Contents

Chapter 1: Earth science

The establishment of a decision model based on fuzzy regression and the application of a chemical solid adsorption quantity <i>Hao Kang, Youyi Chen, Wei Tian & Mingqian Wang</i>	3
Researching ligninolytic enzymes Zhang Qingfang & Yu Zonglian	11
Application of GIS on power grid material distribution Yurong Chen, Song Yan & Jian Du	17
Non-linear filter for regional-residual separation of gravity anomalies <i>F. Xiao</i>	23
Application of geographically weighted regression analysis to estimate the normalized difference vegetation index of Yunnan province <i>X. Chen, Y. Zhang & Z. Qiang</i>	31
The wide angle seismic wave field character in the model with velocity increasing Zhi Zhang, Chao Dong & Lilong Liu	39
Comprehensive evaluation of reclaimed soil fertility based on fuzzy math Lihua Gao, Shuhong Sun, Qingyun Zhou & Liguo Jin	45
A tentative study on the stability of a check dam Xueping Lin, Yong You, Jinfeng Liu & Yanbo Zhao	53
Analysis on the intergeneration allocation based on game theory in port coastline resources development Xi Wu & Guiliang Tian	61

Application of fuzzy comprehensive evaluation in analysis to land reclamation potentiality of Anlilai coal mine in Guizhou Xiaoxiao Ma, Baoshan Wang, Changhua Liu & Changchun Li
Dynamic characteristic analysis on phreatic groundwater for quaternary loose rock pore in Daqing and the surrounding area Fuli Qi, Fenglong Zhang & Yongli Li
A study on the mechanism involving sulfate removal from waste water using modified bauxite as an adsorbent Shaohua Li, Ju Wang, Guoyan Zhang, Shujie Zhao & Jurui Qi
Evaluation of network monitoring ability of Inner Mongolia Hetao seismic zone Xiao Ming Han & Fan Zhang
Land surface deformation monitoring of mining area based on PS-InSAR Qiong Yan, Jicang Wu & Lina Zhang
Characteristics of phosphorus in sediments of the Sancha Lake in Sichuan province and their relationship with human activity Binyang Jia, Ya Tang, Yan Zhan & Hongbing Luo
Characteristics of crustal horizontal strain in the Weihe basin of China Hurong Duan, Ligong Li & Hongguang Zhai109
The establishment and cluster analysis method for analogous reservoir under the new SEC rules Qiufen Sun, Haiyan Meng, Liang Xu, Jinjun Fu, Xia Wang, Yuzhen Lv, Chongjun Cao & Qiyang Zhao117
Flood coincidence probability analysis for the middle and lower Weihe River and its tributaries based on the LHS method Nan Zhang, LongLong Lv, Hong Jiang & Kui Huang
Semi-automatic interpretation of subsurface cavities by microgravity data: a case study from the Liaoyuan area, Northeast of China Wenna Zhou
The fast assignment and software implementation of the ultra-high degree Earth's gravity field parameters Li Wei & Zhang Chao
The difference in temperature and humidity in different-positioned leaves of <i>Lilium regale</i> <i>Zisong Yang & Qiumei Quan</i> 145

