

2nd International Conference on Civil, Transportation and Environmental Engineering (ICCTE 2017)

Advances in Engineering Research Volume 135

Shenzhen, China
10 – 11 May 2017

Editor:

Y. H. Kim

ISBN: 978-1-5108-4450-6

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2017) by Atlantis Press
All rights reserved.
<http://www.atlantis-press.com/php/pub.php?publication=iccte-17>

Printed by Curran Associates, Inc. (2017)

For permission requests, please contact the publisher:

Atlantis Press
Amsterdam / Paris

Email: contact@atlantis-press.com

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

CIVIL, TRANSPORTATION AND ENVIRONMENT

PARAMETRIC DESIGN AND MECHANICAL PERFORMANCE ANALYSIS OF HYPERBOLIC FLAT RETICULATED SHELLS	1
<i>Xiaoyang Lu, Tao Li, Shaobo Lu, Haoxin Fu, Xiong Jiang, Lulu Wang</i>	
INFLUENCE OF CLIMATE CHANGE ON DESERTIFICATION IN Q Aidam Basin	6
<i>Jingtao Huang, Yingxiang Jiang</i>	
EFFECT OF LONG-TERM FERTILIZATION ON ELEMENT CONTAMINATION (PB, CD, CU, ZN, NI AND CR) AND ENVIRONMENT RISK ASSESSMENT IN THE MEADOW BLACK SOIL IN CHINA	11
<i>Xingmin Zhao, Xinxin Guo, Mingtang Li, Sui Biao</i>	
NATURAL VIBRATION CHARACTERISTICS ANALYSIS OF SINGLE-LAYER VALLEY TYPE LATTICED INTERSECTED CYLINDRICAL SHELL	22
<i>Xiaoyang Lu, Xiong Jiang, Shaobo Lu, Haoxin Fu, Tao Li, Lulu Wang</i>	
ANALYSIS ON THE MECHANICAL AND FATIGUE PROPERTIES OF FOAMED LIGHTWEIGHT SOIL	27
<i>Hongliang Li, Jishu Sun, Bao Li</i>	
EXPERIMENTAL STUDY ON THE MECHANICAL PROPERTIES OF CONSTRUCTION WASTE RECYCLED AGGREGATE CONCRETE	31
<i>Tian Xiao, Jishu Sun, Xiaohua Wang</i>	
ENERGY SAVING OF RAILROAD ANALYSIS BASED ON COBWEB AREA GREY TARGET DECISION-MAKING MODEL	36
<i>Jishuang Zhu, Xueying Bao, Qingcai Wang</i>	
RESEARCH ON THE SMA DAMPING CONTROL OF LARGE-SPAN SPATIAL STRUCTURES UNDER MULTI-POINT INPUT	45
<i>Jianbo Dai, Xiyu Zhu</i>	
SIMULATION AND ANALYSIS ON THE TRAFFIC NOISE MODELS OF FOUR-LANE HIGHWAY	49
<i>Xintan Ma, Shichang Feng</i>	
SELECTION AND EXPLORATION OF NEW URBANIZATION PATH OF VILLAGES AND TOWNS IN ECO-CONSERVING DIVISION IN CHANGCHUN	54
<i>Limin Bai, Chunliang Xiu, Jing Lv</i>	
FREE VIBRATION ANALYSIS ON A SIMPLY-SUPPORTED RHOMBUS PLATE BY USING TRANSFER MATRIX METHOD	58
<i>Canli Liu, Liyun Yuan, Junpeng Wang, Zhenqiang Cao, Run Sun</i>	
CORRELATION OF THE EMERGENCY HANDLING PEAK GROUND ACCELERATION (PGA) FOR HIGH-SPEED RAILWAY AND STRONG-MOTION INDICES USING K-NET DATA	67
<i>Linjuan Bai</i>	
STUDY ON WINTER INDOOR THERMAL ENVIRONMENT OF THE FOLK HOUSES IN TIBET PLATEAU	71
<i>Wenkang Wang, Guochen Sang, Qin Zhao, Yiyun Zhu, Yanzhou Cao</i>	
EXPERIMENTAL STUDY ON ANTI-PERMEABILITY PERFORMANCE OF HIGH-PERFORMANCE BASALT FIBER REINFORCED CONCRETE	78
<i>Feng Chen</i>	
RESEARCHES ON MECHANICAL PROPERTIES OF SOIL UNDER CONDITIONS OF EXCAVATION UNLOADING IN GUANGZHOU	83
<i>Jiangshu Ding, Bing Tian, Min Huang, Hua Huang</i>	
LAYOUT OPTIMIZATION OF FARE GATES IN RAIL TRANSIT STATION BASED ON PEDESTRIAN ROUTE CHOICE	96
<i>Zihan Sun, Xu Wu</i>	
CONVERGENT AND DIVERGENT PHENOMENA OF TIDAL CURRENT CONSTITUENTS IN THE YELLOW SEA AND THE BOHAI SEA	101
<i>Lei Huang, A. Wall</i>	
STUDY ON MECHANISM OF DRAINAGE- ANCHORAGE COMPOSITE SLOPE PROTECTION SYSTEM	106
<i>Bin Wang, Deji Zang, Lianghao Hu</i>	

