Table of Contents

Preface and Conference Organization

Chapter 1: Development and Utilization of Solar Energy, Biomass Energy, Wind Energy and other New Energies

Y.F. Liu, G.S. Wang, D. Zhao, H.W. Mu and X.L. Guo	3
A Two-Stage Combination Model for Wind Power Forecasting J. Zhang, Y.H. Wang, Y.Y. Li and F. Guo	9
Analysis of Corn Straw Pyrolysis Bio-Oil Composition H.H. Wei, Y.L. Liu and D.Y. Chen	14
Influence of Solar Panels in Distributed Photovoltaic Power Generating System above Farm Land on Field and Crops Z.W. Ge, R.X. Xiao and R.P. Wang	20
Influences of Environmental Factors on the Maximum Power Point of Photovoltaic Cells X.X. Qiu and Y.G. He	24
Large-Scale Automatic New Energy Resources System Controlling Temperature and Pressure X.X. Zhang, W. Li, G.N. Du, S.Y. Wei and R. Fan	30
New Process for Etherification of Glycerol with Isobutene J.J. Liu, Y. Yuan, H. Zhang and B.L. Yang	33
Numerical Simulation and Experimental Research on Higher Heating Value Biomass Gas Gasifier M.K. Zhu, D.F. Qing and A.R. Chen	38
Optical Losses through Gaps of CPCs with One-Sided Flat Absorber F. Tang and R.S. Tang	36 46
Performance Analysis of Diesel Engine Using Bio Ethanol (Water Hyacinth) by Response Surface Methodology (RSM)	53
A.K. Choudhary, H. Chelladurai and C. Kannan Research of Characteristics Biomass Staged-Gasification for Hydrogen-Rich Syngas C. Chen, J.S. Zhou and Y.Y. Xiang	60
Research on the Correlation between Biodiesel's Composition and Physical & Chemical Properties	65
D.B. Yang, X.K. Meng, X. Zhang and J.J. Tian Theory of Solar Hot Water System Construction Application Engineering Evaluation Field Test Method - The Amount of Solar Irradiance Intercept Method	
H.W. Gong, Z.Y. Wang, X. Yan and H. Fu Wind Power Prediction Model Based on Wavelet Neural Network under Missing Data J. Lu, Y.Q. Zhao, Y.H. Zhao, J.Y. Zhao and C.Y. Yang	71 76
Chapter 2: Energy Materials, Energy Chemical Engineering, Fuel Cells and Management, New Energy Vehicles and Electric Vehicles	
A Analysis on the Importance of Lithium Battery Cooling for Pure Electric Vehicles D. Wang	83
Based on Graphene Electrodes PbSe / CdSe Core-Shell Quantum Dots Battery P. Wang, T.Y. Wang, H.L. Wang and T.Q. Zhang	88
Hydrothermal Upgrading of Bitumen with Glucose as Hydrogen Donor J.L. Cao, B. Wu, F. Zhu and N. Duan	92
Optimization of Catholyte in Hydrogen Redox Fuel Cell Z.X. Wang, J. Fu, C. Du and Y. Zhang	97

Potential Energy Curves and Spectroscopic Properties of C ⁻ ₂ Studied by Configuration Interaction Method W.X. Shi, F.L. Wu, C.L. Li, Q.S. Wang and J.L. Wei	105
Reduced Thermal Conductivity in ZrNiSn-Based Heusler Alloys H.Y. Wei, D.X. Huo, W.F. Yang, J.W. Li and Y.J. Zhang	110
Research on Electric Vehicle to Household Electricity Interactive Mode Considering Photovoltaic Power Generation	
C. Liu, L. Xia, D.S. Bai, B. Li and L. Cai Solar Cells of the Inorganic Materials based on PbSe/CdSe Core/Shell Nanocrystals	114
T.Y. Wang, P. Wang, H.L. Wang and T.Q. Zhang The Development Status and Trends of Air Conditioning on New Energy Vehicles	119
B.S. Guo, G.H. Yan, S.S. Xiong, Y.H. Wang, M.X. Dai and J. Ye	123
TLC-FID and GC-MS Analysis of Tars Generated by Oil Sand Pyrolysis at Different Temperature	
D.M. He, F. Nie, J. Guan, H.Q. Hu and Q.M. Zhang	128
