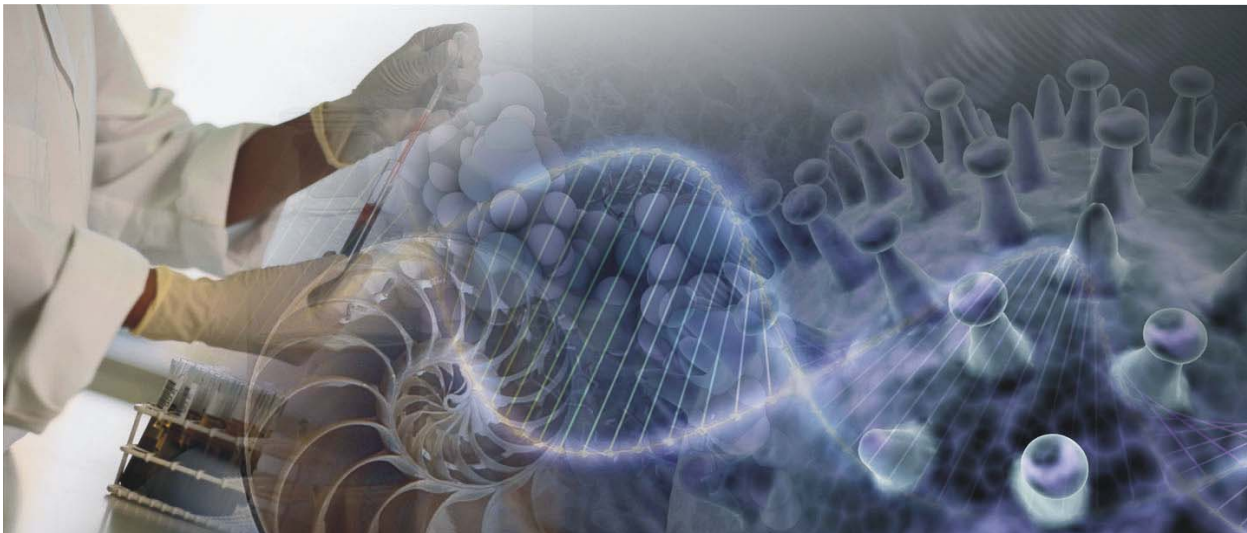




The 2nd International Conference on Bioinformatics and Biomedical Engineering (iCBBE 2008)

<http://www.icbbe.org>

May 16-18, 2008 Shanghai, China



Sponsors:

- IEEE Engineering in Medicine and Biology Society (EMB), USA
- Center for Bioinformatics and Computational Biology, University of Iowa, USA
- Center for Devices and Radiological Health, Food and Drug Administration, USA
- Advanced Research Center for Science and Technology, Wuhan University, China
- College of Life Science and Technology, Shanghai Jiaotong University, China
- Gordon Life Science Institute, San Diego, California, USA
- Journal of Biomedical Science and Engineering, USA
- Scientific Research Publishing, USA



Table of Contents

Vol I: Bioinformatics

Sequence, Structure, Alignment and Drug Design

QSAR and Molecular Stereoelectronic Properties of Phloroglucinol Derivatives as Potential Anti-Tumor Agents	1
<i>Chengwei Ma, Chunli Yan, Hu Teng and Zhilong Xiu</i>	
Applications of Heterogeneous Structure of Cell Broadband Engine Architecture for Biological Database Similarity Search	5
<i>Nim Tri Hieu, Kwoh Chee Keong, Adrianto Wirawan and Bertil Schmidt</i>	
A Simple Di-Nucleotide Based DNA Analysis Applied to Phylogeny of Mammals using Zinc Fingers	9
<i>Todd Holden, G. Tremberger Jr., R. Sullivan, R. Subramaniam, E. Cheung, P. Schneider, D. Lieberman and T. Cheung</i>	
Bioinformatics Analysis of Methyl Parathion Hydrolase MPH and the Structure Prediction with Homology Modeling	13
<i>Yongliang Zheng, Deli Liu, Binbin Wang, Qingye Zhang, Jian Wan, Shenghua Liu and Wenjing Xiao</i>	
Prediction of Seven Protein Structural Classes by Fusing Multi-Feature Information Including Protein Evolutionary Conservation Information	17
<i>Wei Chen, Shao-Wu Zhang, Hui-Fang Yang, Kun Zhao and Kuo-Chen Chou</i>	
Comparisons of Protein Structure Alignment Methods: Rigid and Flexible, Sequential and Non-Sequential	21
<i>Junping Xiang and Maolin Hu</i>	
Disulfide Connectivity Prediction by Expanding Template Proteins and Encoding Global Protein Secondary Structure	25
<i>Guantao Chen, Hui Liu and Hai Deng</i>	
ESTplus: An Integrative System for Comprehensive and Customized EST Analysis and Proteomic Data Matching	29
<i>Eakasit Pacharawongsakda, Sunai Yokwai, Nitsara Karoonuthaisiri, Duangdao Wichadakul and Supawadee Ingsriswang</i>	
Prediction of microRNA Hairpins using One-Class Support Vector Machines	33
<i>Dang Hung Tran, Tho Hoan Pham, Kenji Satou and Tu Bao Ho</i>	
Employing Improved GA to Promote Molecular Docking Efficiency for Drug Design	37
<i>Wen-Tsai Sung</i>	
Chaos Game Representation of Genomes and their Simulation by Recurrent Iterated Function Systems	41
<i>Zu-Guo Yu, Long Shi, Qian-Jun Xiao and Vo Anh</i>	
Far-Infrared Vibrational Spectra of L-Ascorbic Acid Investigated by Terahertz Time Domain Spectroscopy	47
<i>Binghua Cao, Guangxin Zhang and Zekui Zhou</i>	
Sequence Analysis in Vicinity of Type 2 Diabetes Related SNP rs7903146	50
<i>Chuan-Zhen Jiao, Zhi-Huan Tian, Zhen-Lin Wei and Zai-Zhao Wana</i>	
Identification of Splice Sites Based on Discrete Wavelet Transform and Support Vector Machine	54
<i>Qianqian Liu, Shu-Wu Wan and Ying-Fei Sun</i>	
FPGA-Based Accelerators for BLAST Families with Multi-Seeds Detection and Parallel Extension	58
<i>Fei Xia, Yong Dou and Jinbo Xu</i>	
Hierarchical Clustering of Lung Cancer Related Genes	63
<i>Wei Yu, Huajia Zhang, Kuanheng Wu, Qiangqian Lin and Miao He</i>	
A Prediction Method of Protein Contact Based on Information Granules	66
<i>Pengfei Sun and Jianpei Zhang</i>	
Improving Sequence Alignment using Class-Specific Score Matrices	70
<i>Hai Song Xu, Wen Ke Ren, Xiao Hui Liu and Xiao Qin Li</i>	
Generation and Analysis of 10,443 ESTs from Cephalothorax of Fenneropenaeus Chinensis	74
<i>Jianhai Xiang, Bing Wang, Fuhua Li, Bin Liu, Yan Zhou and Wei Tong</i>	
The Preparation of Removing Toxic Membrane	81
<i>Jiantao Lv, Ning Zou, Deru Yu, Minghua Wang, Qiusheng Zheng and Xuexi Tang</i>	
Expression and Homology Modeling of Sterol 14alpha-Demethylase from Magnaporthe Grisea	84
<i>Jiaoyan Yang, Mingjun Liao, Qingye Zhang, Wenjing Xiao, Zhibo Cai, Yonghong Yang, Jian Wan and Shao Yang</i>	
Structure of Thaumatin-Like Protein was Predicted and Analysis by Bioinformatics Methods	88
<i>Ming-Wang Shi, Biao-Zhong Wang, Xi-Ling Cheng, Jian-Hua Wang, Rui Yang and Qi-Li Liu</i>	
Differential Performance Between Structural and Functional B-Cell Epitopic Residue Prediction	93
<i>Jian Huang and Zili You</i>	

Table of Contents

Prediction and Sequence Alignment of Fruit Dehiscence-Related Genes in Oilseed Rape	97
<i>Zongwei Xia, Xiaoli Tan and Lili Zhang</i>	
Consensus RNA Secondary Structure Prediction Based on SVMs	101
<i>Yingjie Zhao and Zhengzhi Wang</i>	
The Nucleotide Sequence Diversity Analysis of the Pig MyoG Gene	105
<i>Li Zhu, Ming-Zhou Li, Xue-Wei Li, Su-Rong Shuai, Qiang Li, Lei Chen and Yi-Ren Gu</i>	
Distribution of Protein Superfamilies in the Three Superkingdoms of Life	109
<i>Guan Wei and Xian-Wu Zou</i>	
Synthesis of Lactosylated Piperazinyl Porphyrin and Its Interaction with DNA	113
<i>Heping Li and Zhoudong Wang</i>	
Relationship between Genetic Susceptibility of Non-Small Cell Lung Cancer and TGF-βRI Gene	117
<i>Shi-Ying Zheng, Hong-Tao Zhang, Jun Zhao and Ling-Yan Xu</i>	
Sequence Characters of Orthologs of Transparent Testa 10 Laccase-Like Gene in Brassica	125
<i>Chengyu Yu and Jungang Dong</i>	
An Analysis of Non-coding RNA Using Z-Curve Method	129
<i>Yan-Ling Yang, Ji-Hua Wang, Jia-Feng Yu and Gui-Zhong Liu</i>	
Cloning and Sequence Analysis of a Disease Resistance Gene from wild Soybean seeds	133
<i>Ming-Wang Shi, Qing-Lian Wang and Biao-Zhong Wang</i>	
Phylogenetic Analysis of Members of the Genus <i>Vibrios</i> based on <i>gyrB</i> genes and 16S rRNA Genes	136
<i>Chunyu Tian, Xiuli Wang, Shigui Jiang, Honghui Huang, Chengcheng Liu, Yaqing Chang and Xuemei Qiu</i>	
<u>Protein Structure, Function, Interactions and Docking</u>	
In Silicon Cloning and Analysis of a LACS Gene in Brassica Napus	140
<i>Baoqiang Chong, Xiaoli Tan, Jia Zhou and Weiwei Yuan</i>	
Characterization of Chloroplast Hsp90 Homologue	144
<i>R. M. Udayangani Ratnayake, Yoshimi Kakinuma and Mitsuru Akita</i>	
Hydrophobic Amino Acid Composition Patterns Over Secondary Structure Elements of Proteins	148
<i>Gouchol Pok, MingHao Piao, Seung Jung Shin and Keun Ho Ryu</i>	
Semantic Labeling to Identify Reliable Interactions in the Protein Interaction Network	152
<i>Min Wu, Xiaoli Li and Chee-Keong Kwoh</i>	
Characterization and the Immune Regulation Activities in Vitro of Se-GL-P, an Antioxidant Selenium-Containing Protein from Se-Enriched Ganoderma Lucidum Mushroom	156
<i>Ming Du, Lanwei Zhang, Xiaosong Hu and Guanghua Zhao</i>	
Interactions of CYP2C9 with Different Substrates and its Implications for Metabolic Mechanism	163
<i>Jing-Yi Yan, Jing-Fang Wang and Dong-Qing Wei</i>	
Binding Affinity Analysis of Protein-Ligand Complexes	167
<i>Kai-Cheng Hsu, Yen-Fu Chen and Jinn-Moon Yang</i>	
Mini-Bioreactor for Protein Chips	172
<i>Yaw-Jen Chang and Cheng-Hao Chang</i>	
Protein Secondary Structure Prediction Method based on Neural Networks	176
<i>Vasilka Dzikovska, Mile Oreskovic, Slobodan Kalajdziski, Kire Trivodaliev and Danco Davcev</i>	
Comparison of Promoter Sequences in the Eukaryotic Ribosomal Protein Genes	180
<i>Hui-Min Li and Jing Zhang</i>	
Protein 3D Structure Prediction by Improved Tabu Search in Off-Lattice AB Model	184
<i>Xiaolong Zhang and Wen Cheng</i>	
Gels from Husk Proteins	188
<i>Aby Abraham, N. R. Nambratha, R. K. Amith, H. S. Pavithra, V. B. Pramila and Savithri Bhat</i>	
Study on Proteomics Data Integration in Web Environments	192
<i>Hao Fan, and Gang Liu</i>	
Characterization of PZT Thin Films by Sol-Gel Method in Application of Resonant Sensor	196
<i>J. Z. Tsai, C. J. Chen, C. W. Hsiao, D. T Hsieh and Y. M. Hsin</i>	

Table of Contents

Interactions of PAMAM Dendrimers with Bovine Serum Albumin in the Presence of Copper and Iron Ions	199
<i>Jing-Xian Yu, Jian-Qun Shao, Shu-Lian Yan, Cong-Xia Wang and Ling Ye</i>	
Homology Modeling and Activity Analysis of the HMG-CoA Reductase from Streptococcus Pneumoniae	203
<i>Guzhen Cui, Deli Liu, Qingye Zhang, Yali Ben, Yanhong Wei and Jian Wan</i>	
Incorporating Protein-Protein Interactions Knowledge in Clustering Gene Expression Data	207
<i>Gangguo Li and Zhengzhi Wang</i>	
Small-World Network Approach to Identify Nucleus Residues of the B1 Domain of Protein G#	211
<i>Hai-Yan Li, Ji-Hua Wang, Li-Ling Zhao, Xiang-Hua Dou and Xiu-Ping Luo</i>	
Isoliquiritigen Down-Regulating the Expression of the Matrix Metalloproteinases-2 in Human Fibrosarcoma HT1080 Cell	215
<i>Zhenhua Wang, Zhenhua Liu, Yuke Zhang, Defang Li and Qiusheng Zheng</i>	
Predict of Protein Structural Classes based on Gray-Level Co-Occurrence Matrix Feature of Protein CAI	220
<i>Xuan Xiao and Pu Wang</i>	
Regulations of Calcineurin B Subunit and Calmodulin on Calcineurin A Subunit with Tau and Its Truncation Mutant as Substrates: Regulations of CNB and CaM on CNA with Tau Substrate	224
<i>Da-Yu Yu, Mo-Jie Sun, Nan Qiao and Qun Wei</i>	
Identifying Combinatorial Transcription Factor Interactions with Microarray Data and CHIP-Chip Data	229
<i>Ting Chen and Feng Li</i>	
Research of Improved Phylogenetic Profiling Method	233
<i>Yanan Ma, Pingping Sun, Yuanping Sun, Ying Cui and Zhiqiang Ma</i>	
Effects of Osthole on Protein Expression of CYP7A1, DGAT2 and PPARalpha/gamma in Fat Milk-Induced Fatty Liver Rats	237
<i>Zhang Yan, Mei-Lin Xie, Jie Xue and Zhen-Lun Gu</i>	
The Recognition of Subcellular Localization of Proteins based on their N-Terminal Amino Acid Sequence	245
<i>Jia Yun, Judong Zhao and Lu Jun</i>	
Identifying Critical Positions and Rules of Antigenic Drift for Influenza A/H3N2 Viruses	249
<i>Jiang-Wei Huang, Chun-Chen Chen and Jimn-Moon Yang</i>	
A Method of Analyzing the Structures of Misfolding Proteins like Prion Protein	253
<i>Yipeng Han and Guangjie Chen</i>	
The Effects of Increased Cytokinins Provided by Activation of ipt/GUS Expression in Non-Invasive Conditions on the Transcript Levels of Selected Genes in Arabidopsis	256
<i>Jianchun Guo and Xinwen Hu</i>	
Spectroscopic Studies on the Interaction of Efonidipine with Bovine Serum Albumin	261
<i>Nan Wang, Shuting Ku, Peilin Yu, Bingqing Zhao and Ling Ye</i>	
Research on the Expression of Non-Mitogenic Recombinant Human aFGF in Escherichia Coli	265
<i>Hui Yuan, Yunfeng Bai and Xiao Kun Li</i>	
Combining Hydrophobicity with PSSM for Improving Prediction Accuracy of alpha-Helix Using BP Neural Network	271
<i>Huiyun Yang, Ouyan Shi and Xin Tian</i>	
Protein Structural Class Prediction Using Physiochemical Property Based Grouped Weighted Encoding Index	275
<i>Kai Jiang, Shuming Ye, Hang Chen and Fei Gu</i>	
Protein Secondary Structure Prediction Using SVM with Bayesian Method	279
<i>Wen Yuan Liu, Shui Xing Wang, Bao Wen Wang and Jia Xin Yu</i>	
Isolation Purification and Some Properties of Alkaline Phosphatase from Hypophthalmichthys Molitrix Cuv.et Val	282
<i>Yun-Ming Tang, Min Xu, Ma Yao, Hong-Xuan Du, Rong-Chan Cheng and Qin Yang</i>	
Recognition and Analysis of a Host-Targeting Motif in the Genome of Fungus Magnaporthe Grisea	286
<i>Li Ma, Yuan Su, Jing Yang, Lin Liu, Yue Zhang, Chui-Si Kong, Qing-Liang Yu, You-Yong Zhu and Cheng-Yun Li</i>	
Study on the Envelope Fusion Proteins of Baculovirus	293
<i>Shan-Ying Zhu, Jun-Xing Pang, Wen-Bing Wang, Bing Li and Wei-De Shen</i>	

Table of Contents

Gene Science and Genomics

Modeling Large-Scale Gene Regulatory Networks using Gene Ontology-Based Clustering and Dynamic Bayesian Networks	297
<i>F. Yavari, F. Towhidkhah, S. Gharibzadeh, A. R. Khanteymoori and M. M. Homayounpour</i>	
Evidence for Independent Segregation of the VP6-and-NSP4-Encoding Genes in Human Group A Rotavirus G5P[6] Strains	301
<i>Dan-Di Li, Jie-Mei Yu, Shu-Xian Cui, Qing Zhang, Xin-Hui Yuan, Dong-Liang Zhang, Da-Jiang Cao, Su-Hua Yang, Hui-Ying Li, Zhong-Shan Wang and Zhao-Jun Duan</i>	
Local Gene Network Pattern (LGNP) Approach to Tackle Mechanisms of Complicated Phenotypes	306
<i>Zhizhou Zhang, Yun Wang, Xiujin Wang, Xiao Han and Changjin Liu</i>	
A New Sex Chromosome Marker, Similar to DNA Polymerase Type B, in the Platyfish <i>Xiphophorus Maculatus</i>	310
<i>Qingchun Zhou, Alexander Froschauer, Christina Schultheis, Ingo Braasch, Manfred Scahrtl and Jean-Nicolas Volff</i>	
Based Adaptive Wavelet Hidden Markov Tree for Microarray Image Enhancement	314
<i>Ying Li and Cui Li</i>	
Effects of Overfeeding on the Cholesterol Concentration in Plasma and HMGR Gene Expression in Liver of Goose	318
<i>Ye Hua, Chun-Chun Han, Ji-Wen Wang and Liang Li</i>	
Agarose Gel Electrophoresis and Fluorometric Assays for the Determination of DNA Cross-Linking Induced by Semustine	322
<i>Wei Tang, Li-Jiao Zhao and Ru-Gang Zhong</i>	
Improving Missing Value Imputation in Microarray Data by Using Gene Regulatory Information	326
<i>Qian Xiang and Xianhua Dai</i>	
Bipolarity of the <i>Saccharomyces Cerevisiae</i> Genome	330
<i>Allison P. Heath, Lydia Kaviraki and Gábor Bálazsi</i>	
An across Factor Normalization based SVD Approach to Analysis of Gene Expression Profiles for Uncovering Biomarkers in Ovarian Carcinoma Chemotherapy Responses	334
<i>Bin Han, Lei Zhu, Yan Chen, Lihua Li, Shenhua Xu, Zhiguo Zheng and Hanzhou Mao</i>	
Rao-Blackwellised Particle Filter for Gene Regulation Networks	338
<i>Xiaodian Sun and Qinghua Zhou</i>	
A Method for Cancer Classification Using Ensemble Neural Networks with Gene Expression Profile	342
<i>Xiaogang Ruan, Jinlian Wang, Hui Li and Xiaoming Li</i>	
Investigation on the Properties of Group II Introns for Potential Gene Therapy	347
<i>Shuhong Mao, Genming Jin, Zengquan Wei and Hongmei Xie</i>	
Analysis of Flanking Sequences of T-DNAs in Transgenic Birch Plants Based on SiteFinding PCR	349
<i>Fan-Suo Zeng, Ya-Guang Zhan, Tao Su and Dong Sun</i>	
Investigation of the Mechanism of Alternative Promoters Influencing Alternative Splicing	353
<i>Jianning Bi and Yanda Li</i>	
Similar Histone Acetylation Pattern of Neighboring Genes in Yeast	357
<i>Yangyang Deng and Xianhua Dai</i>	
Detections of Microcalcification Clusters Using Multiple Mammographic Views	361
<i>Ma Li and Yajing Chan</i>	
Differentiation between Vaccinated and Infected Poultry in Group by Avian Influenza Virus on the Basis of Antibody against NS1 by Indirect ELISA	366
<i>Yan Wang, Yaxian Yan, Shi Yibo, Sun Jianhe, Lu Chengping and Liu Peihong</i>	
The Application of SVDD in Gene Expression Data Clustering	371
<i>Ruirui Ji, Ding Liu, Min Wu and Jing Liu</i>	
Detection of hlyA Gene of <i>Listeria Monocytogenes</i> with Electrochemical DNA Biosensor	375
<i>Lingwei Wu, Quanjun Liu, Zhongwei Wu and Zuhong Lu</i>	
Reuse of Coagulation Sludge: Removal of Color and COD from Soy Sauce Wastewater by Coagulation	379
<i>Lei Zheng, Ai-zhong Ding, Jin-Sheng Wang and Yu Tian</i>	
Natural Wetlands Utilization for Un-Collected Village Sewage Treatment	382
<i>Lei Zheng, Ai-zhong Ding, Jin-Sheng Wang, Yan-Guo Teng and Fang-Hua Hao</i>	
Statistic Analysis of Genetic Diversity in 15 STR Loci from Han, Miao and Yao Tribes in South China	387
<i>Kuanheng Wu, Miao He, Changhui Liu and Zhengping Fan</i>	

Table of Contents

Repression of Nrfl-Mediated Transactivation by MCRS2	391
<i>Jia-Long Wu, Yu-Jen Lin, Shan-Fu Wu, Ying-Ting Lin, Young-Sun Lin and Chien-Fu Huang</i>	
Heterologous Expression of Bovine Lactoferricin in Escherichia Coli	395
<i>HaiKuan Wang, XinHuai Zhao, RuiJuan Liu, Qi Wei and FuPing Lu</i>	
Association Study of 5-HT2A Receptor Gene Polymorphism with Persistent Somatoform Pain Disorder and the Efficacy of Fluoxetine	399
<i>Yanli Luo, Wenyuan Wu, Chunbo Li, Mingyuan Zhang, Ye Zhang and Sanduo Jiang</i>	
Determination Suppressive Effect of Satellite 369 on Accumulation of Cucumber Mosaic Virus by Real-Time Reverse Transcript-Polymerase Chain Reaction	402
<i>Jun-li Feng and Ji-Shuang Chen</i>	
Anti- Esophageal Cancer Active Immunity Induced by FasL/B7-1 Genes Modified Tumor Cells	407
<i>Shi-Ying Zheng, Jun Zhao, Jin-Feng Ge and Hong Li</i>	
Adenovirus-Mediated FasL gEne Transfer Into Human Gastric Carcinoma	415
<i>De-Chun Li, Shi-Ying Zheng, Jun Zhao and Jin-Feng Ge</i>	
Relationship between Caspase-3 Expression and Apoptosis in Lung Adenocarcinoma Cell A-549 with Adenovirus-Mediated FasL Gene	423
<i>Shi-Ying Zheng, Hong Li, Dong Jiang and Jin-Feng Ge</i>	
Apoptosis-Inducing Effect of Caspase-3 Over-Expressed on Gastric Cancer Cell Line SGC7901	429
<i>Jun Zhao, Shi-Ying Zheng, De-Chun Li and Jin-Feng Ge</i>	
Comparisons of Properties of Tandem Repeats Associated with Beteen Diabetes Genes and Non-Diabetes Disease Genes	436
<i>Zhong-yu Liu, Xian-Ping Ding and He-Jiao Bian</i>	
Cloning of Trehalose-6-Phosphate Phosphatase and Transformation to Tobacco	441
<i>Guo Bei and Xiang-Ning Jiang</i>	
Computational Identification of Two Potential ncRNAs from 48 Esophageal Carcinoma-Related Sequences	445
<i>Bingli Wu, Liyan Xu, Xiaomin Ying, Yongdong Niu, Wuju Li and Enmin Li</i>	
The Gene Expression Profile in Aircrew Members of Civil Aviation	449
<i>WeiRu Chen, YingJin Feng, XiaoFeng Wang, Jie Jiang, Tao Zhang, XinTao Peng, Jun Zhang and Feng Liu</i>	
Impact Analysis of Gene Deletion on the Metabolic Flux Distribution of E.coli and on Its Flux-backbone: Genome-Scale Simulation Approach	454
<i>Zixiang Xu, Xie Jianming, Xinan Yang and Sun Xiao</i>	
Combination of Endostatin Gene Transfer and Radiation Therapy Against Lung Adenocarcinoma Model	458
<i>Chunhua Ling, Cheng Ji, Jianxin Fu, Weichang Chen, Juying Zou, Liaoyuan Su and Jicheng Yang</i>	
Expression Analysis of Signal Transducer and Activator of Transcription 2 (stat2) Gene in Esophageal, Gastric and Lung Cancer Tissues	466
<i>Guang Gao, Huiling Wu, Yan Wu and Wenbing Wang</i>	
Using Simple Gaussian Mixture Model for Multi-Class Classification Based on Tumor Gene Expression Data	470
<i>Wenlong Xu, Xianghua Zhang and Huanqing Feng</i>	
<u>Novel Approaches to Bioinformatics and Biomedical Engineering</u>	
Possible Roles of Electrical Synapse in Temporal Information Processing: A Computational Study	474
<i>Xu-Long Wang, Xiao-Dong Jiang and Pei-Ji Liang</i>	
A Haplotype Based Method for Genetic Disease Susceptibility Prediction	478
<i>Weidong Mao</i>	
Marfan Syndrome Exon CpG Percentage and Fractal Dimension	482
<i>Todd Holden, G. Tremberger Jr., E. Cheung, R. Subramaniam, R. Sullivan, P. Schneider, A. Flamholz, D. Lieberman and T. Cheung</i>	
An Effective Data Mining Technique for the Multi-Class Protein Sequence Classification	486
<i>Patrick C. H. Ma and Keith C. C. Chan</i>	
Independent Component Analysis and Neural Network Applied on Electronic Nose System	490
<i>Xiaochuan He, Shoushui Wei and Ruiqing Wang</i>	
Real-Time Monitoring of Epileptic Seizures through Recurrence Time Analysis of EEGs	494
<i>Jianbo Gao, Jing Hu, Xingsong Wang, Wen-wen Tung, J. C. Principe and J. C. Sackellares</i>	