PREPARATION OF UHPC WITH MICRO-BEAD REPLACED BY RICH-SILICON IRON ORE TAILING POWDER	113
<i>Song Liu, Zhigang Zhu, Shunkai Li</i>	
STRUCTURE SEISMIC DESIGN AND SHAKING TABLE EXPERIMENT RESEARCH STATUS	119
<i>Dejun Mao</i>	
RESEARCH ON THE MIX DESIGN OF THE HOT IN-PLACE RECYCLING TECHNOLOGY AND ITS APPLICATION	124
<i>Yuxin Zheng, Wei Mao, Feng Zhang</i>	
PARAMETER ANALYSIS OF WIND-INDUCED VIBRATION OF ELECTRICAL TRANSMISSION LINE MODELS	129
<i>Yi You, Shuang Zhao, Wensheng Li, Cheng He</i>	
INTERPOLATION OF INTENSITY CONTOUR MAP USING KRIGING METHOD	135
<i>Yang Hu, Dongwang Tao</i>	
LARGE EDDY SIMULATION OF THE FLOW PAST A CIRCULAR CYLINDER	139
<i>Yi You, Zhitao Yan, Yongli Zhong, Yongjie Li</i>	
ANALYSIS ON GALLOPING MODELS OF ICED TRANSMISSION LINES	147
<i>Yi You, Zhitao Yan, Lingzhi Wang, Peng Li</i>	
RESEARCH ON THE RULE OF RAILWAY NETWORK EXPANSION IN THE NORTHWEST REGION BASED ON GIS	152
<i>Jiaqi He, Feng Han, Ye Zhang</i>	
ANALYSIS OF AVERAGE CRACK SPACING OF UHTCC REINFORCED BEAMS	158
<i>Huaqiang Yu, Mingqiang Lin</i>	
PARAMETER ANALYSIS OF NUMERICAL SIMULATION ON FLOW AROUND A CYLINDER	162
<i>Yi You, Zhitao Yan, Yongli Zhong, Long Zhang</i>	
BID EVALUATION MODEL OF CONSTRUCTION PROJECTS BASED ON INFORMATION ENTROPY AND VALUE ENGINEERING	168
<i>Sothea Peng, Xue Ying Bao</i>	
MULTI-OBJECTIVE OPTIMIZATION MODEL AND ALGORITHM FOR HAZARDOUS MATERIALS TRANSPORTATION NETWORK UNDER TERRORIST ATTACK	175
<i>Ruiqi Xiong, Changxi Ma</i>	
RESEARCH ON RHT CONSTITUTIVE MODEL PARAMETERS OF FIBER REINFORCED CONCRETE BASED ON EXPERIMENT AND NUMERICAL SIMULATION	185
<i>Shuaishuai Wang, Luhui Yan, Qiaoheng Liang, Mohan Xu</i>	
NATURAL VIBRATION ANALYSIS OF LONG SPAN SUSPENSION BRIDGES	193
<i>Jianing Hao</i>	
EFFECTS OF EXOGENOUS MELATONIN ON ANTIOXIDANT ACTIVITY OF KIWI SEEDLINGS UNDER WEAK LIGHT	197
<i>Yanqiu Shen, Dong Liang, Zhi Lei, Qin Wang, Nengqin Xu, Hui Xia</i>	
STIMULATING RURAL TOURISM IN CHONGZHOU, SICHUAN, CHINA	201
<i>Chaoping Hou, Xiu Chen</i>	
STUDY ON CORRELATION BETWEEN MINERALOGICAL COMPOSITION AND ELASTIC MODULUS OF CLAY ROCK FOR GEOLOGICAL REPOSITORY AT HOME AND ABROAD	207
<i>Yu Wang, Haian Liang, Minsi Zhang, Zeping Yang</i>	
EFFECTS OF EXOGENOUS MELATONIN ON LEAF ANTIOXIDANTS AND ANTIOXIDANT CAPACITY OF KIWIFRUIT SEEDLING UNDER THE STRESS OF CADMIUM	212
<i>Xiaojing Huang, Hui Xia, Ji Liu, Dong Liang</i>	
OXIDATION RESISTANCE OF EXOGENOUS MELATONIN ON LEAVES OF KIWIFRUIT SEEDLINGS UNDER COPPER STRESS	216
<i>Xuewen Zhao, Hui Xia, Yue Xie, Mingzhang Li, Yongzhi Wang, Dong Liang</i>	
STUDY ON COLOR MATCHING OF BUILDING FACADES IN HARBIN (COLD REGIONS) BASED ON NCS COLOR SYSTEM	220
<i>Yu Shao, Jie Liu, Jirui Wang, Wenjie Song</i>	
STUDY ON THE EFFECT OF STEEL BALL ABRASION ON SURFACE HARDNESS OF WORKPIECE IN STRENGTHEN GRINDING PROCESSING	224
<i>Jinrui Xiao, Xiaochu Liu, Zhongwei Liang, Wenbo Zhou, Zhuang Zhao, Changhong Liu</i>	
EFFECTS OF EXOGENOUS MELATONIN ON KIWIFRUIT SEEDLINGS GROWTH UNDER WEAK LIGHT TREATMENT	228
<i>Nengqin Xu, Dong Liang, Qin Wang, Zhi Lei, Yanqiu Shen, Hui Xia</i>	
A STRUCTURAL SIMULATION SYSTEM, PART 1: INTERFACE AND OPERATION	232
<i>Jin Duan, Xiaoming Chen, Yungui Li</i>	
A STRUCTURAL SIMULATION SYSTEM, PART 2: DATA PROCESSING CENTER	237
<i>Jin Duan, Xiaoming Chen, Yungui Li</i>	