Crude Oil Price and Fuel Ethanol Firm Profit J.H. Li	132
Chapter 3: Green Building Materials, Ecological Buildings, Energy- Saving Buildings and Architectural Environment Analysis	
Analysis of Energy Saving Design of Solar Building - Take Tongji University Solar Decathlon Works for Example F. Qian	139
Construction Energy Conservation Domain Carbon Transaction Mechanism Economic	137
Efficiency Research X. Han, G.L. Lv and Y.X. Yan	145
Curing Behavior for Microencapsulated Curing Agents on Epoxy Resin Systems X. Wang	150
Energy Retrofit of Historical Buildings Based on Windowed Elements C. Guattari, G. Battista, L. Evangelisti, A. Fanchiotti and L. Santarpia	154
Energy System Feasibility of a High Efficient Building G. Battista, L. Evangelisti, C. Guattari, A. Fanchiotti and L. Santarpia	159
Extraction of Forms and Materials from Typical Hakkas Circular Earth Building and Researches Nn the Pattern Language of Hakkas Landscape H. Huang and R.F. Gao	164
Field Study on Human Thermal Adaptation in Summer of Tibetan Dwellings in Kangding,	10.
China X.J. Song, W.X. Zheng, Q. He and Y.M. Ren	169
Influence of Shading and Transparent Surfaces on Historical Building Energy Retrofit L. Evangelisti, C. Guattari, G. Battista and L. Santarpia	173
Chapter 4: Power System and Automation	
Service Restoration of Smart Distribution System X.Y. Huang, F.J. Peng, H.Y. Huang and Z.W. Xie	181
A Novel Island Partitioning Strategy of Multi-Microgrids Based on Voltage Stability Margin Z.Y. Lei, L. Wei and Y. L. Zhoo	107
Z.X. Lei, L. Wei and X.J. Zhao A Novel Power Quality Disturbances Detection and Classification Method	187
F.J. Peng, X.Y. Huang, H.Y. Huang and Z.W. Xie	193
Analysis of Grid Code Technical Requirements for Wind Farms Connected to the Grid in Penghu Island	100
S.H. Tsai, Y.K. Wu, C.Y. Lee and W.T. Tsai Evaluation of Restoration Sequence of DG in Black-Start	199
X.Y. Huang, F.J. Peng, H.Y. Huang and Z.W. Xie	204

Research on Information Security Test Bed and Evaluation Framework for Distribution	
Automation System L. Chen, X.J. Zuo and Y.F. Wang	210
Study on the Terminal Testing Method of Distribution Automation System P. Li, K. Ding, X. Shu and G.T. Guo	214
The Analysis on the Effect of Speed Regulating System on Low Frequency Oscillation T.T. Deng, J.S. Wang, X.J. Li, X.T. Wang, J.F. Liu, X.T. Ma, Y.S. Dai and Y.F. Guo	220
Support Vector Machine Based Method of Earthed Fault Location in Neutral Un-Effectual Grounded Power System	
F.J. Peng, X.Y. Huang, H.Y. Huang and Z.W. Xie	226
Chapter 5: High Voltage and Insulation Technology, and Power System Management	
DC MOA Application and Test Technical Analysis Y. Zhang, L. Guo, W. Yang and G.Z. Wang	237
Bandwidth Prediction for Shared Risk p-Cycles in Power System S.Y. Shao, F. Yu, H. Wang, F. Xie, F.F. Liu, Z. Li and B. Li	243
Developed of High Voltage Bushing with New Shielding Technology for High Voltage Switch Cabinet	
F.Y. Zhu, Z.H. Lu, H.J. Ni, S.S. Lv and X.X. Wang	247
Investigation of Cable Partial Discharge Characteristics Based on Weibull Distribution S.H. He, Q.H. Zhan, Y.M. Zhang, Y.R. Li, C. Wei and X.X. Chen	252
Research of Partial Discharge Classification Method Based on the Phase Distribution of XLPE Cables	256
