Treatment Using Microbial Fuel Cell L.F. Deng, H.R. Yuan, H.Y. Huang and Y. Chen	2361
Study on Treatment of M-Cresol Wastewater Using Potassium Ferrate(VI) M.Z. Hu. Z. H. Shi and H.Y. Zhao	2367

Study on Recycling of Organic Solvents	
R.Z. Yang, Y.J. Li and Z.Y. Li	2372
Active Belite Cement Clinker Produced with Mineral Waste Y.J. Liu and Y.C. Zheng	2378
Utilization of Coal Ash in China Q. Zhou and Y.G. Tang	2386
Engineering Applications on Reclaimed Water Treatment and Reuse of Hotel's High Grade Gray Water H.X. Chai, Y.R. Bao and H.D. Lin	2391
Study on the Desorption Performance of Feather as a New Adsorption Material on Pb <sup>2+</sup> Q. Ren and H. Wang	2397
Research on the Effect of Coagulation on Decolorization and Degradation of Red Dye Wastewater Y.P. Tian and S.P. Chen	2401
Soil Washing and Bioremediation of Tailing Dam Wastes L.M. Sun, J. Wu and S.Q. Meng	2401
Research Progress: Reduction of Excess Sludge by Ozone in the Sewage Biotreatment Process	
Y.F. Nie, C.H. Lu, B. Liu, X.W. Qu and X.B. Bai	2410
Acidification of Waste Activated Sludge during Mesophilic Phase in Two Phases Anaerobic Digestion System	
X.Y. Sun, C. Chen, W. Wang, J.Y. Shen, J.S. Li and L.J. Wang	2416
Study on Comprehensive Utilization of Arsenic from High Arsenic-Bearing Copper Sulphide Concentrate	
H.Y. Xie, Z.Y. Lan, D.W. Liu and X. Tong	2421
Study on Organic Regeneration of the Abandoned Infrastructure in Cities X.Y. Li and H. Wang	2425
The Study on Refining Calcium Carbonation with Lime Mud from Reed Pulp Black Liquor as Filler for Papermaking	2420
K.T. Hu, M. Li and B. Hu	2429
Chapter 9: Water Supply and Drainage Engineering	
The Forecast of Mine Water Quantities in Qiupigou Mine Based on BP Algorithm L. Wang, Z.Q. Ma and J.H. Zhu	2435
The Design and Implementation of Drainage-Basin Extraction D.D. Su, G.D. Gao, J.Z. Fan, G.S. Liu and C.T. Guan	2440
Removal of Dissolved Organic Nitrogen (DON) in Waterwork and it's Correlation with Water Qualities	
C.Y. Hu, J. Zhang, Z.X. Zhou and F. Shang	2445
Study on Settling Velocity of Sediment Particle Cloud in the Water J. Gu, D.Q. Ma, W. Chen, X. Qin, X.L. Wang and J.Z. Yang	2451
Supervision and Significance on the Core Parameters for Steam and Water System in Supercritical Utility Thermal Power Plant G.H. Lu, H.W. Lu, W. Su, L.J. Wang and Z.P. Zhu	2455
Design of Data Collection System on Flow Velocity Collection in Small Hydropower Stations	2459
X. Zeng and Z.Y. Zhao The Research on the Mechanism of Sodium Hypochlorite Reducing Organic Matter in	2439
Boiler Makeup Water G.H. Lu, L.J. Wang, W. Su, H.W. Lu and Z.P. Zhu	2463
An Introduction to Vacuum Sewerage System and its Applications in China	
J. Tang, M. Li and B.Z. Wang	2467
J. Tang, M. Li and B.Z. Wang  The Raw Water System Combinatorial Optimization Research Based on Arsenic Control C.F. Zhu, H.W. Li, S. Dong and J. Liu	<ul><li>2467</li><li>2472</li></ul>
The Raw Water System Combinatorial Optimization Research Based on Arsenic Control	

Distribution and Transformation of Molecular Weight of Organic Matters in a Canal Water Treatment Procedure X.D. Zhao, C.H. Wu and Z. Zhou	2483
The Study of LSM-SA Dynamic Thrust Testing Device in the Gate of River and Main Canal	
P.F. Liu, T. Lv and Q.H. Bu  Hydraulic Behaviors of Settling Tanks under Two Kinds of Configurations	2488
J.F. Dong, Y. Zhang and W.Y. Zhang  Study on the Cooling Water Systems with Multiple Cooling Water Supplies	2493
Y. Guo and Z.Y. Liu  Comparative Study of Additives Effectiveness on Portable Water Mist System	2497
Z.H. Sun, J.C. Jiang and L. Qiao Study of Effect on Sediment Flow Characteristics from Vegetation Growth	2501
J.N. Li, J.R. Yang and J. Luo	2506
Analysis on Air Valve Placement in Long-Distance Water Conveyance Pipeline System S.F. Huang, F. Wang, H. Xu and X.X. Wei	2513
Chapter 10: Sound, Noise and Vibration Control	
An Adaptive Filter Denoising Based on Wavelet Transform Applied in ECG Signal Q. Xiao	2521
Modeling and Simulation of Oscillating Water Column Wave Energy Generator H.Z. Nie, M. Zhang and H. Shen	2525
Study on Noise Attenuation Laws and Control Methods of the Transformer L.K. Xie, C.M. Chen, Y. Gao, S.T. Liu and L.X. Jiang	2530
Numerical Simulation of Two-Dimensional Bluff Body Aerodynamic Noise Using Lattice Boltzmann Method	
S.L. Han, G.S. Wang, L.S. Yu and Y.Y. Wang Study on the Vibration Suppression Performance of Damping Spring Damper in High-	2535
Voltage Transmission W. Kong, K.Q. Hu and Y.J. Cheng	2539
Scattering of SH-Waves to Semi-Cylindrical Canyon and Rectangular Elastic Hill on the Ground W.P. Shi	2544
Study on Noise Generation in a High Speed Centrifugal Fan K. Paramasivam, W.J. Yahya and S. Rajoo	2552
Research on Vibration Damper Installation Location of 1000mm <sup>2</sup> Large Section Conductor Y. Qi, X.M. Rui, K.J. Zhu and S.C. Liu	2556
Identification of Grader Radiated Noise Source Based on Partial Coherence Analysis Y.B. Geng, Z.Y. Han, Z.L. Wei, D.L. Zhou and Z.W. Zhang	2562
Analysis of Damping Performance for Cabin Deck Covered with Floating Floor Coverings B.N. Liang, H.L. Yu and Y.C. Song	2566
The Research of Airport Noise Prediction W.J. Pan, Y.Y. Zheng and Y.H. Feng	2571
Airport Noise Environmental Impact Assessment Based on the Multi-Level Fuzzy Comprehensive Evaluation	
M. Zhang, G.Q. Yang, T. Xu and X. Feng  Modeling and Analysis of Piezoelectric Bimorph Cantilever for Vibration Energy	2578
Harvesting J.J. Gong, Y.Y. Xu and Z.L. Ruan	2583
Chapter 11: Clean Production Process	
The Application of Corrosion and Scale Inhibitor to Circulating Water J.G. Ren and Q.Q. Wu	2591
Simulation and Adjustment of the Potential of Cleaner Production Based on System Dynamics in Liao River Basin M.H. Xie, Q. Qiao, Q.H. Sun and L. Bai	2595