A STRUCTURAL SIMULATION SYSTEM, PART 3: APPLICATION WITH ABAQUS	243
<i>Jin Duan, Xiaoming Chen, Yungui Li</i>	
EVALUATION OF IMPORTANT BUILDINGS ANTI-TERRORISM CAPABILITY BASED ON FUZZY ANALYTIC HIERARCHY PROCESS	251
<i>Caiqing Ren, Lifei Huo, Qigao Hu</i>	
DISCUSSION ON THE PREPARATION PROCESS OF BFRP REINFORCED CONCRETE COLUMN TEST	257
<i>Ke Li</i>	
RESEARCH ON THE DEVELOPMENT OF MEMBRANE BIOREACTOR TECHNOLOGY	261
<i>Yuan Tian, Liang Duan, Yonghui Song, Ruixia Liu</i>	
DESIGN OF A MOBILE-INTERNET-BASED MANAGEMENT PLATFORM FOR MATERIALS TRANSPORTATION OF ROAD AND BRIDGE ENGINEERING	265
<i>Chunsheng Hu, Bo Tang, Yaonan Li, Jingjing Shi</i>	
EXPERIMENT STUDY FOR THE TREATMENT OF PHARMACEUTICAL COMPREHENSIVE WASTEWATER	272
<i>Shiyue Liu, Qin Liu, Heli Wang, Yunping Li, Yilin Han</i>	
INVESTIGATION OF JOINT ROTATIONAL STIFFNESS AND INITIAL GEOMETRIC IMPERFECTIONS OF FASTENER-STYLE TUBULAR STEEL FORMWORK-SUPPORT	278
<i>Xuexia Yuan, Weixiu Wu, Fangyong Yu</i>	
RESEARCH ON COLOR LUMINANCE RATIO DESIGN OF ARCHITECTURAL ACCESSIBLE SIGNS	283
<i>Weiyang Jia</i>	
VIBRATION EFFECT OF TUNNEL SURROUNDING ROCK UNDER CYCLIC BLASTING EXCAVATION	287
<i>Guosheng Zhong, Dinghuan Liu</i>	
THE PATHWAY TRACING METHOD FOR SOLVING FACILITY LOCATION PROBLEM BETWEEN URBAN INNER AND OUTER RING EXPRESSWAY	293
<i>Tao Yang</i>	
THE WISDOM OF ENVIRONMENT FACILITIES AND ITS ARCHITECTURE	297
<i>Xi Zhou, Dexiang Deng, Yue Zhao</i>	
LIFE-CYCLE SEISMIC COSTS ESTIMATION AND SEISMIC INSURANCE MODEL FOR MULTI-STORY ISOLATED-BASED RC BUILDINGS	302
<i>Jian Zhu, Junhai Zhao, Jianmin Jin</i>	
CFG PILE + VIBRO-REPLACEMENT STONE COLUMN PILE TO TREAT SOIL LIQUEFACTION ON POWER PLANT	309
<i>Ming Zhang, Baoming Wang, Songjiang Wang</i>	
BOND BEHAVIOR BETWEEN PLAIN STEEL BAR AND MICRO STEEL FIBER REINFORCED CEMENTITIOUS COMPOSITES	313
<i>Dongyan Wu, Linzhu Sun, Junliang Zhao, Fang Yang, Pengfei Lu</i>	
RESEARCH ON THE APPLIED TECHNOLOGY OF TESTING GROUTING COMPACTION OF SLEEVES BASED ON DAMPED VIBRATION METHOD	317
<i>Xiangmin Li, Rundong Gao, Zhuolin Wang, Fuwen Zhang, Yubing Leng</i>	
PERFORMANCE EVALUATION ON OVER-SATURATED BRINE CEMENT SLURRY OF ANHYDRITE FORMATION	324
<i>Lin Xu, Mingbiao Xu, Xiaoliang Wang</i>	
SURVEY AND ANALYSIS OF METRO PASSENGER'S DYNAMIC GUIDANCE INFORMATION ACCEPTABILITY	329
<i>Zhiqiang Wang, Yage Huang</i>	
TARGET TRACKING AND ENERGY OPTIMIZATION BASED ON DYNAMIC CLUSTERS MECHANISM IN WSN	337
<i>Qun Zhuang, Zibo He</i>	
EFFECTS OF SEED TREATMENT WITH UNICONAZOLE POWDER ON SOYBEAN MORPHOLOGICAL CHARACTERISTICS AND YIELD UNDER DROUGHT STRESS	344
<i>Jiang Liu, Jing Zhang</i>	
APPRAISAL INDEX SYSTEM AND WEIGHTS DETERMINATION FOR GREEN CAMPUS	349
<i>Bailu Ma, Xiaoping Feng, Xiaoxia Lu, Chunping Wang, Hui Guo, Yilin Ding</i>	
EFFECT OF SHELL THICKNESS DEVIATION ON BUCKLING LOAD OF FREE-FORM SHELLS UNDER UNCERTAINTIES	359
<i>Bingbing San, Liwei Yin</i>	
RESEARCH ON CONSTRAINT FOR CONJUNCTION BETWEEN BEAM AND SHEAR WALL	363
<i>X. M. Chen, J. Duan, Y. G. Li</i>	