S.B. Huang, J.B. Wang, Y.P. Xu, Y. Yan and X.X. Chen Study of Nanjing Demand Side Management Based on Cost-Benefit Analysis - Take Green	256
Lighting as an Example Q.H. Liu, K. Xu and H.M. Wang	260
Study on the Safety and Quality Management Innovation of Power Transmission and Transformation Projects in Jiangsu Province C. Han, Y. Chen, X.Y. Wu, S. Wu and C. Zhang	269
Transmission Network Planning Based on Genetic Algorithm in Market Environment H.K. Liu, H. Yang, Y. Zhang, Y.T. Jiang and S.J. Zhang	273
A Combined Model Based on Cuckoo Search Algorithm for Electrical Load Forecasting E.H. Chang, G.N. Zhu and J.W. Chen	278
Chapter 6: Engineering Thermal Physics and Applied Thermal Engineering	
EDI Technology Application and Exploration in the Power Plant Boiler Feed Water Preparation Areas Y.Y. Fu and J.D. Shi	285
Flash Boiling Spray Simulation Based on Void Fraction and Superheat Controlling H.Y. Ding, P. Deng, X.Y. Mao and C. Wu	289
Heat Recovery and Burner Modification of an Industrial Tubular Furnace X.L. Zhang and W. Yao	296
Natural Convection of Nanofluids in Enclosures Heated Laterally and Underneath	
M. Cianfrini, R. de Lieto Vollaro, S. Grignaffini and M. Corcione Predictive Models for Evaluating Mobility Buses Thermal Performance	301
L. Evangelisti, G. Battista, C. Guattari, R. de Lieto Vollaro and L. Santarpia	313

Chapter 7: Environmental Chemistry, Biology and Materials, Biomedical Meterials

Degradation of Paracetamol by Fenton-Like Process in Conjunction with Sonication R.Y. Wang and X.K. Wang	321
Effects of Nitrogen Amount on Yield and Nutrient Absorption of Cold Land Japonica Rice under the Condition of Straw Returning Q. Wang and S. Wang	325
Anti-Fatigue and Anti-Hypoxia Effects of Soy Isoflavones X.J. Li and B. Qi	332
Bio-Hydrogen Production through Anaerobic Microorganism Fermentation from Molasses Wastewater in a Continuous Stirred Tank Reactor Z. Qin, Y.Y. Cui, C.Y. Zhang and B. Xie	336
Chromosome and Karyotype Analysis of <i>Hibiscus syriacus</i> Y.P. Li, S.X. Miao and F.X. Luo	340
Effect of Salinity on the Growth of Clam D.M. Cao, Y. Zhang, Y.S. Zhang and C.J. Gao	345
Identification and Photodegradation of Red Pigment from Serratia marcesce zl3 L. Zhou, S. Zhu and X.H. Dong	349
Study on the Predominant Bacteria from Storage of Liquid-Smoked Tilapia Q.X. Cai, L.H. Li, Y.Y. Wu, X.Q. Yang, S.J. Chen and Z.R. Dai	353
The Effect of Biofloc Technology on Nursery System of <i>Litopenaeus vannamei</i> Q.L. Chen, R.J. Zhang, Y.H. Wang, Y.Z. Zhao, J.H. Chen, H.H. Zhang, X.Y. Tian and L.Y. Qin	358
The Effects of Aquatic Plant Vallisneria Natans on the Distribution of Metals under Different Hydrodynamic Conditions	262
Y. Lei, P.F. Wang and W.M. Zhang Transfer Characteristics of Cd in Paddy Soil-Rice System under Field Condition X.L. Zhu, G.J. Gan, H. Zhou, Y. Liu, X. Deng, H.B. Hou and P.Q. Peng	362 367
Screening and Control Effects of Antagonistic Bacteria against Tobacco Black Shank	307
Disease H.P. Yu, D.Q. Luo, Y.F. Dai and X. Chen	374
Study on Process of Xylanase by Fed-Batch Fermentation M.Z. Gong, R. Huang, J.L. Guo, H.S. Yu, J. Yao and D.C. Gong	381
Understanding of Water Sorption Mechanism in Cellulose-Water System: The Perspective of NMR	200
Y.H. Xie and Z.H. Xue	388
Chapter 8: Environmental Safety and Health, Disaster Prevention and Mitigation	