Table of Contents

Distinguishing Healthy Subjects from Patients with Congestive Heart Failure Using Scale-Dependent Lyapunov Exponent	498
<i>Jing Hu, Jianbo Gao, Wen-wen Tung, Xingsong Wang, Yinghui Hu and Yinhe Cao</i>	
Delay Time-Based Epileptic EEG Detection Using Artificial Neural Network	502
<i>Ye Yuan, Yue Li, Dongyan Yu and Danilo P. Mandic</i>	
Seizure Prediction Using a Dynamic Model with Hidden Variable	506
<i>Zhongyu Pang and Derong Liu</i>	
White Matter Integrity Analysis along Cingulum Paths in Mild Cognitive Impairment - A Geodesic Distance Approach	510
<i>Xuwei Liang and Jun Zhang</i>	
Accuracy Assessment for Hip Rotation Centre in Total Knee Replacement Surgical Navigation	514
<i>Xuemei Huang, Xiuting Wei and Chengtao Wang</i>	
Inferring Gene Regulatory Networks using Heterogeneous Microarray Data Sets	518
<i>Xiao Bing Huang and Tian Zhao</i>	
A Clustering Algorithm for Mining Overlapping Highly Connected Subgraphs	523
<i>Xiahong Lin, Lin Gao and Kefei Chen</i>	
Duplicated Genes Reversal Distance under Gene Deletion Constraint by Integer Programming	527
<i>S. Laohakiat, C. Lursinsap and J. Suksawatchon</i>	
Fuzzy Clustering of Transient Evoked OtoAcoustic Emission Signals Using Gustafson Kessel Algorithm	531
<i>Maryam Naghibolhosseini, A. H. Jafari, Sepideh Fazeli and Caro Lucas</i>	
An Adaptive Neuro-Fuzzy Inference System for Diagnosis of Aphasia	535
<i>Sepideh Fazeli, Maryam Naghibolhosseini and Fariba Bahrami</i>	
Target Feature Extraction for Passive Sonar Based on Two Cepstrums	539
<i>Geming Liu, Chao Sun and Yixin Yang</i>	
The Sorting Method of ECG Signals Based on Neural Network	543
<i>Tian-hua Chen, Yu Zheng, Li-qun Han, Pei-yuan Guo and Xiao-Yan He</i>	
A Principal Component Analysis Based Method for Estimating Depth of Anesthesia	547
<i>M. Taheri, B. Ahmadi, R. Amirfattahi, M. R. Dadkhah, A. R. Sharifian and M. Mansouri</i>	
Classification of Epileptic EEG Data Using Multidimensional Scaling	551
<i>Bruno Direito, António Dourado, Marco Vieira and Francisco Sales</i>	
A Real-Time Continuous ECG Transmitting Method through GPRS with Low Power Consumption	556
<i>Xin Ge, Dakun Lai, Xiaomei Wu and Zuxiang Fang</i>	
Fractal Dimension for Detection of ERD/ERS Patterns in Asynchronous Brain Computer Interface	560
<i>Elnaz Banan Sadeghian and Mohammad Hassan Moradi</i>	
A Novel Mixture Classifier and its Application in Breast Cancer Prognosis	564
<i>Tao Zeng and Juan Liu</i>	
A Simplified Multivariate Markov Chain Model for the Construction and Control of Genetic Regulatory Networks	569
<i>Shu-Qin Zhang, Wai-Ki Ching, Yue Jiao, Ling-Yun Wu and Raymond H. Chan</i>	
An ICA Algorithm Based on Generalized Gaussian Model for Evoked Potentials Estimation	573
<i>Hong Xie and Jie Yu</i>	
Protein Structure Prediction Based on an Improved Genetic Algorithm	577
<i>Yunling Liu and Lan Tao</i>	
A Mathematical Description of Physician Decision Making	581
<i>Kaiser Niknam and Sahar Niknam</i>	
Outlier Detection for Microarray Data	585
<i>Wei-Min Liu</i>	
A Comparison of Validation Indices for Evaluation of Clustering Results of DNA Microarray Data	587
<i>Blagoj Risteovski, Suzana Loshkovska, Sasho Dzeroski and Ivica Slavkov</i>	
An Improved Method for the Prediction of Selenoproteins from the Genome of Anopheles Gambiae	592
<i>Liang Jiang, Qiong Liu and Xiaoli Wang</i>	
Heart Pacemaker Wear Life Model for Psychological Health Based on Frequent Properties	596
<i>Hengqing Tong, Jing Tang, Hui Peng and Zhao Xu</i>	

Table of Contents

Volume Rendering Based on Region Clustering and Rendo-avs	600
<i>Xinwu Li</i>	
A Block Recursive Algorithm for Sequence Alignment	604
<i>Fang-Yuan Wang and Yu-Jian Li</i>	
A Fast Pattern Matching Algorithm for Biological Sequences	608
<i>Yong Huang, Xuezheng Pan, Yunjun Gao and Guoyong Cai</i>	
Similarity Cyclic DNA Codes over Rings	612
<i>Irfan Siap, Taher Abualrub and Ali Ghrayeb</i>	
Electrical Bioimpedance Method to Measure Gastric Motility Function	616
<i>Juan Deng, Shu Zhao, Hong Sha, Yan Wang, Chaoshi Ren and Zhangyong Li</i>	
2D DIGE Data Analysis for Differential Protein Spot Identification	620
<i>Lihua Li, Lei Zhu, Bin Han, Li Chen and Rebecca Sutphen</i>	
Bio-Information Based Segmentation of 3D Dental Models	624
<i>Tian-ran Yuan, Ning Dai, Guo-dong Hao, Xiao-Sheng Cheng, Hai-hua Cui, Wen-he Liao, Qing Yu and Peijun Lv</i>	
Respiratory Sinus Arrhythmia and Chaos	628
<i>J.-T. Sun, Y. Fang, Cheng Li, Guo-Qiang Wu and Chi-Sang Poon</i>	
An Improved Algorithm for Tag SNP Selection Based on Pair-Wise Linkage Disequilibrium	632
<i>Wei Wang, Youling Guo, Yuexian Zou and Tianrui Wu</i>	
A New United Analysis Method for Epicardial Mapping Signals	636
<i>Yu Zhou, Cuiwei Yang and Zuxiang Fang</i>	
Integrated Visualization of Multi-Modal Electronic Health Record Data	640
<i>Jiye An, Xudong Lu and Huilong Duan</i>	
Immunity-Based Dynamic Anomaly Detection Method	644
<i>Feixian Sun, Qiusheng Zheng and Tao Li</i>	
Application of Hilbert-Huang Transform to Heart Rate Variability Analysis	648
<i>Li Helong, Lihua Yang and Huang Daren</i>	
Evoked Potential Latency Delay Estimation by Using Covariation Correlation Approach	652
<i>Wenhong Liu, Yuanyuan Wang and Tianshuang Qiu</i>	
Disulfide Bond Prediction using Neural Network and Secondary Structure Information	656
<i>Ouyan Shi, Chunquan Cai, Huiyun Yang, Jing Yang and Xin Tian</i>	
Hybrid Selective Neural Network Ensembles for Prediction of MHC Class II-Binding Peptides	660
<i>Gui-Wu Hu</i>	
A New Volume Rendering Algorithm Based on Voxel Segmentation and Combination	664
<i>Xinwu Li</i>	
Feature Extraction and Analysis of Ovarian Cancer Proteomic Mass Spectra	668
<i>Hui Meng, Wenxue Hong, Jialin Song and Liqiang Wang</i>	
Analysis of Proteomic Mass Spectra Based on Multivariate Feature Fusion Visualization	672
<i>Hui Meng, Wenxue Hong, Jialin Song and Liqiang Wang</i>	
Unravelling the Hidden Relationship Between Subtype of Ion Channel and Channlopathy Based on CTWC Approach	676
<i>Jie Zhang, Li Li, Xia Li and Haiyun Wang</i>	
Extraction of the Borderline in Prepared Tooth Cavity Based on Intelligent Scissors	680
<i>Shuxian Zheng, Jia Li and Qingfeng Sun</i>	
A New Nonlinear Approach to Analyze Heart Rate Variability Using Dot Map Based on First Order Difference Sequence	684
<i>Feng Wen, Yi Pan, Hang Chen, Xuan Wang, Shuming Ye and Kai Jiang</i>	
Bio-Impedance and Synchronous Electrogastrogram to Evaluate Gastric Motility	689
<i>Zhangyong Li, Fangyong Guan, Chaoshi Ren, Shengrong Liu, Hong Sha, Shu Zhao, Juan Deng and Yan Wang</i>	
A New QRS Detection Algorithm Based on Empirical Mode Decomposition	693
<i>Hongyan Xing and Minsong Huang</i>	
A Method of Amplitude Analysis of EMG Interference Pattern	697
<i>Xiaobo Xie, Liyun Pang, Hongyan Cui, Xiaohong Li, Xiannong Chen, Chengduan Qu and Yong Hu</i>	

Table of Contents

A Compounded Genetic and Simulated Annealing Algorithm for the Closest String Problem	702
<i>Xiaolan Liu, Mauch Holger, Zhifeng Hao and Guangchao Wu</i>	
Validating Clustering for Gene Expression Data Based on Semantic Distance of Gene Ontology Terms	706
<i>Feizhen Wu, Wenli Ma, Mei Wang, Qilong Chen and Wenling Zheng</i>	
SVM based Speaker Verification and Gender Dependent NAP Variability Compensation	710
<i>Jianshu Chao, Wei Huang and Yaxin Zhang</i>	
Using Fluorescent-Based AFLP to Analyze Genetic Diversity of Yellow-Seeded Brassica Napus L.	714
<i>Chengyu Yu, Leona Leisova, Vratislav Kucera, Miroslava Vjvadilanova, Jaroslava Ovesna, Shengwu Hu and Ladislav Dotlacil</i>	
Using Grey Model GM(2,1) and Pseudo Amino Acid Composition to Predict Protein Subcellular Location	718
<i>Wei-Zhong Lin and Xuan Xiao</i>	
A Novel Clustering-Ensemble Approach	722
<i>Zhizhou Kong, Lai Wei, Shenggang Yang, Dong Guan and Zixing Cai</i>	
Algorithm for Disease Association Studies Using Functionally Informative Haplotype Motif	725
<i>X. N. Tang, Z. B. Cao, Zhichao Lian, Chengquan Hu, Chunguang Zhou, Yanchun Liang and Z. L. Pei</i>	
Prediction of Cyclosporine a Blood Concentration by Genetic Algorithm and BP Neural Network	729
<i>Xia Jie, Liu-zheng Zhou, Ning-han Feng, Zeng-Xian Sun, Jiong Zhang and Li Shan</i>	
Non-Invasive Method and Experimental Study for Measurement of Oxygen Saturation Rate in Wide Range	733
<i>Shuming Ye, Feng Zhou, Hang Chen, Hong Yan and Yan Li</i>	
Population Genetic Diversity and Differentiation of Cyclina Sinensis (Mollusca Bivalvia) Based on ITS Sequence Analysis	737
<i>Baoping Pan, Yuan Yuan, Heting Pan, Weiwei Gao and Wu Qi</i>	
A New Application of Biclustering Analysis on Loss of Heterozygosity Data of Lung Carcinomas Samples	743
<i>Lisha Liu, Zhichao Lian, Jian Zhang, Yanchun Liang, Chunguang Zhou and Chengquan Hu</i>	
Ventilator Control Based on a Fuzzy-Neural Network Approach	747
<i>Hui Zhu and Knut Möller</i>	
Application of Optimization with Scaled Conjugate Gradient Algorithm in IMRT	751
<i>Zhuoyu Wang, Linghong Zhou, Chao-min Chen, Wenting Lu, Xin Zeng and Lin Zhu</i>	
Data Cleansing Based on Mathematic Morphology	755
<i>Sheng Tang and Si-Ping Chen</i>	
Temperature Field FDTD Simulation of HIFU in Human Body Tissues	759
<i>X. Q. Jian, L. S. Wu, Z. H. Li, W. L. Li and J. G. Yin</i>	
Classification and Identification of Differential Gene Expression for Microarray Data: Improvement of the Random Forest Method	763
<i>Xiaoyan Wu, Zhenyu Wu and Kang Li</i>	
A Term-Mapping Framework for Data Mining in Heterogeneous Medical Data Sources	767
<i>Jiquan Liu, Wenliang Deng, Xudong Lu and Huilong Duan</i>	
Microbial Diversity Research of Produced Water from Daqing Oil Reservoir after Polymer Flooding	771
<i>She Yuehui, Xuemei Zhang, Zhang Fan, Zhengliang Wang, Shu Fuchang, Zhou Lingge, Tingsheng Xiang and Yu Longjiang</i>	
A Semi-Fragile Digital Watermarking Algorithm Based on Integer Wavelet Matrix Norm Quantization for Medical Images	776
<i>Liu Xin, Xiaqi Lv and Wang Ying</i>	
Analysis on the Microbial Diversity of Qinghai High Salt Content Oil Reservoirs	780
<i>She Yuehui, Zheng Beiwen, Zhang Fan, Zhengliang Wang, Shu Fuchang, Zhou Lingge, Tingsheng Xiang and Yu Longjiang</i>	
Numerical and Experimental Investigations of a Commercial Mobile Handset for SAR Calculations	784
<i>Vikass Monebhurrin, Man-Fai Wong and Joe Wiart</i>	
A Robust Algorithm for Faster SAR Measurement in the 30-6000 MHz Frequency Range	788
<i>M. G. Douglas, A. V. Gessner and C.-K. Chou</i>	
Standardization of Computational Techniques for Compliance Evaluation of the Human Exposure in Automotive Environments	791
<i>Giorgi Bit-Babik, Antonio Faraone, Christopher Penney, Tilmann Wittig, Alexander Prokop, Andreas Christ, Jianxiang Shen and Ji Chen</i>	
CAD-Phone SAR Computational Inter-Laboratory Study IEEE TC34, SC2-WG2 1528.3	795
<i>Jafar Keshvari, Giorgi Bit-Babik, Omid Sotoudeh and Wolfgang Kainz</i>	

Table of Contents

Influence of Absorption Medium on Microwave Pyrolysis of Fir Sawdust	798
<i>Xiaoya Guo, Yong Zheng and Bo Zhou</i>	
Information Illuminating System for Healthcare Institution	801
<i>Hong Hong, Yi Ren and Chenxu Wang</i>	
Development of Whole-Body Shell and Solid Phantoms and for SAR and Radio Propagation Measurement	805
<i>Camelia Gabriel and Philip Chadwick</i>	
<u>High Performance Bio-Computing, Modeling and Visualization</u>	
A Visual Expression to Show Epicardial Electrical Activity Comprehensively	808
<i>Tuo Zhou, Weijia Lu, Cuiwei Yang and Zuxiang Fang</i>	
VFGO: Mapping Gene Ontology into Relational Database for Exploratory Data Analysis	812
<i>Ping Zhou, Mei Sun, Kuke Ding and Yujing Ma</i>	
Research on the DNA Sequence Design Based on GA/PSO Algorithms	816
<i>Chunxia Xu, Qiang Zhang, Bin Wang and Rui Zhang</i>	
A PC Cluster Based Parallel Algorithm for Longest Common Subsequence Problems	820
<i>Lei Xiao, Hongzhi Song, Meijie Zhu and Yingjie Kuang</i>	
Comparison of Chemical-Biological Flocculation Process Model Based on Artificial Neural Network	824
<i>Tian-Yin Huang, Si-Qing Xia, Li Ning and Huang Yong</i>	
Yet Another Scenario of Pattern Formation: Interpretation of Position Information	828
<i>Yue Ma and Kenichi Yoshikawa</i>	
A New Scheme for Observation and Interpretation Atrial Fibrillation	832
<i>Weijia Lu and Zuxiang Fang</i>	
Symbolic Analysis of the Neuron Action Potential	836
<i>Pei Ye, Emilia Entcheva, Scott A. Smolka and Radu Grosu</i>	
Molecular Modeling of a Hexacyclopeptide Dichotomin B Based on B3LYP, HF and ONIOM Methods: Comparison with Dichotomin A	840
<i>Xiaoqing Liu, Chunli Yan, Hu Teng, Xiaohui Li, Zhilong Xiu and Ce Hao</i>	
A Revised Optimal Control Pilot Model for Computer Simulation	844
<i>Chunguang Wang, Feng Liao, Junwei Han and Guixian Li</i>	
Susceptible-Infected-Susceptible Virus Spread Model Based on Sparsely Distributed Crowd	849
<i>HaiPing Zhou and ShaoHong Cai</i>	
Modeling and Simulation of the Oculomotor Control System	853
<i>Hairong Zou</i>	
A Simulation Study of Controlling Epileptic Seizures on Simulink	857
<i>Zhenguo Xiao and Xin Tian</i>	
Modeling Cornea for Laser Thermokeratoplasty	861
<i>Mingxiang Gao, Yanfang Yang and Dingfang Chen</i>	
Biomechanical Analysis of Odontoid Fracture with Different Loads by Finite Element Method	866
<i>Guo Yuan, Chen Weiyi, Xushu Zhang, Yali Zhu, Zhao Yibo and Ma Xun</i>	
A High Exchange Rate Algorithm Based on Improved Decision Tree	869
<i>Chao Liu, Xi Wu, Siyuan Liu and Chunzhe Zhao</i>	
Application of Kalman Filtering in the Detection of Evoked Potentials	873
<i>Shuping Hou and Bai Yu</i>	
Prediction of G-Protein-Coupled Receptor Classes with Pseudo Amino Acid Composition	876
<i>Quan Gu, Yong-Sheng Ding and Tong-Liang Zhang</i>	
Modelling the Effect of Electric Pulse on Cells and Experimental Research	880
<i>Xu Fei</i>	

Table of Contents

Vol II: Biomedical Engineering (1)

Molecular, Cellular and Tissue Engineering

A High Frequency Vibrating System to Stimulate Cells in Bone Tissue Engineering	884
<i>D. Prè, G. Magenes, G. Ceccarelli and M. G. Cusella De Angelis</i>	
BMP-2 Modified Hydroxyapatite/Chitosan Composite Scaffold for Bone Engineering	888
<i>Aijun Zuo, Dongchun Liang, Pei Sun, Rui Zhang, Ronglan Zhao, Baoli Wang, Gang Guo and Jingyu Zhang</i>	
Crazing mechanism in Poly (3-Hydroxybutyrate-co-3-Hydro-Xyvalerate) (P3HB-co-3HV) Thin Film - How Semi-Crystalline Polymers in Rubbery State Were Deformed	893
<i>Y. Y. Lin, C. Y. Kuo, Arnold C.-M. Yang, Yinguang Chen and C. Will</i>	
Biological Evaluation of Porous Chitosan/collagen Scaffolds for Periodontal Tissue Engineering	897
<i>Lin Peng and Ren-Xi Zhuo</i>	
The Role of Crystallinity on the Crazing Micromechanism in Poly(L-Lactic Acid) Thin Film	901
<i>Y. Y. Lin, C. Y. Kuo, M. H. Liu, Arnold C.-M. Yang and S. Y. Lee</i>	
Modelling the Bio-Scaffold for Repairing Symmetrical and Unsymmetrical Defective Skull	905
<i>Liulan Lin, Jiafeng Zhang and Minglun Fang</i>	
A Study of Motion Detection System Based on Coordinate Orientation	909
<i>Y. H. Lin, Y.-S. Huang and M. S. Young</i>	
Somatic Embryogenesis from Hairy Roots Transformed by Agrobacterium Rhizogenes in Panax Ginseng	911
<i>Jianhua Wang, Shoujing Zhao, Jian Xue, Lixin Xu, Chunxi Hou and Yanlong Liang</i>	
Vasculogenic Mimicry in Osteosarcoma : Histomorphologic Studies in Vivo and in Vitro	915
<i>Zhenhong Xiong, Yongwei Jia, Xuansong Cai, Jiong Mei, Liming Cheng, Guangrong Yu and Ruyong Tang</i>	
The Effect of Freeze Drying on the Deoxyribonucleic Acid Chain of Human Sperm	919
<i>Wang Peitao, Shao Cuihua, Shen Daqing, Qiang Li, Zhongqiang Liu and Fu Xiuyan</i>	
Fertilization Induced Changes of Distributive Patterns of Con A and WGA Receptors on Plasma Membrane of Female Cells in Nicotiana Tabacum L	924
<i>Kefeng Fang, Tongquan Yu, G. L. Shi, Ping Lu and Younian Wang</i>	
Adhesion and Osteoblastic Differentiation of Mouse Mesenchymal Stem Cells Overexpressing Cadherin-11 on Scaffold Surfaces	929
<i>Shi-wu Dong, Dajun Ying, Bo Yang, Zhao Xie and Xiaojun Duan</i>	
Robustness Analysis of EGFR Signaling Network Based on Evolutionary Algorithm	933
<i>Ting Wang and Xiufen Zou</i>	
Study on the Apoptosis Effect Induced by Isothiocyanates in Broccoli on Human Gastric Adenoma Cells (SGC-7901)	939
<i>Xiang Zou, Yu Bin Ji, Chenfeng Ji, Lei Yu and Lang Lang</i>	
<u>Biochemistry, Biophysics, Biomathematics and System Biology</u>	
C2H2 Zinc Finger Nucleotide Fluctuation	943
<i>G. Tremberger Jr., E. Cheung, R. Subramaniam, R. Sullivan, P. Schneider, A. Flamholz, D. Lieberman, T. Cheung and Todd Holden</i>	
Nitrous and Nitric Oxides and the Effect of Oxygen Level and Nitrite Concentration on its Emission from Nitritation and Nitrification-Denitrification Reactors	947
<i>Florante A. Magnaye, Pag-Asa D. Gaspillo, Joseph L. Aurensia, Marlies J. Kampschreur, Robbert Kleerebezem and Mark Van Loosdrecht</i>	
Ab initio Studies on the Carcinogenic Mechanism of the Derivatives of 3,5-Dimethyl-Nitrosopiperazine	951
<i>Ting-Ting Liu, Li-Jiao Zhao and Ru-Gang Zhong</i>	
Design of a Biochemistry Sensor based on FAIMS Theory and Optimization Design Considering Brim-effect of Electrical Field	955
<i>Li Hua, Tang Fei, Xiaohao Wang and Wang Zhigang</i>	
Formulation of Culture Medium for Superoxide Dismutase Production by Rhodotorula Glutinis RY-06 Strain with High Yield of Beta-Carotene	959
<i>Sui-Lou Wang, Gui-Tang Chen, Guo-Hong Qi, Zhi-Ping Yang and Bo Li</i>	
In Silico Identification & Adaptive Control of the Motif in the Mammalian G1/S Cell Cycle Pathway	962
<i>Binhua Tang, Jiajun Liu, Li He, Qing Jing and Bairong Shen</i>	

Table of Contents

Kinetics of NO-Char Reaction at Temperatures of 1073-1573K	966
<i>Juwei Zhang, Shaozeng Sun, Xidong Hu and Yukun Qin</i>	
Montmorillonite Absorbs Uric Acid and Decreases the Concentration of Uric Acid in the Serum	971
<i>Jun-tao Li, Yin-Li Zhang, Jie-Qun Ma, Jie Gao, Chun-Shu Wang, Jing Liu and Yongxiao Cao</i>	
NMDA-Receptor-Initiated Modulatory Effect on GABA Transporter Current: Experiment and Modelling	975
<i>Xiao-Dong Jiang, Xu-Long Wang, Yan Sun, Hai-Qing Gong and Pei-Ji Liang</i>	
Organic Field Effect Transistors with Polarizable Active Layer of 2-(4-Hydroxyphenyl)-5-Pyrimidinol Thin Film	979
<i>Jiac Hun Deng, Na Jin, Zhong Qiang Wang, Shou Gen Yin and Yu Lin Hua</i>	
Preparation and Anticoagulant Activity of Sulfated 6-Carboxychitosan	982
<i>Yuedong Yang, Yongguo Zhou, Wenlong Hou, Yongguang Zhao and Yanjun Ren</i>	
Short-Term Biology Effects on Grapefruit by Fertilizing Biosolids from Municipal Sewage Treatment Plant of Xiamen	986
<i>Yin-an Ming, Tao Tao and Xiaodong Feng</i>	
Study on the Activity and Stability of Urease Immobilized via a Saccharide-Concanavalin a Binding	990
<i>Jian-Qin Zhou, Shao-Hua Chen, Lin Ye, Wen Li and Xia Jiang</i>	
The Biophoton Method of Assessing the Influence of Morphogenesis by the Light Quality	994
<i>Li Guang, Liu Pin and Xiaoxue Jiao</i>	
A Mathematical Model of Tumors Attacked by the Immune System	1000
<i>Lin Li and Jian Zhang</i>	
A Monte Carlo Interstitial Brachytherapy Study for AAPM TG-43 Dose Calculation Formalism in Heterogeneous Media	1005
<i>Gang Song and Yican Wu</i>	
A Specialized High Performance Matching and Distribution Algorithm	1009
<i>Siyuan Liu, Chao Liu, Chunzhe Zhao and Yu Liu</i>	
Oxidative and Binding Effect of Nano-TiO₂ on Plasmid DNA and Pepsin	1013
<i>Rongrong Zhu, Shilong Wang, Jun Chao, Xiaoyu Sun and Side Yao</i>	
Psychological Pharmacokinetics Model Based on Bayes Network with Optimal of Kernel Density Estimation of Prior Distribution	1017
<i>Hengqing Tong, Hui Peng, Jing Tang and Zhao Xu</i>	
Solid-Phase Microextraction of Volatile Compounds from Leaves of <i>Pyrosia Petiolosa</i>	1021
<i>Wenyi Kang, Jinmei Wang and Qitai Xu</i>	
Rapid Determination of Volatile Constituents from the Buds and Flowers of <i>Prunus Persica</i> (L.) Batsch. f. <i>duplex</i> Rehd	1024
<i>Wenyi Kang and Qitai Xu</i>	
Production of Coenzyme Q10 by <i>Schizosaccharomyces Prombe</i> in Supercritical Carbon Dioxide	1028
<i>Ping Liu, Jun-She Sun, Xiao Xiao and Yuanying Ni</i>	
Production of Structured Lipids by Enzymatic Incorporation of Caprylic Acid Into Soybean Oil	1033
<i>Li Liu, Ping Liu, Linyuan Li and Jun-She Sun</i>	
Reductive Dechlorination of Chlorinated Hydrocarbons in Water by Cu/Fe Bimetallic Reductant	1038
<i>De-Li Wu, Hong-Wu Wang, Jin-Hong Fan and Lu-Ming MA</i>	
Repaire of Large Segmental Bone Defects by Marrow Stromal Cells Transplant with Demineralized Bone Matrix	1042
<i>Zhao Xie, Fei Luo, Jian-Zhong Xu and Shi-wu Dong</i>	
Researching on the Selectivity Permeability Mechanism of K Channels Based on a Hierarchical Model	1046
<i>Yuzhi Liu, Hailong An, Zhendong Zhang, Suhua Zhang, Yingrong Han, Hui Liu and Yong Zhan</i>	
Screening and Phylogenetic Analysis of Halophilic Bacteria from the Deep Sea Water at Low Temperature	1050
<i>Shuhong Ye, Wan Huiping, He Lianfang, Wang Jihui, Yuanguang Li, Ding Yongsheng and Cao Fang</i>	
The Effect of ATP and P2X Receptor on Respiration in the Neonatal Rat Transverse Medullary Slice	1054
<i>Sui Ning, Yan Ma, Na-Na Song, Zi-Bing Liu, Li Li, Da-Nian Zhu and Lin-Lin Shen</i>	
Acid Volatile Sulfides in Sediments of South Yellow Sea	1058
<i>Xiaoqiang Pu, Fangcheng Li, Shaojun Zhong and Gang Liu</i>	
An Improved Template Preparation Technique for PCR Assay for Detection of <i>Enterobacter Sakazakii</i> in Infant Formula	1062
<i>Shanshan Chen, Wei Zhang, Yaowu Yuan, Zhe Qi, Xudong Su and Yongjun Li</i>	