Effect of H <sub>2</sub> in CO Feed Gas on Carbonylation of Methanol to Acetic Acid over Ir-Ru Catalysts	
B. Liu and S.F. Ji	2600
Study and Practice of Fine Sand Recovery and Wastewater Cleaning System for Xinkaiyuan Crushed Stones Company W.J. Zhang and J. Tang	2606
Comprehensive Information Management System for Cleaner Production Q.G. Zhang	2613
Study on the Method for Cleaning the Filter Bags Used in Baghouse D.M. Li, Y. Guo, D.Z. Chang, Y. Li and H. Xing	2617
<b>Technology to Control PCDD/Fs from MSW Incineration Processes</b> X.C. Ma, X.P. Zeng, J.T. Liu, K.K. You and J.X. Ren	2621
Practice of E-P Analysis on Cleaner Production in a Beer Factory Z.Y. Yang, H.E. Luo, Y.B. Xu, Q.P. Du and L. Li	2627
Chapter 12: Hydrology and Water Resources Engineering	
Flood Frequency Analysis Transformed Model for Small Sample J. Dong, Y.F. Diao and G. Wang	2635
Virtual Water Content of the Main Crops in Chongqing Y.N. Chen, Z.P. He, N. Wen and W.H. Zhang	2640
Integrated Fuzzy Delphi Method and GIS to Indentify Farm Ponds' Preservation Values and Spatial Location in Yunlin County, Taiwan S.H. Lee, W.W. Chou and C.F. Wu	2644
Estimating the Ocean Surface Drag Coefficient Based on the Least Squares Method H. Ding, J.Y. Dong, H. Wang, J. Zeng and J. Wu	2649
Analysis on the Emergency-Type Groundwater Source Fields of Qujing City in Yunnan X.L. Zhang, F. Li and H.Z. Liu	2653
Bankside Stability Analysis under the Actions of Rainfall and Reservoir Water Level Fluctuation X.T. Wang, S.J. Chen and Q. Feng	2658
Employing DPSIR Conceptualization and PP Clustering Algorithm to Predict Water Resources Carrying Capacity of River Basins in Fujian, China, in 2020 C. Hu, G. Chen and X.H. Lu	2663
Sustainable Utilization Evaluation on Water Resources Base on Matter Element Analysis in Huaibei City	2003
Y. Gao, H.M. Zhang, G.W. Xu, H.M. Su and Y. Zhang	2671
Rainfall Interception by Swamp Meadow and Alpine Meadow and its Seasonal Distribution Pattern on the Qinghai-Tibet Plateau, China C.J. Li, G.X. Wang and T.X. Mao	2675
The Influence of Emergent Macrophytes on Porewater PO <sub>4</sub> <sup>3-</sup> Distribution and Physic Transport in the Estuary Wetlands	
X.Z. Gu, K.N. Chen, W. Huang, X. Bai and C.X. Fan  Comparison of Groundwater Flow Systems under the Control of Different Aquifer	2683
Structures	2600
J. Zhang, Z.H. Zhao, H.Y. Ma, D. Wang and L. Guo  Enrichment and Accumulation of Zinc in the Sediment of Jen-Gen River Estuary, Taiwan	2688
C.D. Dong, C.F. Chen and C.W. Chen	2693
Influence of the Diversion Angle on Flow Characteristics of the North Branch of the Changjiang River Estuary J. Gu, X. Qin, W. Chen, D.Q. Ma, X.L. Wang and J.Z. Yang	2697
Study on Water Resources Carrying Capacity in Hefei City Y. Gao, S. Zhang, G.W. Xu, H.M. Su and Y. Zhang	2701
Non-Tidal Water Level Variability in Lianyungang Coastal Area C.Y. Zhang	2701
Calculation of Mine Water Inflow and Cite Influencing Radius of Hetaoyu Coal with "Virtual Large Diameter Well" Method	2103
Y.J. Hou	2709