A Brief Analysis of the Airport Depot Employees' Safety Education Y. Xian, G.Y. Chen, L.M. Wang and J. Chen	395
Advanced Technologies Abroad are Used to Improve Highway Construction Safety Y. Yu, S. Sun and X.Y. Ni	399
Formation Mechanism and Evolution Process of Typical Landslide in Eastern Menyuan Basin	
Y.X. Zhang, Y.D. Lu, M.S. Li, S.M. Jia, R. Zhang, X. Li, Y.H. Pan, S.F. Lu and Y.H. Yang	404
Frost Damage Mechanism Analysis and Preventive Measures of Bridge X.H. Yang	414
Numerical Simulation of Dispersion of Radionuclides Released from the Fukushima NPP and the Assessment of their Nuclear Impact Y. Guan, S.F. Shen and H. Huang	417
Optimization of Height Prediction of Water Fractured Zone Based on ANN Z.M. Zhao, Y.L. Liu and Y. Li	422
Quantitative Study for Drilling Process on Human Factor Risk Mitigation Capacity A.T. Zhou, K. Wang, A.J. Liu and H. Zhang	428
Risk Analysis of Ecological Environment Healthy X.N. Qin, F.P. Shan, C.Y. Wu and X.L. Lu	432
Stability Analysis and Treatment Study on Reservoir Bank Collapse Area K.J. Shen and Y.W. Meng	437

The Research of Accident Emergency Ability Evaluation of Construction Enterprise Z.S. Zhao and B.L. Shao	441
The Research of Highway Construction Safety Management Based on Fuzzy Evaluation W. Wan, J.Q. Yu and J.P. Zhao	446
The Research on Loose Body Landslide Stability and Treatment K.J. Shen and Y.W. Meng	452
Analysis of Mining Subsidence Disasters in Loess Gully Areas and its Control Countermeasures W.B. Guo, X.Y. Yu and Z.R. Liu	456
Evaluation of Personnel Underground Behavior Safety for Metal Mines Based on Grey Relevance Analysis L.R. Hu and G.Q. Li	461
Chapter 9: Environmental Analysis, Monitoring and Protection	
Distribution Characteristics of Soil Organic Carbon in Estuarine Wetland of Qingdao Dagu River	
F.L. Kong, M. Xi, Y. Li, W.H. Zhang and Y. Liu	469
Isolation and Identification of a Heterotrophic Nitrifying Bacteria and Study on Removal of Nitrite Nitrogen	472
Q.M. Cui, H.W. Wang, W.Y. Wang and C.Y. Yuan	473
A Mercury Free Method for the Determination of Chemical Oxygen Demand of the Sample with High Salinity and Organic Macromolecule D.Q. Chu, X. Liu, F.W. Zhang, X.Y. Lei, L.L. Xie, X.X. Wang and J. Wu	477
Applying AQUATOX to Simulate the Response of Eutrophic State to Nutrient Input in Yincun Port River	.,,
X.Y. Wei, C. Wang, P.F. Wang and C.J. Qian Effects of Toxicants on a Non-Autonomous Predator-Prey Model with Random	481
Perturbation Y. Zhang, K.G. Fan and Q.Y. Wang	487
PM2.5 Pollution Level of Heavy Metals in Atmospheric Particles in Taiyuan J.Q. Zhang, H. Yang, Y.T. Wang and Y. Zhang	491
Pollution Characteristic of VOCs during Straw Burning Period in Chengdu, China H.L. Yin, H.W. Yuan, Z. Hu, J.F. Liang and S.P. Li	495
Pollution Status and Trend Analysis of the Main Atmospheric Pollutants in Five National Central Cities in China	
F. Zhang and G.X. Li	499
Spatial Distribution and Sources of Heavy Metal Pollution of Surface Dust in Taiyuan, China	
Y. Zhang, J.X. Chen, J.Q. Zhang and Y.T. Wang	503
Study on High Efficient Snow-Dissolving Agent with Coloration Function S. Wang, Y. Yang, M. Li, D.C. Shan and M. Zhou	508
The Indoor Radon Concentration Measurement and Analysis in a University and its Adjacent Areas	