APPLICATION OF SEPARATE REINFORCED CONCRETE BEAM MODEL IN ABAQUS	368
<i>X. M. Chen, J. Duan, Y. G. Li</i>	
THE ORIGIN AND DEVELOPMENT OF THE SMART CITY	373
<i>Dexiang Deng, Yue Zhao, Xi Zhou</i>	
MULTI-OBJECTIVE MODEL FOR LOGISTICS DISTRIBUTION PROGRAMMING CONSIDERING CARBON EMISSION AND SERVICE LEVEL	378
<i>Tong He</i>	
STOCHASTIC SEISMIC RESPONSE OF SUPER LONG-SPAN SUSPENSION BRIDGES UNDER LONG PERIOD GROUND MOTIONS	389
<i>Kun Yan, Jiajian Zhu, Lixin Wang</i>	
EFFICIENCY EVALUATION METHOD FOR EV DRIVE SYSTEM IN REAL CONDITIONS	396
<i>Yanyi Zhang, Xin Huang, Zhitao Cai, Renguang Wang</i>	
INFLUENCE OF PILE SOIL INTERACTION ON SEISMIC BEHAVIOR OF PHC PIPE PILES	402
<i>Guilan Tao, Qingquan Zhou, Yuepeng Pan, Jie Chen</i>	
RESEARCH ON RESETTLEMENT AND RESETTLEMENT OF WATER CONSERVANCY PROJECTS	407
<i>Xiong Rao, Hui Xue</i>	
RESEARCH ON THE MECHANISM OF MICRO FILM ADVERTISING COMMUNICATION BASED ON COMPLEX NETWORK.....	411
<i>Lin Wang</i>	
ANALYSIS OF MICRO-BLOG PUBLIC OPINION BASED ON COMPLEX NETWORK	415
<i>Lixia Yao</i>	
RESEARCH ON TRAM SIGNAL PRIORITY CONTROL SCHEME DESIGN AND IMPLEMENTATION	419
<i>Dehui Li, Meiyin Luo, Shuyan Kang</i>	
SIMULATION SYSTEM DEVELOPMENT AND APPLICATION OF SLOPE OR LANDSLIDE MODEL TEST	423
<i>Yue-Wu Du, Xiao-Tao Yin</i>	
FIELD SYNERGY ANALYSIS OF MASS TRANSFER CHARACTERISTICS OF VIBRATING HOLLOW FIBER MEMBRANE MODULES.....	433
<i>Xiaoguang Zhang, Pengxing Gai, Shigang Wang, Li Liu</i>	
EVALUATION OF RAILWAY GREEN CONSTRUCTION SCHEME BASED ON INTERVAL NUMBER ATTRIBUTE CONNECTION DEGREE	440
<i>Qing Ye, Xueying Bao, Qingcai Wang</i>	
STUDY ON ADSORPTION KINETICS OF RHODAMINE B IN WATER WITH POMELO PEEL AS ADSORBENT	449
<i>Leiyun Qin, Xiaoxia Ou, Xiaojing Yang, Yuhan Wang</i>	
EFFECT OF ZNO/TOURMALINE ON INHIBITION OF SRB: AN THEORETICAL ACCOUNT	453
<i>Meng Gong</i>	