Table of Contents

Biological Control and State Feedback Control for Nonlinear Singular System	1067
<i>Guang Yang and Xin He</i>	
Co-Infection with Porcine Circovirus Type 2, Porcine Reproductive and Respiratory Syndrome Virus, and Porcine Parvovirus Is Common in Pig Herds	1071
<i>Li Cui, Wen Zhang, Xiu-Guo Hua, Yin-Hua Lu and Pu-Yan Chen</i>	
Comparison of Defense Related Enzyme between Oligochitosan Induced Protein Kinase Gene Silenced Transgenic Tobacco and Wild Type Tobacco	1076
<i>Yafei Chen, Yong Zhan, Peng Guo, Hui Liu, Yingrong Han, Yuhong Zhang, Liya Gao, Xiaoming Zhao and Yuguang Du</i>	
Determination of Biomedicine Components of Dinocloa Puberula McClure by Py-GC/MS	1080
<i>Yi-Qiang Wu, Wan-Xi Peng, Ye Song, Yan Qing, Song Li and Wei He</i>	
Determination of Biomedicine Resource Recovery of Benzene/Ethanol Extractives of Santalum Album L. Shoots by Py-GC/MS	1083
<i>Qing-Zhi Ma, Wan-Xi Peng, Dang-Quan Zhang, Ning-Nan Zhang and Wei-Wen Wang</i>	
Determination of Xylidine Ponceau 2R in Red Chilli Pepper by HPLC With Solid Phase	1087
<i>Zhilei Zhao, Xiaoting Li and Guangchen Wu</i>	
Experimental Research on Biological Nitrogen Removal in a Modified SBR Treating Municipal Wastewater	1090
<i>Jun Li, Tao Tao, Tong Li, Bei-Ping Zhang, Xin-ping Zhou, Xue-BBin Li, Shu-hui Li, Yan-Li Wang, Qiang Li and Yan Zhang</i>	
Experimental Study on Gastric Electrophysiology Signal by Electroacupuncture at Zusanli Point on Rabbits	1094
<i>Yong Peng, Wenxue Hong, Jialin Song and Yunhui Wu</i>	
Feed Strategies for Improving Expression of Nonmitogenic Form of Human Acidic Fibroblast Growth Factor in Escherichia Coli	1098
<i>Hui Yuan and Xiao Kun Li</i>	
Fingerprinting Analysis of the Extracts from Fu Zhi San by High-Performance Liquid Chromatography with Ultraviolet and Evaporative Light Scattering Detection	1103
<i>Jingkun Zhao, Desheng Wang, Shurong Duan, Jianxiu Wang, Jing Bai and Wen Lan Li</i>	
Fingerprinting Technique of Chinese Traditional Medicine and its Applications	1108
<i>Jun Tao, Yan Wang, Ping Chen, Zhicheng Wang, Li Wen, Xuwei Jiang and Xiao Hu</i>	
Heroin-Induced Hepatotoxicity: Involved Oxidative Stress	1112
<i>Junhua Liu, Zhenhua Wang, Bao Ju and Qiusheng Zheng</i>	
Influence of Chemicals on Biofilm Removal in Cooling Water System	1119
<i>Ran Xu, Haifeng Wang and Fengting Li</i>	
Partial Nitrification to Nitrite at Low DO	1123
<i>Xiaoling Zhang, Ying Chen and Zhiying Wang</i>	
Purification and Characterization of Compound Bioflocculant	1127
<i>Wei Wang, Fang Ma, Xiuli Yue and Aijie Wang</i>	
Research of Rotatable Single Camera Object Localization Based on Man Height Model in Visual Surveillance	1131
<i>Mei-Bing Qi, Rui Zhang, Jian-Guo Jiang and Xiang-Tao Li</i>	
EA Algorithms Model for Spread Estimating and Countermeasures Evaluating	1135
<i>Siyuan Liu, Chao Liu, Yu Liu and Chunzhe Zhao</i>	
Study on N-Nitrosoureas by Electron Spray Ionization Mass Spectrometry	1139
<i>Yuan-Yuan Li, Li-Jiao Zhao, Shu-Fen Zhang and Ru-Gang Zhong</i>	
Study on the Mechanism of Transport of Hexadecane by Two Strains	1142
<i>Hongqi Wang, Ying Xiong, Yanjun Chen and Shuai Wang</i>	
Terahertz Time-Domain Spectroscopy of Crystalline Glucose and Galactose	1146
<i>Tongjun Zhang, Anli Tao and Shasha Yan</i>	
The Current Vibration in 2-(4-Hydroxyphenyl)-5-Pyrimidinal Solution by Field Effect	1150
<i>Jiac Hun Deng, Zhong Qiang Wang, Na Jin, Shou Gen Yin and Yu Lin Hua</i>	
The Effect of Solanine on the Membrane Potential of Mitochondria in HepG2 Cells and [Ca²⁺]_i in the Cells	1153
<i>Yu Bin Ji, Shi-yong Gao, Chenfeng Ji, Xiang Zou and Lei Yu</i>	
The Influence on SOD and Amylase Isozymein Wheat Exposed to Enhanced Ultraviolet-B Radiation Irradiated by He-Ne Laser	1157
<i>Mei-Ping Zhang, Rong Han, Yong-Jie Shan, Chen Wang, Wen-Ye Ma and Li-Mei Gao</i>	

Table of Contents

Tracer Study on a Modified SBR Process	1161
<i>Jun Li, Tao Tao, Hong Chen, Xin-ping Zhou, Jin Lu, Xue-BBin Li, Yan-Li Wang, Shu-hui Li, Qiang Li and Yan Zhang</i>	
Two Equations of the Transmembrane Potential on a Cell in Suspensions Exposed to External Fields at Frequency between 10KHz and 100 MHz	1165
<i>Yurong Qin, Shaolin Zhan, Jing Su and Zhiyong Zhang</i>	
Studies on the Production of Comptothecin in in Vitro Cultured Roots of Camptotheca Acuminata	1169
<i>Yueshan Yuan, Zixuan Liu, Yuesheng Yang and Hong Wu</i>	
<u>Biostatics, Biometric, Biomeasurement and Biomechanics</u>	
Detecting Nonlinear Properties of Snoring Sounds for Sleep Apnea Diagnosis	1173
<i>Tsuyoshi Mikami</i>	
Experimental Measurement in Multi-Fields of Human Foot Under Simulated Body Weight Loading	1177
<i>Wenxin Niu, Feng Xu, Zuquan Ding, Yunfeng Yang, Guangrong Yu and Yu-Bo Fan</i>	
A Bayesian Approach to Weibull Survival Model for Clinical Randomized Censoring Trial Based on MCMC Simulation	1181
<i>Xujie Zhao, Chao Yu and Hengqing Tong</i>	
Strain Analysis of Pelvis After Iliac Bone Tumor Resection	1185
<i>Liming Cheng, Yongwei Jia, Guangrong Yu, Yu Yan, Zhiyong Yang, Yongjian Lou, Ming Ni, Bo Chen and Zuquan Ding</i>	
Nonlinear Mixed Effects Modelling Viral Load in Untreated Patients with Chronic Hepatitis C	1189
<i>Jian Huang, Kathleen O'Sullivan, Elizabeth Kenny-Walsh, Orla Crosbie, John Levis and Liam J. Fanning</i>	
Three Modals Biometric Information Fusion Based on Image Quality Estimation	1193
<i>Lijun Guo and Bao-Feng Ma</i>	
The Design of a Low-Power Self-Contained Multi-EX-EM Array Deep Sea In Situ Organism Measurement Device	1196
<i>Le-Chuan Zhou, Shuming Ye, Hang Chen, Jian-Min Pan and Jun-Yi Yang</i>	
Identification of Phosphorylation Sites Using SVMs	1200
<i>Jinyan Huang, Tonghua Li and Kai Chen</i>	
A Novel Method Reflecting Arterial Blood Pressure Changes Based on FFT Analysis for Single Pulse Waveform	1205
<i>Ke Xu, Qi Zhou and Huijeng Yang</i>	
The Measurement of the Activity of Rabbit Muscle Lactic Dehydrogenase by Integrating the Classical Initial Rate Method with an Integrated Method	1209
<i>Zhenli Cheng, Hong Chen, Yunsheng Zhao, Xiaolan Yang, Wei Lu, Hong Liao, Ming'An Yu and Fei Liao</i>	
Pyrolysis- GC/MS Analysis of Biomedical Components of the Pyrolyzate of Santalum Album Leaf Treated by Benzene/Ethanol Extraction	1213
<i>Dang-Quan Zhang, Qing-Zhi Ma, Wan-Xi Peng and Qi-Mei Liu</i>	
Pyrolysis- GC/MS Analysis of Biomedical Constituents in the Acetone Extractive of Osmanthus Fragens Leaf by Ultrasonic Extraction	1217
<i>Qi-Mei Liu, Yin-She Luo, Hong Wang, Wan-Xi Peng, Sheng-Ming Chen, Min Yu, Dang-Quan Zhang and Qing-Zhi Ma</i>	
Research on Micro-Force Measurement Based on Image Detection of Revolving Target	1221
<i>Peng Yu and Bin He</i>	
Biomechanical Analysis of Tibial Insert Under Varus Tilt After Medial Unicompartmental Knee Arthroplasty	1225
<i>Chen-Tung Yu, Chien-Wei Liu, Wenlung Li, Chia-Chi Lo, Ching-Sung Wang and James Cheng-Chung Wei</i>	
Empirical Bayesian Approach for Variance Component Model in Genetic Analysis of Psychological Disorder	1229
<i>Hengqing Tong, Chao Yu, Xujie Zhao and Yang Liu</i>	
Measurement-Based Research on the Biomechanics Characteristics of a Knee Joint	1233
<i>Lianqing Yu, Xian Tang, Lizhen Du and Cheng Rao</i>	
Effect of Montmorillonite on Diffusion of Creatinine Between Blood Vessel and Intestine	1237
<i>Li-hui Long, Zhao Ma, Yongxiao Cao, Jing Liu and Ting Zhai</i>	
Determination of Biomedicine Resource of Benzene/Ethanol Extractives of Masson Pine(Pinus Massoniana L.) Wood by Py-GC/MS	1241
<i>Wan-Xi Peng, Yuan Liu, Yi-Qiang Wu, Jian-Zheng Qiao and Wen-Bang Wei</i>	
Determination of Biomedicine Resource of Benzene/Ethanol Extractives of Flesh Eucalyptus Urophydis Chips by Py-GC/MS	1244
<i>Wan-Xi Peng, Yi-Qiang Wu, Dang-Quan Zhang, Shu-Bin Wu and Yang Tan</i>	

Table of Contents

Bioimpedance Measurement: Modeling of Coplanar Electrodes and Impedance Characterization	1248
<i>Gang Yang, Haiyan Long, Hua Tian, Shiqiang Luo and Hua Huang</i>	
Pyrolysis- GC/MS Determination of Biomedical Components of the Pyrolyzate from Fruit Hull and Kernel Hull of Camellia Oleifera Fruit	1252
<i>Dang-Quan Zhang, Xiao-Feng Tan, Hua Tian, Qi-Mei Liu and Wan-Xi Peng</i>	
Generalized Ridge Estimation for Psychology Variance Component Model	1256
<i>Haiying Wu, Hengqing Tong and Tianzhen Liu</i>	
Calculation of the Effect of Solanine on the Michaelis Constant and the Maximum Reaction Rate of NAT	1260
<i>Shi-yong Gao, Yu Bin Ji, Xiang Zou and Chenfeng Ji</i>	
<u>Clinical and Rehabilitation Engineering</u>	
Classification Accuracy of an Imagined-Movements Mental Task Set for Brain-Machine Interface	1264
<i>Michael Lochinvar S. Abundo, Eliezer A. Marco, Gino Francisco R. Mempo, Marc Caesar R. Talampas and Luis S. Sison</i>	
Finite Element Simulation of Drill Bit and Bone Thermal Contact During Drilling	1268
<i>Yuan-Kun Tu, Li-Wen Chen, Ching-Chieh Huang, Yung-Chuan Chen, Hsun-Heng Tsai and Li-Chiang Lin</i>	
Automatic Voice Quality Measurement Based on Efficient Combination of Multiple Features	1272
<i>Ji-Yeoun Lee, Sangbae Jeong, Minsoo Hahn and Hong-Shik Choi</i>	
Generalized Predictive Control of Depth of Anesthesia by Using a Pharmacokinetic-Pharmacodynamic Model of the Patient	1276
<i>Atieh Bamdadian, Farzad Towhidkhalah and Mohammad Hassan Moradi</i>	
Dynamic Walking Planning for Gait Rehabilitation Robot	1280
<i>Zhiguo Feng, Jinwu Qian, Yanan Zhang, Linyong Shen, Zhen Zhang and Qiyuan Wang</i>	
Preliminary Experiments on Physiological Gait Movement of the Powered Gait Orthosis	1284
<i>Qiyuan Wang, Jinwu Qian, Yanan Zhang, Linyong Shen, Zhen Zhang, Zhiguo Feng and Zeyong Tao</i>	
Porosity Prediction with Settlement and Biodegradation in Municipal Landfill	1289
<i>Bing Liang, Lei Liu, Qiang Xue and Ying Zhao</i>	
An Automatic Knowledge Acquisition Mechanism for Independent Inference Engine Module of CDSS	1293
<i>Binfei Wu, Xudong Lu and Huilong Duan</i>	
Study on Mental Fatigue with Pulse Dynamic Images	1297
<i>Aihua Zhang, Weigang Guo and Lingling Hao</i>	
Research on Control of an Exoskeletal Ankle with Surface Electromyography Signals	1301
<i>Zhen Zhang, Zhen Wang, Songli Yao, Yanan Zhang and Jinwu Qian</i>	
Implementation of Inverse Planning Optimization in Intensity Modulated Radiotherapy Using Genetic Algorithms	1305
<i>Chao-min Chen, Mu-Tao Tang, Ling-Hong Zhou, Zhuo-Yu Wang, Qing-Wen Lv and Hua-bin Sun</i>	
Development of Legs Rehabilitation Exercise System Driven by Pneumatic Muscle Actuator	1309
<i>Xiao Li, Hong Xia and Ting Guan</i>	
Research on Subdivision of Female Breasts Based on 3- Dimensional Interactive Anthropometric Technology	1312
<i>Li-Xia Chang, Xin Zhang and Ming-Wang Shi</i>	
Application of Hemi-Hip Joint Arthroplasty	1316
<i>Lan Chen, Mingzhao Chen, Lantian Chen, Ming Hu and Yiwang Bao</i>	
Computer-assistant Drug Discovery with the Netezza Architecture	1319
<i>Li Bai, Qitai Xu, Guy M. Lingani, Clay S. Gloster, William Southerland and Zengjian Hu</i>	
Gyro-effect and Earnshaw's Theorem: Stable and Unstable Equilibrium for Rotary and Stationary Permanent Magnetic Levitators	1323
<i>K. X. Qian and H. X. Xu</i>	
Novel Connecting Conduit-Free and Bypass Circuit-Less Mini LVADs for Reducing Thrombosis Risk	1326
<i>K. X. Qian and Teng Jing</i>	
Regurgitation of a Mini Axial Pump with Closed Impeller Used As a Valvo-Pump	1329
<i>K. X. Qian and Ji Ying</i>	
Effects of Puerarin on Monoamino Neurotransmitter Levels in the Striatum of Cerebral Ischemia Rats	1332
<i>Hui Li and Xiaoxiang Zheng</i>	

Table of Contents

Real-time Health Monitoring Systems

A Portable ECG Signal Monitor and Analyzer	1336
<i>Ying-Chien Wei, Yu-Hao Lee and M. S. Young</i>	
A Real-Time Heart-Rate Estimator from Steel Textile ECG Sensors in a Wireless Vital Wearing System	1339
<i>Mu-Huo Cheng, Li-Chung Chen, Ying-Che Hung, Chang Ming Yang and Tzu Lin Yang</i>	
Real-time Estimation of Missing Markers in Human Motion Capture	1343
<i>Andreas Aristidou, Jonathan Cameron and Joan Lasenby</i>	
Mobile and Wireless Technologies on Sphygmomanometer and Pulsometer for Patients Setting Pacemaker and Complicating with Other Cardiovascular Disease	1347
<i>Ching-Sung Wang, Teng-Wei Wang, Jung-Hunag Lee and Chien-Wei Liu</i>	
Pervasive Communications for Care Professionals in Hospitals	1351
<i>Chih-Yen Chiang, Po-Yen Lin, Chih-Ning Huang, Yi-Chieh Chou, Woei-Chyn Chu, Chia-Tai Chan and Pi-Chung Wang</i>	
Design and Implementation of Teleconsultation System for Instant Treatment	1355
<i>Yu-Chia Hsu, Po-Yen Lin, Steen J. Hsu and Chia-Tai Chan</i>	
Development of a Fall Detecting System for the Elderly Residents	1359
<i>Chia-Chi Wang, Chih-Yen Chiang, Po-Yen Lin, Yi-Chieh Chou, I-Ting Kuo, Chih-Ning Huang and Chia-Tai Chan</i>	
Emotion Recognition from Surface EMG Signal Using Wavelet Transform and Neural Network	1363
<i>Bo Cheng and Guangyuan Liu</i>	
A Wireless Sensor Network Based on ZigBee for Telemedicine Monitoring System	1367
<i>Xiao Hu, Jiaqing Wang, Qun Yu, Waixi Liu and Jian Qin</i>	
Ubiquitous Intelligent Monitoring System in Psychological Health	1371
<i>Jing Tang, Hengqing Tong, Hui Peng and Yang Liu</i>	
Wet-Spinning Medicated PAN/PCL Fibers for Drug Sustained Release	1375
<i>D. G. Yu, X. X. Shen, Y. Zheng, Z. H. Ma, L. M. Zhu and C. Branford-White</i>	
Preparation, Sustained-Release and Transdermal Penetration Properties of Drug-Loaded Hollow Fibers	1379
<i>S. J. Zhu, D. G. Yu, L. M. Zhu and C. Branford-White</i>	
The Toxicity and Physiological Effect of Unripe Husks of Juglans Regia on Teranychas Viennensis	1383
<i>Y. N. Wang, H. X. Wang, K. F. Fang, X. Y. Su, J. J. Ren and G. L. Shi</i>	
Nadi Yantra: A Robust System Design to Capture the Signals from the Radial Artery for Non-Invasive Diagnosis	1387
<i>Abhinav, Meghna Sareen, Mahendra Kumar, Sneha Anand, Ashok Salhan and Jayashree Santhosh</i>	
A Health Monitoring System Based on Pocket PC for Community Aging Residents	1391
<i>Jianxin Zhu, Leina Gao and Xinfang Zhang</i>	
Extracting Motional Information from the PhotoPlethysmography Using Reconstruction of the Wavelet Transforms Modulus Maxima	1395
<i>Kun Zhang, Teng Jiao, Xiuzhen Dong and Wen Zhang</i>	
<u>Bioelectrical and Neural Engineering, Biomaterial and Biomedical Optics</u>	
FEL Applications in Biomedical Investigations	1399
<i>Elaheh Aghabalaiee Khordechi and K. Maghooli</i>	
Protein Gels from Cobwebs of Spiders for Biomedical Application	1405
<i>Aby Thyparambil, N. R. Nambratha, R. K. Amith, H. S. Pavithra, V. B. Pramila, M. Rajyalakshmi and Savithri Bhat</i>	
On Measuring the Changes in Stroke Volume from a Peripheral Artery by Means of Electrical Impedance Plethysmography	1409
<i>Jia-Jung Wang, Wei-Chih Hu, Tsiar Kao and Chun-Peng Liu</i>	
The Relationship Between Changes in Amplitude and Instantaneous Mean Frequency at Low and High Frequency Bands During Dynamic Contraction	1413
<i>Yewguan Soo, Masao Sugi, Hiroshi Yokoi, Tamio Arai, Tatsuhiro Nakamura, Rulin Du and Jun Ota</i>	
Preparation of Nano-Sized Collagen I and Collagen II Particles	1417
<i>Shyh Ming Kuo, Shwu Jen Chang, Ioannis Manousakas, Li Chun Lin and Ting Wei Liu</i>	
Alginate-Templated Microcapsules Carrying Heparin via Layer-by-Layer Self-Assembly	1420
<i>Juan Li, Xinrong Liu, Baoqing Zhu, Yingya Shao, Dongxu Zhao and Xinlin Yang</i>	

Table of Contents

Difference of the Infrared Spectrum Radiated from the Acupoints on Human Bodies between Healthy Volunteers and Patients Suffering from Coronary Heart Disease.....	1424
<i>Wei Yao, Guanghong Ding and Xueyong Shen</i>	
Magnetosome Assembling and Optimization of Growth Conditions of the Magnetospirillum Magneticum AMB-1 Strain.....	1428
<i>Yuhong Zhang, Shiyong Ren, Hongqing Wu and Tian Xiao</i>	
Feature Selection using Relative Wavelet Energy for Brain-Computer Interface Design.....	1434
<i>Haibin Zhao, Xu Wang and Hong Wang</i>	
Analysis on Characteristics of Regional Material Metabolism Based on MFA: A Case Study of Chengyang District in Qingdao.....	1438
<i>Zhenfeng Zhou and Lei Sun</i>	
Signal Component Analysis by Use of a Diffusion Model and its Application for Autonomic Nerve Function Evaluation.....	1442
<i>Yifa Jiang, HanXiao Ye, Qing Zhou and Shishao Liu</i>	
Coherence Resonance in a Noise-Driven Nonlinear Integrate-And-Fire Model.....	1446
<i>Zhi-hong Liu, Yurong Zhou and Xiao-feng Peng</i>	
Hyper-Chaos and Singular Beats in Congestive Heart Failure	1449
<i>Cheng Li, Da-Kan Tang, Guo-Qiang Wu and Chi-Sang Poon</i>	
Coherence and Stochastic Resonance of the Fithugh-Nagumo System Caused by Coloured Noise.....	1453
<i>Yurong Zhou, Anying Zhang and Xiaofeng Pang</i>	
FECG Extraction Based On BSS Of Sparse Signal.....	1457
<i>Wenting Shao, Bin Fang, Pu Wang and Mingrong Ren</i>	
Modeling and Simulation of Three Orthogonal Transthoracic Electrical-fields for Localization Method of Intracardiac Catheter	1461
<i>Dakun Lai, Taotao Cao and Zuxiang Fang</i>	
Biological Functions of and Laser Raman Spectrum Test on Lycopene	1464
<i>ChunYu Liu and HongXing Cai</i>	
Decoding Hand Kinematics and Neural States Using Gaussian Process Model.....	1468
<i>Jianwei Liu, Weiming Li, Xionglin Luo and Hongjuan Zhang</i>	
Thermal Gradient Instrument for Gene Amplification.....	1472
<i>Jinhe Wang</i>	
Micro-Raman Spectroscopy Monitor Methemoglobin Induced by Sodium Nitrite in Whole Blood	1476
<i>Gaoshan Shen, Huaimin Gu, Tianxiu Yan and Huajian Wei</i>	
Biomimetic Surface Modification of Poly (L-Lactic Acid) with Chitosan and Gelatin for Cartilage Tissue Engineering	1480
<i>Yuan-Lu Cui, Xiu-Mei Gao, Jun-Sheng Tian and Kang-De Yao</i>	
A Thermodynamic Analysis Model on the Thermoelastic Martensitic Transformation.....	1484
<i>F. M. Chen, Y. R. Tan, X. Huang, X. X. Lan, W. Guan, H. X. Yang and Z. Q. Wu</i>	
Effects of Light Regime on Extracellular Polysaccharide Production by Porphyridium Cruentum Cultured in Flat Plate Photobioreactors	1488
<i>Sun Liqin, Changhai Wang and Shi Lei</i>	
Analysis of Low Temperature Plasma on Polyurethane Surface	1492
<i>Wen Zeng, Tianrui Zhou and Jie Zhou</i>	
Experimental Study on Gastric Juice Secretion by Electroacupuncture at Yanglingquan Point on Rabbits under Effect of Cimetidine.....	1496
<i>Yong Peng</i>	
Comparison of Drive Patterns for Single Current Source EIT in Computational Phantom.....	1500
<i>Canhua Xu, Xiuzhen Dong, Xuetao Shi, Feng Fu, Wanjun Shuai, Ruigang Liu and Fusheng You</i>	
Time-Frequency Coding via Wavelets Analysis for Bursting Spikes of Neuron Firing.....	1504
<i>Xin Tian and Xinling Geng</i>	
The Effect of Irradiation Degradation of Chitosan with Gamma-ray on the Enzymatic Degradability in Vitro of Chitosan-based Biomembrane	1507
<i>Bo Liu, Yi Guang Wu, Zong Kun Zheng, Wen Lin Yang, Qun Ying Chen and Xin Zheng Huang</i>	
PEDOTiCo Films Prepared by Electrochemical and Chemical Polymerization.....	1510
<i>Hongjuan Zeng, Anying Zhang, Xifeng Pang and Yadong Jiang</i>	

