

3rd International Conference on Material Engineering and Application (ICMEA2016)

Advances in Engineering Research Volume 103

Shanghai, China
12 – 13 November 2016

Editors:

Jwo-Huei Jou

ISBN: 978-1-5108-3540-5

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© (2016) by Atlantis Press
All rights reserved.
<http://www.atlantis-press.com/php/pub.php?publication=icmea-16>

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

ENERGY

ANALYSIS ON DEVELOPMENT OF OVERSEAS SOLDIER POWER	1
<i>Yu-Lin Zhu, Li-Fu Cheng, Jun Wang, Xiao-Ming Wan, Hao Zhang</i>	
EXERGY DESTRUCTION ANALYSIS ABOUT S-CO₂ POWER CYCLE APPLIED IN MARINE ENGINE HEAT RECOVERY SYSTEM	6
<i>Na-Wei Shen, Guang-Shen Shao, Ming-Fa Wu, Dong-Hui Zhang</i>	
THE EXPERIMENTAL STUDY OF HEATING SYSTEM WITH THE PREFABRICATED SOLAR HEAT COLLECTION PLATES	12
<i>Zhi-Guo Duan, Li-Quan Yang, Qi Wang, Bowen Li, Xue Zhao, Miao Yu</i>	
PREPARATION OF BIOMASS DERIVED POROUS CARBON: APPLICATION FOR METHANE ENERGY STORAGE	18
<i>Yong Sun, Guang-Zhi Sun</i>	
SURVEY ON RURAL HOUSEHOLD ENERGY CONSUMPTION-BASED ON THE PERSPECTIVE OF POVERTY ALLEVIATION IN HEBEI PROVINCE	23
<i>Bo Gao, Hong-Lin Yuan</i>	
RESEARCH ON THE VOLTAGE OF HYBRID ENERGY STORAGE SYSTEM IN ELECTRIC VEHICLES CHARGING	27
<i>Kai Li, Xiang-Qun Chen, Jing-Bo Li, He-Qing Zeng, Lei Yang</i>	
THE CONTROL STRATEGY OF HYBRID ENERGY STORAGE SYSTEM CHARGING	32
<i>Kai Li, Xiang-Qun Chen, Jing-Bo Li, He-Qing Zeng, Lei Yang</i>	
RESEARCH ON THE DEVELOPMENT LAW OF CARBONATE RESERVOIR CRACKS IN NIUXINTUO WEST OILFIELD	37
<i>Shu-Xia Wang</i>	
A INTELLIGENT ELECTRONIC DEVICE(IED) USED IN ACTIVE DISTRIBUTION NETWORK	43
<i>Hai Huang, Qiu-Wei Cao, Wei-Hong Li, Xin-Xin Gu</i>	
THE SYNERGIC SCHEDULING OPTIMIZATION AND EFFECTIVENESS EVALUATION MODEL FOR MULTI-TYPES GENERATION RESOURCES CONSIDERING EMISSION CONSTRAINTS	51
<i>Xue-Qin Tian, Tong Xu, Xin-Lei Wang, Jia-Song Luo, Chong-Ming Song, Jing Yan</i>	
WATER POTENTIAL MODEL OF SOLAR GRAIN DRYING SYSTEM WITH VACUUM GLASS	63
<i>Hui Shen, Ji-Ping Zhou, Sheng-Yong Ye</i>	
RESEARCH ON PRIME CIRCUIT WITH HIGH SENSITIVITY FOR PHOTOELECTRIC DETECTION BASED ON PGTIA	69
<i>Qi-Chao Song, Hai-Cheng Liu, Hui Gao, Yan-Ping Li, Peng Zhang, Guo-Ping Shao, Hong-Xia Chu</i>	
ELECTRONIC CONDUCTION CHARACTERISTICS OF PARALLEL COUPLED TRIPLE QUANTUM DOT SYSTEM	74
<i>Chun-Guang Yang, Ze-Long He, Qi-Chao Song, Jing-Wei Xing</i>	