Groundwater Flow Simulation and Resource Evaluation of the Affected Zone along the Yellow River (Henan Section) L.L. Gu, J.L. Shao, Y. Sun and Y.Z. Zhao	2713
The Application of Visualization Technique to Tidal Current Forecasting in China Offshore	2713
Area J.R. Li, R.J. Li, Y.F. Zhang and H.T. Shan	2719
Analysis on Possible Evolution of Hydrogen and Oxygen Isotopes in Lake Water in Qaidam	
Basin, China H.Y. Ma, Z.H. Zhao and J. Zhang	2723
Fuzzy Comprehensive Evaluation on North-China Groundwater Quality Y.J. He, D. Wang and G.L. Wang	2729
Estimation of the Groundwater Exploitation Based on Land Subsidence Numerical Model: a Case Study in the Plain Area of Tianjin	
C. Su, Y.L. Cui, L.C. Wang and L. Li  Researching the Water Surface Evaporation of Ebinur Lake Basin L. Cui, Z.X. Mu, H.Z. Zhang, W.M. Dong, J. Hung and P. Chen	2734 2740
Methods for Calculation of Water Environment Capacity of Small and Medium River Channels	
L.X. Han, F.F. Yan, H. Peng, J.J. Gao and M.M. Pan	2745
Comparison Studies on Sea Surface Roughness Schemes Y.P. Pan, S.F. Ge and W.Y. Sha	2751
Extreme Analysis of an Annual Rainfall Dataset S. Gong	2756
A Research of Reservoir Sediment Solidification Using Biotechnology W.P. Tsai, H.W. Liao, H.J. Chen and K.C. Jane	2761
Spatial Distribution of Phosphorus Fractions in the Sediments of Meiliang Bay, Taihu Lake, China	
Q.W. Song, Y.F. Li and X. Jiang	2766
<b>Study on Management Mechanism of Water Resources in the Process of Urbanization</b> F. Yang	2771
Simulation of Hydrological Functions of Typical Vegetations in Poyang Lake Basin Y.L. Cai, J. Xu and Y. Li	2776
Analysis of the Eco-Hydrology Evolution of Huaihe River of Bengbu Segment T. He and F. Wang	2780
Characteristics of Nonpoint Source Erosion from Burned Mountain Basin K.I. Son, K.S. Woo, Y.G. Kang, K.M. Kim and G.C. Son	2787
Influence of Thickness of Unstructured Zone to Volatilization Function of BTEX in Groundwater	
D.X. Cheng, Q. Zhang, H.N. Ying and H.J. Ren	2791
Study on Real-Time Regulation of Water Resources Yellow River Basin Y. Wang	2797
The Treatment on High Fluoride Groundwater B. Zhang, S.C. Li and X.Y. Yang	2806
Chapter 13: Architectural Environment	
Development on Environmental Geotechnology for Overhead Transmission Line Foundation Engineering in China X.L. Lu and Z.Z. Qian	2813
Applicable Correlations Based on Field Survey and Theory for Predicting the Indoor Thermal Climate	2013
F.E. Hu, F. Wang, N.B. Hou and F.X. Chen	2819
Analysis of Indoor Air Quality in Different Exhaust Conditions in Residential Buildings in Winter	2025
Y.R. Wang, N. Wu and W. Qi  The Experimental Study of Posidential Kitchen Cradually Expending Oriented Structural	2823
The Experimental Study of Residential Kitchen Gradually Expanding Oriented Structural Member Exhaust Pipe System Characteristics Y.R. Wang, B. Song and Z.Y. Su	2827

Impacts of Permafrost Mean Annual Ground Temperature and Ice Content on Thermal Regime of Pile Foundation of Qinghai-Tibet Power Transmission Line G.Y. Li, Q.H. Yu, W. Ma and Y.H. Mu	2832
Understanding of Landscape Architecture Design in Japan Y. Feng and L.S. Zhang	2840
Chapter 13: Architectural Environment	
<b>Study on Improving Thermal Environment of College Dormitory in Chongqing</b> H.Y. Ou, F. Liu, Q.L. Song and L.X. Yu	2849
Surface Reflectance for Illuminance Level Control in Daylit Historical Museum Gallery under Tropical Sky Conditions N. Ahmad, S. Sh Ahmad and A. Talib	2854
Artificial Neural Network for the Control of the Openings and Cooling Systems of the Double Skin Envelope Buildings J.W. Moon and S.Y. Kim	2859
Research about the General Applicability of Ecological Rural House in the Guanzhong Region of North China	
L.L. Xi, Y.D. Zhu, P.F. Zhang and Z.P. Kang  University Campus Outdoor Space Environment Characteristics of Culture Shape  N. Sun, Z.J. Liu and J. Zhao	2866 2871
Field Test for Heat and Humidity Environment and Analysis of Air-Conditioning System Consumption	
H.X. Li, W. Xiao, G. Geng, B.N. Li and W. Wang  New Analytical Equations for Evaluating Intrusion Rate of Contaminant Soil Vapor into Buildings from Double Soil Systems	2875
F.D. Zheng, B.H. Li and X.H. Čui  Architectural Design of Green Campus Q.X. Liu, X. Zou and J.Y. Deng	2879 2883
The Conceptual Model of Uncertainty Factors in Environmental Issues on late Delivery for Construction Industry	
Z. Baharum, S.M. Ngadiman and N.H. Mustaffa	2889
Chapter 14: Soil and Water Conservation and Desertification Control	
A Forecasting Method of Kostiakov Infiltration Model Parameters Based on Back- Propagation Model C.W. Cao and G.S. Fan	2899
Movement of Elements between Soil and its Source Rock a Case Form Limestone Soil in Suzhou City, Anhui Province, China	
S. Chen  Unconfined Compression Strength of Tianluoshan Relic Soils Solidified by Silicone  X.J. Chai, C.F. He and Y.S. Gao	2904 2908
Effect of Different Management Systems on Soil Water Content in the Black Soil of Northeast China S.X. Zhang, Z.Y. Zhang, S.W. Jiang and J. Yu	2912
Influence of Land Use Types on Levels and Compositions of PAEs in Soils from the Area around Hongze Lake	
J. Gao and H.F. Zhou  Causes for the Formation of Waterlogged Land in the Black Soil Region of Northeastern China	2916
A.J. Wang and G. Liu  Calculation of Theoretical Model on Balanced Fertilization in Soil  M.Y. Luo	2925 2931
Effects of Soil Amendment on Soil Physical and Chemical Properties in Oat Field H.J. Liu, J.H. Liu, J. Yu and S.T. Xu	2937
Spatial Distribution of Soil Erodibility in Upper Yangtze River Region A.J. Wang and Z.G. Li	2944