ENERGY, ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

IEC-61850 BASED INFORMATION MODELING OF COMMUNICATION NETWORK FOR DISTRIBUTED ENERGY RESOURCES SYSTEM	458
<i>Zi-Guan Zhou, Zhi-Ping Zhao, Xiao-Shan Pan</i>	
BIODEGRADABLE ELEVATOR DECORATION MATERIAL FROM WHEAT STRAW	464
<i>Junjun Liu, Zengguang Man, Lanzhong Guo, Shuguang Niu, Lei Yang</i>	
THE RESEARCH OF RENEWABLE ENERGY UTILIZATION IN BEIJING'S NEW AIRPORT	469
<i>Junku Xu, Lubing Wang, Aimin Geng</i>	
THE ECONOMICAL ANALYSIS OF THE RELATIONSHIP BETWEEN DOCTORS AND PATIENTS BASED ON DOUBLE-PRINCIPAL-AGENT MODEL.....	472
<i>Ying Zhang, Zhi Wang</i>	
STUDY ON CADMIUM ACCUMULATION CHARACTERISTICS OF FOUR BIDENS SPECIES	477
<i>Jiajing Huang, Ji Liu, Lijin Lin, Wei Jiang, Ming'An Liao</i>	
THE ALGORITHM RESEARCH OF INDOOR LOCATION BASED ON ULTRA WIDEBAND	481
<i>Jingjing Yang, Yanfei Liu, Xiaogang Mu</i>	
APPLICATION OF MICROHARDNESS ANALYSIS IN MULTIPLE INTERFACE STRUCTURE OF RECYCLED CONCRETE	486
<i>Qianqian Li, Qiuyi Li, Gongbing Yue</i>	