Urban water environment construction of Wroclaw and its inspiration Hui Xiong & Xingyao Xiong	.151
A study on the separation of a Bouguer anomaly map using wavelet analysis Menglong Xu, Changbao Yang & Yangang Wu	. 159
Research on the application of ground penetrating radar in detecting siltation thickness in small and medium reservoirs <i>Qi Wu, Jintian Tang, Xunan Xiong, Shisen Liu, Dong Liu, Zhengping Yang & Zhuang Zhang</i>	. 167
Research and evaluation on the characteristics of canyon landscape in Alxa Global Geopark Qian Li, Mingzhong Tian, Xujiao Zhang, Yihua Shi & Shuhe Han	. 173
Research on the application of fusing multi-source monitoring data technology to a geographical hazards early-warning system Jiang Rui & Guili Li	. 179
Applying SEBAL model and P-M formula to estimate forestland evapotranspiration and ecological water consumption of the Banchengzi watershed of China Yao Wang & Xue-xia Zhang	185
Clustering rock discontinuity sets through Gustafson-Kessel (GK) algorithm and validity index J. H. Hua, C. F. Leung, G. P. Ong & B. N. Hong	193
Study on water level decline effected on navigation in the reach of Changzhou Hydraulic Complex to Jieshou of Xijiang River Xiuhong Wang, Jingmin Du, Minxiong Cao, Guozheng Cai, Xinnong Zhang, Dongdong Jia & Aixing Ma	201
Research on land use change of a small watershed in an inland river of Northwest China based on RS and GIS Guanglu Hu & Shoubo Li	209
Estimating Qinghai Lake area with a BP neural network based on a genetic algorithm Chengfeng Luo, Haoyan You, Hui Liu & Zhengjun Liu	221
Geological characteristics of the No. I deposit in the Xiongcun district, southern Gangdese belt, Tibet Xing-Hai Lang, Ju-Xing Tang, Zhi-Jun Li, Feng Ding, Yong Huang, Fu-Wei Xie, Huan-Huan Yang & Yun Zhou	229

An analysis on the provenance of dune sands in the sandy lands of Korqin and Hulun-Beir: evidence from the heavy mineral assemblages G. Han, L. Yang, J. Yang, M. Hu & G. Zhang
The hazard assessment of karst collapse risk zoning based on GIS in Wuhan City Zhigang Li, Shangde Xiao & Shaoping Liu
Engung El, Bhungue Muo & Bhuoping Elu
Ecological understanding of the Earth by studying process philosophy Shiyan Li & Lulu Liu
Age, sources and geodynamical background of the Sichuan-Yunnan-Guizhou Lead-Zinc Metallogenic Province, SW China Pengyu Feng, Guangshu Yang, Yongfeng Yan, Runsheng Han & Xiaodong Sun
Tectonic subsidence and hydrocarbon thermal evolution of Cretaceous source rocks of Fulongquan rift in Songliao Basin Yuting Zhao, Xuanlong Shan & Jing Sun
Study on the folding mutation model of a pressure-shear typed unstable rock block Hongkai Chen, Dan Hu, Ruigang Zhang & Jing-yu Zhang271
Vulnerability assessment of the geological environment in a coal mine area based on GIS Zhexing Wang, Qingxian Sun & Lin Zhang
Preliminary study of the soil condition and improvement based on Yellow River sediment filling reclaimed arable land Zhidong Jiang, Fang Shao, Peijun Wang, Dongwen Liu, Zhiyong Qiao, Yakai Chen & Yao Li
Satellite remote sensing monitoring and analysis of wetland in Zhuhai Guangsheng Zhang, Changchun Li & Dongdong Li
Design of the mineral resources economic spatial data management system for Puer Yan Dong, JianGuo Gao & Cheng Guo
Allocation of water environmental capacity based on linear programming model and its application in North Canal River Haixiao Jing, Changgen Liu & Jianhua Tao
Three-dimensional dipole-source electromagnetic modeling based on an integral equation method with a rugged earth surface Yong Li, Pinrong Lin & Sixu Han