Table of Contents

Fabrication and Characterization of Electrospun Poly(L-Lactic Acid)and Poly(L-Lactide-Co-Glycolide) Mats as Wound Dressing.....	1514
<i>Shuying Gu, Zhimei Wang, Jie Ren and Chunyan Zhang</i>	
The BP Network Model for the Control of the Coagulation and the Filter Backwashing System	1518
<i>Xuenong Yi, QiuMei Wei and ChenGuang Li</i>	
Rapid Platinum Coating on Maghemite Nanoparticle Surface	1522
<i>Rong Hu, Quanguo He, Jingke Huang, Wei Wu and Lei Zeng</i>	
Fabrication and Characterization of HAp/Al₂O₃ Composite Coating on Titanium Substrate.....	1526
<i>Zhou-Cheng Wang, Yong-Jin Ni and Jin-Cong Huang</i>	
In Vitro Static Adsorption Behavior of Sulfated Konjac Glucomannan Gel Beads.....	1531
<i>Ying-Qing Zhang, Xin Gan, Xiao-Li Li and Bi-jun Xie</i>	
<u>Biomedical Devices, Sensors and Nano-Technologies</u>	
Different Approaches for Detecting Glucose.....	1535
<i>Saeedeh Lotfi Mohammad Abad and Keivan Maghooli</i>	
A Novel Type Cationic Silica Nanoparticles and its Potential Application in Biomedicine.....	1539
<i>Li Liu, Toshio Takenaka, Anatoly A. Zinchenko, Ning Chen, Yue Ma and Kenichi Yoshikawa</i>	
The Study of a Handheld Digital Microscope for Biomedical Applications.....	1543
<i>Yu-Jen Chen, Yu-Sing Yeh, M. S. Young, Yan-Chay Li, Chen-Song Chiang, Sun-Lon Jen and K. N. Huang</i>	
Bionic Design and Analysis of Biped Robot with Heterogeneous Legs.....	1547
<i>Hualong Xie, Jiashun Shi, Yongxian Liu and Xinhe Xu</i>	
Development of Micro-Tweezers for Tissue Micro-Manipulation	1551
<i>Ruth E. Mackay and Huirong Le</i>	
Laser Doppler and Laser Speckle Techniques for Blood Flow Measurement	1555
<i>Glalol Nazari Golpaygani and Keivan Maghooli</i>	
Design of a Novel Acid-Sensing Biosensor Based on Taste Neurons and LAPS.....	1561
<i>Peihua Chen, Gong Cheng, Bingqing Wang, Ping Wang and Xiao-Dong Liu</i>	
A Miniaturized PSK Demodulation Device for Short-Range Wireless Neural Prosthetic Systems	1565
<i>Cihun-Siyong Alex Gong, Kai-Wen Yao, Muh-Tian Shiue, Po-Yen Lin and Chih-Ning Huang</i>	
An In-Vitro Measurement of Temperature Changes in Phacoemulsification System During Different Modes.....	1569
<i>Radin Tahvildari, Hanieh Fattahi and Ahmad Amjadi</i>	
A Primary Research of the Relationship Between Breast Tissues Impedance Spectroscopy and Electrical Impedance Scanning.....	1575
<i>Kan Wang, Xiuzhen Dong, Feng Fu, Qimei Liao, Ruigang Liu, Zhenyu Ji and Ting Wang</i>	
An Arterial Cuff Energy Scavenger For Implanted Microsystems.....	1580
<i>Joseph A. Potkay and Karen Brooks</i>	
Proportional-Integral-Differential Controller for Polymerase Chain Reaction.....	1584
<i>Jinhe Wang and Nan Zhang</i>	
Application and Analysis of Computerized Simulation System of Dynamic Occlusion for Complete Denture.....	1588
<i>Xiaojun Chen, Chengtao Wang and Eryi Lu</i>	
Nano-Sized Spherical Polyelectrolyte Brushes: Potential Protein Carriers and Diagnostic Tools.....	1592
<i>Xiang Wang, Jun Xu, Li Li, Xuhong Guo and Catrin Junge</i>	
Biosensing with Localized Surface Plasmon Resonance Based on Cap-Shaped Gold Nano-Particles.....	1596
<i>Zhong Cao, Fu-Chun Gong, Xi-Xi Huang, Shu-Zhen Tan, Hiroyuki Takei and Juergen Pipper</i>	
Computer Modeling and Analysis on A New Biomedical Instrument.....	1599
<i>Jeremy Li and Sharon Wang</i>	
Oral Fast-Dissolving DDD Fabricated Using 3DP.....	1602
<i>D. G. Yu, X. X. Shen, J. Han, L. M. Zhu, C. Branford-White, X. Y. Li and X. L. Yang</i>	
Decreasing the Defibrillation Energy by Optimizing the Pulse Duration of Electrical Shock.....	1606
<i>Hailang Song, Xiaomei Wu, Zuxiang Fang and Cuiwei Yang</i>	

Table of Contents

Application of Feedforward Technology in the Polymerase Chain Reaction Device	1609
<i>Jinhe Wang and Nan Zhang</i>	
The Development of Six-Channel Speech Processor for Cochlear Implant Based on DSP	1613
<i>Wei-Bing Chen, Ling-Hong Zhou, Lin-Jing Wang and Zhong-Ju Xiao</i>	
Preparation of PPy film and its Application to Glucose Biosensor	1617
<i>Xiangzhong Ren, Yingkai Jiang, Xun Liang, Jianhong Liu and Peixin Zhang</i>	
Study of Pulse Wave Signal Generator	1621
<i>Yangliu Wang, Song Zhang, Yimin Yang and Wei Lv</i>	
The Establishment of a Non-Invasive Continuous Blood Pressure Measure System Based on Pulse Transit Time	1624
<i>Dingli Li, Yi Pan, Hang Chen, Shuming Ye and Hong Yan</i>	
An Optical Immunosensor Based on Surface Plasmon Resonance for Human cTnI Determination	1628
<i>Wei Jin, Ying Mu, Qinhan Jin, Daqian Song, Jingyan Wei, Hanqi Zhang and Xiaochen Lin</i>	
Researching on the Preprocessor of Microwave-Induced Thermoacoustic Signals	1632
<i>Teng Jiao, Yusen Wei, Hua Wang, Xinya Zhu, Ying Yang, Xiao Yu and Guosheng Yang</i>	
Identifying Traditional Chinese Medicines by the Chemical Imaging Device	1636
<i>Jing Zhao, Qichang Pang, Ji Ma, Xiwen Zheng and Qingxia Meng</i>	
Spectrophotometric Detection of Dimethyl Methyl-Phosphonate Using Plant-Esterase	1640
<i>Changjun Hou, Limin Yang and Danqun Huo</i>	
Research and Development of Print Quality Inspection System of Biochips	1644
<i>Aike Qiao, Zhangjun Ma, Pengbin Fu, Hongbin Zhang and Jianchun Guan</i>	
Respiratory Rate Monitoring Gauze Mask System Based on a Pyroelectric Transducer	1648
<i>Y. P. Huang, M. S. Young and K. N. Huang</i>	
Stress Analysis on Bioprosthetic Heart Valve Leaflets with Different Shapes	1650
<i>Quan Yuan, Chengrui Zhang, Changan Liu and Liqing Hao</i>	
Preparation of Composite Conducting Materials and its Application to Glucose Biosensor	1654
<i>Xiangzhong Ren, Yingkai Jiang, Xun Liang, Jianhong Liu and Peixin Zhang</i>	
Research of Blood Coagulation Detection Technique by the Principle of the Liquor Electrical Resonance	1658
<i>Yukun Zhou, Qi Zhou, Hui Feng Yang, Cuicui Min, Ke Xu, Shijun Xu and Jun Xiao</i>	
Analysis of Friction Forces in a Micro Servo Valve for Medical Equipment	1661
<i>MeiLei Lv, MeiJun Hu and XingYao Yan</i>	
<u>Biomedical Modeling, Biomechanics and Biotransport</u>	
Design of Real Time Web Centric Intelligent Health Care Diagnostic System using Object Oriented Modeling	1665
<i>P. M. Beulah Devamalar, V. Thulasi Bai, N. Murali and S. K. Srivatsa</i>	
Image-Based Meshing of Patient-Specific Data: Converting Medical Scans Into Highly Accurate Computational Models	1672
<i>Rajab Said, Jenssen Chang, Philippe Young, Gavin Tabor and Sam Coward</i>	
Change in Rate Sensitivity of Skin Tissue Induced by Thermal Damage	1677
<i>Feng Xu and Tianjian Lu</i>	
Needle Insertion Simulation for Image-Guided Brachytherapy of Prostate Cancer	1682
<i>Shan Jiang, Nobuhiko Hata and Ron Kikinis</i>	
Determination of Dynamic Respiratory Mechanics with the Adaptive Slice Method	1686
<i>Zhanqi Zhao, Knut Möller, Stefan Schumann and Josef Guttmann</i>	
Cryogenic Heat Transfer Inside the Tissues with Thermally Significant Blood Vessels During Cryosurgery	1690
<i>Gang Zhao, Qian-Feng Yu and Zhi-feng Liu</i>	
Effects of Inlet and Outlet Conditions on Fluid-Wall Interaction Models in Hemodynamics	1694
<i>Fan He and Xiao-Yang Li</i>	
Computer Aided Design and Deformation of the Complete Crown	1699
<i>An Tao, Liao Wenhe, Dai Ning, Lu Peijun and Wang Yong</i>	
Medical Robotic System for Minimally Invasive Spine Surgery	1703
<i>Yinhao Song, Gang An, Jianxun Zhang and Yanqiu Chen</i>	

Table of Contents

Inhalation of Toxic and Therapeutic Particles in a Human Nasal Cavity	1707
<i>K. Inthavong, J. Wen and J. Y. Tu</i>	
Effects of Stent Design Parameters on Radial Force of Stent	1712
<i>Xiang Shen, Hong Yi and Zhonghua Ni</i>	
Development of the Pia-Arachnoid Complex Finite Element Model	1717
<i>Chunsheng Ma, Xin Jin, Jinhuan Zhang and Shilin Huang</i>	
The Design of Wheelchair Based on SEMG Control	1721
<i>Liu Chong and Hong Wang</i>	
Transurethral Prostatic Thermotherapy with a New Device in the Canine Prostate	1725
<i>Xia Xiang, Shuxia Cheng, Hanping Hu and Gang Zhao</i>	
Simulation Analysis of Conduction Block in Myelinated Axons Using Three Models	1729
<i>Lei Yu, Xu Zhang, Anyu Chen and Z. H. Ren</i>	
Study on the Viscoelasticity of Cancellous Bone Based on Higher-Order Fractional Models	1733
<i>Jia Guo Liu and Ming Yu Xu</i>	
Responses of a Noisy Hodgkin-Huxley Neuron Model with Suprathreshold Superimposed Forcing	1737
<i>XiaoBing Liang, XiShun Liu, AnZhi Liu and Boliang Wang</i>	
Pulse Coupled Neural Network Modeling of Firings in Hippocampus CA3	1741
<i>Ting Liu and Xin Tian</i>	
Experimental and Numerical Analysis in Vitro with a Water-Cooled Microwave Ablation Antenna	1744
<i>Qun Nan, Youjun Liu and Zeng Yi</i>	
Patient-Specific Hemodynamic Analysis for Cerebral Aneurysm	1748
<i>Shengzhang Wang, Jialiang Chen, Xinjian Yang and Xiaolong Zhang</i>	
Graphical Model of Cardiac Electromagnetic Source	1751
<i>Ming Chi, Shiqin Jiang and Lei Zhang</i>	
Constitutive Relation for Cryopreserved Rabbit Carotid Arteries and its Application	1754
<i>Gang Zhao, Yu-xuan Zheng, Yong Gao and Pei-Tao Wang</i>	
Feature Extraction of Surface EMG Signal Based on Wavelet Coefficient Entropy	1758
<i>Xiao Hu, Qun Yu, Waixi Liu and Jian Qin</i>	
The Hemodynamic Effects Analysis of the New CPR Technique-Electro Ventilation Double Pump CPR: Studies in the Computer Model	1761
<i>Yanru Zhang, Xu Lin, Xiaoming Wu, Qiong Liu and Hengxin Yuan</i>	
Simulation of Motor Cortex Connectivity in Different States	1765
<i>Dong-Mei Hao, Ying Li and Ming-Ai Li</i>	
Gene-Certificate Based Method for Network Trust	1769
<i>Feixian Sun, Lei Pan, Tao Li and Jinquan Zeng</i>	
Design and Optimization Analysis of Open-MRI Compatible Robot for Neurosurgery	1773
<i>Zaidi Hong, Chao Yun, Lei Zhao and Yang Wang</i>	
A Computational-Biomechanical Evaluation of Three Different Functional-Reconstructions with Internal Fixation Following Resection of Peri-Acetabular Tumors	1777
<i>Bo Chen, Feng Xu, Zuquan Ding, Murong You and Guangrong Yu</i>	
Design of Three-Dimensional Interactive Visualization System Based on Force Feedback Device	1780
<i>Nan Ma, Youjun Liu, Aike Qiao and Jianjun Du</i>	
A Common Framework for Generating Liver Tetrahedral FEM Models from CT Slices	1784
<i>Shaohui Huang, Boliang Wang, Xiaoyang Huang and Ming Cheng</i>	
Modeling of Human Crystalline Lens	1787
<i>Xirui Zhang, Yuhua Peng, Xiaobing Wang and Aizhen Liu</i>	
Digital Design of Fixed Bridge Framework	1792
<i>An Tao, Dai Ning, Xiaosheng Cheng, Lu Peijun and Wang Yong</i>	
A Hemodynamics Minimal Model for the Cerebral Circulation of Willis Based on Graph Theory	1796
<i>Jinxue Sui, Yun'an Hu, Li Yang and Zhen Hua</i>	

Table of Contents

Computational Analysis of Connectivity in the Mammalian Cerebral Cortex	1800
<i>Ying Li, Dong-Mei Hao and Ming-Ai Li</i>	
Influence of Human Body Temperature on Compressive Mechanical Properties of UHMWPE Acetabular Cup Material	1804
<i>Xiao-Wen Zheng and Hui-Rong Meng</i>	
Parameter Optimization and Analysis on Surgery for Fracture of the Femur Neck Based on QCT	1809
<i>Tianmiao Wang, Baoqing Pei and Junqiang Wang</i>	
DYNAMIC Model of the Aqueous Humor Circulation with Consideration of the Uveoscleral Adjustment	1813
<i>Ying Ju, Boliang Wang, Shaohui Huang, Jiezen Xie and Xiaoyang Huang</i>	
Biomechanical Model of Cornea Deformation and Simulation	1818
<i>Jie-Zhen Xie, Bo-Liang Wang, Ying Ju and Bo Liu</i>	
New Target Controlled Infusion Using a Hybrid Physiologically Based Pharmacokinetic Model	1822
<i>Xuan Wang, Yi Pan, Hang Chen, Shuming Ye and Xinzhong Chen</i>	
Biomechanical Properties of Experimental Myopia in the Guinea Pig	1825
<i>Xiaojun Wang, Weiyi Chen, Yanjun Li and Tieying Gao</i>	
A Biomechanics Model to Simulate the Entire Cytokinesis Process	1828
<i>Meiwen An and Wenzhou Wu</i>	
Suppression of the Respiration Interference in the Arterial Photoplethysmography	1832
<i>Yuliang Liu and Jianxin Lian</i>	
Stability Analysis of the Pelvis after Type I Resection of Iliac Tumor	1836
<i>Yongwei Jia, Liming Cheng, Guangrong Yu, Yan Yu, Yongjian Lou, Zhiyong Yang, Ming Ni, Bo Chen and Zuquan Ding</i>	
Reconstruction of 3D Bladder Model and Computation of Intra-Vesical Volume During Storing Based on Magnetic Resonance Imaging	1840
<i>Haijun Niu, Wei He, Menglu Wu, Ran Li, Shuhan Jia, Fang Pu, Shu-Yu Li, Deyu Li and Yu-Bo Fan</i>	
Fuzzy Bayesian Conditional Probability Model and its Application in Differential Diagnosis of Non-Toxic Thyropathy	1843
<i>Yecai Guo and Jichen Ling</i>	
Finite Element Musculoskeletal Modeling of Mechanical Virtual Human of China	1847
<i>Xueling Bai, Gaofeng Wei, Ming Ye, Dongmei Wang, Yan Hu, Zongliang Liu, Wenzhong Nie, Linlin Zhang, Wenting Ji, Yunting Li and Chengtao Wang</i>	
Simulation of Hemodynamics in Bypassed Aortic Dissection	1851
<i>Aike Qiao, Zhaoyong Gu and Xianlong Meng</i>	
Vol III: Biomedical Imaging and Pattern Recognition	
<u>Pattern Recognition and Machine Learning in Biology</u>	
An Improved Clustering Algorithm Based on Ant-Tree	1855
<i>Xiaochun Yang, Weidong Zhao and Li Pan</i>	
Learning ECG Patterns with the Aid of Multilayer Perceptrons and Classification Trees	1859
<i>Yu-Jen Lin, Shun-Ning Tsai and Jing-Xiong Yang</i>	
MRS Feature Extraction: Time-frequency and Wavelet Analysis	1863
<i>S. Zarei Mahmoodabadi, Javad Alirezaie, P. Babyn, A. Kassner and E. Widjaja</i>	
Robust Electrocardiogram Beat Classification using Discrete Wavelet Transform	1867
<i>Fayyaz A. Afsar and M. Arif</i>	
3D Pose Estimation via Elliptical Fourier Descriptors for Deformable Hand Representations	1871
<i>Ahmadreza Rezaei, Mansur Vafadoost, Sadegh Rezaei and Ayub Daliri</i>	
A Research on Extracting Low Quality Human Finger Vein Pattern Characteristics	1876
<i>Yu Chengbo, Qing Huafeng and Zhang Lian</i>	
A Novel Feature Selection Method and its Application on the Heart SPECT Standard Data	1880
<i>Azadeh Sadooghi and Mohammad Mikaili</i>	
Classification of the Direction Perceived EEG based on ICA-F-Score Approach	1884
<i>Jing Jin, Xingyu Wang and Jianhua Zhang</i>	

Table of Contents

Classification of Left and Right Hand Motor Imagery Tasks Based on EEG Frequency Component Selection	1888
<i>Xiaomei Pei and Chongxun Zheng</i>	
A Gas Concentration Detection Algorithm Based on Biochemistry Molecular Relaxation Models	1892
<i>Ming Zhu, Shu Wang and Donghai Xia</i>	
Measuring the Similarity of Co-Regulated Genes by Integrating Quantity and Tendency of Gene Expression Changing	1896
<i>Han Wang, Guixia Liu, Chunguang Zhou, Lei Liu, Ming Zheng, Yangwen Li and Shanghong Zheng</i>	
A Non-EST-Based Method for Alternative 5'/3' Splice Sites Prediction in the Mouse Genome	1901
<i>Wuritu Yang and Qian-Zhong Li</i>	
Study on the Identity Authentication System on Finger Vein	1905
<i>Zhang Lian, Zhang Rui and Yu Chengbo</i>	
A Novel Two-Stage Cancer Classification Method for Microarray Data Based on Supervised Manifold Learning	1908
<i>Lei Zhu, Bin Han, Lihua Li, Shenhua Xu, Hanzhou Mou and Zhiguo Zheng</i>	
Biclustering of Gene Expression Data with a New Hybrid Multi-Objective Evolutionary Algorithm of NSGA-II and EDA	1912
<i>Fei Luo and Juan Liu</i>	
Monitoring NOx Emissions from Coal Fired Boilers Using Generalized Regression Neural Network	1916
<i>Ligang Zheng, Shuijun Yu and Minggao Yu</i>	
A New Algorithm for Fuzzy Density in Classifiers' Fusion	1920
<i>Zhizhou Kong, Lai Wei, Shenggang Yang, Dong Guan and Zixing Cai</i>	
Test-Retest Repeatability of Surface Electromyography Measurement for Hand Gesture	1923
<i>Xiang Chen, Qiang Li, Ji-Hai Yang, Vuokko Lantz and Kong-Qiao Wang</i>	
A Method of Gas Source Orientation Recognition for Bioenergy Detection	1927
<i>Donghai Xia, Shu Wang, Ming Zhu and Hui Tang</i>	
Research on the Classification of Brain Function Based on SVM	1931
<i>Song-Yun Xie, Peng-Wei Wang, Hai-Jun Zhang and Hai-Tao Zhao</i>	
Diagnosis Method for Cardiac Patient Based on Improved Dempster-Shafer Evidence Theory	1935
<i>Ping Wang and Xuben Wang</i>	
Multi-Layer Immune Model for Fault Diagnosis	1939
<i>Yuling Tian</i>	
Recognition of Human Movement Based on Fourier Descriptors	1943
<i>Xiaoqi Lu, Hongmei Huang and Baohua Zhang</i>	
SVM based Chronic Fatigue Syndrome Evaluation for Intelligent Garment	1947
<i>Yi-Zhi Wu, Yong-Sheng Ding, Hong-An Xu, Jin-Lan Shi and Bo-Hui Zhu</i>	
Brain Image Segmentation based on Bilateral Symmetry Information	1951
<i>Feng Jiao, Desheng Fu and Shuoben Bi</i>	
Recognition of Arterial Pulse Wave of Pregnant Woman Based on Probabilistic Neural Network	1955
<i>Lu Wang and Dianzhong Wen</i>	
Automated Detection of Epileptic Seizure Using Artificial Neural Network	1959
<i>Ye Yuan, Yue Li, Dongyan Yu and Dantilo P. Mandic</i>	
Structural Damage Localization Using Limited Test Static Data	1963
<i>Xiao-Zhen Chen and Xue-Jun Zhang</i>	
Research on the Relationship Between Symptoms of TCM and Stage, Class, Child-Pugh Grade About Liver Cirrhosis	1968
<i>Yan Wang, LiZhuang Ma, Ping Liu and XiaoWei Liao</i>	
A Novel Segmentation Method for CT Head Images Using PSFCM-ES	1971
<i>Kaiping Wei, Bin He and Tao Zhang</i>	
A Real Time Face Detection Method in Human-Machine Interaction	1975
<i>Jun He and Hua Zhang</i>	
Identification of Secretory Proteins by Separated Space Based Linear Discriminant Analysis	1979
<i>Hui Liu, Yuan Yao, Xiang Liu and Kuo-Chen Chou</i>	

Table of Contents

A Partial Area Matching Method Based on Support Vector Machine for Distinguishing Similar On-Line Handwritten Chinese Characters.....	1984
Modeling and Prediction of EEG Signal Using Support Vector Machine..... <i>Minfen Shen, Chunhao Lin, Jialiang Huang and Yanxun Li</i>	1988
Facial Feature Extraction with Weighted Modular Two-Dimensional PCA <i>Lijing Zhang and Ying Zhang</i>	1992
Novel Interactive Mode Based on Face-Recognition and Facial Orientation-Estimation Applied to Aml <i>Yong Zhang, Yuliang Liu, Ying Zhang, Guo Xu, Jian He, Yibin Hou and Zhangqin Huang</i>	1996
Biologically-Inspired Identification of Plankton Based on Hierarchical Shape Semantics Modeling..... <i>Hui Zhou, Cheng Wang and Runsheng Wang</i>	2000
A Novel Method of Rapid Eye Location <i>Jing-Xiu Zhao and Juan Zhao</i>	2004
 <u>Signal Processing and Data Analysis in Biology</u>	
Acoustic Feedback Cancellation based on Adaptive Projection Subgradient Method in Hearing Aids..... <i>Qingyun Wang, Jie Qiao, Li Zhao and Cairong Zou</i>	2008
Idle State Detection in SSVEP-based Brain-Computer Interfaces..... <i>Ran Ren, Guangyu Bin and Xiaorong Gao</i>	2012
Estimation of Left Ventricular Systolic Function Using Volume-Normalized Contractility Measures in Patients with Acute Myocardial Infraction..... <i>Jia-Jung Wang, Wei-Chih Hu, Tsiar Kao and Chun-Peng Liu</i>	2016
The Application of Cross Recurrence Plot in Deaf Linguistic Training System..... <i>Xu Wang, Fangfang Jiang, Dan Yang and Mingjun Liu</i>	2020
A Fuzzy Constraint Satisfaction Approach to Identify and Characterize Apnea Episodes <i>A. Otero, C. O. S. Sorzano, P. Félix, M. R. Álvarez and C. Zamarrón</i>	2024
QRS Recognition with Programmable Hardware..... <i>Chio In Jeong, Mang I. Vai and Peng Un Mak</i>	2028
Design of an Optimized Mother Wavelet Function for TEOAE Signal Denoising..... <i>Mohammadjavad D. Abolhassani, Yousef Salimpour, Alireza Ahmadian and Vahid Tavakoli</i>	2032
Pathological Speech Deformation Degree Assessment Based on Dynamic and Static Feature Integration <i>Zhiyan Han, Xu Wang and Jian Wang</i>	2036
Wavelet Filter Evaluation for Extract Heart Rate of Infrared Plethysmograph Waveform <i>Tsu-Hsun Fu, Shing-Hong Liu and Shih-Chung Yang</i>	2040
Pathological Assessment of Vocal Fold Nodules and Polyp via Fractal Dimension of Patients' Voices..... <i>Ghazaleh Vaziri and Farshad Almasganj</i>	2044
Wrist Pulse Waveform Feature Extraction and Dimension Reduction with Feature Variability Analysis..... <i>Chunming Xia, Yan Li, Jianjun Yan, Yiqin Wang, Haixia Yan, Rui Guo and Fufeng Li</i>	2048
Local Discriminant Wavelet Packet Basis for Voice Pathology Classification..... <i>Pegah T. Hosseini, Farshad Almasganj, Tahereh Emami, Roozbeh Behroozmand, Shahriar Gharibzade and Farhad Torabinezhad</i>	2052
Adaptive Time-Frequency Interbeat..... <i>Fausto Lucena, Yoshinori Takeuchi, Noboru Ohnishi, Allan Kardec Barros and Yoshihiro Fujiwara</i>	2056
Identification of Essential Language Areas by Combination of fMRI from Different Tasks using Probabilistic Independent Component Analysis <i>Yanmei Tie, Ralph O. Suarez, Stephen Whalen, Isaiah H. Norton and Alexandra J. Golby</i>	2060
CT and MRI Image Fusion Based on Contourlet Using a Novel Rule..... <i>Yong Chai, You He and Chaolong Ying</i>	2064
An Algorithm for Wavelet Transform Sub-band Filter Based ECG signals Detecting..... <i>Wei Zhang and Linlin Ge</i>	2068
Dynamics of Population Synchrony of Retinal Ganglion Cells During Response to Contrast Stimulus <i>Bing Li, Xue Liu, Pei-Ji Liang and Pu-Ming Zhang</i>	2072

Table of Contents

Computer Based Analysis and Recognition of Heart Sound	2076
<i>Jing Zhou, Wei He, Chunmei Dan and Xiaosheng Que</i>	
Carbon Dioxide Measurement from Breath Gas Using Blind Source Separation	2080
<i>Jongyoun Lee, Jing Bai and Inyoung Kim</i>	
A Blind Deconvolution Method of Single-Channel the EEG Convolution Mixed Signals Based on the Linear Predication Error Analysis	2083
<i>Yewei Tao, Xin Xu and Xiefeng Cheng</i>	
Sex Differences in Hierarchical Clustering of the Spontaneous Fluctuations in Brain Resting State	2087
<i>Yuqing Wang and Huafu Chen</i>	
Neural Signal Recording and Transmission System with 3-D Silicon Microelectrode Arrays	2091
<i>Xingfei Li, Fei Sun, Hongyu Li and Qiuyun Shan</i>	
QRS Complex Detection of ECG Signal by Using Teager Energy Operator	2095
<i>Aihua Zhang, Long Chai and Hongsheng Dong</i>	
Nonlinear Analysis in TCM Acoustic Diagnosis Using Delay Vector Variance	2099
<i>Jianjun Yan, Haijun Wang, Chunming Xia, Yiqin Wang, Fufeng Li, Rui Guo and Tiancai Ma</i>	
Image Fusion Algorithm Based on Features Motivated Multi-Channel Pulse Coupled Neural Networks	2103
<i>Xiaobo Qu and Jingwen Yan</i>	
Study on Algorithm for Spectral Analysis of Instantaneous Heart Rate	2107
<i>Xiaofang Liu, Wenlong Xu and Zhi-Qian Ye</i>	
Classifying EEG Signals Based HMM-AR	2111
<i>Tang Yan, Jingtian Tang, Gong Andong and Wei Wang</i>	
IMprovement on High Frame Rate Ultrasonic Imaging System Based-On Linear Frequency-Modulated Signal	2115
<i>Xue-mei Han, Hu Peng, Xiao-Xia Li and Bo Cai</i>	
A Method for Reduction of Noise in the ECG	2119
<i>Wei Zhang and Linlin Ge</i>	
Enhancement of ECG Signals by Multi-Resolution Sub-Band Filter	2123
<i>Wei Zhang, Tie Ma and Linlin Ge</i>	
Enhancement of Non-Air Conduct Speech Auditory Masking: Enhancement of Non-Air Conduct Speech	2127
<i>Sheng Li, Jian Qi Wang, Ming Niu and Xi Jing Jing</i>	
The EEG Signal Preprocessing Based on Empirical Mode Decomposition	2131
<i>De-Xiang Zhang, Xiao-Pei Wu and Xiao-jing Guo</i>	
Removing Baseline Drift in Pulse Waveforms by a Wavelet Adaptive Filter	2135
<i>Dianguo Cao, Changchun Liu and Peng Wang</i>	
Automatic Removal of Ocular Artifacts from Electroencephalogram Using Hilbert-Huang Transform	2138
<i>Yan Long Wang, Jin Hua Liu and Yuan Chun Liu</i>	
Research the Compression and Transmission Technology of Medical Image Base on the Remote Consultation	2142
<i>Yu-Zeng Wang, Shi-Chao Geng, Yu-Jun Fan and Zhi-Quan Feng</i>	
Non negative Matrix Factorization and Its Application in Medical Signal and Image Processing	2146
<i>Mingyu Liu, Hongbing Ji and Chunhong Zhao</i>	
Wavelet Domain Diffusion for DWI Images	2149
<i>Xiangfen Zhang and Wufan Chen</i>	
Classification of Four-Class Motor Imagery EEG Data Using Spatial Filtering	2153
<i>Lu Wang and Xiao-Pei Wu</i>	
A Novel Tool of Measuring Fractal Dimension or Complexity	2157
<i>Zhi-Min Li, Qiang Chen, Xian-Tai Gou and Wei-Dong Jin</i>	
Review of Magnetic Resonance Imaging with Application to Neural Tissue Tractography	2160
<i>Jie Zhou, Shan Jiang, Meiyun Zhang and Jie Lin</i>	
Research of Spectrophotometer for Bio-Chemical Analyzer Based on Automatic Adjustment of the Integration Time of Linear CCD	2164
<i>Zhong Ren, Guodong Liu, Zhen Huang, Lvming Zeng and Bilin Shao</i>	