EFFECT OF SULFATE EROSION ON MULTIPLE INTERFACE MICROSTRUCTURE OF RECYCLED CONCRETE	493
<i>Qianqian Li, Qiuyi Li, Yuanxin Guo</i>	
GEOCHEMICAL CHARACTERISTICS AND GENESIS OF VOLCANIC ROCKS OF YIXIAN FORMATION IN JIANPING, WESTERN LIAONING	501
<i>Yandong Peng, Qingyue Wang</i>	
PRICING, CARBON FOOTPRINT AND SIGNALING GAME.....	505
<i>Zhiyong Tian, Ruiping Yuan, Lingyu Huo</i>	
THE RESEARCH PROGRESS OF DETECTION METHOD OF FORMALDEHYDE IN FOOD.....	513
<i>Xuan Zhang, Xiaosheng Shen, Yuan Wang, Youqiong Cai, Dongmei Huang</i>	
RESEARCH ON PROVINCIAL ENERGY REBOUND EFFECT IN CHINA.....	518
<i>Ying Han, Jie-Li Zhai, Jian-Hua Shi</i>	
ENVIRONMENTAL BENEFIT ANALYSIS OF PUMPED STORAGE POWER STATION	524
<i>Han Lu, Chen Chen, Yongyuan Hong, Wei Li</i>	
RESEARCH PROGRESS ON THE IMPACT OF WIND FARMS ON REGIONAL AND GLOBAL CLIMATE	529
<i>Huanzhang Gong, Zhe Bao, Wei Li</i>	
APPLICATION OF NEW MBBR PACKING IN WASTEWATER TREATMENT	535
<i>Jianhua Yang, Li Ye, Yi Fan</i>	
RESEARCH OF THE GRID-CONNECTED SIMULATION MODEL IMPROVEMENT OF DOUBLE-FED INDUCTION GENERATOR	539
<i>Qinyu Bai, Jun Xu, Yonggang Zhang, Yu Chen, Youyin Wang</i>	
RESEARCH ON THE INFLUENCES OF REACTIVE POWER FLUCTUATION OF WIND FARM ON THE SYSTEM VOLTAGE STABILITY	544
<i>Qinyu Bai, Yonggang Zhang, Jun Xu, Yu Chen, Xiaotian Zhang</i>	
GREEN ELECTRICITY SUBSCRIPTION MODEL.....	549
<i>Xin Zheng, Han Lu, Nannan Wu, Kuo Jiao</i>	
INVESTIGATION OF THE ADVANCED FAILURE OF RC STRUCTURES INDUCED BY NON-STRUCTURAL WALLS	553
<i>Francis Deng Clement, Zhang Hong, Yunning Cheng</i>	
RESEARCH PROGRESS OF VOCs EMISSION ACCOUNTING METHOD FOR STORAGE TANKS IN PETROCHEMICAL ENTERPRISES.....	557
<i>Lingzhi Wang, Huanzhang Gong, Peizhao Wu, Wei Li, Zhansheng Wang</i>	
THERMAL CHARACTERISTICS OF VERTICAL BUOYANT JET FROM A SQUARE ORIFICE IN STATIC AMBIENT	562
<i>Shaobo Wang, Liqin Cui, Xiaoli Sun</i>	
INTEGRATED SCHEDULING OPTIMIZATION OF YARD CRANE AND YARD TRUCK IN SHIP-LOADING OPERATION.....	568
<i>Pengliang Cao, Guiyan Jiang, Hongran Zhao</i>	
A STUDY OF THIN-WALLED ZL105A CASTING MANUFACTURED BY VACUUM DIFFERENTIAL PRESSURE CASTING	574
<i>Shuai Zhan, Jingtao Song, Minghui Ding, Guo Jin, Honghui Liu</i>	
SPATIOTEMPORAL VARIATIONS OF LAND USE CHANGE IN RECENT FOUR DECADES IN A TYPICAL OASIS CITY--URUMQI	583
<i>Bin Liu, Qingdong Shi, Jia Jin</i>	
POST-EVALUATION METHOD AND APPLICATION OF GREEN CAMPUS	588
<i>Hui Guo, Xiaoping Feng, Yilin Ding, Bailu Ma, Chunping Wang, Xiaoxia Lu</i>	
THE EFFECT OF SURFACTANT ON THE CHARGE BEHAVIOR AND COAGULATION OF TIO₂ NANOPARTICLES SUSPENSION.....	597
<i>Li Wang, Feng Gong, Lizhu Zhang</i>	
NON-MICROCOMPUTER ULTRA CAPACITOR CHARGING SYSTEM.....	601
<i>J. L. Tang, S. Q. Shao, T. T. Sun</i>	
A POWER OPTIMIZER UTILIZING NONLINEAR ADAPTIVE CONTROL FOR DISTRIBUTED PHOTOVOLTAIC SYSTEMS.....	606
<i>T. T. Sun, S. Q. Shao, J. L. Tang</i>	
THE GENERAL PLAN TO BUILD AN 'ECO-CIVILIZATION OF WATER' CITY IN SHANDONG PROVINCE ON A WATER-SYSTEM MANAGEMENT APPROACH	612
<i>Pengfan Xu, Jinghao Wang, Fang Liu, Yue Sun, Wanxiong Song, Zhen Lu, Chonglin Fan, Shuai Zhang Han, Chang Liu</i>	
REGIONAL METALLOGENIC CHARACTERISTICS AND PROSPECTING POTENTIAL OF URANIUM DEPOSITS IN SOUTHWEST AREA CHINA	616
<i>Ning Guo, Shi Tan, Zheng Yang</i>	