F.L. Jiang, Z.G. Yang, X.W. Qi and X.Y. Li	512
Chapter 10: Pollution Control Project (Air, Water, Solid)	
Styrene Removal from Polluted Air in Biotrickling Filter with Pyrocarbon-Sawdust and Ceramic-Raschig-Rings-Sawdust Packings A.L. Ren, X. Lv, B. Guo, H.H. He and J. Zhang	519
Adsorption of Phosphate on Mg/Fe Layered Double Hydroxides with Different Anions Intercalation	-
Y.W. Guo, H. Zhang and Z.L. Zhu	524
Advances in the Application of the Low Temperature Plasma Technology in Wastewater Treatment	50 0
S. Han, Q.H. Xu, R.P. Zhang, G.Q. Jiang, J.D. Ding and Y.J. Shen	528

Biogenic Jarosite: A Friendly Adsorbent for the Removal of Chromate from Aqueous Solution	
D.X. Xiao, C.L. Fang, J. Zhou, X.Y. Lou, J.H. Xiao and J.S. Liu	533
Chlorate Removal by Calcined Mg/Fe/Ce Layered Double Hydroxides Y.W. Guo, H. Zhang and Z.L. Zhu	537
Effect of Soil Water Content on the Removal of Volatile Chlorinated Hydrocarbons from Soil by Mechanical Soil Aeration	23,
Y. Ma, X.M. Du, Y. Shi, Z.F. Wang, S.J. Wang, Z. Xu and F.S. Li	541
Enhancement the Enzymatic Activity of Phenol-Degrading Microbes Immobilized on Agricultural Residues during the Biodegradation of Phenol in Petrochemical Wastewater C.J. Xie, B. Fan, Q.Q. Sun, Y.Q. Ye, M.H. Li and Y.C. Zhao	549
Performance of Treating Domestic Sewage with Coagulation-Ultrafiltration System H.Y. Zhong, G.Y. Liu, J.X. Li and H. Wang	557
Removal of Toluene by Dielectric Barrier Discharge Combined with Modified Photocatalyst J.X. Li, B.H. Li and Z.Y. Li	561
Research on Microbial Pollution of Low Concentration Organic Acids Reclaimed Water during Storage	
N. Zhang, J.Y. Liu, X.M. Sun and L.H. Meng Research Progress of Pollution Control for Mercury in the Flue Gas from the Coal-Fired	565
Industrial Boilers	
L. Guo, F. Qian, J. Miao and F. Wang Reviews of Generator Stator Cooling Water Treatment Technology	570
S.P. Fan, R.Y. Zhang, S.N. Cao and S.N. Liu	574
Sewage Treatment Performance of Biological Aerated Filters with Fe-Containing	
Compound Clinoptilolite Media H. Mu, Y.X. Zhao, M.T. Gao, X.D. Zhang, J. Zhang and Y. Li	579
Study of NOx Inhibition Technology Based on Water-Gas Reaction T.H. Wu and R.Z. Qian	584
Study of Screening Reverse Osmosis Menmbrane Anti-Scaltants by Drainage Gradient Method	
H.S. Zhang, J.Q. Wei, K.C. Liu and X. Long	588
Study on Environmental Dyeing Technology J.F. Liu and X.P. Zeng	594
Study on the Control of Industrial Dust from Alumina Production Process G.X. Li, B.Q. Deng, D.F. Liu and F. Zhang	599
Techniques of Building Monolithic Moving that Avoiding Building Rubbish H.Y. Zhang and R.S. Pan	603
The Design of Exhaust Gas Cooler for Diesel Particulate Bag Filter X.Y. Wang, G.B. Li and N. Xu	608
The Mercury Emission of Flue Gas from Cement Kiln Control Technology Research J. Miao, F. Qian, L. Guo and F. Wang	612
The Use of Filtration Theory for Performance Optimization of Volume M. Piaskowska-Silarska, J. Depešová, H. Noga, K. Pytel and P. Migo	616
Thermodynamic Studies for Adsorption of Cd ²⁺ and Pb ²⁺ from Waster Water on Modified Walnut Shell S.H. He, D. Wang, Q.Q. Kong and X. Wu	622
Uptake of Trace Metals by Imperata Cylindrical in Pot Experiments with Mafic Tailings and its Significance for Phytoremediation	022