Table of Contents

Detection Algorithm of Life Signals Based on Wavelet Transform	2169
<i>Baohua Zhang and Jianjun Li</i>	
Optimization of Process Patterns of Simultaneous Desulfurization and Denitrification for Inorganic Sulfate-Laden Wastewater Treatment.....	2173
<i>Aijie Wang, Chuanshuang Liu, Nanqi Ren, Hongjun Han, Xuliang Deng, Zhenguo Yu and Chuan Chen</i>	
Nonlinear Dynamic Analysis of Wrist Pulse with Lyapunov Exponents	2177
<i>Jianjun Yan, Chunming Xia, Haijun Wang, Yiqin Wang, Rui Guo, Fufeng Li and Haixia Yan</i>	
A Method Based on Chirplet Transform for Visual Evoked Potentials Extraction	2181
<i>Fei-Yue Qiu, Xin Gao, Li-Ping Wang and Hao-Jun Li</i>	
Suppress False Arrhythmia Alarms of ICU Monitors Using Heart Rate Estimation Based on Combined Arterial Blood Pressure and Ecg Analysis	2185
<i>Qiao Li and Gari D. Clifford</i>	
Implementation of the EOG-based Human Computer Interface System.....	2188
<i>Zhao Lv, Xiaopei Wu, Mi Li and Chao Zhang</i>	
Analysis of Kolmogorov Complexity in Spontaneous EEG Signal and It's Application to Assessment of Mental Fatigue	2192
<i>Lian-Yi Zhang and Chong-Xun Zheng</i>	
Nonlinear Local Projection Technique for ECG	2195
<i>Ming-Rong Ren, Pu Wang and Hui-Qing Zhang</i>	
Classification of Motor Imagery EEG Based on a Time-Frequency Analysis and Second-Order Blind Identification.....	2199
<i>Dan Xiao and Jianfeng Hu</i>	
A Algorithm for Spectral Analysis of Instantaneous Heart Rate	2202
<i>Xiaofang Liu, Wenlong Xu and YongWu Li</i>	
Neural Networks Preprocessing Based Adaptive Estimation of Evoked Potentials.....	2206
<i>Dai Feng Zha</i>	
New Blind Evoked Potentials Separation Algorithm Based On Minimum Dispersion Criterion.....	2209
<i>Dai Feng Zha</i>	
Study on Adaptive Noise Canceller Based on Fixed-Point Algorithm for Real-Time Somatosensory Evoked Potential Monitoring.....	2213
<i>Hongyan Cui, Chongfei Shen, Xiaobo Xie, Yong Hu and Keith D. K. Luk</i>	
Detecting Myocardial Infraction Using VCG Leads.....	2217
<i>Dingfei Ge</i>	
Medical Image Retrieval Based on Semantic of Neighborhood Color Moment Histogram.....	2221
<i>Qin Chen, Xiaoying Tai, Yihong Dong, Shanliang Pan, Xiaoquan Wang and Caoqian Yin</i>	
Study on the Jitter and Shimmer Based on Denoising with Wavelet Transforms.....	2225
<i>Shouguo Zhao, Xuanzi Shentu, Lingxiao Wang and Qingsheng Zhao</i>	
Blind Source Separation by Time Frequency Masking of an Underdetermined System	2228
<i>Ranjan Acharyya and Jürgen Flierl</i>	
<u>NMR/CT/ECG Technology and Biomedical Effects of their Radiation</u>	
A New Hydraulically/Pneumatically Actuated MR-Compatible Robot for MRI-Guided Neurosurgery.....	2232
<i>Cyrus Raoufi, Andrew A. Goldenberg and Walter Kucharczyk</i>	
Investigations on the Effects of NMR Experimental Conditions in Human Urine and Serum Metabolic Profiles	2236
<i>Hongting Cao, Jiyang Dong, Congbo Cai and Zhong Chen</i>	
Investigation on Diurnal Variation and Gender Difference in Human Urine Using NMR-Based Metabonomics.....	2240
<i>Xiaoxia Dai, Qiqing Zhang, Jiyang Dong, Zhong Chen, Changqin Liu and Shuyu Yang</i>	
Simultaneous Determination of Oil Content in Oilseed by Pulsed NMR	2244
<i>Z. H. Ren, C. Liu, H. Z. Wang, X. L. Zhang and P. Q. Yang</i>	
Cone Beam Reconstruction Speedup Using Trigonometric Relevancy and GPU Technology	2248
<i>Han Zheng, Zikuan Chen, Yan Kang and Jiren Liu</i>	
Comparative Analysis of Heart Rate Variability Between Healthy and Morbid Group Based on Correlation Dimension.....	2252
<i>Jiafu Zhu, Wei He and Hao Yang</i>	

Table of Contents

A Novel NMR Simulation Algorithm and Its Potential Application in In Vivo Research <i>Meijin Lin, Chao Fang, Congbo Cai, Xi Chen and Zhong Chen</i>	2256
Proton Density-Weighted Functional Magnetic Resonance Imaging at 0.35 Tesla <i>Ping Yang, Jinxing Wang, Yuesheng Chao, Guang Lu and Jinquan Shi</i>	2260
A Microprocessor-Based Nuclear Magnetic Resonance Spectrometer <i>Y. Liu and G. Li</i>	2264
Application of Variable Step LMS Algorithm Based on Iterative Time in ECG Signal Abstraction <i>Jiyin Zhao, Jianpo Li, Ruirui Zheng and Junxiang Sun</i>	2266
Extraction of Fetal ECG Signal via Adaptive Noise Cancellation Approach <i>YanJun Zeng, Shijin Liu and Jianhua Zhang</i>	2270
Research on Two Kinds of Convolution Kernels in Intensity Modulated Radiotherapy <i>Lin Zhu, Ling-Hong Zhou, Xin Zhen, Wenting Lu, Zhuoyu Wang and Shuxu Zhang</i>	2274
Estimation of Effective Doses in Head CT Based on RPLGD In-Phantom Measurements <i>Haikuan Liu, Weihai Zhuo and Bo Chen</i>	2278
Accurate Lateral Scatter Correction Within the MatriXX <i>Wenting Lu, Linghong Zhou, Shuxu Zhang, Lin Zhu, Zhuoyu Wang and Jun Yang</i>	2281
A Method for Calculation of Cosmic Radiation Effective Dose Rate at Civil Aviation Altitude <i>Ying-Jin Feng and Wei-Ru Chen</i>	2285
Effect of Asparagus Polysaccharides on Migration Time of Erythrocytes in Tumor-Bearing Organisms Using High Performance Capillary Electrophoresis <i>Yu Bin Ji, Chenfeng Ji, Xiang Zou, Lei Yu and Lang Lang</i>	2289
Definition of Sleep Apnea Event by One Minute HRV Spectrum Analysis <i>Wenlong Xu, Xiaofang Liu and Zhijie Pan</i>	2292
<u>Biomedical Imaging and Image Processing</u>	
A Hybrid Fuzzy Based Algorithm for 3D Human Airway Segmentation <i>Fereshteh Yousefi Rizi, Alireza Ahmadian, Nima Sahba, Vahid Tavakoli, Javad Alirezaie, Emad Fatemizadeh and Nader Rezaie</i>	2295
Identification of Masses and Microcalcifications in the Mammograms Based on Three Neural Networks: Comparison and Discussion <i>Weidong Xu, Wei Liu, Lihua Li, Guoliang Shao and Juan Zhang</i>	2299
Adaptive Multi-Resolution Myocardial Motion Analysis of B-Mode Echocardiography Images using Combined Local/Global Optical Flow <i>Vahid Tavakoli, Nima Sahba, Alireza Ahmadian, Mohammad D. Abolhassani, Fereshteh Yousefi Rizi and Amir Amini</i>	2303
Interactive Editing for 3D Ultrasound Volume Rendering <i>Chaowei Tan and Dong C. Liu</i>	2307
Real-Time Speckle Reduction of Ultrasound Images Based on Regularized Savitzky-Golay Filters <i>Pollakrit Toonkum, Pasu Boonvisut and Chedsada Chinrungrueng</i>	2311
Spinal Images Segmentation Based on Improved Active Appearance Models <i>Shu Zhan, Hong Chang, Jian-Guo Jiang and Hong Li</i>	2315
Localization and Atlas-Based Segmentation of the Heart from Cardiac MR Images: Validation with a Large Clinical Trial <i>Xiang Lin, Alistair Young and Brett Cowan</i>	2319
Fractal Analysis of Filamentous Actin Fluorescent Speckle Microscope Patterns in Cell Migration <i>Todd Holden, R. Sullivan, G. Tremberger Jr., R. Subramaniam, E. Cheung, C. Schneider, A. Flamholz, P. Marchese, H. Yao, D. Lieberman and T. Cheung</i>	2323
A Hierarchical Fuzzy Based Approach for Face Detection <i>Alireza Ahmadyfard, Bardia Yousefi and Seyed Mostafa Mirhassani</i>	2327
ICA Based Synthetic Ultrasonic Transmit Aperture <i>Hongwang Li, Hu Peng, Chichao Zheng and Liangjing Ding</i>	2331
Analysis of Refraction Contrast in Diffraction Enhanced Imaging for Soft Tissues <i>Hui Li, Tao Zhao, Xueyan Wang, Chunhong Hu and Shuqian Luo</i>	2335
Segmentation of Pulmonary Nodule in CT Image Based on Level Set Method <i>Xin Jiang and Shengdong Nie</i>	2339

Table of Contents

Three-Dimensional Visualization of Liver CT Slices by Amira	2343
<i>Hong-Jian Gao, Shui-Cai Wu, Yan-Ping Bai and Chun-Lan Yang</i>	
Effect of Skull Inhomogeneities on Localization Accuracy in Brain Electrical Impedance Tomography	2346
<i>Ni Ansheng, Tang Chi, Yang Guosheng, Fu Feng and Dong Xiuzhen</i>	
An Effective Data Preprocessing Mechanism of Ultrasound Image Recognition	2349
<i>Sheng Tang and Si-Ping Chen</i>	
The Method of Multidimensional Support Vector Regression for Moving Dipole Localization of Face Expression	2353
<i>Jian-Wei Li, You-Hua Wang, Qing Wu, Jin-Long An and Yu-Fang Wei</i>	
Determining Alveolar Dynamics by Automatic Tracing of Area Changes Within Microscopy Videos	2357
<i>D. Schwenninger, K. Möller, H. Lui, H. Runck, C. Stahl, S. Schumann and J. Guttman</i>	
Fractal Analysis of Non-Solid Pulmonary Nodules in Lung-CT Scans	2361
<i>Todd Holden, E. Cheung, A. Flamholz, G. Tremberger Jr., X. Dunkley, R. Sullivan, R. Subramaniam, P. Schneider, D. Lieberman and T. Cheung</i>	
A New 3D Model-Based Minimal Path Segmentation Method for Kidney MR Images	2364
<i>Ke Li and Baowei Fei</i>	
Design and Implementation of a New Type Excitation Source and the Optimal Excitation Coil for MIT	2367
<i>Mingke Jiao, Mingxin Qin, Wenwen Liang, Hua Zhang, Ke Li, Wei Zhou, Hao Yang and Wenyong Wang</i>	
Automatic Detection of Fine Hairs in Skin Aging Analysis	2371
<i>Yaobin Zou, Enmin Song, Guokuan Li and Renchao Jin</i>	
A Robust B-Splines-Based Point Match Method for Non-Rigid Surface Registration	2375
<i>Hesheng Wang and Baowei Fei</i>	
A Robust Method to Filter Various Types of Artifacts on Long Duration EEG Recordings	2379
<i>Samuel Boudet, Laurent Peyrodie, Philippe Gallois and Christian Vasseur</i>	
A Method of Detection Micro-Calcifications in Mammograms Using Wavelets and Adaptive Thresholds	2383
<i>Ping Wei, Junli Li, Shanxu Zhao, Dongming Lu and Gang Chen</i>	
2D Multimodality Image Registration Based on ITK by Mutual Information	2387
<i>Jian-Guo Jiang, Zhiping Shi, Shu Zhan and Hong Li</i>	
New Approach to Low Contrast Image Segmentation	2391
<i>Yingjie Zhang and Liling Ge</i>	
The Emulation of Nuclear Magnetic Resonance Imaging Theory Using Matlab	2395
<i>H. Z. Wang, X. L. Zhang, H. Y. Xu, J. Wu and Yan Wang</i>	
Theoretical Uncertainty Evaluation of Stereo Reconstruction	2400
<i>Jiechun Chen, Zhenliang Ding and Feng Yuan</i>	
Automatic Measurement of Morphological Parameters of Hip Joint from CT Images	2404
<i>Weiwei Song, Shungang Hua, Zongying Ou, Qin Zhao and Hu An</i>	
Geometric Correction for Cone-Beam CT Reconstruction and Artifacts Reduction	2408
<i>Jun Yang, Xin Zhen, Linghong Zhou, Shuxu Zhang, Zhuoyu Wang, Lin Zhu and Wenting Lu</i>	
An Edge Detection Method for Chromosome Images	2412
<i>Wenzhong Yan and Shuqun Shen</i>	
Adaptive Filter for Serial Slice Images of Cone-Beam Computed Tomography	2415
<i>Kuidong Huang, Dinghua Zhang and Yanfang Jin</i>	
Three-Dimensional Reconstruction and Analysis of Human Central Sulcus Based on Visualization Toolkit	2419
<i>Li-Qiang Xu, Fang Pu, Shu-Yu Li, Deyu Li and Yu-Bo Fan</i>	
Deformation-Based Morphometric Analysis of Brain Structures in First Episode Schizophrenia	2423
<i>Chunlan Yang, Shuicai Wu, Yanping Bai and Hongjian Gao</i>	
Image Registration Based Wide-Field-of-View Method in Ultrasound Imaging	2427
<i>Chaowei Tan and Dong C. Liu</i>	
An Analysis Method of the Fiber Tractography of Corpus Callosum in Autism Based on Diffusion Tensor Imaging Data	2431
<i>Xiaoyan Ke, Shanshan Hong, Tianyu Tang, Qinghai Huang, Bing Zou, Huiguo Li, Yueyue Hang and Zuhong Lu</i>	

Table of Contents

A Novel Edge Enhancement Method for Ultrasound Imaging	2436
<i>Bo Wang and Dong C. Liu</i>	
Segmentation of Knee Joints Based on Improved Multiphase Chan-Vese Model	2440
<i>Jian-Guo Jiang, Yanrong Guo, Shu Zhan and Hong Li</i>	
3D Lumbar Visualization Based on VTK with Fusing Sagittal Slices and Aixel Slices	2445
<i>Shu Zhan, Shijie Hao, Jian-Guo Jiang and Hong Li</i>	
Entropy-Based Local Histogram Equalization for Medical Ultrasound Image Enhancement	2449
<i>Xin-Yu Zhang, Lan Ge and Tian-Fu Wang</i>	
Extraction of Tenuous Vasculature in Medical Images	2452
<i>Ming Cheng, Xiaoyang Huang, Shaohui Huang and Boliang Wang</i>	
B-Scan Images Analyzed By CNN and Co-Occurrence Matrix	2456
<i>Guodong Li, Huiming Song, Wen Wang, Jianghe Wang, Huiwen Hong and Yanling Liu</i>	
The Displacements of Human Foot After Plantar Ligaments Injury: A Cadaveric Study and Finite Element Analysis	2460
<i>Yunfeng Yang, Guangrong Yu, Jiaqian Zhou, Wenxin Niu and Zuquan Ding</i>	
Primary Research of Digital Atlas of Human Anatomy on Virtual Reality	2464
<i>Qin Lu and Shuqian Luo</i>	
Motion Simulation of Digital Human with Muscle System	2468
<i>LiuHong Zhu and Shuqian Luo</i>	
Fast Non-Rigid Image Registration Using Viscous Fluid Model and B-Spline	2472
<i>Chengcheng Rong, Jian Zhou, Limin Luo and Guogang Cao</i>	
Volume Measurements Comparison with Different Segmentation Methods Using VOCAL II System	2476
<i>Ying Luo, YiNan Ge, YuLan Peng and Qi Liu</i>	
A Combined Approach to Medical Image Segmentation Using Anisotropic Diffusion and Wavelet Packet Decomposition	2480
<i>Zu Kun Xiong and Hai Yun Li</i>	
A Contrast Enhancement Algorithm for Low-dose CT Images Based on Local Histogram Equalization	2484
<i>Guodong Zhang, Peiyu Yan, Hong Zhao and Xin Zhang</i>	
Coupled Partial Differential Equations for Vessel Enhancement	2488
<i>Xiaoqiang Zhao, RuoJun Liang and Yongqiang Zhao</i>	
Brain CT Database for Content-Based Image Retrieval	2491
<i>Kehong Yuan, Jiying Zou, Shaowei Jia, Ping Xiao and Wufan Chen</i>	
A Novel Gridding Algorithm Using NUFFT with Applications to Ultrasound Diffraction Tomography	2495
<i>Dongwen Zhang, JinXu Tao and Hairong Zheng</i>	
Vascular Orientation Detection and Feature Point Recognition of Coronary Arterial Angiogram Based on Multi-Scale Gabor Filter	2499
<i>Qin Li, Ting Wang, Haomiao Shui, Xiaoming Hu, Yue Liu and Yongtian Wang</i>	
Vessel Tracking Algorithms in Ultrasound Imaging	2503
<i>Shuo Li and Dong C. Liu</i>	
A WebGIS Expert System for Rice Brown Planthopper Disaster Early-Warning in China's Shanghai	2507
<i>Xiaobin Chen, Qingwen Luo, Yaopei Jiang, Zhenmei Lv and Shuwen Wu</i>	
Topological Proteomics Image Segmentation Based on a Genetic Algorithm	2511
<i>Nian Cai, Shaorui Xu, Xiaoyan Tang and Fangzhen Li</i>	
An Automatic Counting Algorithm for Chromosomes	2514
<i>Wenzhong Yan and Shuqun Shen</i>	
Region Feature Extraction of Brain CT Image for Classification	2517
<i>Fei Peng, Kehong Yuan, Shu Feng and Wufan Chen</i>	
A Novel Approach of Tongue Body and Tongue Coating Separation Based on FCM	2521
<i>Jian-Qiang Du, Yan-Sheng Lu, Kang Zhang, Ming-Feng Zhu and Cheng-Hua Ding</i>	
Fast Algorithm for Segmentation of Urinary Sediment Microscopic Image	2526
<i>Hongwen Luo, Siliang Ma and Zhongyu Xu</i>	

Table of Contents

Medical Image Segmentation Based on Wavelet Transformation and IGGVF	2530
<i>Ying Zheng, Guangyao Li and Xiehua Sun</i>	
Research on Wavelet Analysis in Target Detection Based on Bionic Vision Model	2534
<i>Bin He and Peng Yu</i>	
Automatic Liver Segmentation Method Based on a Gaussian Blurring Technique For CT Images	2538
<i>Zhaoxue Chen, Shengdong Nie, Lijun Qian, Zeng'ai Chen and Jianrong Xu</i>	
Multiscale Reconstruction and Gradient Algorithm for X-Ray Image Segmentation Using Watershed	2541
<i>Wei Zheng, Hua Yang, Hui-Sheng Sun and Hong-Qi Fan</i>	
Medical Image of PET/CT Weighted Fusion Based on Wavelet Transform	2545
<i>Shangli Cheng, Junmin He and Zhongwei Lv</i>	
Image Processing Technique for Characteristic Test of Cell Based on Electroration Chip	2548
<i>Haiming Li, Dianhong Chen and Qihua Yang</i>	
Pulmonary Parenchyma Segmentation in CT Image Based on Improved Fast Marching Method	2552
<i>Fengjie Yao, Xiwen Sun, Shengdong Nie and Zhaoxue Chen</i>	
Medical Image Enhancement Method Based on 2D Empirical Mode Decomposition	2555
<i>Xujia Qin, Shishuang Liu, Zhengqiang Wu and Han Jun</i>	
Automatic Synthesis of Ethyl [18F]Fluoroacetate and its First PET Imaging	2559
<i>Li-Quan Sun, Tetsuya Mori, Masato Kobayashi, Hidehiko Okazawa, Takako Furukawa and Yasuhisa Fujibayashi</i>	
Analysis and Improvement of Thermoacoustic Signals and Image	2563
<i>Yusen Wei, Xinya Zhu, Hua Wang, Ying Yang, Teng Jiao and Guosheng Yang</i>	
A New Way to Process B-Scan Images	2567
<i>Guodong Li, Huiming Song, Honglan Zhang, Jianghe Wang, Huiwen Hong and Yanling Liu</i>	
A Medical Image Registration Method Based on Weighted Mutual Information	2571
<i>Junli Li, Rijuang Cong, Linpeng Jin and Ping Wei</i>	
A New Approach to Extracting Boundary of Retina Blood Vessel	2575
<i>Haishun Wang and Limin Chen</i>	
MI-Based Robust Image Registration Using a Novel Histogram Estimation Scheme	2579
<i>Shaoyan Sun, Chonghui Guo, Liwei Zhang and Lei Chen</i>	
Automatic 3D Segmentation of MRI Brain Images Based on Fuzzy Connectedness	2583
<i>Zhidong Liu, Jiangli Lin, Yuanwen Zou, Ke Chen and Guangfu Yin</i>	
Image Reconstruction of High-Quality Photoacoustic Tomography Using Wavelet-Analysis-Based Algorithm	2587
<i>Lvming Zeng, Guodong Liu, Bilin Shao, Zhong Ren and Zhen Huang</i>	
Using Direct Radon Transform to Improve Image Reconstructed by Backprojection Method	2593
<i>Akbar Rahimi, Saeid Sadri and Abolghasem Zeidaabadi Nezhad</i>	
Medical Image Retrieval Based on Color-Texture Algorithm and GTI Model	2596
<i>Xiao-Ying Tai and Li-Dong Wang</i>	
Hyperspectral Tongue Imaging System Used in Tongue Diagnosis	2601
<i>Qingli Li, Jingao Liu, Gonghai Xiao and Yongqi Xue</i>	
Categorization Method Research for Medical Image Using Gaussian Mixture Model	2604
<i>Dong Yin, Jia Pan, Yuqing Miao and Peng Chen</i>	
Local SPECT Reconstruction with Non-Uniform Attenuation	2608
<i>Bing Liu, Junhai Wen, Xin Li and Xu Meng</i>	
Analytic Implementation for Medical Image Retrieval Based On FCM Using Feature Fusion With Relevance Feedback	2612
<i>Weihua Song and Tingting Hua</i>	
Improved Color Clustering Vector Applied in Endoscope Image Retrieval	2618
<i>Quan Zhang, Xiaoying Tai, Yihong Dong, Shanliang Pan, Xiaoquan Wang and Caoqian Yin</i>	
Parallel Multimodal Medical Image Fusion in 3D Conformal Radiotherapy Treatment Planning	2622
<i>Bin Li, Lianfang Tian, Yuanyuan Kang and Xia Yu</i>	

Table of Contents

A Gray-Natural Logarithm Ratio Neighborhood Filters Method for Biomedical Image Denoising	2627
<i>Guannan Chen, Rong Chen, Jianxin Chen, Zhiming Xie, Zufang Huang, Shangyuan Feng, Yongzeng Li and Kuntao Yang</i>	
Segmentation of Microscopic Images for Counting Leukocytes	2631
<i>Wei Gao, Yinggan Tang and Xiaoli Li</i>	
A Diagnostic Method Based on Tongue Imaging Morphology	2635
<i>Jiatuo Xu, Liping Tu, Hongfu Ren and Zhifeng Zhang</i>	
A Rapid 3D Finite Element Modeling Pipeline Based on Dental Images	2639
<i>Jianjun Du, Weilin Hao, Youjun Liu and Aike Qiao</i>	
Nonlinear Contrast Enhancement of Medical Ultrasonic Image Based on Munsell's Scale	2642
<i>Nanfei Xiang, Tianfu Wang, Yuanwen Zou, Deyu Li and Jiangli Lin</i>	
A Robust Denoising for Medical Ultrasound Image based on SVR Estimation in Wavelet Domain	2646
<i>Hui Cheng and Wei Tang</i>	
An Efficient Denoising Procedure for Magnetic Resonance Imaging	2650
<i>Hancheng Yu and Li Zhao</i>	
The Generation Algorithm of Tissue Contour Lines in Medical Image	2653
<i>Liping Zheng, Guangyao Li and Hengye Zhu</i>	
An Exploring Study of Multi-Scale Complexity Texture Descriptors for Medical Image Retrieval	2657
<i>Wei Liu, Weidong Xu and Lihua Li</i>	
Background Removal of Microscopy Gray-Level Images	2661
<i>Jinmei Liu, Chunhui Zhao, Hongmin Wang and Yingying Song</i>	
Estimating Fetal Nuchal Translucency Parameters from its Ultrasound Image	2665
<i>Yin-Hui Deng, Yuan-Yuan Wang and Ping Chen</i>	
Medical Image Fusion Based on Wavelet Packet Transform and Self-Adaptive Operator	2669
<i>Licai Yang, Xin Liu and Yucui Yao</i>	
Automatic Extraction of Control Points for Chest X-Ray Image and Elastic Registration	2673
<i>Shengwen Guo, Xiaoming Wu and Zhaohui Luo</i>	
Analyzing the Structures of Coronary Artery Trees in Angiographic Images Based on Fuzzy Recognition Algorithm	2677
<i>Guiping Jiang, Shoujun Zhou, Minmin Luo and Wen Li</i>	
An Algorithm for Circle Filter Based Multi Scale Application for Enhancement of Pulmonary Nodules	2685
<i>Jinzhu Yang, Dazhe Zhao and Wenzhi Cao</i>	
Liver Contour Extraction using Snake and Initial Boundary Auto-generation	2691
<i>Ma Li and Lei Zhu</i>	
Parametric Shape Modeling Using Deformable Superellipses for Segmentation of Medical Image	2695
<i>Xiaoping Min, Boliang Wang, Shaohui Huang and Peishan Dai</i>	
A Rapid Elastic Registration Algorithm Based on Hermite Derivative Filter	2699
<i>Minmin Luo, Guiping Jiang and Wufan Chen</i>	
Image Registration and Data Fusion for Different Phases of Contrast Enhanced Liver CT Data	2704
<i>Xiaoyang Huang, Boliang Wang, Ming Cheng, Shaohui Huang and Ying Ju</i>	
Application of Independent Component Analysis in MR Image Segmentation	2708
<i>Zehui Li, Shengdong Nie and Zhaoxue Chen</i>	
Counter Extraction of Ventricular Wall Based on Fuzzy-C-Means Algorithm for Ultrasound Image in Cardiac Torsion Motion	2712
<i>Liu Ting, Xiaogang Luo, Peng Chenglin and Wen Li</i>	