INDUSTRIAL DESIGN

INNOVATIVE DESIGN OF BELT CONVEYOR SUPPORT ROLLER BASED ON TRIZ	80
<i>Qi-Li Wang, Yan Li</i>	
AUTOMOBILE ENGINE COMPARTMENT PARAMETERS OPTIMIZATION BASED ON CFD SIMULATION	85
<i>Yang Wei, Shao-Ning Wu, Wei Wang, Yu Yang, Li Lu</i>	
DESIGN AND ANALYSIS OF ON-LINE CASTING SURFACE DEFECT DETECTION SYSTEM	93
<i>Jing Zhang, Zhong-De Shan, Fei Zhang, Ai-Ling Zou</i>	
NUMERICAL SIMULATION OF SPINNING FORMING PROCESS OF MAJOR FLYWHEEL ON DMFW BASED ON DEFORM	100
<i>Qiong-Ye Lu, Jun Yan, Fang Qu</i>	
CIVIL AIRCRAFT MAINTENANCE SIMULATION TECHNOLOGY AND EXPLORATION OF APPLICATION	107
<i>Lie-Shu Lin, Shuang-Xue Fu</i>	

OPTIMIZATION RESEARCH IN COLOUR SEMANTICS OF SMART PHONE INTERFACE ICONS FOR THE ELDERLY	116
<i>Zhi-Zheng Zhang, Ya-Jun Li</i>	
MIGRATION OF CONVENTIONAL MODEL TRANSFER FORMAT ON ADDITIVE MANUFACTURING	125
<i>Deng-Hui Zhang, Zheng-Xu Zhao, Yi-Qi Zhou, Yang Guo</i>	
THE DESIGN OF DRIVE CIRCUIT FOR LIGHT SOURCE SYSTEM OF UV - LED GREEN PRINTING DRYER	131
<i>Shao-Ru Ma, Jin-Yao Li, Gui-Shan Zhang, Tao Mi</i>	
THE DESIGN AND IMPLEMENTATION OF CNC SYSTEM FOR NEAR-FIELD ELECTROSPINNING	135
<i>Chen Mei, Xin Chen, Xin-Du Chen, Han Wang, Yuan-Xiang Xia, Zun-Wei Wen, Ze-Feng Huang, Chuan-Yu Jiang</i>	
A KNOWLEDGE-BASED STRUCTURAL HEALTH MANAGEMENT SYSTEM DESIGN	140
<i>Qi Chang, He-Ming Gao, Xiao-Juan Wang, Qian-Ni Fu</i>	
GREEN DESIGN AND MANUFACTURING TECHNOLOGY OF THE RARE EARTH PERMANENT MAGNET ELECTRICAL MACHINES	148
<i>Ji-Rong Yang, Shi-Wei Hu, Gan Zhang, Zhen-Jie Gong</i>	