The registration and certification problems of collective land ownership and countermeasures research <i>Xiaolei Zhang, Lianrong Zhao, Meng Lu & Xin Lian</i>
Phosphorus spatial-temporal characteristics and influence factors of Baoxiang River in Dianchi Lake J. Niu, W. X. Zhang, C. Hu, Q. Z. Ming, C. R. Jiang, Z. G. Ma, Z. X. Shen & Q. Xie
SAR imaging simulation of the ocean surface with the double superimposition method Shujuan Wang & Yarong Xia
A primary study on sediment issues due to ahead impounding water of the cascade reservoirs in the upper Yangtze River <i>Renyong Huang & Jie Zhang</i>
Geochemistry characteristics of the sediment profile Barunbaoritaolegai from the inter-dune lake basin in the Badain Jaran Desert and its palaeo-environmental significance Siwen Liu, Xiaolu Fan & Mingzhong Tian
Iron mine land reclamation measures: Niu Xi River iron ore Yunchao Liu, Yunli Liu & Li Ma
The grain-size of the Barunbaoritaolegai profile in the Badain Jaran Desert and its palaeoenvironmental implications <i>Xiaolu Fan, Mingzhong Tian & Siwen Liu</i>
Land subsidence and mitigation measures along the coastal cities of China Bin Tang & Liang Xie
Contents and evaluation of heavy metals in whale shark from China's eastern coast Yamin Wang, Wanyi Zhang & Min Chen
Approach of vectorization for coal mine geological section drawings Hongyan Wang
Study of the sequence stratigraphy of the Guantao Formation in Jiyang Depression <i>Qidong Yang, Haiyan Liu & Huan Shen</i>
The influence of basic volcanic fluids on the geochemical indicators and carbon isotopic of gaseous products <i>Jiyan Li, Xuanlong Shan & Zhe Sun</i>

Study on the control of farmland surface source pollution based on
environmental capacity Shuhong Sun, Shusheng Yang, Zheyuan Zhang & Xiaohong Liang
The research into the extraction of road information from satellite images Caiyun Qin, Cuixia Feng & Zhenji Huang
Application of the improved fuzzy different optimum model in water resources reproducibility evaluation Jianjun Zeng, Zhengtao Shi, Gang Liu, Yanwu Chen, Jinyi Dong
& Jun Chen
Z. Y. Zhang & S. H. Sun
Temporal and spatial variations of extreme precipitation events of the Meiyu period in Anhui from 1961 to 2012 C. F. Duan, H. H. Wu, W. Cao & X. J. Ding
The effect of pH value of irrigation water on the available nutrients in soil Juan Hong, Gang Chen, Xiang Huang, Lihong Zhang, Mihong Ge,
Suping Wang, Lei Du, Lixia Ye & Zhicheng Lian
Study on biomass of riparian herbaceous species and communities in Taizihe River, Liaoning, China W. J. Kong, H. J. Xia, W. L. Zhang, Y. H. Wang & Y. Zhang
CO ₂ geological utilization technologies for storage Yujie Diao, Xufeng Li, Chun Chang & Senqi Zhang
Application of the GPS in earthquakes: monitoring and prediction H. P. Ma, L. M. Yang, Y. Q. Wu, Z. S. Jiang, M. Hao & Q. Wang
Application of clustering mining on the study of Chang 6 reservoir in Baibao oilfield Huixia Chao, Weihua Yao, Xingke Yang, Zhiliang Gao & Hujun He
Geochemical characteristics of late carboniferous volcanic rocks in the southeast of Heishan ridge, Beishan C. X. Qu, X. K. Yang, H. J. He & H. Y. Song
Division and its evolution characteristics of the intrusive rock sequence in the southeast of Heishan ridge, Xinjiang C. X. Qu & H. Y. Song