Table of Contents

Vol IV: Environmental Pollution and Public Health (1)

Water Pollution and Quality Control

GIS Based Fuzzy Optimization Method to Groundwater Vulnerability Evaluation	2716
<i>Dhundi Raj Pathak, Akira Hiratsuka, Isao Awata and Luonan Chen</i>	
Water Treatment Residuals (WTR) as Potential Filter Media for Pollutants Removal in Constructed Wetland	2720
<i>Jianfeng Fu and Xiangdong Xue</i>	
Laboratory and Oilfield Experiments of a Fast Oil-Water Separator	2724
<i>Lixin Zhao and Minghu Jiang</i>	
Comparison of Nitrogen Removal in an AN/AO and an AO Submerged Membrane Bioreactor in Treating Bathing Wastewater	2728
<i>Jifeng Guo, Rongchang Wang and Siqing Xia</i>	
Study on the Wastewater Treatment Mode of Three Islands of Chongming	2734
<i>Zhenliang Liao</i>	
Adsorption of Soybean Isoflavones from Soybean Whey Wastewater with Magnetic AB-8 resin	2739
<i>Wei Zong and Hanjun Ma</i>	
The Preparation of Magnetic Chitosan Bead and its Adsorption Properties for Copper (II)	2742
<i>Geli Ma and Bo Li</i>	
Kinetic Study of Adsorption of Oil from Oilfield Produced Water Using Modified Porous Ceramics Filtration Media in Column Mode	2745
<i>Fangwen Li, Xiaoi Wu, Jianfeng Wu, Xiaohong Xu and Songjiang Ma</i>	
Iron Removal from Oilfield Produced Water by Chemical Precipitation and Filtration	2749
<i>Fangwen Li, Jianfeng Wu, Xiaohong Xu, Xiaoi Wu and Songjiang Ma</i>	
Pinch Technology Reduces Wastewater at a Paper Mill	2753
<i>Jidong Liang, Yanling He, Xudong Zhao and Guodong Wang</i>	
Ionic Liquid-Based Solvent Bar Microextraction and Quantification Using High Performance Liquid Chromatography Detection of Organophosphorus Pesticide in Water	2757
<i>Hailu Lin, Hong Yan, Mingbiao Luo and Hanpu Li</i>	
Study on Adsorption Properties of Attapulgite Clay to Uranium in Waste Water	2761
<i>Mingbiao Luo, Hailu Lin and Jinru Song</i>	
Sensitivity Analysis for the Identification of Important Parameters in a Water Quality Model	2765
<i>Yongtai Huang and Lei Liu</i>	
Operational Characteristics of an Anaerobic Baffled Reactor Treating Low Strength Wastewater	2769
<i>Xi-Quan Hu and Zhao-Hua Li</i>	
Equilibrium and Kinetics of Arsenic (V) Sorption by Bone Char	2774
<i>Yun-Nen Chen and Li-Yuan Chai</i>	
Study on the Water Supply Mode of Three Islands of Chongming County	2778
<i>Zhenliang Liao</i>	
Sources and Biotoxicological Evaluation of PAHs in The Surface Sediments of Southwest Area, The East Lake,China	2783
<i>Rongrong Lin, Xin Du, Jun He, Hui Yang, Zhibo Peng, Hongyin Han and Liang Ma</i>	
Sonolysis of Pentachlorophenol by Sole- and Dual-Frequency Ultrasonication	2787
<i>Songlin Wang, Xiaohui Wu and Yansong Wang</i>	
Adsorption of Methylene Blue from Aqueous Solution by Wheat Husk in Batch Mode	2791
<i>Runping Han, Yufei Li, Lina Zou, Qiang Sheng, Junmei Cheng, Fuling Xie and Zhenhui Zhao</i>	
Back Propagation Neural Network in the Water Quality Evaluation of Qingdao Dagu River	2795
<i>Miao Qun, Li Yue, Hai Yang, He Hui and Xiaomei Zhang</i>	
Impact of Main Factors on Growth and Ability of Aerobic Thermophilic Bacteria for Wastewater Treatment	2799
<i>Jingguo Cao, Zhao Shuxin and Mojmir Rychtera</i>	
Determination of Chemical Components of Benzene/Ethanol Extractives of Castanopsis Fissa Wood by GC/MS	2803
<i>Wan-Xi Peng, Shu-Bin Wu, Lei Yang, Kai-Fu Li, Wen-Li Peng and Su-Yong Hong</i>	

Table of Contents

Prediction of Groundwater Quality Using Organic Grey Neural Network Model <i>Changjun Zhu, Jihong Zhou, Qin Ju and Dedong Liu</i>	2806
Research on Groundwater Environment Function Regional Partition Based on Fuzzy Cluster Analysis <i>Ming-Hua Wei, Zhi-Hong Zheng and Lin Qiu</i>	2810
Simulation of Organic Matter Loss in Area around Taihu Lake <i>Xiangyang Xu and Tianyi Xu</i>	2814
A Study on the Contaminant Transport in Low Permeability Porous Media <i>Changjun Zhu, Shuwen Li and Qin Ju</i>	2818
Effect Extraction Methods on Micro/Nano Particles Leaching from <i>E. Camaldulensis</i> Wood <i>Qing-Zhi Ma, Dang-Quan Zhang, Wan-Xi Peng, Yi-Qiang Wu and Qi-Mei Liu</i>	2822
Growth Characteristics of <i>Aeolosoma Hemprichi</i> Contributing on Excess Activated Sludge Reduction <i>Biyu Song and Xiaofei Chen</i>	2826
Synthesis of Polyaspartic Acid Composite and its Application in Magnetic Water <i>Zhenfa Liu, Haihua Li, Yunjuan Wu, Lihui Zhang and Yanhe Zhang</i>	2830
Determination of Chemical Components of Benzene/Ethanol Extractives of Chinese-Fir Wood by GC/MS <i>Qing-Zhi Ma, Dang-Quan Zhang, Wan-Xi Peng, Qi-Mei Liu and Yi-Qiang Wu</i>	2834
Intensive Aquaculture Wastewater Treatment by Photochemical Recovery Technology for Pollutant Removal and Water Recycling <i>Cheng-Jun Ge, Hua-Mei Yu, Wen-Hao Tang, Tian-Le Tang and Xiao-Xia Yan</i>	2837
Aggregate Determination of Chemical Components of Benzene/Ethanol Extractives of <i>Phyllostachys Heterocycla</i> by GC/MS <i>Qing-Zhi Ma, Dang-Quan Zhang, Wan-Xi Peng, Qi-Mei Liu and Yi-Qiang Wu</i>	2841
Application of Back-Propagation Artificial Neural Network Models for Prediction of Groundwater Levels: Case study in Western Jilin Province, China <i>Zhongping Yang, Wenxi Lu, Yuqiao Long and Ping Li</i>	2845
Photocatalytic Degradation of Reactive Dark Blue with Polyoxometalates <i>Wei Wang, Xiuhua Zhu, Ning Liu and Yuzhi Xue</i>	2849
Components Determination of Cold Water Extractive of <i>Eucalyptus Tereticornis</i> Wood Chips by GC/MS <i>Dang-Quan Zhang, Xiao-Feng Tan, Qing-Zhi Ma, Hua Tian, Shun-Yang Deng, Shao-Gang Fan, Qi-Mei Liu and Wan-Xi Peng</i>	2852
Current Quality Situation of Phreatic Water Near Wei River and its Protection Policy in Weinan of China <i>Yunfeng Li, Weifeng Wan, Yaoguo Wu, Jiangxia Wang, Xiyu Zhang and Guohui Song</i>	2856
Direct Fermentation of Fishmeal Wastewater and Starch Wastewater to Lactic Acid by <i>Rhizopus Oryzae</i> <i>Liping Huang, Jingjing Sheng, Jingwen Chen and Ning Li</i>	2861
Study on Influencing Factors of Measurement of Total Nitrogen by Digestion with UV-Alkaline Potassium Persulfate and Reduction with Hydrazine Sulphate Spectrophotometric Method and Application <i>Dongxu Chen and Jie Ding</i>	2865
The Application in Water Determination of WE-TN-GC2007 Total Nitrogen On-Site or On-Line Automatic Monitoring Instrument <i>Dongxu Chen and Jie Ding</i>	2870
Studies on Treating the Printing and Dyeing Wastewater with the Ferrate Oxidization and Photochemical Process <i>Zong-Ping Wang, Lizhi Huang, Jiewen Su, Song Xiang, Guanghong Liu and Feng Wu</i>	2874
Determination of High-Grade Resource Recovery of Acetone Extractives of Masson Pine(<i>Pinus Massoniana</i> L.) Wood Chips by Py-GC/MS <i>Wan-Xi Peng, Yuan Liu, Yi-Qiang Wu, Wen-Bang Wei and Jian-Zheng Qiao</i>	2878
Reclamation of the Polymer-Flooding Produced Water <i>Guolin Jing, Yang Liu, Tan Zhao and Chunjie Han</i>	2882
Study on Leaching Rule of Nano Particles from <i>Cunninghamia Lanceolata</i> Wood <i>Wan-Xi Peng, Yi-Qiang Wu, Zhong-Feng Zhang, Shu-Bin Wu and Lei Yang</i>	2886
Short-Period Aeration Pilot Tests in Wuhan Shahu Wastewater Treatment Plant <i>Jianhua Jin, Yinghe Jiang and Xiahui Wang</i>	2890
Comparison for Adsorption Modeling of Heavy Metals (Cd, Pb, Cu, Zn) from Aqueous Solution by Bio-Formulation <i>Yun-Nen Chen and Li-Yuan Chai</i>	2894

Table of Contents

Bioaugmentation Combined with Biofilm Process in the Treatment of Petrochemical Wastewater at Low Temperatures	2898
<i>Jingbo Guo, Fang Ma, Kan Jiang and Di Cui</i>	
Reduction of Nitrate in Groundwater with Modified Iron Nanoparticles	2902
<i>Tielong Li, Lili Sun, Aihong Guo, Shuaima Wang, An Yi, Zongming Xiu and Zhao-Hui Jin</i>	
Biosorption Kinetics and Thermodynamics of Arsenate and Arsenite on Spent Grains	2906
<i>Yun-Nen Chen, Li-Yuan Chai, Zhi-Hui Yang and Yun-Yan Wang</i>	
Influence of pH on the Reactive Brilliant Red X-3B Wastewater Treatment by an Al-Cu Bimetallic System	2910
<i>Jin-Hong Fan, Hong-Wu Wang, De-Li Wu and Lu-Ming MA</i>	
Enhanced Degradation of Nitrobenzene by Ozone/Zeolite Process	2915
<i>Ke Liu, Qingdong Qin and Jun Ma</i>	
Naphthalene Degradation Capability and Molecular Phylogeny of a Bacterial Strain NAP A Isolated from Wastewater	2918
<i>Chunyang Zhang and Zhenxing Peng</i>	
Treatment of Simulated Distillery Wastewater with Thermophilic Membrane Bioreactor	2922
<i>Shoutong Zhang and Fenglin Yang</i>	
Study on the Determination Trace Level of Triphenylarsine in Water by Solid-Phase Microextraction and Gas Chromatography-Mass Spectrometry	2926
<i>Liming Zhou, Jianmei Zhou, Shengli Lu, Xingkuo Li, Baoxia Zhu and Bo Liu</i>	
Influence of Pre-Ozonation on Coagulation of Micro-Polluted Surface Water from Yellow River	2929
<i>Honglan Li, Kefeng Zhang and Yonglei Wang</i>	
Co-Ce/Activated Carbon as a New Catalyst for Catalytic Wet Air Oxidation of Phenol	2933
<i>Chen Wen, Yu-Jie Zhu, Hua-Zhang Zhu and Peng Wang</i>	
Comparison of Filtration Characteristics of Activated Sludge Between MBR and HMBR	2937
<i>Qi-Yong Yang</i>	
Trace Level Determination of Lewisite in Water by Solid-Phase Microextraction and Gas Chromatography-Mass Spectrometry with Selected Ion-Monitoring	2942
<i>Liming Zhou, Jianmei Zhou, Bo Liu, Junjun Dong, Shengli Lu and Caihong Lu</i>	
Modified DAT/IAT Process for Removal of Ammonia Nitrogen from Domestic Sewage	2945
<i>Shoubin Zhang, Maoan Du and Liping Qu</i>	
Water Treatment and Performance Characteristics Evaluation of a Pilot-Scale Recirculating Aquaculture System	2950
<i>Zaisheng Yan, Changfa Liu, Shihe Wang, Jie He, Yuan Liu, Liyong Zhang and Junxin Zhang</i>	
Mechanism Analysis of Indoor Formaldehyde Decomposition by Nano-Titanium Oxide	2954
<i>Shu-Qin Wang, Yiming Zhang and Manyin Hu</i>	
Research on the Treatment for Desulphurization Wastewater by Nano-Titanium Dioxide	2957
<i>Shu-Qin Wang, Xiao-Jie Zhang, Jing-Hong Zhang and Ai-Ling Chang</i>	
Effect of Pre-Oxidation with Potassium Permanganate Composites on Polluted Raw Water of the Pearl River in China	2961
<i>Lu Qi, Heng Liang, Yi Wang and Guibai Li</i>	
The Enrichment of Anammox Bacteria in Non-Woven Rotating Biological Contactor Reactor	2965
<i>Sitong Liu, Fenglin Yang, Zheng Gong, Huihui Chen, Yuan Xue and Tao Wang</i>	
Determination of Nutrient Fluxes Across the Sediment-Water Interface in a Nitrate-Rich Reservoir	2969
<i>Zengwen Gao, Xi-Lai Zheng, Wei Li and Hui Song</i>	
Experimental Study on the Removal of Arsenic in Waste Water from Semiconductor Manufacturing	2973
<i>Chun-Yan Yu, Yue Li, Xiao-Yan Mu and Shao-Bin Ju</i>	
Optimizing Determination of Trace Phthalate Esters in Groundwater by Solid Phase Extraction-Gas Chromatography	2976
<i>Cheng Wang, Ying Liang, Dan Zhang, Hui Liu and Qihua Xiong</i>	
Organic Carbon and Nitrogen Removal in a Modified Anoxic/Oxic-Membrane Bioreactor Treating High Strength Wastewater	2980
<i>Zhimin Fu, Fenglin Yang, Feifei Zhou and Yuan Xue</i>	
Water-Saving Study of Urban Domestic Water Based on the Flow Pipe Optimization	2984
<i>Zhi-Wei Peng, Zi-Jian Liu, Dan-Lian Huang and Pan-Yue Zhang</i>	
Comparison of Naphthalene Sorption Behavior by Three Kinds of Sludge	2988
<i>Manhong Huang, Yongmei Li and Guo-Wei Gu</i>	

Table of Contents

Preparation of Nanoiron by Water-In-Oil (W/O) Microemulsion for Reduction of Nitrate in Water	2992
<i>Tielong Li, Yunxia Zhang, Bing Geng, Dan Wang, Shuaima Wang and Zhao-Hui Jin</i>	
Flocculation Process Optimization of a Novel Coagulant for Landfill Leachate Pretreatment	2996
<i>Yimin Sang, Tichang Sun, Jiaqing Chen and Cunzhen Liang</i>	
Mesophilic Two-Phase Anaerobic Digestion of Excess Sludge Pretreated by Ultrasound and Lime	3000
<i>Jun Yin, Li-Guo Zhang and Lei Liu</i>	
Cooxidation of Aqueous Phenol under Hydrothermal and Electrochemical Oxidation Situation with Particles of Mn-Sn-Sb/Gamma-Al₂O₃	3004
<i>Wenzhao Chen, Guangming Li, Hua Wang, Fang Zhang and Qian Wang</i>	
Effects of Ferrous Ions on Nitrobenzene Reduction in Zero-Valent Iron System	3009
<i>Lei Liu, Jun Yin, Yu-Xin Zhao and Li-Guo Zhang</i>	
Risk-based Water Quality Management in River System	3013
<i>Pengcheng Sun, Jining Chen and Siyu Zeng</i>	
Determination of Chemical Components of Benzene/Ethanol Extractive of Beech Wood by GC/MS	3017
<i>Qi-Mei Liu, Yin-She Luo, Hong Wang, Wan-Xi Peng, Yi-Qiang Wu, Dang-Quan Zhang and Qing-Zhi Ma</i>	
Study on Adsorption Process in Adsorption - Biodegradation Anaerobic Sequencing Batch Reactor	3021
<i>Yun Duan, Ya-Xin Li, Xiu-ping Yue and Qijun Ma</i>	
Comparative Study on Sludge Production in SBBR System Under OSA Operational Process	3025
<i>Meng Yao, Ye Li, Zhao-Ji Zhang and Si-Xuan Wang</i>	
Comprehensive Analysis on Water Quality of Nihe River in Panji Mining Area of Huainan	3029
<i>Jin-Song Liu, Jia-Ping Yan, Liang-Ji Xu, Hui Zhang, Jia-Zhu Yuan, Gen-Rong Chen and Zhi-Guo Zhang</i>	
Evaluation of TTC-Electron Transport System Activity and OUR Tests for Heavy Metal Inhibition of Activated Sludge	3033
<i>Xuejun Tan and Li Tang</i>	
Adsorption of Aqueous Oil on Sediments in the Bohai Tidal Flat	3039
<i>Hai-Ming Li, Xi-Lai Zheng, Xiao-Ming Gu, Jie Ma, Xiao-Yu Jia, Bo Wang and Jin-Lan Wu</i>	
Effect of Different Catalysts in Hybrid Gas-Liquid Discharge for the Removal of Organic Pollutant	3043
<i>Linan Zhu, Ye Gao, Hui Liu and Jun Ma</i>	
GC/MS Analysis of Bioactive Components of Benzene/Ethanol Extractive and Pyrolyzate from Wasted Kernel Hull of Camellia Oleifera Seed	3047
<i>Dang-Quan Zhang, Xiao-Feng Tan, Qing-Zhi Ma, Hua Tian, Zhen-Jun Gu, Qing-Yun Huang, Wan-Xi Peng and Qi-Mei Liu</i>	
Distribution and Survival of Six Kinds of Indicator and Pathogenic Microorganisms in a Full-Scale Constructed Wetlands in China	3051
<i>Zhiwen Song, Lei Wu, Min Xu, Shaopeng Wen, Yang Zhou and Miao Yu</i>	
Removement of Ni²⁺ from Waste Water by Metallothionein (MT) Transgenic Cyanobacterium	3055
<i>Ning Zou, Daohai Du, Shengchen Liu, Donghong Sun and Binggen Ru</i>	
The Removal Efficiency of Zn²⁺ from Waste Water by Metallothionein Transgenic Synechococcus Sp.	3058
<i>Xu Bo, Liang Yan, Ning Zou, Daohai Du, Donghong Sun and Binggen Ru</i>	
Anaerobic Treatment of Domestic Wastewater with EGSB Reactor	3061
<i>Xiao Liu, Chunjuan Dong, Bingnan Lv, Yanxia Wang and Suyun Chen</i>	
Study on the Inhibitive Potential of PAM Against Water Bodies Eutrophication	3065
<i>X. Y. Chen, J. Zhou, C. F. Wei, W. Q. Chai and C. Y. Miao</i>	
The Study of Immobilizing and Removal Efficiency of Zn²⁺ from Waste Water by Synechococcus Sp.	3071
<i>Wenjuan Liu, Ning Zou, Donghong Sun, Linde Liu and Binggen Ru</i>	
Study on Pyrolytic Characteristics of Dead Yeast Powder and Biosorption Mechanism on Cu²⁺	3074
<i>Chunhui Fan, Limin Dong, Zhuo Diao and Ying Zhang</i>	
Study on the Fresh Air Intake of the Hotel Kitchen	3078
<i>Zhihong Zhang, Zhixin Pan and Jincheng Xing</i>	
Post Evaluation of Water Pollution Control Planning for Huai River Basin in China	3082
<i>Siyu Zeng, Mi Tian, Jing Li and Jining Chen</i>	
Evaluation of Water Quality of Small Forest Watershed Runoff of the Upper Watershed of the Miyun Reservoir	3086
<i>Shi-Hai Liu and Xin-Xiao Yu</i>	

Table of Contents

Adjustment of the Dissolved Oxygen in Aeration Tank and its Effect on Outlet Water Quality	3091
<i>Meisheng Liang and Lianghu Su</i>	
Modified Anaerobic Membrane Bioreactor for Low-Concentration Wastewater Treatment	3095
<i>Ying-Zi Lin, Jun Yin and Xiang-Kui Han</i>	
Effect of Shear Stress on Biofilm Morphological Characteristics and the Secretion of Extracellular Polymeric Substances	3099
<i>Pei-Shi Qi, Wen-Bin Wang and Zheng Qi</i>	
Influencing Factors of Oil Slick Movement on Tidal Rivers	3103
<i>Feipeng Li, Haiping Zhang, Ling Chen and Weixing Jiang</i>	
Study on O3-BAC Process for Removing Micropollutants from Drinking Water	3107
<i>Beihai Zhou, Shaomei Zhang, Miao Liu, Junnong Gu and Chunlei Zhang</i>	
Removal of Lambda-Cyhalothrin by Water Hyacinth (Eichornia Crassipes)	3112
<i>Huilong Xia</i>	
Analysis on Impact of Daily Regulation of Three-Gorge Station upon Hydrodynamic Characteristics of the Reservoir in Dry Season	3117
<i>Chuan-Qi Li and Wei Wang</i>	
The Variation in Water Quality of Urban River and its Driving Forces	3121
<i>Mamattursun Eziz, Hamid Yimit, Anwar Muhammad and Zhang Feng</i>	
Analysis of the Unstable Coal Mine Subsidence Areas Water Characteristics and Factors: Take Xieqiao and Zhangji Coal Mines Subsidence Areas for Example	3125
<i>Hui Zhang, Jia-Ping Yan, Liang-Ji Xu, Jia-Zhu Yuan and Jin-Song Liu</i>	
Arsenic Captured from Drinking Water with Fe-Zr Adsorbents	3129
<i>Lingling Wang, Hairet Turson, Wenming Ding and Xia Huang</i>	
Effects of Different EM Solution Addition Ratios and Incubation Methods on Dairy Effluents Treatment	3132
<i>Linxian Liao, Xiaohou Shao, Jun Zeng Xu and Monika Walter</i>	
Ammonium Nitrogen Wastewater Treatment by Aerobic Granular Sludge Membrane Bioreactor	3135
<i>Rui Chen and Xue-Qi Fu</i>	
Effect of Solar Aeration Technology on Water Treatment of Polluted Urban River	3138
<i>Zhen Wei, Yan Wang, Yuanlong Zhu, Lei Zhang and Liqin Zhu</i>	
The Water Quality Difference Analysis in Different Closed Conditions of the Panji Coal Mining Subsidence Waters in Huainan	3143
<i>Jia-Zhu Yuan, Jia-Ping Yan, Liang-Ji Xu, Hui Zhang and Jin-Song Liu</i>	
GC/MS Determination of Bioactive Constituents of Benzene/Ethanol Extractive of Leaves of Two Eucalyptus Cultivars	3148
<i>Qi-Mei Liu, Yin-She Luo, Hong Wang, Wan-Xi Peng, Yi-Qiang Wu, Shui-Ping Yin, Dang-Quan Zhang and Qing-Zhi Ma</i>	
Heavy Metal Complexes Wastewater Treatment with Chelation Precipitation	3153
<i>Ying Xu and Tianyi Xu</i>	
Treatment of Landfill Leachate by SCWO Process	3158
<i>Hong Jiang and Qingxiang Guo</i>	
Experiment on Nitrate Nitrogen Transport and Transformation in Saline Soil under the Irrigation-Drainage Condition in Arid Inland Basin	3161
<i>Yinglan Cao, Menggui Jin and Yanfeng Liu</i>	
The Application of Wavelet Analysis in Hydrological Sequence Trend Analysis	3166
<i>Xiao-Jie Xue, Si-Xia Huang, Qiang Huang and Yan Lei</i>	
Resilience Degree----A New Indicator of Sustainable Development to Water Resources System	3170
<i>Cuisong Yu and Zhenchun Hao</i>	
Study on the Evaluation Method of Groundwater Vulnerability to Pollution from Informal Landfills in Regional Scale	3174
<i>Haijeng Zuo, Jiahua Wei, Guangqian Wang and Yaping Chi</i>	
Performance and Surface Characteristics of Sludge Operated at Increasing Organic Loads After Aerobic Granulation	3178
<i>Runye Zhu, Fang Fang, Jianmeng Chen and Lili Zhang</i>	
Research on the Disposal Efficiency of Constructed Wetlands with Ceramsite	3184
<i>You-Qin Zou, Wen-Tao Zhang, Bo Lin and Wen-Bin Zhou</i>	