PERFORMANCE OF A CU-BASED OXYGEN CARRIER WITH PRESSURIZED CH₄ IN A FIXED BED CLC PROCESS	627
<i>Qiang Tian, Qingquan Su</i>	
RESEARCH ON THE DETECTION TECHNOLOGY OF DEFECTS IN THE BOTTOM JOINT OF THE PRECAST SHEAR WALL BASED ON ULTRASONIC IMAGING METHOD	636
<i>Rundong Gao, Xiangmin Li, Fuwen Zhang, Hui Liu, Yubing Leng</i>	
RESEARCH ON THE MECHANISM AND COUNTERMEASURES OF TAX POLICY TO PROMOTE THE DEVELOPMENT OF NEW URBANIZATION	642
<i>Xiao-Feng Zhang</i>	
INFLUENCE OF MICROBIOLOGICAL FERMENTED FEED MADE FROM PINEAPPLE LEAF RESIDUES ON GROWTH PERFORMANCE AND MEAT QUALITY OF GROWING AND FATTENING PIGS	646
<i>Jihua Du, Mingfu Li, Junyan He, Jin Zhang, Wenwei Lian, Tao Huang</i>	
COMPARATIVE STUDY ABOUT INFLUENCE OF EARTHWORM COMPOSTING AND AEROBIC COMPOSTING ON BIOGAS RESIDUE	651
<i>Xiaohong Huang, Jing Jiao, Jihua Du, Zunxiang Li, Shuo Wang, Jinli Wang, Changjin Guo</i>	
INFLUENCE OF DIFFERENT SMASHING METHODS ON BIOGAS GENERATION EFFECT IN DRY FERMENTATION OF SUGARCANE LEAVES	656
<i>Zunxiang Li, Jing Jiao, Shuo Wang, Jihua Du, Xiaohong Huang, Jinli Wang, Changjin Guo</i>	
ANALYSIS ABOUT INFLUENCE OF DRY ANAEROBIC FERMENTATION ON MAIN NUTRIENTS OF BIOGAS RESIDUE	661
<i>Shuo Wang, Jing Jiao, Zunxiang Li, Xiaohong Huang, Jihua Du, Jinli Wang, Changjin Guo</i>	
STUDY ON THE DEVELOPMENT OF "MIGRATORY BIRDS" TOURISM ECOLOGICAL PENSION IN HEILONGJIANG PROVINCE	666
<i>Xiao-Feng Zhang, Gui-Ru Meng</i>	
REVIEW OF AND ANALYSIS ON RESETTLEMENT INDUCED BY HYDROPOWER PROJECTS IN CHINA	670
<i>Kui Wang, Huanyong Liu, Yi Deng, Jing Chen</i>	
FACTORS DRIVING EMBODIED CARBON EMISSIONS FROM CHINA-US TRADE FOR 1992-2012: A STRUCTURAL DECOMPOSITION ANALYSIS	674