B. Wang, X.Y. Yuan, X.Q. Zhao, S.Q. Wang and H.L. Chen	627
Chapter 11: Waste Disposal and Recycling	
A Research on the Efficiency of Hydrolysis-AICS in Sewage Treatment Plant in North-Cities	
K. Zhao and Z. Kong	635
Fabrication and Characterization of Ce-Doped Gd ₂ Zr ₂ O ₇ Ceramics as Simulated Waste Forms for Treating Pu	639
Y.K. Yang, Y. Xie and X.R. Lu	039

Selective and Multi-Step Leaching of Valuable Metals from Scrap Copper-Smelting Sludge Z.G. Ji, Z. Xu, W. Wang and L.M. Yang	642
Study of Lipids Composition in the Rice Straw L.A. Zemnukhova, S.V. Isai, N.G. Busarova and O.D. Arefieva	646
Study on Treatment of Wastewater with High-Concentration Sulfate by IC Anaerobic Reactor	649
M. Li, S. Wang, D.C. Shan, L. Wei and W.J. Yin The Pollution Status and Remediation Techniques for the Contaminated Soils in Mine	049
H.H. Wei, X.F. Cao, Z.J. Cui and B. Fang	653
Chapter 12: Water Supply and Drainage	
Application of Reverse Osmosis Membrane in Wastewater Treatmente X.M. Sun, J.Y. Liu, Q. Qiao, Y. Zhang, N. Zhang and L.H. Meng	661
Application Present Status of Supercritical Water Oxidation Technology in Industrial Wastewater Treatment H. Wang, Y.T. Cui and D.L. Jiang	664
Risk Analysis in Water Management	
M. Teichmann and F. Kuda	668
Rural Drinking Water Disinfection Technology and Research Progress of Application R. An, M.D. Liu, J.X. Li, X.W. Liu and D. Yang	672
River Water Quality Risk Assessment Using Grey Correlation in Baoji Weihe River of China	
Y.G. Liu, Y.X. Yang and L.G. Wang	677
Chapter 13: Hydrology and Water Resources Engineering	
Research and Application of Water Resources Optimized Distribution Model in Inter-Basin Water Transfer Project	
Y. Wang, H.S. Shi, J. Wang and Y. Zhang	683
A Web-Based Groundwater Management Information System D.M. Ma, L. Yao and H.D. Xue	688
Analysis on the Technological Advantages of Domestic Seawater S.X. Wang, Y.X. Miao, J.A. Hao, J. Wang and Y.S. Zhang	692
Application of MapGIS in Groundwater Solute Transport of Power Plants W. Liu and Y.B. Zhang	696
Demand Analysis and Technical Framework of Water Ecological Civilization Construction in Shandong Province	701
M.Y. Fan, Y.Z. Shi, H.J. Liu and X.F. Yang Experimental Testing for Evaluating the Influence of Substrate Thickness on the Sub-	701
Surface Runoff of a Green Roof M. Carbone, G. Nigro, G. Garofalo and P. Piro	705
Monthly Runoff Probabilistic Forecast Model Based on Similar Process Derivations C.L. Lee and D.M. Wang	710
Research on Connected Water Body Self-Purification Capacity Simulation and Effect	
Analysis H.J. Liu, M.Y. Fan, Y.Z. Shi and X.F. Yang	715
Study on High Efficiency Technology of Industrial Circulating Water in Yellow River Estuary Area	
X.F. Yang, B.X. Zhang, Y.Z. Shi, M.Y. Fan and H.J. Liu	719
Sustainable Development Evaluation of the Baotou Water Resource Based on Entropy Method	
Y.C. Song, H. Wang, Y.J. Yan and J.P. Zhang	723
The Impacts of Different Land Use Patterns on Water Volume in the Xixian Watershed, China	
Y.Y. Han and T. Cai	728

Water Resources Compensation Policy and Application on Differential Empowerment System	
H. Liu and Z.W. Xu	732
An Analysis and Comparison of Areal Precipitation Estimation X. Zhao, W.H. Zhang and M.X. Wang	737
Chapter 14: Soil and Water Conservation and Desertification Control	