$ \begin{array}{c} \textbf{Ammonium Adsorption on Albic Black Soil under the Influence of } Fe^{2^+} \textbf{ in Irrigation Water} \\ Y.T. Chen, H.G. Cheng, X. Pu \ and \ C.Y. \ Lin \end{array} $	2948
Effect of Simulated Acid Rain and Rare Earth Contamination on Soil Enzyme Activities in Rare Earth Ming Area, South Jiangxi, China X.J. Wen, C.Q. Duan and D.C. Zhang	2954
Study of Soil Saturated Hydraulic Conductivity in Sand Dunes of the Horqin Sand Land S.X. Yao, T.H. Zhang and C.C. Zhao	2959
Nitrogen Accumulation, Retranslocation and Partitioning in Oats (Avena L.) as Affected by Different Water Supply and Nitrogen Fertilization B.P. Zhao, P. Ren, J.H. Liu and M.L. Zhao	2963
Impact of Fertilization and Soil Phosphorus Status on Phosphorus Leaching from Soil in Vegetable Greenhouse Y.J. Zhao, X. Chen, Y. Shi, C.Y. Lu, B. Huang and M.Q. Zhao	2968
Quality of Soils on Reclaimed Land from a Coal Mining Area	2908
X.Y. Shi, Y.P. Wang and X.D. Sun	2974
Distribution and Potential Sources of Polycyclic Aromatic Hydrocarbons in Urban Surface Dust and Soil of Shanghai, China L. Mo. J.S. Zhong, Z.V. Chon, M.H. Wu and J.O. Lei	2980
J. Ma, J.S. Zheng, Z.Y. Chen, M.H. Wu and J.Q. Lei  Effects of Seasonal Freeze-Thaw Processes on the Active Organic Matter in Cropland Black	2980
Soil	2005
Y. Wang, J.S. Liu, Q.Y. Wang and L. Liu Chlorinated Polycyclic Aromatic Hydrocarbons in Urban Surface Dust and Soil of	2985
Shanghai, China	2989
J. Ma, J.S. Zheng, Z.Y. Chen, M.H. Wu, Y. Horii, T. Ohura and K. Kannan  Priority Areas Mapping for Controlling Soil Erosion in Danjiangkou Reservoir Area	2989
L.H. Wang, J.L. Huang, Y. Du, Y.X. Hu, P.P. Han and J.L. Wang	2995
Sustainable Use of Sediment Resource in Irrigation Districts from the Lower Yellow River L. Ma and X.J. Chi	3000
Study on Potential Impacts of Genetically Modified Cultivation on Soil Physical and Chemical Properties M.Y. Luo and H. Chen	3005
Characteristics of Reference Evapotranspiration of Wetland Based on Penman-Monteith	
and Hargreaves Methods X.H. Li, Q. Zhang and Y.L. Li	3013
Study on the Distributive Characteristics of the Soil Microorganisms at Floodplain on Wetland of Mongolian Plateau	2017
J. Zhao, Y.Q. Shao, M. Hui, J.Y. Lu and J.Y. Li  Effects of Reclaimed Water Irrigation upon Soil Quality	3017
J. Gao, H.X. Wang, H.J. Liu, J. Yin and X. Zhao	3022
Distribution and Enzyme Activities in the Soil around the Fertilizes	2027
D.L. Feng, Y. Jin, Y.H. Yang and J.G. Huang  The Effects of Tourism Interference on the Soil of Grassland Tourist Spots — A Study of Gold Saddle Tourist Spots of Xilamuren Grassland in Inner Mongolia	3027
W.J. Li, T.H. Wu and X.J. Li	3034
Density Effects of Crusted Mosses on Dew Condense and Water Evaporation in the Gurbantunggut Desert, Northwestern China	2042
X.H. Ji, Y.M. Zhang and Y. Tao  Situ Monitoring and Numerical Analyzing of Soil Degradation Kinetic Parameter	3042
Y.Y. Guan, X.G. Zhao, X.H. Ou and S.J. Song	3048
Effects of Soil Quality Arising from the Conversion of Intrazonal Grassland in an Agro-Pasturage Ecotone of China C. Chen, D. Huang and K. Wang	3054
Arbuscular Mycorrhizal Fungi Alter Plant Growth, Soil Aggregate Stability, and Rhizospheric Organic Carbon Pools of Citrus	
Y.M. Huang, Q.S. Wu and Y. Li  Investigation of Soil Heavy Metal in Zhahai Town Huize County Vunnan Resed on CIS	3063
Investigation of Soil Heavy Metal in Zhehai Town Huize County Yunnan Based on GIS- Approach and Geostatistics K. Shi, D.S. Li and B.Y. Zhao	3067