Table of Contents

Determination of Trace Nickel in the Fu-Yang River by PAN Spectrophotometry	3187
<i>Jihong Zhou and Yanjun Lian</i>	
Extraction and Mechanisms of Acid Dyes Into a Room Temperature Ionic Liquid	3190
<i>Changping Li and Baoping Xin</i>	
Study on Cu²⁺ Adsorption in Magnified Continuous-Upflow Reactor by Saccharomyces Cerevisiae and Industrial Wastewater Treatment	3194
<i>Chunhui Fan, Yuanyuan Wei, Yang Yang and Ying Zhang</i>	
Performance and Characteristics of Anaerobic Baffled Reactor Treating Soybean Wastewater	3198
<i>Sheng Chang, Jianzheng Li, Feng Liu and Gefu Zhu</i>	
Effect of Charcoal Media for the Treatment of Wastewater in a Biological Filter	3203
<i>Aijiao Zhou, Tao Tao, Zhaohui Bian and Yong Zhang</i>	
Study of Psychrotrophses Application to Improve Bio-Treatment Efficiency of Nitrogen in Constructed Wetland in Cold Area During Winter	3207
<i>Yi Xing, Dayi Qian and Gaoxiang Ying</i>	
Two-Dimensional Model of Water Quality and its Application in Shallow Lake	3212
<i>Wenjin Zhu and Ruijie Li</i>	
Trihalomethane Occurrence in Chlorinated Hospital Wastewater	3216
<i>Ying-Xue Sun, Ping Gu and Ke-Li Wang</i>	
Langmuir Isotherm and Pseudo Second Order Kinetic Model for the Biosorption of Methylene Blue Onto Rice Husk	3221
<i>Runping Han, Yinli Li, Jingjing Zhang, Lijun Zhang, Fuling Xie, Junmei Cheng and Zhenhui Zhao</i>	
Adsorption of Phenol from Aqueous Solution by Hydroxyapatite Nanopowders. Part I: Synthesis and Factors Affecting the Adsorption Characteristic Studies	3225
<i>Kaili Lin, Jiayong Pan, Yiwei Chen, Rongming Cheng and Xuecheng Xu</i>	
Study on Fuzzy Optimization Allocation of Reclaimed and Natural Water Resources	3229
<i>Wei-Fang Ma and Wen-Jun Liu</i>	
The Influence of Culture Factors on Abiotic Loss of PAHs And Their Derivatives from Different Media	3235
<i>Jianfang Wang, Xue Yan and Ling Zhang</i>	
Selection of Wetland Plants Planted in Floating Bed in One Estuaries of Dianchi Lake	3239
<i>Yunfang Gao, Congjun Sun, Yangjun Gao and Dehui Chen</i>	
Experimental Study on Improving Nitrogen Removal Efficiency of Denitrify Bacteria by Protoplast Fusion	3243
<i>Wen-Jiao Sang, Bei-Ping Zhang, Zhen Liu, Lei Wang, Chun-Hua Zhu and Lan Gao</i>	
Dechlorination of Trichloroethylene in Water by Nanoscale Bimetallic Fe/Pd Particles	3247
<i>Tielong Li, Wei Wang, Shujing Li, Dan Wang, Yunxia Zhang and Zhao-Hui Jin</i>	
Effects of Ridge-Furrow Tillage on Soil Water and Crop Yield in Semiarid Region	3251
<i>Muxing Liu and Yongqin Ge</i>	
Degradation of Herbicide (Ametryn) in Water By UV-H₂O₂ Combined Process	3255
<i>Naiyun Gao, Wenhai Chu, Dandan Zhao, Bin Xu and Jianfu Zhao</i>	
Seasonal Variations of Total Coliform and Fecal Coliform in the Lagoon Seawater of Shanghai Jinshan City Beach in North Hangzhou Bay	3259
<i>Xiaosheng Shen, Huijuan Yu, Yunhua Hui, Runrun Gu, Weimin Quan and Chengchu Liu</i>	
Characteristics of Polyaluminum Chloride (PAC) Coagulant Prepared by Baking Process	3263
<i>Chun-Lu Zhao, Guan-Yun Wang and Yong-Bao Chu</i>	
Minimum pH Condition for Anaerobic Sequencing Batch Reactor Containing Granulated Biomass	3267
<i>Xiu-ping Yue, Zhao-Xia Qi and Ya-Xin Li</i>	
Removal of NH₃-N, NO₂-N and UV₂₅₄ Organics by Biological Activated Carbon Fiber	3271
<i>Yan-E Yin, Zhong-Hua Hu and Xin-Qiang Shen</i>	
Vulnerability Mapping of a Coastal Aquifer in Qingdao City, China, using Mapinfo and the DRASTIC Approach	3276
<i>Guo-Qingt Lin, Xi-Lai Zheng and Tao Li</i>	
Degradation of Azo Dyes by Hybrid Ultrasound-Fenton Reagent	3280
<i>Chang-qi Chen, Jian-Ping Cheng, Tang Zhiguo, Changrong Pang and Zhi-Xia Zheng</i>	

Table of Contents

Seawater Pollution Monitoring in a Net Cage Fish Farm in Daya Bay, South China	3284
<i>Hong Hui Huang, Lin Qin, Xiao Ping Jia and Gen Xi Guo</i>	
Development of an Integrated Model for Simulating Two Dimensional Pollutant Transport in Rivers	3289
<i>Yiqing Guan and M. Altinakar</i>	
The Preliminary Study of Bio-Diatomite Dynamic Membrane for Municipal Wastewater Treatment	3293
<i>Hua-Qiang Chu, Bing-Zhi Dong and Da-Wen Cao</i>	
Constructed Wetlands treating Urban Runoff Contaminated with Nitrogen	3296
<i>Xiaohui Wu, Miklas Scholz and Lin Rao</i>	
Feasibility of the AF/Aerobic contact Reactor/Sand Filter System for Reuse Treatment of Domestic Sewage	3300
<i>Xiu-ping Yue and Yu-qi Guo</i>	
Using a Linked Receiving Water and Watershed Modeling System to Support Management of Bacterial Sources for Poquoson River Basin in the Chesapeake Bay	3304
<i>Jian Shen and Julie Herman</i>	
Isolation and Characterization of Efficient COD Degrading Bacteria from Municipal Wastewater	3308
<i>Ji-hong Zhao, Lou Yan and Zhi-Sheng Yu</i>	
Automatic Calibration of a Surface Water Quality Model using a Hybrid Genetic Algorithm	3312
<i>Yongtai Huang and Lei Liu</i>	
ComGIS-Based Monitoring and Warning System for Water Source in Areas of Jiangsu Part of the Yangtze River	3316
<i>Wei Zhuang, Yong Pang and Wei Zhao</i>	
Anodic-Cathodic Electrochemical Oxidation System for O-Nitrophenol Degradation in Aqueous Solutions	3319
<i>Yan Li, Huiling Liu and Yuan Liu</i>	
Characteristic of Ultrafiltration on Treatment Surface-Water in China	3323
<i>Weiyang Li and Bingzhi Dong</i>	
Application of the Export Coefficient Model in Estimating Nutrient Pollution of Dahuofang Reservoir Drainage Basin, Daliao River, China	3328
<i>Rui-min Liu, Meng-chang He and Xiu-juan Wang</i>	
Applications of Electrochemical Technique for Organic Wastewater Treatment	3332
<i>Xiangjuan Ma, Zucheng Wu, Feng Yu, Fan Luo and Yanqing Cong</i>	
Nitrification Behavior of Ammonium Nitrogen Under Membrane Bioreactor	3336
<i>Yuanhong Ding, Feifei Wang, Hongqiang Ren and Yun Ling</i>	
Application of Enhanced Coagulation Aided by UF Membrane for Car Wash Wastewater Treatment	3339
<i>Xuejun Tan and Li Tang</i>	
Photocatalytic Removal of Nitrate from Water using Fe₀/TiO₂	3343
<i>Lifen Liu, Xiaoyan Dong and Fenglin Yang</i>	
Matter Element Extension Evaluating Model Based on Synthesis Weights and Approach Degree and Its Application	3347
<i>Xiu-Ling Sun, Yong-Ming Tan and Xiao-Chi XU</i>	
Feasibility Study of Electric-Assisted Solid Phase Microextraction for Sampling Organic Pollutants in Water	3352
<i>Fan Luo, Xiangjuan Ma, Tao Ping, Lei Bian and Zucheng Wu</i>	
The Role of Free Radicals in Electrochemical Disinfection	3356
<i>Yanqing Cong</i>	
Study on the Adsorption of Nitrite in Water with Crosslinked Chitosan	3359
<i>Jing Liu, Kaixuan Tan and Zhipan Gu</i>	
Effects of Reclamation on the Shift of Wetland Soil Iron	3363
<i>Yuan-Chun Zou, Xian-Guo Lu and Ming Jiang</i>	
The Distribution of Nitrogen in Soil and Rainfall Intensity on Nitrogen Infiltration Flux Influence in Partly Saturated Soil	3367
<i>Lianqing Xue, Taiying Huo, Runrun Zhang and Dan Li</i>	
Characteristics of Cells Proliferation and Mass Transfer of Immobilized Nitrifiers in a Nitrification Process	3371
<i>Li Zhirong, Zhenjia Zhang and Zhang Zhi</i>	
Metal Pollution in Lake System and Its Reconstruction by using Lake Sediments	3375
<i>Bing Feng and Handong Yang</i>	

Table of Contents

Evaluating Economic Benefits of Water Diversion from Yangtze River to Taihu Lake in China: A Case Study	3379
<i>Xundi Diao, Saixing Zeng and Haoyun Wu</i>	
Effect of Microcystis Aeruginosa (Cyanobacteria) Abundance on the Growth and Ingestion of Poterioochromonas sp. (Chrysothrix)	3383
<i>Shengjuan Guo, Nanqin Gan, Lingling Zheng and Lirong Song</i>	
Degradation of Dye Wastewater using a Rotating TiO₂/Ti Disc Photoanode	3386
<i>Yunlan Xu, Dengjie Zhong and Jinping Jia</i>	
Pre-Treatment of Organic-High Refractory Dyestuff Wastewater with Electrolysis Processes	3390
<i>Peishi Qi, Zhanli Chen, Huanxin Zhang and Yuzhi Liu</i>	
Preliminary Study on Control of Water Treatment Foam by Pulsed High Voltage Discharge	3394
<i>Yang Shidong, Cui Fengguo and Ma Jun</i>	
Degradation of Nitrobenzene by Pulsed High Voltage Discharge in Water	3397
<i>Yang Shidong, Cui Fengguo and Ma Jun</i>	
Establishment of ELISA Determination Method and Detection of Bisphenol A in Barreled Drinking Water	3401
<i>Jie Zheng, Su-Qing Zhao and Kun Zhang</i>	
Analysis and Countermeasure of Water Pollution Treatment in the City of Chongqing, Upstream of the Three Gorges Reservoir in China	3406
<i>Jiang-Yu Ye, Jing Liu, Fang-Ying Ji, Qiang Liao and Xi Wang</i>	
Study on the Method of Detecting Dehydrogenase Activity of Living Algae in Fresh Water	3412
<i>Jun Xie, Haiyan Pei, Wenrong Hu, Feng Qi and Mina Dun</i>	
Effectiveness of Different kinds of Irrigation and Drainage Projects on Reducing Pollutants from Agricultural Drainage	3416
<i>Cuiling Jiang, Linqin Zhu, Xiangqian Xie, Ning Li and Ning Shi</i>	
The Study of Influence Factor to Desulphurization Efficiency in Seawater	3421
<i>Zhihua Zhou and Zhang Zhihong</i>	
Selecting Suitable Sites for Pig Production Using a Raster GIS in Xinluo Watershed in Southeast China	3424
<i>Yue Zeng and Huasheng Hong</i>	
The Mechanism of Cyanobacterium (M.aeruginosa) Microcystins Releasing by Chemical Oxidation in Drinking Water Treatment	3428
<i>Cui-rong Hou, Wenrong Hu, Rui-Bao Jia and Pei-Qi Liu</i>	
Biodegradability Assessment of Industrial Wastewater by Warburg Respirometer	3432
<i>Xia Wenxiang, Jincheng Li and Xilai Zheng</i>	
Resilience Classification Research of Water Resources System in a Changing Environment	3435
<i>Yu Cuisong and Zhenchun Hao</i>	
Variations Among 19 Wetland Plant Species in the Uptake and Tolerance of Cd, Pb and Zn from Metal Polluted Water	3439
<i>Jianguo Liu, Wanchen Shao and Jiakuan Xu</i>	
Structure and Adsorptive Properties in Wastewater Treatment of Activated Carbon Fiber Based on Kapok	3443
<i>Yuanqing Wang and Meihua Zhou</i>	
Potential of Polymeric Aluminum Ferric Sulfate Addition to Improve the Performance of a Submerged Membrane Bioreactor	3447
<i>Hao Liu, Jun Wang, Danli Xi and Haiyuan Yuan</i>	
Study on Removal of Nitrogen and Phosphorus by the Integrated Intermittent-aeration Membrane Biological Reactor	3451
<i>Xiejuan Lu, Beiping Zhang, Lixiang Liu, Shuangju Li and Zhenpeng Feng</i>	
Measurement of the Phenols in Water by Electro-Assisted Solid Phase Microextraction	3455
<i>Fan Luo, Zucheng Wu, Tao Ping and Xiangjuan Ma</i>	
Monitoring ORP, pH and EC for the Start-Up of an A/O SBR	3459
<i>Yan-Ying Xu, Xi-Lai Zheng, Tong-Suo Yang and Ying-Jie Zou</i>	
Mesophilic Biohydrogen Production from Food Waste	3463
<i>Jingwei Ma, Shuizhou Ke and Yinguang Chen</i>	
Preparation and Characteristics of TiO₂ Photocatalyst Loaded onto the Attapulgite Clay	3467
<i>Songtian Li, Yongsheng Yan, Chundu Wu and Pengwei Huo</i>	

Table of Contents

Disposition and Reuse of Waste in a High-Capacity Power Plant	3471
<i>Rui Xu, Changzhu Yang, Fengsheng Hou and Shengrui Qiu</i>	
Study on Preparation and Performances of TiO₂/Potassium Titanate Photocatalyst	3475
<i>Songtian Li, Chundu Wu, Yongsheng Yan and Yuehua Deng</i>	
Preparation and Photocatalytic Performance of Complex Photocatalyst H₃PW₁₂O₄₀/TiO₂/Na₂Ti₃O₇	3479
<i>Songtian Li, Songtao Chen, Yanmin Hou, Yongsheng Yan, Lingling Wang and Pengwei Huo</i>	
Study on Treating Dyeing and Finishing Wastewater with Combined Process of Anaerobic-PAC-SMBR	3483
<i>Hang Gao, Songmao Chu, Songtian Li and Wei Ma</i>	
Research on Ultrasonic Stripping-A/DAT-LAT Technics for the Treatment of Azodicarbonamide Production Wastewater	3487
<i>Hang Gao, Wei Ma, Songtian Li and Changhao Li</i>	
Combination with Gas Flotation Preconcentration Based on Ternary Association Complexes and Flame Atomic Absorption Spectrometry Detection for Trace Heavy Metals in Complicated Water Samples	3491
<i>Hang Gao, Qiaoru Liu, Songtian Li and Ying Nie</i>	
Responses of Phytoplankton and Periphyton to Environmental Variations in Urbanizing Tidal Rivers	3495
<i>Xia Liang and Xiaoping Li</i>	
3D Hydrodynamic and Water Quality Simulation of North Jiangsu Offshore Sea Based on EFDC	3500
<i>Feng Luo, Ruijie Li and Peng Hou</i>	
Study on Purification of Used Oxygen-18 Water in Preparation of Positron with Cyclotron	3504
<i>Li-Quan Sun, Shingo Kasamatsu, Takako Furukawa and Yasuhisa Fujibayashi</i>	
Study of Immobilization and Removal Efficiency of Zn²⁺ from Wastewater by Anabaena Sp.	3507
<i>Ning Zou, Rui Zong, Yuelei Pan, Donghong Sun, Yan Liang and Jiantao Lv</i>	
Real-Time Red Tide Algae Classification Using Naive Bayes Classifier and SVM	3510
<i>Jiang Tao, Wang Chen, Boliang Wang, Xie Jiezheng, Jiao Nianzhi and Tingqwei Luo</i>	
Preparation of Floatable Compound Photocatalyst of Phosphotungstic Acid/Titanium Dioxide/Float Pearls and Its Degradation Capability to Wastewater of Dye	3514
<i>Weichun Yang, Hang Gao, Songtian Li, Yongsheng Yan, Pengwei Huo and Weiwei Yao</i>	
Influencing Factors Investigation of On-Site Rural Domestic Wastewater Treatment with Water Hyacinth in Shanghai	3518
<i>Yue-Xia Gao, Zu-Xin Xu, Sheng Wang and Huai-Zheng Li</i>	
Cu²⁺ and Zn²⁺ Adsorption to Synthetic Iron Oxides and Natural Iron Ore Powder	3522
<i>Yu Li, Jianlin Liu, Xiaoli Wang, Ting Wang and Xianyuan Du</i>	
Prediction of Ammonia and Carbon Dioxide Emissions in Simulated Food Waste Composting Processes	3526
<i>Yu Li and Jiangling Wang</i>	
Air Stripping of High Concentration Ammonia Wastewater in Fertilizer Plant	3530
<i>Jian-Min Li, Yi-Peng Du, Zhi-Ying Dong and Xiao-Li Zhao</i>	
Primary Study of Fluoride Removal from Aqueous Solution by Activated Ferric Hydroxide	3533
<i>Wenming Ding, Hairui Turson and Xia Huang</i>	
The Study of Water Source Prevention and Monition by Using Grid Conception and RS Satellite Image Classification	3536
<i>Chih-Heng Liu, Tien-Yin Chou and Lung-Shih Yang</i>	
Ecological Variation of High Activated Bacteria on Bioaugmentation Activated Carbon	3540
<i>Guangzhi Wang, Weiguang Li and Likun Huang</i>	
The Effect of Suspended Sludge on Electricity Generation in Microbial Fuel Cells	3545
<i>Yinfang Zhi, Hong Liu and Lu Yao</i>	
Studies on the Effects of Different Bio-Media on Bio-Contact Oxidation Reactor	3550
<i>Qingzhi Fei, Zhi Xu and Xiaoxu Liu</i>	
Purification of Stream Flowing Into Dian Lake by Ecological Floating-Bed System	3554
<i>Yangjun Gao and Congjun Sun</i>	
Study on Treatment of Printing and Dyeing Wastewater with ABR-Circulated Moving Carrier Membrane Bioreactor	3558
<i>Li-Li Zhou, Wen-Ting Zhu, Tao Wang and Hong-Juan Liu</i>	
Effect of Substances Released from Sediment on Artificial Instream Aeration	3563
<i>Xiangyang Xu and Ying Xu</i>	

Table of Contents

Stream Tube Approach for Modelling Contaminant Transport in Open Channel Flows	3566
<i>Yiqing Guan and Danrong Zhang</i>	
Joint Degradation of Atrazine/Cationic Red X-GRL with Monophenolic Compound to Reduce Fe²⁺ Input in Fenton Process	3570
<i>Yingxun Du, Lecheng Lei and Fangming Jin</i>	
Treatment of Polluted River Water Using a Combined Coagulation-Dynamic Membrane Process	3574
<i>Chun-Hua Xu, Bao-Yu Gao, Cheng-Hua Liu and Bai-Chuan Cao</i>	
Study on Advective Separation of Oil-Coagulation-Floatation-Slag Filtration Technology to Handle Oily Wastewater	3578
<i>Weichun Yang, Hang Gao, Songtian Li and Xiaojie Jian</i>	
Comparison of the Cloud Water Content Retrieved by Radar and from Numerical Model	3582
<i>Huaying Yu and Shengjie Niu</i>	
Efficiency of Oil Removal from Highway Service District Sewage with a Novel High Efficiency Oil Isolation/Coalesce Apparatus	3585
<i>Qingjie Xie, RongFang Wu, Xiaohui Wu and Jie Xiang</i>	
Simulation of Recovery Options of Brackish Water Aquifer in the Dagu River Area, China	3588
<i>Guo-Qingt Lin and Xi-Lai Zheng</i>	
Phosphorous Removal in Intermittent Cycle Extended Aeration System Wastewater Treatment Plant - Effect of Temperature	3592
<i>Hongjing Li, Yinguang Chen, Guo-Wei Gu and Yandong Liu</i>	
Application of Stable Isotope Method in Water Mass Balance of Qinghai Lake	3596
<i>Weimin Bao, Haiying Hu, Tao Wang and Simin Qu</i>	
Study on the Variation of Hydrogen and Oxygen Isotopes in Soil Water	3600
<i>Haiying Hu, Weimin Bao, Tao Wang and Simin Qu</i>	
Nutrients Transfer in Subsurface-Flow Constructed Wetland	3604
<i>Tao Jiang, Junguo He, Xiaonan Yang and Bingnan Lv</i>	
Study on Mixing Efficiency Evaluation Factor Named Mixing Factor Based on Gridding Control	3610
<i>Junguo He, Tao Jiang and Jie Zhang</i>	
Photo-Fenton degradation and Mineralization of Polyacrylamide by Using Fe₂O₃/SiO₂ Catalyst	3615
<i>Ting Liu, Hong You and Yanchun Li</i>	
Treatment of Polluted River Water Using Biofilm Pretreatment and Sequencing Aerated Vertical Subsurface Flow Constructed Wetland	3619
<i>Lei Wang and Bei Wu</i>	
Thermophilic Anaerobic Treatment of Cassava Ethanol Wastewater in Continously Stirred Tank Reactor (CSTR)	3623
<i>Li Xie, Gang Luo, Qi Zhou, Wenjing Sang and Jiawei Sun</i>	
Separation Performance Research of Air-Injected De-Oil Hydrocyclone	3627
<i>Lixin Zhao, Minghu Jiang and Feng Li</i>	
Study on Improvement of Pollutants Removal Efficiency by Backside Aeration in Wavy Subsurface-Flow Constructed Wetland	3632
<i>Yongzheng Ren, Beiping Zhang and Benzeng Hai</i>	
Impact of Normalization Intervals for Hyperspectral Reflectance on Estimation of Chlorophyll-a in Lake Tai, China	3636
<i>Jianmin Zhan, Yong Zha and Lin Li</i>	
Production of Biofloculant Using the Effluent from a Hydrogen-Producing Bioreactor and its Capacity of Wastewater Treatment	3640
<i>Shuangshi Dong, Nanqi Ren, Aijie Wang, Fang Ma and Dandan Zhou</i>	
A Decentralized and On-Site Option for Rural Settlements Wastewater with the Adoption of Vermifiltration System	3645
<i>Jian Yang, Meiyang Xing, Zhibo Lu and Yongsun Lu</i>	
Application of QSARs Model in Toxicity Evaluation of Wastewater to Bio-treatment System in WWTP	3649
<i>Bijing Cai, Li Xie, Dianhai Yang and Jean-Pierre Arcangeli</i>	
Wastewater Treatment Performance of Earthworm Biofilter with Filter Media of Quartz Sand and Ceramic Pellet	3653
<i>Jian Yang and Limin Zhao</i>	
Sorption Characteristics of Pentachlorophenol Onto Fe Oxides Extracted from the Surficial Sediments	3657
<i>Yu Li, Ting Wang and Xiaoli Wang</i>	

Table of Contents

Establishment of a Selective Extraction Technique for the Separation of Iron and Manganese Oxides and Organic Materials in the Natural Surface Coating Samples (NSCSs)	3661
<i>Yu Li, Xiaoli Wang and Yuming Liu</i>	
Surfactant-Enhanced Bisphenol A Adsorption Onto Surficial Sediments (SSs)	3665
<i>Yu Li, Na Li and Qian Gao</i>	
Degradation of Landfill Leachate and Short Chain Organic Acids by Catalytic Wet Air Oxidation Over Mn/Ce and Co/Bi Catalysts	3669
<i>Yu Li, Jian Wang and Yuming Liu</i>	
Degradation of Quinoline in Aqueous Solution by the Light Of 185 nm/254 nm	3673
<i>Da-Zhang Zhu, Dong-Mei Sun, Shi-Long Wang, Xiao-Yu Sun, Ya-Ming Ni and Si-De Yao</i>	
Rare Earth Waste Residue Absorbent Preparation and Applied Research	3678
<i>Xiujuan Feng and Tao Tao</i>	
Influence of Influent C/N Ratio and Aeration Rate on the Nitrogen Removal in an Airlift Combined Biofilm Reactor (ACBR)	3683
<i>Haiyan Guo, Jiti Zhou and Xiuhong Zhang</i>	
System Dynamics Based Water Resources Planning: A Case Study of South Jiangsu Province	3687
<i>Fang Tong and Zeng-Chuan Dong</i>	
Experimental Simulation of Oxygen Consumption by Bottom Sediment in the Liao River Estuary	3691
<i>Hairet Turson, Wenming Ding, Li Tong, Jilong Wang and Binghui Zheng</i>	
Study on Coagulation Pretreatment of Laboratory Wastewater	3695
<i>Aihong Guo and Fusheng Niu</i>	
Spatial and Temporal Characteristics of Carbon Tetrachloride Pollution in a Karst Aquifer	3698
<i>Xueqiang Zhu, Baoping Han and Yan Sun</i>	
Chemical Characteristics of Phreatic Water in Yinchuan Plain and Their Control Factors	3702
<i>Hui Qain, Yan Dou, Qin Zhang and Xuehua Wu</i>	
High-Concentrated Organic Pollutants Degradation by Electrochemical Oxidation Integrated with Dioxygen Activation	3709
<i>Yanqing Cong, Xiangjuan Ma and Zucheng Wu</i>	
Electrocoagulation for the Drinking Water Treatment of Polluted Surface Water Supplies	3713
<i>Xiangdong Li, Qiyang Feng, Qingjun Meng and Yujie Cheng</i>	
Study on the Flow-Pollutant of the Kuncheng Lake	3717
<i>Yi Qin, Ruijie Li, Wenjin Zhu and Jingjing Cao</i>	
Biofilm Performance in an Aerobic Fluidized Bed Reactor During the Start-Up Period	3722
<i>Dandan Zhou, Heli Wang, Xiaotao Bi and Shuangshi Dong</i>	
Deduction of A Discriminant of Groundwater's Carbonic Acid Erosion to the Concrete	3728
<i>Yunfeng Li, Weifeng Wan, Yaoguo Wu, Jiangxia Wang, Guohui Song and Xiyu Zhang</i>	
X-Ray Diffraction Analysis of the Effect of the NH₄⁺: PO₄³⁻ Molar Ratio on the Formation of Crystallized Struvite and Recovery Rate of Phosphorus	3733
<i>Zongsheng Zhao, Xue Zou, Harry X. Zhang and Xudong Zhao</i>	
Simulation and Assessment of Surface Water Quality in Response to Urban Land Use Change	3737
<i>J. Zhou, Y. Liu, Jining Chen, Siyu Zeng and F. Yu</i>	
Adsorption of Phenol from Aqueous Solution by Hydroxyapatite Nanopowders. Part II: Kinetic, Equilibrium and Thermodynamic Studies	3741
<i>Kaili Lin, Jiayong Pan, Yiwei Chen, Rongming Cheng and Xuecheng Xu</i>	

Vol V: Environmental Pollution and Public Health (2)

Air Pollution and Quality Control

Airborne Dust Monitoring during Grain Handling	3745
<i>Qiuqing Geng</i>	
Monitoring of Air Pollution over Urban Area from MODIS	3749
<i>Jianping Guo, Jinsong Shen, Zenglin Yi, Xiaodong Jin, Yong Xue, Chunxiang Cao, Jiahua Zhang and Xiaoye Zhang</i>	