The evaluation of the landscape pattern at the disturbed area of the Xiangjiaba Hydropower Project <i>Ping-juan Xia & Fang-qing Chen</i>
Analysis of urban sustainable development based on a dynamic study of the ecological footprint: a case study in Shuangliu County of Chengdu, China Xia Wang, Qingyuan Wang & Xiaoyu Gan
Permeability characteristics of modified loess under freeze-thaw cycles Qingfeng Lv, Shenglin Wang & Yanxu Zhao
Numerical simulation of near surface meteorological elements using WRF model over semi-arid Northeastern China Xiaohang Wen
Spatial distribution optimization of rural settlements using the Weighted Voronoi Diagram Dianjun Feng, Chenhua Shen, Xujiao Wang, Yali Si & Chaoling Li
Improved structure tensor in the edge detection of potential field data Guoqing Ma, Danian Huang & Lingshun Meng
Early warning analysis for rocky desertification of agricultural land at county regional level based on 3S-ANN technology: Du'an Yao Autonomous County of Guangxi as an example Baoqing Hu, Yan Yan, Kaixian Qin, Duanlian & Jianwei Liu
Karst land system evolution simulation in Du'an based on BP-ANN-CA Kaixian Qin, Baoqing Hu, Duanlian & Jianwei Liu
The sequence stratigraphy and controlling factors in Kongnan area of Shahejie Group Jing Sun, Yuting Zhao, Linfu Xue & Jianqiang Wang
3D thermal history modelling of the Xujiaweizi fault-depression, Song Liao basin Wenguang Wang, Shuangfang Lu & Min Wang
Research of nearshore subaqueous fan sand body macroscopic heterogeneity and response to sedimentary datum cycle of up part of Al oil group in A'nan 31-11 block, A'nan Oilfield Liu Beibei, Zhao Yanchao, Zhong Huijuan & Pang Lingyun
A novel feature with multi-scale context modeling for remote sensing image analysis Zhijian Huang, Jinfang Zhang & Fanjiang Xu

Selenium resources from the Wolverine deposit, Canada Chongqing Wang, Hui Wang & Jiangang Fu
The research of grid workflow dynamic scheduling algorithm based on planning
Wei Tian, Qiuyan Tian & Yingying Zhang
Distribution regularity of oil sands in China Honghao Luo & Xuanlong Shan639
Reviews and comments on environmental Kuznets curve research Miao Li
Anthracite coal prepared energy-saving briquette and analysed pollution Linzhuan Ma, Mengyun Chen, Yuntao Gao, Zhiyin Wang & Junming Guo655
Segmentation of point source and non-point source pollution load in the Nanliu River basin based on the digital filtering method <i>Jiping Qiao, Junfeng Dai, Zuowang Zhou & Junge Dai</i> 663
Research on the spatial-temporal characteristics of landscape pattern change in the coastal zone of Xiamen Bay during 1989–2010 Peng Chen, Guangfa Lin & Jian Wu
An evaluation of the threat of degradation of ecosystem function of the Upper Yangtze River based on GIS Cheng Wuxue, Zhou Jieming, Wang Yukuan & Ren Ping
Study on variation of flow and sediment in the middle Yangtze River since the 1950s
L. L. Zhu & H. Ge
Application of hydrochemical analysis and tracer test in mine water-inrush source identification
Yan Zhang & Zaibin Liu
Variation of ammonia concentration during different management conditions Feng Chen & Yushu He
Regulation technology for seedling growth in the plug seedling J. Chen, J. H. Wu, H. P. Si & K. Y. Lin
Research on the influence of coal mining on the environment in arid and semi-arid coal mining areas Hao Wang