MATERIAL ENGINEERING AND APPLICATION

RADIATION PROCESSING OF POLYMER-BASED NANOMATERIALS	152
<i>Cheng-Fei Zhou, Wei Cao, Yang Liu, Tong Zhai, Lian-Cai Wang</i>	
A STUDY OF THE INSPECTION OF IN-SERVICE PILE FOUNDATION BEARING CAPACITY AT HIGH-PILED WHARF	165
<i>Jing Meng, Feng-Yong Zheng, Yue-Song Li</i>	
INFLUENCE OF AG MICRO-ADDITION ON THE BENDING FRACTURE BEHAVIOR OF CU- BASED METALLIC GLASSES	171
<i>Ling Zhang, Xiang-Bin Yi, Wen-Chun Chang, Jian-Chen Sheng</i>	
REFINING OF 2, 2-DIMETHYLOLPROPIONALDEHYDE AND RECOVERING OF THE EXCESSIVE RAW MATERIAL	175
<i>Sai-Jian Shi, Xin Huang, Xiao-Yan Cao, Zheng-Gui Gu</i>	
EFFECTS OF RECYCLED COARSE AGGREGATE REINFORCING TREATED BY WATER- GLASS ON THE PERFORMANCE OF RECYCLED CONCRETE	181
<i>Li-Xiang Yang, Yao-Li Qian, Qian-Qian Fang, Yun-Ting Han</i>	
THE ANTIOXIDANT EFFECT OF LANTHANUM COMPLEX IN NATURAL RUBBER	187
<i>Qiang-Guo Li, Wei Zheng, Si-Zhu Wu</i>	
ADSORPTIVE REMOVAL OF MANGANESE FROM MANGANESE SLAG AQUEOUS SOLUTIONS USING BIOCHARS LOADED WITH ORGANIC ACID-FE	193
<i>Zu-Yong Chen, Fang Liu, Yuan-Sheng Liu, Tong-Da Bu, Jian Zhu</i>	
INCREASE OF REGENERATION EFFICIENCY IN JATROPHA CURCAS BY IN VITRO CULTURE METHODS	199
<i>Ying Liu, Jian-Nong Lu, Su-Fang Niu, Hong-Bo Zhu, Lin-Feng Li, Yu-Zhen Shi, Xue-Gui Yin</i>	
HYDROPHOBIC MODIFICATION OF PP MEMBRANE COATED BY AL(OH)₃ COLLOIDS	205
<i>Feng-Xiang Guo, Lei Li, Zhong-Hai Zhou, Qi-Wei Wang, Yi-Meng Hu</i>	
ELECTRONIC ABSORPTION SPECTRAL INVESTIGATIONS AND THERMODYNAMIC PROPERTIES OF UREA MALEIC ACID FOR NONLINEAR OPTICAL APPLICATIONS	210
<i>Xiao-Jing Liu, Xin Sun, Jing-Hua Guo, Miao-Juan Ren</i>	
INFLUENCING FACTORS OF STEEL SLAG/BLAST FURNACE SLAG BASED SOLIDIFYING AGENTS FOR TOTAL TAILINGS PASTE BACKFILL	215
<i>Man-Chao Liu, Feng-Qing Zhao</i>	
STUDY ON SYNTHESIS OF MALEIC ANHYDRIDE GRAFTED STARCH	220
<i>Jian-Jiang Shang, Li-Na Jiang, De-Qiang Li, Xiao-Yan Zhu</i>	
BEARING CAPACITY ESTIMATES OF THE PARALLEL WIRE CABLES OF LARGE SPAN CABLE-STAYED BRIDGES	227
<i>Bing Bai, Xiao-Long Li, Yue-Ling Li</i>	
INFLUENCE OF FLY ASH CONTENT AND DESERT SAND REPLACEMENT RATIO ON THE STATIC ELASTIC MODULUS OF DESERT SAND HIGH STRENGTH CONCRETE	234
<i>Ning Liu, Tong-Tong Yang, Hai-Feng Liu, Yong-Gang Du</i>	
MICROSTRUCTURE AND ELECTROCHEMICAL HYDROGEN STORAGE PROPERTIES OF BALL-MILLED MG_XNI_{100-X}+5WT %TiF₃ (X=50, 60, 70) COMPOSITE	239
<i>Feng Hu, Lei-Bo Deng, Qiang Ma, Jian-Yi Xu</i>	