Soil Humus Compositions and the Influence on Soil Acidity in <i>Larix olgensis</i> Plantation of NE China	
L.X. Chen, W.B. Duan, J.H. Wang and L. Qiao  Heavy Metal Contamination Characteristics of Greenbelt Soil and Tree Enrichment in	3075
Harbin City, China L.X. Chen, W.B. Duan, C.Y. Zhong and L.X. Wang	3080
Study on the Bioavailability of Soil Heavy Metal X.G. Zhao, W.Y. Huang and L. Yao	3085
Correlative Analyses between Quantities of Microbial Populations and Soil Physicochemical Property under Different Accumulation of Soil Plastic Film	
R.Y. Jia, X.G. Zhao and Z.G. Huang Release Text on the Humus Soil Pellets	3091
J. Yin, L. Wu, Z.S. Liu, J.H. Wang, H. Lu and J.K. Zhang	3096
Physicochemical Property and Nutrient Status of Soils in Urban Green Spaces in Xuzhou, China	
Y.M. Mao, G.R. Xu and X.Y. Pan	3102
<b>Distribution of Available Cu and Zn in the Soil Environment of Yunnan Plateau</b> A.G. Wang and Z.J. He	3115
Analysis of Soil Moisture Evolution of Shanxi Province in Hai River Basin S.J. Wei, X.R. Gao, J.H. Liu and D.Y. Qin	3122
Chapter 15: Eco-Environmental Protection	
<b>Ecological Design and Environment Protection Based on the Study of Art Design Ethics</b> L. Gu and X. Zhu	3131
<b>Isolation and Degradation Characterization of Trichloroethylene-Degrading Bacteria</b> H.X. Liang	3136
Isolation, Identification and Degradation Characterization of Synthetic Dyes Degrading Strain H.X. Liang	3140
Principal Factors Preventing China Environmental Risk (CER): Project Angle C.Q. Liu	3144
Study on Factors Analysis Low-Carbon Development in Hi-Tech Industrial Park – A Case Study in China J. Wen, W.T. Chang, P.F. Shi and T. Sun	3149
Modeling of NO <sub>3</sub> -N Leaching Loss for Typical Farmland in Liangwanghe River Catchment of Fuxianhu Lake Watershed	
H.Y. Gao The Problems and Countermeasures of Port Clusters in China	3154
Y.Z. Li	3159
Study on Inactivation of Microalgae in Ship Ballast Water by Pulsed Electric Field and Heat Treatment  LE Zhou L. B. Yu. D. L. Fong, A. B. Hu and T. E. Yie.	2162
J.F. Zhou, L.P. Xu, D.L. Feng, A.B. Hu and T.F. Xie  The Principles and Measures about Ecology Regression of Urban Pavement	3163
B. Wang	3167
The Research of the Modern Architectural Heritage Protection in China Established in the above the Concept "Antiquities" and "Renowned Sites and Ancient Traces"  S.B. Xu and L. Zheng	3171
The Recommendation of how to Improve the Accuracy and Feasibility of Eco- Compensation Standard in Coal Mine Areas G. Gu, H.C. Liang and A.G. Wang	3175
Management Effectiveness Evaluation of Bunaken National Park of Indonesia Using an	5115
Updated Framework J.J. Berliarang and Q.H. Fang	3180
Effect of Disturbance on Carbon Cycling in Wetland Ecosystem Y.N. Liu, H.W. Ni, Z.W. Zeng and C.R. Chai	3186
Study on the Concept of Ecological Environmental Protection Manifested in Taoist Culture D. Li and C.R. Zhang	3192

Effect of Ground-Coupled Heat Pump Technique Application on Economic Performance and Emission Reduction in Swine Farm in Beijing China M.Z. Wang, J.J. Liu, Z.H. Wu, Z.H. Chen and J.H. Tian	3196
Simultaneous Adsorption of Trichloroethylene and Cadmium on Attapulgite in the	
Groundwater H.Y. Gao, X.Q. Li, H.J. Yan and X.W. Wang	3202
Analysis of the Environmental Benefits of Organic Agriculture Q.M. Li, F.G. Yang, W.D. Zhang, F. Yin, X.L. Zhao and J. Liu	3206
Preliminary Discussion on the Modification of Ecological Footprint Model J.J. Dai, Y.J. Wu, S.T. Chen and S. Jiang	3212
The Research on the Impact Factors of Low-Quality Stands Soil Respiration after Different Transformations in Greater Higgnan Mountains H. Ji and X.B. Dong	3217
The Migration and Transformation of Pyrethroids in Coastal Sedimentary Environment S.J. Wang, N.N. Di and J.Z. Song	3222
Effects of Five Kinds of Antibiotics on the Damage of <i>Prorocentrum minimum</i> H.J. Cai, C.F. Liu and H.F. Wei	3226
Changes in the Growth, Physiology and Biochemistry of <i>Alexandrium tamarense</i> under <i>Ulva pertusa</i> Kjellman Stress and UV-B Radiation H.J. Cai, C.F. Liu and H.F. Wei	3231
Research on the Influence of Reclamation to the Marine Ecological Environment – Taking Lianyun New City Constructing as an Example	
J.Q. Shi and J.L. Sun	3236
The Problems of Wetlands in Our Country and the Researches Y.Q. Qin	3242
Study on Nano-TiO <sub>2</sub> Film Prepared by Hydrothermal Method in Toluene-Hydrochloric Acid-Water System	
X.G. Zeng, J. Zhuang, M. Gong, X.W. Zheng and M.T. Li	3247
Mechanisms and Remediation Technologies of Sulfate Removal from Acid Mine Drainage M.Q. Chen and F.J. Wu	3252
Community Residents' Eco-Environment Protection Awareness in the Jiajin Mountains Giant Panda Sanctuary	2257
Y.W. Ma, Y.T. Zhao and H.D. Gong  Analysis of the Spatial-Temporal Variation of Water Quality in Daqing Wetland	3257
X. Yang, J.F. Wang, X.P. Zhang and B.J. Wang	3263
Study of Formation Mechanism and Blocking in Giant Debris Flow at Hongchun Gully Yingxiu Town Wenchuan County	3267
M. Liao, R.Q. Huang, J.J. Gan, W. Zhong and Q.Y. Li Nitrogen Load from Rural Non-Point Source Pollution in Suburb Area of Shenyang: a Case	3207
Study of Damintun Town J. Ma, Y. Shi, X. Chen and H.X. Wang	3277
Chapter 16: Forest Cultivation and Conservation	
Impact of Latitude, Longitude and Altitude on Representative Forests' Distribution in China	
H.B. Xu, H.Y. Zhang and X. Xu	3285
Study on Pollination Characteristics and Hybrid Offspring Analysis on Hickory (Carya cathayensis)	2200
Z.J. Wang, I.Q. Huang, Y.J. Huang, B. Zhang and B.S. Zheng  A Study on the Volume and Water-Holding Properties of Litter Layer for Larix Kaempferi	3289
Forests of Eastern Region in Liaoning Province S.R. Hui, W.J. Wang, Q. Liu, H. Liu and Z.W. Chen	3298
Research on Ecological Function and Value of Song Shan Forest Park H. Yu, L. Tao and J.F. Bai	3304
Study of Forests on Offsetting Carbon Emissions from Energy Consumption in Tianjin,	
China S.G. Xiong, H.Y. Li, X. Ding and X.Q. Mo	3308