Water surface dynamics through satellite remote sensing for Hulun Lake and driving forces analysis J. H. Wei, K. S. Song, W. M. Yang & G. Yang
The influences of water stress on the quality of rice in a cold region and comparison of identification methods of quality drought resistance Xiaohong Guo, Guiping Zheng, Jian Zhou, Dandan Li, Yue Zheng, Rui Wang, Yandong Lv & Chunrui Cao
Chapter 2: Environmental protection
Utilization of sulfate-reducing bacteria with fermented soybeans as a carbon source for the removal of sulfate in acidic wastewaters <i>Guijuan Ji, Guoyan Zhang, Shujie Zhao, Ning Li, Yuguo Cui</i> & Yulong Cui
Microbial community and functional genes assessed by real-time quantitative PCR in an oil-contaminated environment <i>H. J. Liu, J. Han, H. L. Zhang, S. Chen, Y. Gong, Z. M. Yuan & J. Yao</i>
Research and application of a 3YL non-cyanide gold leaching agent Fengyun Yang, Yaming Zhao, Luanning Li, Shujie Zhao, Yuguo Cui & Hongwei Liang
Correlation between PM2.5 and aerosol optical depth in Tehran, Iran H. Karimian, H. Chen & Q. Li
Recycling of waste engine oil using hydrazine hydrate as a decolorizing agent H. M. Chen, F. Fang, Z. M. Zhou, M. M. Li, T. R. Long & J. S. Guo
The preliminary analysis of the ground water pollution pathway in Karst areas Luo Wei, Yang Xiuli, Pei Yongwei & Shen Cheng
Assessment of groundwater vulnerability in the basin of Yachihe and Goupitan in Guizhou province Yang Xiu-li & Luo Wei
Extraction efficiency study of VX in water by disperser liquid-liquid micro-extraction technique Guohua Ma, Guohong Liu, Chuanzhi Chen, Xin Wang & Jianhui Chen
The effect of arid environment on geological heritages: take Ordos for example Longlong Zhao & Mingzhong Tian

Fraction distribution and risk assessment of heavy metals and trace elements in sediments of Baiyangdian Lake, China
L. Dong, Y. Zhao & M. Zhang
Effect on emissions of vehicle using diesel fuels with different properties <i>Jingyuan Li, Junnv Liu, Mengliang Li & Maodong Fang</i> 811
Study on urea solution supervision system in China IV heavy-duty diesel vehicles
Chongzhi Zhong, Hongjun Mao & Hongyu Lu
Environmental problems in tourism resources development and countermeasures: Zhangye Danxia National Geological Park in Gansu Province as an example
Zhiwu Yan, Ling Mao & Wei Luo831
Experimental research about symbiosis technology of activated sludge and bio-film for the WWTP upgrading and reconstruction
Hong Yang, Chen Lv, Yixing Yuan, Fuguo Zhang, Yun Wang, Chongwei Cui, Zhiguo Zhang, Yongzhi Wang & Heli Wang
Environmental safety and radioactive waste management in nuclear power development in China
Ziying Jiang & Yanqi Zhang
Air quality assessment according to AQI and fuzzy SOFM in Xi'an, China
Lining Zhang
Construction of geoparks' interpretation system based on geoheritage protection
Yuning You, Mingzhong Tian, Yan Yang & Lujun Gao
Ventilation experiment and simulation of a small size subway carriage air supply duct
Guangyou Mu, Haiying Jiang & Youjun Wang
Research on Cr (VI) pollution in groundwater of simulation and prediction of hydrodynamic field based on MODFLOW
Chunqing Guo, Linyan Pan, Xiaogang Wang & Xiaoyuan Wang877
Level and composition characteristic of PAHs in three typical rivers of China
Chen Liu, Junfeng Chen, Yun Li, Rongchang Chen, Guoli Yuan & Zhongfang Yang
A case study on sulfur sludge harmless treatment in southwest China Feng Ouyang, Zhijiao Chen, Mingjie Tang & Yahui Zhang