MODAL ANALYSIS OF THREE DIMENSIONAL NUMERICAL CONTROL LASER CUTTING MACHINE BASED ON FINITE ELEMENT METHOD	245
<i>Yun-Xin Chen</i>	
APPLICATION OF REFRACTORY HEMATITE IN PELLETS	252
<i>Li-Li Wang, Hai-Bin Ke, Liang-Liang Yuan</i>	
FACILE SYNTHESIS AND LUMINESCENCE PROPERTIES OF UNIFORM $PbWO_4: Tb^{3+}$ HIERARCHICAL ELLIPSOIDAL PARTICLES	257
<i>Yan-Shen Li, Wan Wei, Jing Zhao, Run-Run Yao, Jin-Yu Zhang, Cui-Miao Zhang, Guang Jia</i>	
PROCESS AND PROPERTIES STUDY OF POROUS THERMAL INSULATION BUILDING MATERIALS BASED ON WALNUT SHELL	262
<i>Yingliang Tian, Si-Qi Li, Chang-Wei Xu, Jin-Wei Li, Shi-Bing Sun, Hong Qi, Cun-Xi Ma, Ming-Pu Cao</i>	
THE MELTING CRYSTALLIZATION AND FLUIDITY OF $SiO_2-B_2O_3-AL_2O_3-TiO_2$ FRIT FOR ENAMEL GLAZE	269
<i>Ying-Liang Tian, Su-Li Zhang, Lu Zhang</i>	
STUDY ON COMPOSITE MODIFIED CERAMIC SHELL OF MINERALIZER AND SHORT-CUT CARBON FIBER	274
<i>Xiang-Feng Meng, Yu-Tao Zhao, Zhi-Hong Jia, Xiang-Feng Liang</i>	
SYNTHESIS OF POLY-HYDRAZIDE FROM CANOLA OIL AND USE AS FLOW IMPROVER FOR CRUDE OIL	281
<i>Qiang Deng, Yun Bai, Xue-Fan Gu, Gang Chen, Zhi-Fang Zhang</i>	
STUDYING RELATIONSHIP OF METAL MATERIAL PERFORMANCE	286
<i>Xiang Zhang, Yi-Yun Han</i>	
SYNTHESIS OF CYCLOHEXANONE PENTAERYTHRITOL KETAL CATALYZED BY SULFONATED ZEOLITE	292
<i>Jing-Fang Xu, Jian-Long Dong, Qiang Deng, Xue-Fan Gu, Ying Tang, Zhi-Fang Zhang</i>	
ENHANCED DIAMOND NUCLEATION ON CEMENTED CARBIDE CUTTING TOOLS BY EMPLOYING ELECTROSTATIC SELF-ASSEMBLY SEEDING	297
<i>Tao Wang, Stephan Handschuh-Wang, Chun-Lei Jiang, Song-Quan Zhang, Yang Yang, Yong-Bing Tang</i>	
IN-SITU TEMPERATURE DEPENDENT RAMAN SPECTRA OF COAL	303
<i>Ying-Fang Xie, Jing-Lin You, Li-Ming Lu</i>	
THE INFLUENCE OF MOLDING PRESSURE ON THE MECHANICAL PROPERTIES OF ALUMINUM BORATE WHISKER REINFORCED ALUMINUM PHOSPHATE COMPOSITE MATERIALS	310
<i>Zhen-Yu Lv</i>	
NECESSITY AND FEASIBILITY OF BUILDING A NEW INDSANS AT CARR	314
<i>Li Zhang, Tian-Fu Li, Rong-Deng Liu, Hong-Li Wang, Yun-Tao Liu, Dong-Feng Chen</i>	
THE IDENTIFICATION OF MULTI-VEHICLE MOVING LOADS ON THE SINGLE LANE BASED ON INFLUENCE LINE METHOD	320
<i>Liang Huang, Lei Wang, Shun-Yong Li, Chu-Yu Xiang, Heng-Qi Ge</i>	
BRIDGE SAFETY MONITORING TECHNOLOGY BASED ON RISK TRACEABILITY MECHANISM	327
<i>Yong-Hui Zhong, Yun-Biao Dong, Lei Wang</i>	
FINITE ELEMENT ANALYSIS OF THE BALANCE BEAM IN SELF-HANDLING TRAILER	333
<i>Jing-Tao Yue, Li Tang, Dong Sun</i>	
RESEARCH ON GRAIN REFINEMENT AND HOMOGENIZATION DURING THE MANDREL STRETCHING PROCESS OF A HOLLOW STEEL INGOT USED FOR HEAVY HYDRO-GENERATOR SHAFT	338
<i>Min Liu, Qing-Xian Ma, Jian-Bin Luo</i>	
THE VIBRATION ANALYSIS OF THE CRACKED SHAFT	347
<i>Zhen-Bo Xie, Hong-Wei Li, Jing Xie</i>	
AN IMPROVED SEGMENTATION METHOD FOR SPRAY PAINTING CHARACTERS ON SLAB SURFACE	354
<i>Chun-Hui Huang, Qi-Jie Zhao, Zhen-Nan Ke, Xian-Fa Li</i>	
RESEARCH ON A NUMERICAL CONTROL RADIAL FEED WHIRLWIND MILLING DEVICE	360
<i>Guo-Zhe Yang, Feng Liu</i>	
CARBON NANOTUBE COATING ON 3-D NANOFIBROUS PLLA TISSUE ENGINEERING SCAFFOLDS BY ELECTROPHORETIC DEPOSITION	365
<i>Tao-Tao Nie, Meng He, Yi-Fu Shi, Wen-Yao Song, Hai-Yun Ma</i>	
GAS SENSORS BASED ON LAYER-BY-LAYER ASSEMBLED GRAPHENE OXIDE AND REDUCED GRAPHENE OXIDE	370
<i>Jia-Jia Song, Yan-Yan Wang, Ming Yang, Feng Zhang, Yan Ye, Yan-Hua Liu, Lin-Sen Chen, Chang-Si Peng</i>	