A Comparative Study on Magnetic Susceptibility of Cinnamon Soil and Brown Soil in Pingyi County, Shandong Province, China X.C. Ding, S.J. Xu, Z.C. Ni and H.Y. Wang	743
Green Roofs in the Mediterranean Area: Interaction between Native Plant Species and Sub- Surface Runoff M. Carbone, G. Garofalo, G. Nigro and P. Piro	749
Impact of Bi Char on Water Characteristics of a Chinese Severe Saline Agricultural Soil D.Y. Wang, X.S. Song, D.H. Yan, X.H. Liu, Y. Wang and H. Wang	754
Incipient Motion Experiment of Sediment in Silty-Sand Coast R.B. Zhang, X. Li and Q.X. Pang	758
The Impacts of Land-Use Change Patterns on Soil Erosion in the Xixian Basin, China Y.Y. Han and T. Cai	762
Underground Runoff Product Flow of Red Loam under Rainfall Simulation C. Li, Y.W. Liu, N. Fu and R.T. Fang	766
Research of Crop Water-Saving Irrigation Optimization C. Hu and D.S. Li	771
Annual Analysis of Erosion Situation of Hearth in 1000m ³ Blast Furnace L.Y. Zhang, S.T. Xia, C.P. Wang, X.F. Gui and Q.F. Zhu	776
Chapter 15: Mineral, Oil and Gas Resources: Prospecting, Exploration, Mining and Process Engineering, Geoengineering Applications	
Difficulties and Countermeasures Research on Development of Marine Carbonate Gas Reservoir - Taking Sichuan Basin for Example X. Zhang, W.H. Liu and Y.X. Yue	783
Research on CO ₂ Corrosion Rate Prediction of Gathering Pipelines Considering the Effect of Oil	
Y.P. Cheng, Z.L. Li and Q.Q. Liu A Comparative Analysis between Coal-Bed Methane and Shale Gas in China Based on	788
Cases L.Y. Xia and J.Y. Wen	794
Alberta Management of Mineral Resources and its Reference to China S. Yan and L.Y. Wang	800
Analysis of the Physical Characteristics of Coal Reservoir in Hancheng Mining Area, Ordos Basin, China Y.H. Yang and Q.L. Xu	805
Application of Stratal Slicing in Sandbody Interpretation of the Channel J.Y. Shi, T.L. Fan, W.Y. Yu and D.F. Yu	809
Beneficiation Experiment Study on Iron Ore in Yunnan Province D. Liu, J.L. Li, S.M. Wen, Y.J. Wang, Y. Chen and C.F. Cui	813
Development Law and Watery Features of Collapse Column in Pansan Mine Y.J. Li, H. Sun and X.M. Li	817
Dissolution Phenomenon of Laumontite in the Carboniferous Volcanic Oil and Gas Reservoirs of Santanghu Basin in Xinjiang H. Du, W.G. Wang, C.Z. Liu and J.F. Ji	823
Division Features of Coal-Bearing Tectonic Units in North China K. Liu, G.H. Qin and Z.K. Ma	827

Indicator Elements Combination's Characteristic and Genesis of Four Types of Uranium Mineralization in China	
J. Fu, N.B. Zhao, C.K. Pei, X.C. Li and T. Liu	831
Productivity Prediction Method of Shale Reservoir Based on Logging Data - A Block of Songliao Basin as an Example X. Zhang, L.L. Dong, Y. Pan and W.H. Liu	835
Recovery Copper from a Complex Copper Sulfide Ore of Yunnan by Using Flotation Y.J. Wang, S.M. Wen, D. Liu, C.F. Cui and B. Zhang	839
Research on the Assessment on the Risk System Regarding Offshore Oil and Gas Field Development Projects Based on the Grey System Theory J.M. Li	843
Research on Upper Limit Increased of Mining in Coal Mining Face Y.J. Li, C. Li, H. Sun and H.T. Xu	846
Simulating Experiment of Casing Cementing with Pre-Expansion X.J. Yang and Z.F. Li	851
Synthetic Informational Prospecting Model of Gold Placer in the Northwest of Heilongjiang Province	0.5.5