Study on the Establishment Techniques for Dwarf <i>Broussonetia papyrifera</i> Fodder Forest H.F. Wang, L. Zeng and H. Zhang	3315
<b>Environment Pressure and Countermeasures of the Development of the Natural Medicine Source Plants</b> G.S. Chen	3319
Early Forest Fire Identification Algorithm of Infrared Thermal Imager X.W. Li, Y.F. Zhou, X.C. Li, Z.S. Wang and Z.P. Wu	3323
Carbon Accounting and Evaluation for Natural and Planted Forest Stands in South China S.J. He, Y.C. Ye, J.Y. Zhu and L. Zhang	3328
Floristic Characteristics of the Zonal Vegetation in Guangzhou and the Implications for Urban Greening Z.Q. Su and C. Zhu	3332
The Analysis and Mathematical Model of Sustainable Development Tactics of Regional Forest Resources	
Y.R. Yu, L. Yang, J.X. Li and H.Y. Guan Spatiotemporal Heterogeneity in SWC in a <i>Pinus koraiensis</i> -Dominated Broadleaved Mixed Forest Gap in Xiao Xinganling' Mountains, China	3338
W.B. Duan and L.X. Wang Study on Cutting Propagation Technology with Full Illumination Spray of Superior Clones	3342
of Magnolia officinalis Subsp. biloba Y.Z. Ma, Q.A. Song, R. Song, Z.Y. Wang, X.M. Wang and L.J. Jiang	3347
Chapter 17: Plant Protection and Biotechnology	
Study of Flotation Effect of ST-1 Complex Reagent D.G. Ji, S.Q. Peng, Y. Wu and Y.H. Cai	3357
Wetstorage of Bagasse with Hemicellulase L. Bao, B. Sun, Y.X. Liu and R.Q. Zhang	3362
Hemicelluloses Extraction of Bagasse with NaOH/Borax Z.L. Wang, Y.X. Liu, J.H. Peng and R.Q. Zhang	3367
Study on the Impact of Water Environmental Factors on Dominant Species of Phytoplankton around the Power Plant in Xiangshan Bay H. Yang, Y. Zhao, H.R. Zhang, G.X. Dai, J. Ding and J. Chen	3371
Flavonoids from <i>Illicium dunnianum</i> D. Geng, L.J. Weng, Y.Y. Han and X. Yang	3375
The Ecological Cultivation Techniques of Pepper Z.M. Cao, Z.J. Liu and Y. Niu	3378
Comparison of Four Different Extraction Methods of Oil from <i>Macadamia integrifolia</i> B.Q. Zhu, L.J. Lin, J.H. Li, G.T. Lv and M.F. Huang  Optimization of Ultrasonic Extraction of Phenolics from Litchi Seed by Response Surface	3382
Methodology  X.B. Huang, L.J. Lin, J.H. Li, X. Ran and Y.F. Tang	3387
Chitosan as a Thickener for Direct Printing of Natural Dye on Cotton Fabric J. Choomchit, J. Suesat and S.B. Porntip	3394
Response of Urban Roadside Greening Plant Exposed to Automobile Exhaust Pollution M. Xue, X.L. Dong, C. Ma, X.X. Zhang, H.C. Ma and X.F. zhang	3398
Study on the Effects of Wastewater Duress on MDA in Constructed Wetland Plants M. Lu, K.K. Li, D.H. Li, S.T. Liu, F. Wang and J. Zhao Influence of Arbuscular Mycorrhizal Fungi on Sucrose Metabolism of Citrus Seedlings	3402
Y. Li, Y.N. Zou, Y.M. Huang and Q.S. Wu  Ultrasound-Assisted Extraction of Polysaccharides from <i>Pleurotus eryngii (DC. ex Fr.)</i> Quel	3406
Y.Q. Tang and Y.T. Zhao  Research Status and Prospect of Water and Fertilizer Effect on Coffee	3410
X.G. Liu, X.L. Wang and Q.L. Yang  Anthocyanin Content and Antioxidant Activity of Different Varieties Blueberries  Y.C. Li and Y.T. He	3416