Urban domestic water consumption response to climate change in Urumqi city
Dou Yan
Seed germination, seedling growth and mortality of two different <i>Distylium chinense</i> populations to different flooding regimes in the Three Gorges Reservoir Region, China <i>Chumuga Lugar Viscoling Li. Jin Yang Viscong Wang & Fangeing Chan</i> 005
Chunyan Luan, Xiaoling Li, Jin Yang, Xuesong Wang & Fangqing Chen905
Analysis of the existing problems and strategies of tourism environmental protection of tourism scenic areas in China <i>Mingqi Wu</i> 917
A 3D simulation system for chemical accidents based on an atmospheric dispersion model
Huanfa Chen, Qi Li, Yajie Zhu & Hamed Karimian
Carbon dioxide exchange flux of bermudagrass (cynodon dactylon (linn.) pers.) from the water-level-fluctuate-zone of Three Gorges Reservoir, China
Wenli Zhang, Ju Liu, Huijuan Xia, Jianzhu Wang & Quanfa Zhang
Study of risk evaluation of mining collapse in Mentougou region Yongbo Teng, Naiqi Shen, Zhengshan Li, Xiaolu Xu & Yuqing Huang941
Optimization of superoxide dismutase immobilization carrier and the study on enzymatic properties C. X. Song, Q. Zhang, S. L. Song & X. Liu
Modelling of nitrogen leaching in different land uses in Dachong karst watershed in China
Z. H. Wang, C. M. Xu & Li Wan
Controlling agriculture non-point source pollution on watershed scales Z. H. Wang, Y. G. Wu & L. Wan
On the non-productive factors of regional environmental problems Tang Ming, Le Leihan, Yan Ping & Zhong Dan
The risk assessment of seawater intrusion on the basis of GIS in Yantai coastal areas Xiangran Li, Gang Han & Youqian Qiao983
Effect of mining subsidence on soil permeability and vertical nutrient loss at loess hilly coal areas Qing-jun Meng, Lin Ji, Qi-yan Feng, Qing Liu & Yangyang Zhong

Mine water treatment in mine goaf with backfilled material Xiangdong Li, Yangyang Zhong & Qi-yan Feng
Noise analysis of the wind turbine blade Gwochung Tsai, Yita Wang, Yuhchung Hu & Jaching Jiang1003
The effects of film flow on headcut erosion of a gully in the dry-hot valley of Jinsha River, China Nan Ling, Chen Anqaing, Xiong Donghong & Liu Gangcai
The influence of penetration fluid to the permeability coefficient of bentonite as a backfill material <i>Zhong Shen, Xiaoyuan Han, Yonghao Zhang, Lihui Liu & Zuhe Zhang</i> 1023
A sustainable development model of tourism estate Shaojin Hao, Fu Chen & Shuang Liang
Invasive alien species in China: the current situation, problems and possible solutions <i>Congcong Xu</i>
Volcanism is a key factor in climate change Cuixiang Zhong
Application of fuzzy similar priority decision-making in selecting a city flower Xiaoling Liu, Yanxia Zhang & Feng Yan
Recent 7.3 ka mud records of the East Asian winter monsoon from the inner shelf of the East China Sea <i>F. Xu, G. Sun & A. Li</i>
Research on an environmental risk assessment method by the cloud theory model <i>M. C. Li, G. Y. Zhang, Q. Si & S. X. Liang</i> 1067
Times dynamic of soil phosphorus in the water-lever-fluctuation-zone of Xiangxi River in the Three Georges Reservoir Area <i>Tingting Song, Jianjun Du, Gangzhi Peng, Chenghu Zhang,</i> <i>Wenli Zhang & Jianzhu Wang</i>
The evaluation of ecological carrying capacity based on carbon emission reduction targets in Chongqing, China Ling Li, Ming Li, Pengcheng Wang & Yan Xv
Estimating extreme low temperature threshold in the Ob River Basin based on the Detrended Fluctuation Analysis Method Juan Xue, Ziqiang Xia & Feng Huang

Analysis of the relationship between economic growth and energy consumption and environmental pollution in Xinjiang <i>Xiangrong Song</i>
Extension strategy generating of land use based on improved entropy JianLin Wang & YinSheng Yang1099
Analysis of the influence of a drainage outlet on the nearby water quality of a large draining and drawing river mouth and a study on its management and countermeasures De-Jun Du, Yun-Feng Xia, Min-Hui Shi, Yun-Cheng Wen & Hua Xu
The study and development of a self-centering seismic isolation system Xinzhi Dang, Zhibo Wang, Wancheng Yuan & Deqin Song

Author index	2	2	3	,
--------------	---	---	---	---