Y.Y. Ma, Y.Q. Yang, J.Z. Fan, M. Wang, Z.W. Wang and Y.Q. Li	855
The Characteristic of Oil and Gas Accumulation and Main Factors of Reservoir Enrichment in SZ36-1 Region H.Z. Hao and L.J. Tan	859
The <i>In Situ</i> Stress Measurement Technology Research of Km Deep Well and Support Effect Evaluation	9.63
J.S. Zhang and J.Y. Pang The Numerical Simulation Research on the Groundwater Environmental Impact of Coal	863
Mining in Complex Boundary Conditions Y.L. Shi, Y.B. Zhang and X.H. Ren	868
The Progress of Mineral Processing Technology of Lead-Zinc Mine in China Y. Chen, S.M. Wen, Y.J. Wang, Q.C. Feng, J.L. Li and C.F. Cui	874
Research and Application for Fire Flood New Technologies in Liaohe Oilfield D.Z. Liu and X.M. Wu	878
Chapter 16: Urban and Regional Planning, and Sustainable Development	
A Sustainable and Integrated Approach to Urban Regeneration: Tools and Procedures for a Complex Area in London	
S. Miccoli, F. Finucci and R. Murro	885
Fostering the Planning and Implantation of Innovation Habitats by the Knowledge Based Urban Development Approach (Fostering the Planning of EI by the KBUD Approach) M.R. Krama	889
Layout Optimizing of Public Bicycle Stations Based on AHP in Wuhan C. Deng, J.Y. Wang and W.G. Zheng	896
Mediterranean re-Urban Planning E. Nan	903
Sociological Methods for Sustainable Urban Design Z. Ivanova and O.V. Yudenkova	909
Characteristics of Land Surface Temperture (LST) within the Third Ring Road of Shenyang	
Z.Q. Zhao, L.G. Li, H.B. Wang, X.L. Zhao and P. Jiang	913
Objectification of Modeling the Development of Brownfields in an MDM Environment S. Endel, E. Beránková and F. Kuda	917

Chapter 17: Energy-Saving, Low-Carbon, Eco-Economy, Circular Economy, Environmental Protection and Economic Development

Influencing Factors Decomposition of the Carbon Emission of Industrial Energy Consumption in Nanning Downtown Based on LMDI	
J. Yang, H.M. Yao and M.L. Qin	925
Analysis of Carbon Emission Reduction Potential by Clean Coal Technology in China T. Luo and N. Wang	935
Analysis on the Relation of Water Environment and Economic Development Y.H. Wei, D.S. Tang and Z.Z. Meng	941
Dynamic Simulation Research on the Economic and Environmental Impact of Beijing's Reclaimed Water Utilization X. Li, J.H. Sha, J.J. Yan and G.F. Zhang	945
Policy Improvement for Ecological Management in China's Industrial Park J. Guo, J. Ye, Q. Qiao, Y. Yao and L. Bai	950
Probe into the Strategies of Regional Energy-Saving and Emission-Reduction Based on the Energy Consumption Structure Evolution X.G. Niu and N.N. Cao	956
Research on Energy Efficiency Status of Fans in Zhejiang Province L. Wang, Y.G. Han, H.B. Chen, N. Wang and J.Y. Fu	963
Structure of Industry Chain of Circular Economy of Chongxin Ecological County, Gansu Province	
X.L. Li and X.P. Chen	967
Study of Eco-Industrial Park Concept and Connotation Y. Zhang, Q. Qiao and Y. Yao	974
The Industrial Structure Adjustment and Environmental Improvement - From the Case of Suzhou River Change	980
H. Wang The New Orientation of Discharge Permit System in the Environmental Management	980
System R.N. Zhao, Y.P. Li, X.W. Hu and L. Bai	984
Analysis on Coupling Relations between Industrialization and Ecological Environmental in Inner Mongolia	
J.H. Zhen	989