Effects of Thermal Discharge from the Coastal Power Plant on the Phytoplankton in Mesocosm Experiments	2.420
H. Yang and G.X. Dai	3428
Effects of Mowing Strength on the Chemical Composition Content in Saussurea involucrata Kar. Et Kir. Y.R. Chen, X.J. Wang, N. Aidarhan, B. Zhao, X.F. Yuan and Y. Li	3432
Numerical Simulation and Experimental Study on Supercritical CO <sub>2</sub> Extraction of Red	5752
Pepper Seed	2 42 5
Y.Q. Wang, J.Y. Wang, S.F. Ni, L. Zheng, S.F. Shi, R.Q. Yao and Q.L. Chen	3437
Extraction, Purification, Structural Analysis and Antioxidant Activity of Extracts from Alliums Cepa L. var. agrogatum Don H.Y. Zhang, P. Li, F. Jia, M. Liu and Y. Wei	3443
Research on Resin Separation Technology of Resveratrol and Catechin from Peanut Skin H.Y. Zhang, S.T. Han, Y. Wei and M. Liu	3450
Screening and Identification of an Aflatoxin $B_1$ -Degradation Strain from Moldy Cereals B.B. Xue, A.S. Shan and B.M. Shi	3461
Studies on Seed Rain Dynamics of <i>Castanopsis carlesii</i> and <i>Castanopsis fargesii</i> in the Three Gorges Reservoir	
X.L. Zhu, L.N. Zhang, B. Li, D.J. Chen, J.H. Chen and D.L. Feng	3466
<b>Identification and Screening of Introduced Tomato Varieties Resistant to late Blight</b> D. Luo, X.C. Zhang and X.H. Wen	3472
Conidia Production by <i>Beauveria bassiana</i> on Rice in Solid-State Fermentation Using Tray Bioreactor	
L. Xie, H.M. Chen and J.B. Yang	3478
Study on Soil Seed Bank in Saline-Alkali Wetlands of Tianjin Binhai New Area X.Q. Mo, N. Xu, H.Y. Li and W.Q. Meng	3483
Biodiversity and Ecoadaptability of Legumes H.M. Wang, H.C. He and Z.Q. Wang	3488
Effects of Sand Burial Depth on Seedling Growth of Caragana microphylla Y.H. He, X.P. Liu and H.L. Zhao	3495
Process of Soda-AQ Pulping of Fast-Growing Poplar and Defibration Point W. Wang, G.H. Yang and J.C. Chen	3500
Effects of Pretreatment by Xylanase on Properties of Salix Psammophila Kraft Pulp Y.B. Li, G.H. Yang and J.C. Chen	3505
Effects of Methyl Jasmonate on Cylindrocarpon Root Rot Development on Ginseng J.M. Sun, J.F. Fu, R.J. Zhou, W.N. Su and X.R. Yan	3511
Changes in Quality Attributes and Storage Life of Mango during Storage O. Wongmetha and L.S. Ke	3518
Effects of Different Fermentation Media on Polysaccharides Production and Antitumor and Antioxidant Activity	
P.S. Yan, J. Dong, G.Z. Zhu and X.J. Gao	3522
A Concept Model about Allometric Scaling of Hierarchical Energy Flow through Plant	
Biosystems X.G. Yang	3526
Screening Method for Lipid-Content Microalgae Based on Sulfo-Phospho-Vanillin Reaction Z.D. Hao, P.H. Liu, X. Yang, J. Shi and S. Zhang	3532
Investigation and Consideration on Co-Management at Dawan Village in Taibai Mountain Nature Reserve, Shaanxi Province, China X.N. Zhang	3536
Inhibitory Activity of Extracts from Mycelia Materials of Several Mushrooms on the Angiotensin I-Converting Enzyme P.S. Yan and X.J. Gao	3541
Study on Aucutin Extraction in Eucommia Key Fruit Seeds Meal by Supercritical CO <sub>2</sub>	
Mixed with Entrainers H. Ouyang and J. Yu	3545
Antioxidant Activity of Schisandra Chinensis Extract and Derivatives J.C. Wang and B.Q. Wang	3549

The Occurrence and Biological Characters of Red Palm Weevil, <i>Rhynchophorus ferrugineus</i> in Fujian, China	
Z.H. Huang	3552
Extraction of Mulberry Anthocyanin with Assistance of Microwave Y. Zuo, Y. Li, C.Q. Zhao, H. Xie, F. Qi, L.P. Liu and J. Zhang	3556
Extract Method of Urban Greenbelt Based on TM Image X. Chen and Y. Wang	3562
Preliminary Experiment on Extraction of <i>Eisenia foetida</i> Coelomic Fluid with Water Bath Pot	
S.M. Zhuo, J. Xie, C.Y. Wu and G.Y. Li	3566
Microbial Flora Variation in Process of Jackfruit Peel Ensiling J.S. Yang, Y.M. Cai and H.S. Tan	3570
Studies on the Toxicity of Aromatic Hydrocarbons on Chorella Vulgaris by 3D-QSAR Using CoMFA and CoMSIA Methods C.H. Wang, S.L. Yang, C. Lu, H.X. Yu, L.S. Wang and Y. Wu	3574
Purification of α-Linolenic Acid from Flaxseed Oil by Silver-Silica Gel Chromatography Column	567.
J.X. Guo, C.L. Wang and Z.J. Wu	3580
Effect of Ionic Liquids/water Pre-Treatment of Luffa fibres on the Structural Properties L. Wei, X.Q. Shi, Y. Wang, Y.C. Ma, J.X. Zhao and S.J. Wang	3587
Influence of Pigment Extraction on Pb(II) Biosorption of Cladophora and Spirogyra Algae	
<b>Powder</b> Y.C. Lee, S.P. Chang, C.S. Lee and N.H. Kao	3591
Chapter 18: Geographic Information and Remote Sensing Science	
Regional Yield Estimation for Spring Maize with Multi-Temporal Remotely Sensed Data in Junchuan, China	
T. Su, S.Y. Feng and X.Y. Cui	3601
Spectrum Classification of Easily Confused Ground Objects in ALI Remote Sensing Image Based on Texture Features L.L. Zhang, G.Y. Lai, X.G. Zeng and F.Z. Yi	3606
Vegetation Covering Changes in Shandong Province Based on NDVI Data	3000
L. Yang, Y.Y. Liu, H.R. Zhang and Y.F. Ming	3612
Wetlands Change Simulation Using Cellular Automata at Multi-Scales H. Yu, B. Kong, S.Q. Zhang and X. Pan	3616
Construction and Information Management of Lianyungang Emergency Shelters for Earthquake Disaster Based on GIS	3624
C.E. Dou, Y.H. Jia and H.Q. Xie  Towards Application of Remote Sensing Technology in Geothermal Prospecting in Xilingol	3024
in Eastern Inner Mongolia, NE China F. Peng, Y.Z. Xiong, Y.X. Cheng, Q.C. Fan and S.P. Huang	3628
Temporal and Spatial Analysis of SuZhou Urban Heat Island Effect G. Fang, J. Yang and L. Zheng	3632
Land Resources Information Acquisition Based on Multi-Temporal TM Images T. Niu, X. Li, Y.F. Zhou and Z. Zhao	3636
Evaluation of Environmental Livability of Changchun Based on GIS and RS B. Fu	3642
Spectral Discrimination of Coral Reef Benthic Substance and Implications for Environmental Protection	
B. Xu and Y. Zhang  Suaeda Salsa Biomass Remote Sensing in the ShuangTai River Estuary	3646
T. Wu, D.Z. Zhao, G.J. Jiang, W. Xu and C. Xiao	3651
Study on the Change of Vegetation Cover in Eastern Jilin Province Based on RS and GIS Technology	
N. Lin, Q.G. Jiang and H.H. Zhang	3655