PREDICTING TOTAL ENERGY CONSUMPTION WITH LEAST SQUARE METHOD OF LEGENDRE POLYNOMIAL	376
<i>Lai-Bin Gao, Bo Wang, Chang-Si Peng</i>	
ELECTROSPUN COMPOSITE OF Fe_3O_4/CU NANOCRYSTALS ENCAPSULATED IN CARBON FIBERS AS AN ANODE MATERIAL WITH HIGH RATE CAPABILITY FOR LITHIUM ION BATTERIES	380
<i>Meng Zhang, Jing Wang, Shi Chen, Feng Wu</i>	
APPLICATION OF MRTD ON NOVEL ULTRA-WIDEBAND BANDPASS FILTER	386
<i>Mu-Jie Fan</i>	
A NOVEL APPROACH TO REJOIN THE CARBON FIBER TOW BY FIBER SPLICING EQUIPMENT	391
<i>Md. Kamruzzaman, Md. Eman Talukder, Md. Nahid Pervez, Asif Kamal, Ying-Jie Cai</i>	
DESIGN A NEW MACHINE TO IMPROVE THE QUALITY OF CONDUCTIVE YARNS FOR SMART TEXTILE	396
<i>Md. Kamruzzaman, Md. Nahid Pervez, Md. Eman Talukder, Asif Kamal, Ying-Jie Cai</i>	
EXPERIMENTAL STUDY ON REACTION CHARACTERISTIC OF LIGNITE CLC WITH $NiFe_2O_4$ AS OXYGEN CARRIER	402
<i>Yong Liu, Wu Qin</i>	
MODELING AND STUDY OF FRACTURE AND DELAMINATION IN A PACKAGING LAMINATE	408
<i>De-Feng Zhang, Md. Shafiqul Islam, Eskil Andreasson, Sharon Kao-Walter</i>	
DYNAMIC IRREDUCIBLE WATER SATURATION AND ITS DETERMINATION METHOD	415
<i>Jin-You Dai, Jing Wang, Meng Kong, Hui-Xian Zhang, Zi-Long Li</i>	
PUNCH FLANGING TECHNOLOGY FOR ALUMINIUM ALLOY PLATE-WHEELS ROLLED LIP FORMING	420
<i>Yong-Cun Pei, Yong-Sheng Pei, Li-Cong Wang, Shi-Song Ruan</i>	
CRACKING FAILURE ANALYSIS OF T-TYPE WELDED TEE IN WASTE HEAT BOILER	427
<i>Zhen Chen, Xue-Qing Liu, Kui Wang, Lu-Yi Lu, Qing-Ren Wang</i>	
SHPB TEST OF HIGH-STRENGTH CONCRETE	433
<i>Chen Liu, Lan Pang, Wei-Ling Chen</i>	
STUDY ON X60 MICRO ALLOY STEEL'S SOLIDIFICATION CHARACTERISTICS BASED ON LINEA CONTRACTION-THERMAL STRESS MEASURING	439
<i>Yu-Yuan Zhu, Qian-Kun Yang, Jian-Xun Fu, Hong-Gang Zhong, Qi-Jie Zhai</i>	
EFFECTS OF ANNEALING ON STRUCTURAL EVOLUTION AND MICROHARDNESS OF $Zr_{50}Cu_{40-x}Al_{10}Pd_x$ (X=0-15) BULK METALLIC GLASSES AND COMPOSITES	445
<i>Zhi-Ying Zhang, Ying-Hao Shang, Luo-Chao Huang, Jun-Wen Zou, Jian-An Tang, Hao Tang, Jie Yu, Lin Ma, Duo Zhang, Bo-Wen Li</i>	
A NUMERICAL SIMULATION OF LNG LOW-TEMPERATURE PIPE PRE-COOLING PROCESS	450
<i>Xuanyu Sheng, Hong-Zhi Zhang, Ling Chen</i>	
 <u>MECHANICAL CONTROL AND AUTOMATION ENGINEERING</u>	
OPTIMIZATION OF A SIGNALIZED CELL TRANSMISSION MODEL FOR NETWORK SIGNAL COORDINATION	455
<i>C. K. Wong</i>	
STUDY ON MECHANICAL MODEL OF THE MAGNETORHEOLOGICAL FLUID	462
<i>Liang-Yong Zhang, Heng Wang</i>	
SIMULATION ANALYSIS AND OPTIMAL DESIGN OF BACK CLAMP DEVICE	468
<i>Ping Yu, Si-Jie Kang, Yan-Jiao Li, En-Chao Jin</i>	
DESIGN OF THE HYDRAULIC SYSTEM FOR THE RISE-FALL DEVICE IN POWER CATWALK	477
<i>Ping Yu, Si-Jie Kang, Yan-Jiao Li, En-Chao Jin</i>	
ANALYSIS OF CIRCUMFERENTIAL GROOVE CASING TREATMENT ON AXIAL COMPRESSOR	482
<i>Yi Tao, Fang Xie, De-Jun Liu, Tian-Ye Ji</i>	
A STUDY OF COMPLETE KIT ORIENTED AEROSPACE PRODUCT MANUFACTURING MODEL	487
<i>Wei-Guo Wang</i>	