<i>Junping Ji, Can Zhang, Xiaoming Ma</i>	
R-FUNCTION THEORY METHOD FOR FREE VIBRATION OF SLIP CLAMPED TRAPEZOIDAL SHALLOW SPHERICAL SHELL ON WINKLER FOUNDATION	679
<i>Shanqing Li</i>	
EFFECTS OF INTERCROPPING WITH TOLERANT PLANTS ON CADMIUM ACCUMULATION OF BRASSICA CHINENSIS	683
<i>Mengdie Yuan, Lei Liu, Xun Wang, Ji Liu, Wei Jiang, Lijin Lin</i>	
EFFECTS OF COLCHICINES ON CADMIUM ACCUMULATION OF POST GENERATION OF BIDENS PILOSA	687
<i>Yahui Xin, Lei Liu, Xun Wang, Wei Jiang, Lijin Lin</i>	
EFFECTS OF HYPERACCUMULATOR STRAW ON GROWTH AND CADMIUM ACCUMULATION OF BRASSICA CHINENSIS	691
<i>Kaili Yang, Lei Liu, Xun Wang, Ji Liu, Wei Jiang, Lijin Lin</i>	
NITRATE LEACHING RISK ASSESSMENT WITH PIG MANURE APPLICATION OF THREE RED SOILS IN SUBTROPICAL CHINA	695
<i>Di Zhang, Zhigao Zhou, Xingxiang Wang</i>	
CFD SIMULATION OF AIR-CONDITIONING SYSTEM IN THE PUBLIC AREA OF A METRO STATION AND RESEARCH ON ENERGY-SAVING OPERATION SCHEME	699
<i>Hua Yin, Huafang Guo, Zhenrong Lin, Bo Zeng</i>	
ECONOMICAL INSULATION LAYER OF THE SECONDARY PUMP LINES IN THE SUBWAY CENTRAL COOLING SYSTEM	706
<i>Hua Yin, Huafang Guo, Zhenrong Lin, Bo Zeng</i>	
A COMPUTATIONAL INVESTIGATION ON CAVITATING FLOW CHARACTERISTIC OF INNOVATIVE NOZZLE STRUCTURES IN DIESEL ENGINE	716
<i>Jiarui Li, Bo Yuan, Liangming Pan, Shuai Jia</i>	
ANALYSIS OF CHINA'S INDUSTRIAL SMOKE AND DUST EMISSIONS	728
<i>Ying He, Cuishu Sun, Yijun Ji</i>	
THE ANALYSIS OF ECOLOGICAL FOOTPRINT IN TYPICAL AGRICULTURE AND PASTURE OVERLAPPED ZONE OF BAICHENG REGION	733
<i>Yang Wang, Mingquan Wang, Lei Liu, Yanbo Xiao</i>	

APPLICATION OF BRYOPHYTES AND GLASS PUMICE IN NORTHERN CHINA LID	
LANDSCAPE DESIGN.....	739
<i>Danning Han</i>	
Author Index	