Dynamic Change and Forecast of per Unit Area Grain Yield Based on Grey System Theory	
in Suzhou City H.M. Su and A.X. He	3661
Design and Realization of Forest Fire Monitoring System Based on GIS in Henan Province, China	
X.F. Liu, Y. Geng, Z.M. He, J.H. Zhang, L. Zhang, Z.X. Chen and D.Y. Li	3665
An Automatic Detection Algorithm of Bridges above Water in Aerial Images Y.W. Dong, B.C. Yuan, J.X. An, Z.M. Shi and M.L. Zhu	3670
A GIS-Based Environmental Justice Analysis of Ambient Air Pollution: a Comparison between Urban and Rural Areas F. Peng and B. Zou	3676
Digital Aerial Photo Orientation within the Different Algorithm Analysis D.L. Liu, N. Lin and Y.S. Zhang	3680
Changing Information Extraction of Coastal Accretion-Erosion from High Resolution Satellite Images	3685
Y. Gu, Y. Zhang and Z.J. Wang  The Application of GIS Techniques in Soil Testing and Fertilizer Recommendations: Part	3083
III the Distribution of Soil Organic Matters in Hainan, China Z.Y. Wei and Z.P. Qi	3689
The Application of GIS Techniques in Soil Testing and Fertilizer Recommendations: Part I a Review	
Z.Y. Wei and Z.P. Qi	3693
The Application of GIS Techniques in Soil Testing and Fertilizer Recommendations: Part II the Distribution of Soil Nutrients in Hainan, China Z.Y. Wei, D.F. Wang and Z.P. Qi	3697
Designing and Development of the Aerial Surveying Digital Data Management Information System Based on Two-Tier C/S Structure Model	2702
D.Y. Ma and H.B. Lai	3702
Ore Volume Measurement Based on 3D Laser Scanning Technique: a Case Study T.T. Nguyen, X.G. Liu, Y. Huang, H.P. Wang, Q.L. Kieu and T.S. Dang	3708
The Study of Dynamic Changes of Sea Ice in Antarctic Nearly a Decade under the Context of Global Warming H.Y. Li, H.C. Peng and Y. Zhu	3715
Spatio-Temporal Analysis of Urban Heat Island of Nantong City Based on TM/ETM+	0,10
Images F.Y. Gu, X.F. Dong and H.Q. Xie	3720
Massive 3D Models Automatically Optimize and Application of Network Research	3120
H.C. Dou, L.Y. Cheng, S.J. Deng, L. Wang and X.H. Han	3724
Application of Spatial Sampling to Remote Sensing Monitoring of Forest Cover Area J.P. Zhang, L.B. Zhang and B. Gong	3732
A GIS-Aided Method for Assessing High-Resolution Population Exposure to Environmental Pollutants	
B. Zou, F. Peng, S.X. Chen and Y.Q. Luo	3738
Study on Methods of Retrieval of Sea Surface Temperature by Using Remote Sensing Data H.C. Peng, H.Y. Li and H. Gao	3742
Comparison Operator Edge Detection Based on Remote Sensing of Marine Oil Spill M.P. Sun, C.Y. Shi and H.Y. Li	3747
Spatio-Temporal Variation of Vegetation NDVI in China from 2001 to 2011 Q.H. Lin, L.R. Sun, X.Z. Wang and L.L. Hu	3752
Chapter 19: Land Resources Environment and Urban Planning	
An Exploration on the Land Replacement Village Migration Model in Coal Areas and the Construction Land Index Coordination Mechanism – Take a Coal Mine in Shandong Province as a Case	
Y.Q. Yang, Z.Q. Hu, K.K. Zhao, L. Wang, X.J. Wang, P.J. Wang and Y. Gao	3759
Dynamic Changes of Landscape Pattern in Coastal Urban Belt in Liaoning H.D. Hu	3765

Qunjie Xu, Yanz	hong Ju and	Honghua Ge
-----------------	-------------	------------

gg

The Driving Forces of Landscape Pattern in Coastal Urban Belt in Liaoning H.D. Hu	3771
Research of Suzhou City's Expansion Changes Based on Multi-Temporal TM Images F.Y. Gu, X.Y. Ma and H.Q. Xie	3776
Landscape Attributes, Microclimate and Thermal Comfort of an Urban Square in Moderate and Dry Climate S. Kariminia, S. Sh Ahmad and N. Ibrahim	3780
Research on Optimal Layout of Rural-Urban Construction Land Used Based on GIS Spatial Treatment in Foshan X. Chen, J. Zhang and Z.G. Yang	3785
A Study on the Spatial Relationship between Rural Tourist Destination and Large Cities in China	
Z. Chen and L. Chen	3789
Spatial Distribution and Contribution Segregation of Hg and Cd in the Soils in the Chemical Industry Park and its Surrounding Areas C.F. Lu, S.L. Zhou and S.H. Wu	3797
A Study on the Scale of Land Renovation Based on Low-Carbon Limited in Guangzhou Y. Ding, H.M. Wang, Y.M. Zheng, Y.T. He, H.Y. Wang and G.S. Liu	3803
Research on the Public Transport Integration of Major Western Region Cities – a Case Study on Bus Connection with Subway Line 6 in Chonqing L.H. Wei, H.Y. Wu and H. Li	3809
$LIDL^{\circledR}$ : the Implementation and Operation Environment of Spatial Arrangement of Urban and Rural Land Resources	
P. Ren, F.N. Wu and J.M. Zhou	3814
Responses of Household Behavior to the Land Consolidation Project Based on Data Envelopment Analysis (DEA)  Z. Zhang, C.F. Wei and J.Q. Gao	3821
Scenario Analysis in Coastal Wetland Development: a Case Study in Xiangshan Bay W.P. Zhu and F.Y. Li	3826
The Application of Landscape Ecology in Campus Landscape Planning W. Zhang and C. Li	3832
<b>Desorption Characteristics of Crude Oil in Oil-Contaminated Chernozem</b> X. Liu, Y.L. Li, C.L. Dai, X.P. Chen and L.S. Chen	3837