CHARACTERISTIC ANALYSIS OF TWO LEVEL VIBRATION REDUCTION SYSTEM FOR CONSTRUCTION MACHINERY	492
<i>Jian-Feng Wang, Dong-Tao Wu, Sha Wang</i>	
NUMERICAL SOLUTION TO SINGULAR ORDINARY DIFFERENTIAL EQUATIONS OF LANE-EMDEN TYPE BY LEGENDRE COLLOCATION METHOD	496
<i>T. G. Zhao, Y. Wu</i>	
PARAMETER DRIVEN MODELING OF PLANAR DOUBLE-ENVELOPING TOROID WORM PAIR	502
<i>Zhi Liu, Hong Lu, Guo-Ming Yu</i>	
THE GENERAL FORM OF DUAL VARIABLES EQUATIONS FOR ELASTIC WAVES IN GENERAL ELASTIC MEDIA LAYERS AND ITS APPLICATIONS	507
<i>S. W Guo, J. M Ding</i>	
NONLINEAR DYNAMIC COUPLING ANALYSIS ON GEAR SYSTEM OF AUTOMATED MECHANICAL TRANSMISSION	518
<i>Qiang Song, Ping-Yang Sui</i>	
RESEARCH ON THE INTER-PARTITION PID CONTROL ALGORITHM OF VARIABLE MASS PITCHING SYSTEMS	524
<i>Zi-Fan Fang, Zeng-Wu Ma, Xu-Fu Ge, Wei-Hua Yang</i>	
RESEARCH ON THE CONTROL STRATEGY OF DECOUPLED 3-DOF JOYSTICK FOR TELE-OPERATION	531
<i>Ming-De Gong, Kai-Wen Chen, Li-Juan Zhao</i>	
A FMS DYNAMIC SCHEDULING OPTIMIZATION STRATEGY AND SIMULATION RESEARCH	536
<i>Ji-Zhuang Hui, Yun-Xin Guo, Lin-Lin Wu</i>	
CLEANING ROBOT WORKING AT HEIGHT FINAL	544
<i>Fan-Qi Xu</i>	
AN AUTOMATIC CONTROL METHOD OF FOAM SPRAYING GLUE MACHINE BASED ON DMC	551
<i>Yu-An He, Tian Chen</i>	
RESEARCH AND DEVELOPMENT OF MECHANICALLY ADJUSTABLE FLUID VISCOUS DAMPER	556
<i>Dan-Feng Song, Yong-Jin Lu</i>	
ACTION MAPPING ANALYSIS OF INTERVENTIONAL SURGERY ROBOT BASED ON MASTER-SLAVE OPERATION	563
<i>Xue Yang, Zhao-Cui Han, Hong-Bo Wang</i>	
STUDY ON THE WEAK PARAMETRICALLY EXCITED MATHIEU STABILITY OF SUBMERGED MONITORING PLATFORM	568
<i>Kong-De He, Xu-Guang Xie, Zi-Fan Fang, Wei-Hua Yang, Xue-Hui He</i>	

MECHANICAL DYNAMICS

RESEARCH ON DYNAMIC PROPERTIES OF CRANE BOOM UNDER THE CONDITION OF ACCIDENTAL UNLOADING	576
<i>Zhong-Yuan Kang, Ge-Ning Xu, Heng Yang, Xin Wang, Jing Li</i>	
NONLINEAR STABILITY CALCULATION METHOD OF CRANE LATTICE BOOM WITH LARGE SLENDERNESS RATIO	585
<i>Ge-Ning Xu, Zhong-Yuan Kang, Heng Yang, Xin Wang, Jing Li</i>	
SIMULATION OF MICRO PARTIAL ADMISSION IMPULSE TURBINE	596
<i>Bing Li, Wen-Hui Wu</i>	

MECHANISM THEORY & APPLICATION

PRIONACE GLAUCA STREAMLINE BODY 3D PRINTING TECHNOLOGY RESEARCH AND APPLICATION	600
--	------------

Qing-Song Hu, Wen-Ping Cheng, Xi-Wu Liu

Author Index