Table of Contents

Influence of Relative Humidity on Non-Thermal Surface Discharge Plasma Processing of Gas-Phase Toluene <i>Jianfang Zhang, Zhipeng Bai, Wenxia Zhao, Bin Lu and Min Ji</i>	3753
Chemical Elements and their Source Apportionment of Fine Particulates (PM_{2.5}) in Shanghai Atmosphere	3758
Photochemical Oxidation of Thiophene Adsorbed on Na-ZSM-5 Zeolite by O₂ in Oil/Acetonitrile Two-Phase Extraction System <i>Fa-tang Li, Rui-hong Liu, Zhi-Min Sun and Di-Shun Zhao</i>	3762
Analysis on the Applicability of Coal Dust Wettability Measurements <i>Li Man and Xu Haihong</i>	3766
Study on Thermal Desorption Method for the Analysis of BTEX in Indoor Air <i>Jing Chen, Beihai Zhou, Hui Qi, Liang Dong and Huimin Yin</i>	3770
Greenhouse Gas Emission Analysis for Distributed Energy System <i>Zhai Rong-rong, Yong-ping Yang and Duan Li-Qiang</i>	3774
3D Simulation on CO Diffusion in the Underground Powerhouse Construction <i>Xiao-Ling Wang, Xue-peng Liu, Luan Chuang and Duan Qiqi</i>	3778
Characterization of Metal Species in TSP and PM₁₀ Aerosols in Jiaozuo, China <i>Dong Zhang, Mingshi Wang and Baojun Jia</i>	3782
Simulation and Identification of Spatial Uncertainty of Urban Air Pollution <i>W. He, Y. Liu, S. Zeng, J. Chen, Q. Tong and H. Li</i>	3785
The Influences of Heterogeneous Reaction on Particle Optical Properties: A Laboratory Case of SO₂ on Hematite and Hematite-NaCl Mixture <i>Xingna Yu, Tiantao Cheng, Yong Yin, Huxiong Cui, Jianmin Chen and Yongfu Xu</i>	3790
Airflow Simulation of an Umbrella Plate Scrubber <i>Caiting Li, Shanhong Li, Guangming Zeng, Fei Wang, Dayong Wang, Hongliang Gao and Wei Guo</i>	3794
Theoretical Analysis of Trees to Aerosol Particles Purification <i>Zhenyu Du and Ying Li</i>	3798
Secondary Organic Aerosols Formed from Photooxidation of Biogenic Volatile Organic Compounds in Forests <i>Wang Wu and Zhang Ting</i>	3802
Experimental Study on the Electrostatic Precipitability for the High-Alumina Fly Ash of Burning ZHUNGEER Coal in China <i>Qi Liqiang and Yongtao Yuan</i>	3805
A Study of Paddy CO₂ Emissions under Long-Term Fertilizations and Associated Impact Factors <i>Xiaobo Qin, Li Yu'e, Wan Yunfan and Liu Keying</i>	3809
Characterization of Physicochemistry and Source Identification Analysis of PM₁₀ in Spring Air of Harbin <i>Yanfei Liu and Yanbiao Wang</i>	3813
Objective Determination of AIRS Cloud Mask using Co-Located MODIS Cloud Mask Information <i>Li Guan and Hung-Lung Huang</i>	3819
Air Anion Density and its Affecting Factors in Greenbelts of Changsha <i>Yuan Yaoqing and Xiangji Chen</i>	3824
Oxidative Desulfurization of Thiophene by Coordinated Ionic Liquid [3(C₂H₅)₄NCI•(NH₂)₂CO] as Phase-Transfer Catalyst <i>Sun Zhimin, Zhao Dishun, Li Fatang and Shan Haidan</i>	3827
Numerical Simulations of the Effect of Black Carbon Aerosol on Regional Climate in China <i>Jing Zhang and Yan Yin</i>	3831
Greenhouse Effect Reduction and Energy Recovery from Landfill: A Case Study <i>Wei-Hua Yang, Wu Qiang, Wang Kan-hong and Sheng-Nan Zhao</i>	3835
Pollutant Emission Reduction Analysis of Distributed Energy Resource <i>Yan Qin, Er-Shu Xu and Yong-ping Yang</i>	3839
An Exploratory Study on Simultaneous Removal of Nitrogen Oxides and Soot from Diesel Exhaust Gas: Single Component Metal Oxide Catalysts <i>Rongshu Zhu, Mingxin Guo and Feng Ouyang</i>	3843

Table of Contents

Association of Ambient Air Pollution with Respiratory Hospitalization in Eastern China	3846
<i>Yan Wang, Yi-sheng Zhang and Hong-Li Li</i>	
Detection of Sand and Dust Storms from MERIS Image Using FE-Otsu Alogrithm	3852
<i>Kaiping Wei, Tao Zhang and Bin He</i>	
Spatial Analysis of Atmospheric Pollution in Lanzhou based on GIS	3856
<i>Xingqin An, Anqin Ma, Huilin Wang and Jianping Guo</i>	
Removal of High Concentration of Ammonia Gas in a Hybrid Biofilter	3860
<i>Jiao Zhang, Longjun Zhang, Qingzhen Sun and Pengjin Yang</i>	
N₂O and CO₂ Emission from an Arable Soil Amended with Glucose and Alanine Addition	3864
<i>Lianfeng Wang</i>	
Air Quality Evaluation of Changchun by ArcGIS from 2003 to 2007	3868
<i>Nan Jing, Zhen Zhang and Tisong Jing</i>	
Numerical Study on Air Flow with Various Accuracy Conditions in a Turbulent Contact Absorber	3872
<i>Kun Wang, Li-wei Zhang and Li-Kun Huang</i>	
Natural Environmental Gamma Radiation Dose Rate in Qingdao Area	3876
<i>Limei Qu, Pifu Cong and De Yao</i>	
Research on Fuzzy-PID Controllor in Variable Frequency Air Conditioner System	3879
<i>Gao Qiang, Ren Rongjie and Wei Wang</i>	
Preliminary Analysis of Aerosols' Effects on Tropopause Height	3883
<i>Jian Wu and Qian Yang</i>	
Photocatalytic Oxidation Kinetics of Thiophene with Nano-TiO₂ as Photocatalyst	3887
<i>Fa-tang Li, Rui-hong Liu, Zhi-Min Sun and Di-Shun Zhao</i>	
Adsorption of 5-Amino-2-Chlorotoluene-4-Sulfonic and Chlorhydric Acids from their solution by Weakly Basic Resin	3891
<i>Changhai Li</i>	
PCDD/Fs and PCBs in Soot Dust, Fume and Contaminated Air with Burning E-Wastes	3896
<i>Xiuhua Zhu, Gerd Pfister, Bernhard Henkelmann, Jarmila Kotalik, Stefan Fiedler and Karl-Werner Schramm</i>	
Simulation Studies on Limestone Dissolution with Organic Acid Additives in Limestone-Based Flue Gas Desulfurization	3899
<i>Sheng-Yu Liu, Pei Liu, Jin Gao, Jian-ying Liu, Zhi-xiang Ye and Cheng-Hua Xu</i>	
Preparation and Application of Mg(OH)₂-based Desulfurization Emulsion from Alkaline Iron Slag	3903
<i>Xia Shibin, Zhang Yang and Xia Shuichun</i>	
A Pilot-Scale Odor Treatment Experiment of Hydrogen Sulfide by using Bio-Trickling Filter	3907
<i>Zhang Lanhe, Zicheng Chen, Lidan Liu and Li Jiangcheng</i>	
The Variation Rules of Water Resources and Pollutants in Baiyangdian Wetland	3911
<i>Wuqun Cheng, Sheng Lili and An Xiurong</i>	
An Empirical Analysis on the Relationship of China Industry Activities and the SO₂ Emissions	3915
<i>Xiao-Li Zhao and Chao Ouyang</i>	
Preparation and Characterization of Activated Semi-Coke used in SO₂ Removal	3919
<i>Ju Shangguan, Maoqian Miao, Litong Liang, Fang Shen and Huiling Fan</i>	
Triboelectric Coal Beneficiation: A Potential Pollution Control Technique for Power Plant	3923
<i>Haifeng Wang, Qingru Chen, Xixi Zhang, Shulei Song and Changsheng Shi</i>	
Nitrous Oxide Emissions from Long-Term Fertilized Black Soils in Harbin,China	3927
<i>Lianfeng Wang, Yanjiang Cai, Xin Sun, Hongtu Xie and Xudong Zhang</i>	
An Oxygenating Additive for Reducing the Emission of Diesel Engine	3931
<i>Yanxia Wang and Yongqi Liu</i>	
Study of Transformation and Chromosomal Instability of Human Tracheal Epithelial Cells Induced by Formaldehyde	3934
<i>Gui-Zhi Zhang, Li Chen, Wei Xiong, Le-Feng Zhang, Bian-Lan Li, Chang-Ting Liu and Dong-Shan Liu</i>	
Investigation on COS Hydrolysis over TiO₂ Alumina Catalyst	3938
<i>Litong Liang, Ju Shangguan, Fang Shen and Meisheng Liang</i>	

Table of Contents

Daily Exposures to Nitrogen Dioxide for Different Groups of Residents in Beijing	3941
<i>Xuan Du, Lixin Fu and Qisheng Ou</i>	
Volatile Organic Compounds (VOCs) Removal by Using Dielectric Barrier Discharge	3945
<i>Baojuan Dou, Jian Li, Wenjun Liang, Tao Zhu, Yili Li, Yuquan Jin and Lijuan He</i>	
A Case Study on Monitoring Haze in Pearl River Delta by MODIS	3949
<i>De Hui Wang, Li Hua Xia and Yao Qiu Kuang</i>	
Methane Emission Control by Thermal Oxidation in a Reverse Flow Reactor	3952
<i>Ruixiang Liu, Yongqi Liu and Zhenqiang Gao</i>	
Feasibility Analysis of Simultaneous DeSO₂/DeNO_x Using Plasma and Combined Photocatalysis	3956
<i>Yinghui Han and Genshan Jiang</i>	
Analysis on Influencing Factors of Indoor Air Quality and Measures of Improvement on Modern Buildings	3959
<i>Rong Wan and Dequan Kong</i>	
Numerical Simulation of Air Quality for ICUs	3963
<i>Z. Y. Yu, P. F. Hu and X. D. Yuan</i>	
The Activation and Regulation of Ca-CaM Signaling System on the Activity of Ca²⁺-ATPase and H⁺-ATPase In Leaves of Longan Under Stimulated Acid Rain Stress	3967
<i>Tengfei Pan, Yongyu Li, Shan Zheng, Cuilan Ma and Dongliang Qiu</i>	
A Sensitivity Analysis on Atmospheric Transportation of Mercury in Guiyang China	3973
<i>Xiaotong Lu, Weimei Jiang, Qitai Li and Youping Sun</i>	
Application of Grey System Method for Evaluating Ambient Air Quality of Typical Traffic Areas in Shanghai	3977
<i>Lei Yang and Xiaowei Fan</i>	
Numerical Simulation of Pathogen Transport Around Buildings	3981
<i>Xue-Yi You and Li Li</i>	
Preliminary Study on Oxidation of Elemental Mercury in the Presence of Gaseous Oxidants	3985
<i>Yao Chi, Naiqiang Yan, Shaohua Qiao and Jinping Jia</i>	
A Numerical Simulation Study on a Typhoon Disaster Under the Global Climate Change	3989
<i>Guan Hao, Ding Yamei and Wang Hanjie</i>	
A Combination of Wire Screens for Simulating Aerosol Deposition in Human Tracheobronchial Regions	3993
<i>Dehong Li, Weihai Zhuo, Bo Chen and Haikuan Liu</i>	
Removal Characteristics of Hydrogen Sulfide in Biofilters with Fibrous Peat and Resin	3996
<i>Shaohua Qiao, Lei Fu, Yao Chi and Naiqiang Yan</i>	
Numerical Simulation for Optimization of Hybrid Fire Ventilation System in Highway Tunnel	4000
<i>Yudang Xu and Jiani Mao</i>	
A Numerical Simulation for Predicting Influence of Skew Gas Distribution in Electrostatic Precipitations Upon Dust Loading	4006
<i>Zhenyu Du and Jinming Yang</i>	
The Ventilation Air Methane Combustion System and its Clean Development Mechanism Analysis	4010
<i>Xianzhao He, Peiyong Ma, Yu Yu, Qizhao Lin and Xianjun Xin</i>	
Soil N₂O and CO₂ Emissions from Red Soils Following Land Conversion in Subtropical China	4015
<i>Zhonglu Guo, Chongfa Cai, Zhaoxia Li, Tianwei Wang and Mingjiao Zheng</i>	
The Research of AOT Quantitative Retrieval in Beijing with Landsat/7 ETM Data	4019
<i>Yaoting Wang, Yingchun Wang and Qiao Wang</i>	
Simulation of Sulfur Deposition from Coal-Fired Power Plants in Guizhou Province	4026
<i>Xiaotong Lu, Weimei Jiang, Qitai Li, Yi Li, Ya Xiong and Bidong Shen</i>	
Numerical Simulation of NO Reduction by Gases from Coal Pyrolysis at High Temperature	4030
<i>Li Liu, Penghua Qiu, Shaohua Wu and Yukun Qin</i>	
Kinetic Study of Promoted SNCR Process by Different Gas Additives	4034
<i>Qingxi Cao, Hui Liu, Shao-Hua Wu, Li-Ping Zhao and Xia Huang</i>	
A Numerical Study of Urban Canopy Processes Influence on Local Climate	4039
<i>Ning Zhang, Weimei Jiang and Yan Chen</i>	

Table of Contents

Numerical Study of Anthropogenic Heat Impact on Boundary Layer Characteristics	4043
<i>Yan Chen, Weimei Jiang and Ning Zhang</i>	
A Numerical Study on Atmospheric Transport and Diffusion Response to Rapid Urbanization	4046
<i>Yongwei Wang, Zhu Bin and Jiang Weimei</i>	
Anthropogenic Sources Apportionment of Volatile Organic Compounds in the Atmosphere of Pearl River Delta, South China	4050
<i>Boguang Wang, Yuanhang Zhang, Min Shao, Zhicheng Feng, Yan Zhou, Chen Wang and Xinming Wang</i>	
Cu(II) Doped Multi-walled Carbon Nanotubes as Sensing Materials for Toluene Detection	4054
<i>Miao Guo, Kai-Hua Wu, Min Pan and Yu-Quan Chen</i>	
Effects of Increasing Roof Albedo on the Urban Environment	4057
<i>Hongyun Ma, Jie Song and Pinwen Guo</i>	
Observation and Numerical Simulation on Volatile Organic Compounds in Urban Area	4061
<i>Yan Ouyang and Weimei Jiang</i>	
Numerical Simulation on Climate Characteristics of Global Dust Aerosol Transport Process	4066
<i>Qian Huang, Yaocun Zhang and Suxiang Yao</i>	
Differential Optical Absorption Spectroscopy System for Suburb of Nanjing Atmospheric Pollution Monitoring	4070
<i>Jing Wang, Bin Zhu and Shengjie Niu</i>	
Treatment of Toluene-Contaminated Air using a Rotary-Type Biofilter and Highly Porous Packing Material	4075
<i>C. S. Ima, M. Yasutaka, T. Higuchi and D. D. Mann</i>	
Dynamic Variation for SO₂ of Atmosphere in Beijing	4079
<i>Xiaoju Gao, Hong Cheng, Feng Tian and Rende Wang</i>	
Study on the Indoor Air Quality in Hotel	4083
<i>Xiaogang Du and Zhihua Zhou</i>	
Determination of Dioxin by Solid Phase Microextraction Coupled with Gas Chromatography/Mass Spectrometry	4086
<i>YanQun Liu, YouMing Tan and YiKai Zhou</i>	
Harmful Gas Sanitation Protective Distance Calculating Method Research	4088
<i>Zhanliang Liu, Xu He, Guangfeng Kang and Jianhua Liu</i>	
<u>Land Pollution and Remediation</u>	
Optimization of Nitric Acid Pretreatment Refractory Gold Concentrate Process with Multiple Assessment Indicators by Grey Relational Analysis	4092
<i>Guolong Gao, Dengxin Li and Yong Zhou</i>	
Supercritical Water Oxidation of Oilfield Sludge	4096
<i>Guolin Jing, Weijing Huo, Baochen Cui and Tan Zhao</i>	
Influence of Acid Rain on the Release Characteristics of the Heavy Metals in Coal Ash	4100
<i>Zeng Fang and Qing Chen</i>	
Amelioration of Salt Stress on Annual Ryegrass by ACC Deaminase-Containing Plant Growth-Promoting Rhizobacteria	4104
<i>Yun-Xiu Ji and Xiao-Dong Huang</i>	
Evaluation of Iron on Cadmium Uptake by Lycopersicon. Esculentum Mill. in Hydroponic Culture	4108
<i>Tong Bao and Li-Na Sun</i>	
Simultaneous Determination of 15 Organochlorine Pesticide Residues in Soil by GC/MS/MS	4113
<i>Pin Zhang, Xiaojun Hu, Ying Wang and Tieheng Sun</i>	
Toxicity Evaluation of Sewage Sludge Before and After Composting Process	4117
<i>Qiang Liu, Ling Chen, You Huang, Wuliang Cheng and Jianfu Zhao</i>	
Promotion of HP-β-CD on Washing of Aroclor1242 from Soil	4121
<i>Hong Liu, Zhou Shi, Quan Sun and Naiyun Gao</i>	
Study on Isolation and Identification of One Atrazine Degrading Strain and Its Degradation Characteristics	4125
<i>Ning Zhou, Rongjuan Wang, Zhao Jiang and Ying Zhang</i>	
Small Scale Variability of Dinoseb Sorption in Batch Experiment	4129
<i>Danrong Zhang, Ganquan Mao and Yiqing Guan</i>	

Table of Contents

Distribution of Different Forms of Copper in Soils As Influenced by the Growth of <i>Cynodon Dactylon</i> from Two Sources	4133
<i>Y. B. Wang and J. Yao</i>	
Experimental Research on Atrazine Sorption and Degradation in Soils	4137
<i>Danrong Zhang, Yiqing Guan, Liru Zhang and Bin Ye</i>	
Study on the Model of Organic Contaminant Transportation and Biodegradation in Unsaturated Soil	4141
<i>Ying Zhao, Qiang Xue and Lei Liu</i>	
Feasibility of the Thermal Treatment of Printworks Solid Waste	4145
<i>Hongcang Zhou, Baosheng Jin, Zhaoping Zhong, Rui Xiao and Yaji Huang</i>	
Land Reclamation in Mining Subsidence Based on Matter Element Model	4149
<i>Yan-Bin Wu, Kai Zhang and Fan Cui</i>	
The Transfer and Distribution Characters of Soil Moisture and Nitrate Nitrogen of Intermittent Infiltration	4154
<i>Jie Wang, Jia Hui and Hong-Wei Zhang</i>	
Remediation Effect of Suaeda Salsa Planting on the Petroleum Hydrocarbon Polluted Coastal Zones	4158
<i>Xianbin Liu and Chongyan Xu</i>	
Effects of Cement Contents on the Structure Formation of Stabilized Silt	4162
<i>Jianguo Ning, Xin Huang, Ye Guo and Baolin Zhu</i>	
Bio-Use Form Spatial Distribution and Driven Factors of Heavy Metal Cadmium in the Surface Soil of Xiang'an Area, Xiamen, China	4166
<i>Haiyuan Qiu and Xian Wang</i>	
Basic Research on the Separation of Electronic Scraps with an Active-Pulsed Airflow Classifier	4172
<i>Shulei Song, Yuemin Zhao, Yaqun He, Haifeng Wang, Chenlong Duan and Juan Hao</i>	
Experimental Investigation on Converting of Agricultural Waste to Bio-Gas	4177
<i>Hong Jiang and Qingxiang Guo</i>	
The Study on PAHs and AOX of Source Separation Household Organic Waste and Composting Production	4180
<i>Feng Lei, Raninger Bernhard, Run-Dong Li and Yan-Ji Li</i>	
Form Distribution and Transformation of Pb in Composting of Pb-Polluted Lignocellulosic Waste with White-Rot Fungi	4185
<i>Dan-Lian Huang, Guang-Ming Zeng, Zhi-Wei Peng, Chong-Ling Feng, Shuang Hu, Feng-Feng Su, Pan-Yue Zhang and Hong-Liang Liu</i>	
Effects of Gradients and Rainfall Intensities on Phosphorus Loss Under Simulated Rainfall	4189
<i>Yang Gao, Pei Zhou, Bo Zhu, Tao Wang and Jia-Liang Tang</i>	
Characteristics of <i>Allium Sativum</i> L. Accumulating Cd in Contaminated Soil	4193
<i>Yi Qian, Ling Wang, Jianwen Zhu and Yuhua Jia</i>	
Bioremediation of the Fuel Oil Contaminated Subsurface	4198
<i>Valentina P. Ladygina, Irina V. Trusey and Yury L. Gurevich</i>	
Research on High Temperature Compost Technology in Sludge Processing	4202
<i>Meisheng Liang and Qiang Xu</i>	
Combined Modification of Asphalt by Waste Polystyrene and Ethylene - Vinyl Acetate Packaging Materials	4206
<i>Changqing Fang, Maorong Zhang and Tiehu Li</i>	
Adsorption Behavior of P-Chlorophenol on the Reed Wetland Soils	4210
<i>Cheng Ding, Zhaoxia Li, Jinlong Yan and Jianxiang Jin</i>	
Landscape Pattern Changes of River Sealine in Guangzhou	4214
<i>Ai Gao and Lihua Xia</i>	
Selection of Microbial Community with High Cellulose-Degradation Ability and its Characteristics	4218
<i>Y. J. Feng, Y. L. Yu, C. W. Wang, J. Liu and C. zheng</i>	
Copper Transfer from Compost to Red Soil in Simulated Rainfall Condition	4222
<i>Guiqiu Chen, Yun Chen, Guangming Zeng and Guoli Shen</i>	
Investigation on the Stabilization of Simple Dumping Sites for Municipal Solid Waste in Harbin	4225
<i>Bing Xie, Huiling Liu, Yifei Yang and Yuan Liu</i>	

Table of Contents

Environmental Cost Accounting of Chemical Fertilizer Utilization in China	4229
<i>Li Lai and Xian Jin Huang</i>	
Isolation and Identification of Two High Effective Atrazine Degrading Microbe	4233
<i>Zhao Jiang, Ma Yao, Rongjuan Wang and Ying Zhang</i>	
Research on the Woodland Soil Enzyme Activities in Coal Mining Subsidence Area	4237
<i>Huashan Xu, Yufen Ren, Tongqian Zhao and Yuxiao He</i>	
Levels and Distribution of Organic Chlorinated Pesticides in Water and Sediment from Mengjin Part of Yellow River Wetland, China	4241
<i>Chao Tai, Chuanyan Xiao, Tongqian Zhao, Li Wu and Huashan Xu</i>	
The Study of Relationship Between Every Shape Pb and Total N,C Content in Soil	4244
<i>Yong-Jie Shan, Li-Jie Pu, Ming Zhu, Xiao-Song Tu and Nobuhiro Kaneko</i>	
Sludge Treatment by Hydrogen Peroxide/Ozone	4247
<i>Jun Yin, Yu-Xin Zhao, Lei Liu, Jian-Han Wang and Ying-Zi Lin</i>	
Problems and Solutions on Land Reservation System of Small and Medium-sized Cities in China	4251
<i>Bing Feng, Chunlu Liu, Wei Dong and Yimei Shi</i>	
Overview on the Chlorine Origin of MSW and Cl-Originated Corrosion During MSW & RDF Combustion Process	4255
<i>Wenchao Ma and Susanne Rotter</i>	
Planting Techniques of Tamarix Chinensis and Its Effect on Saline Soil Remediation	4259
<i>Jianfeng Zhang, Jingmin Jiang and Shangjun Xing</i>	
The Distributed Stochastic Monitoring and Modeling on Non-Point Source Pollution and Water Ecosystem Health Assessment	4263
<i>Lianqing Xue, Zhenchun Hao, Taiying Huo and Dan Li</i>	
<u>Ecosystem Restoration</u>	
Assessment of Sustainable Development using Multivariate Statistical Techniques and Ecological Indicators: A Case Study of Wenzhou, China	4267
<i>Qi Wang and Guangming Li</i>	
Correlation Analysis Based on Grid Regression Model: A Case Study in Beibu Gulf	4271
<i>Wengui Cai, Xiaoping Jia, Chunhou Li, Qin Lin and Honghui Huang</i>	
Assessing China's Regional Economic Growth Quality in View of Resource and Environmental Expense	4278
<i>Jie Xu and Ning Zhou</i>	
Assessing the Sustainability of Cascade Hydropower Development Based on Complex Ecology System	4282
<i>Ya-Qin Fu, Qiu-Wen Zhang and Cheng Wang</i>	
Eco-environmental Sensitivity Assessment of Wushen Banner Based on GIS	4286
<i>Donghua Pan, Huicong Jia, Changshui Yu and Jing-Ai Wang</i>	
Globally Attractive Almost Periodic Solution of Diffusion Model with Beddington-Deangelisfunctional Response	4290
<i>Dexian Sun and Yonghui Xia</i>	
Global Exponential Stability of Periodic Solution for Shunting Inhibitory CNNs with Impulses	4294
<i>Dexian Sun</i>	
Analysis on the Degree of Land Saline-Alkalinization and Spatial Variation Characteristics in the Blackland of Western Heilongjiang Province	4298
<i>Jing Ning, Shuwen Zhang, Fenghai Yang and Lei Wang</i>	
The Three-Dimensional Ecological Planning: An Effective Approach to Control the Urban Sprawl	4302
<i>Leichang Huang, Zhengqiu Fan, Shuhong Ye, Xun Gu, Ruixuan Li, Fucun Cao and Xiangrong Wang</i>	
Eco-Environmental Zoning: A GIS-based Approach	4306
<i>Nengwang Chen, Lihong Wang, Weijun Wang and Xiaojuan Yang</i>	
Gis-Based Urban Mosaic and its Gradient Analysis: A Case Study from Wuhu City, China	4310
<i>Yuan Wang, Jing Li, Zhengqiu Fan and Xiangrong Wang</i>	
Study on the Soil Organic Carbon Character in Black Soil Profile under Different Land Use	4314
<i>C. Y. Miao, B. Y. Liu, X. Wei and C. Y. Chen</i>	
Effect of Puccinellia Tenuiflora Growth on Nitrogen Content of Alkalinized Soil in Song-Nen Plain	4318
<i>Gang Chen, Yongzhen Peng and Guorong Sun</i>	

Table of Contents

Recovery of Dimethylbenzene/ Butylacetate from Spent Solvent Oil by Batch Distillation	4322
<i>Zhenyu Li, Jie Tang and Changhai Li</i>	
Study on Reservoir Ecological Operation Model	4325
<i>Xueshan Ai and Xianjia Wang</i>	
Assessment on Ecological Risks of Land Consolidation	4329
<i>Guangming Yu, Yi Che, Xiaowei Lin, Qun Zeng, Fan Zhao, Qiuyue Luo and Yali Wei</i>	
Role of Resource Recovery of Waste Machinery and Electronic Products in Sustainable Development	4333
<i>Yonghua Xiang, Binshi Xu, Yaohui Lv, Dan Xia and Cunlong Liu</i>	
Assessment and Prediction Model of China's Energy Assurance Sustainability	4336
<i>Ya-Qun He, Hua Wei, Shu-Zhen Wang, Wei-Ran Zuo and Jing-Feng He</i>	
The Integrated Forewarning Method Research for Urban Sustainable Development	4342
<i>Ping Jing and Hai-Feng Jia</i>	
The Forecasting and Assessing Method for Urban Sustainable Development Tendency	4346
<i>Ping Jing and Hai-Feng Jia</i>	
Deposition, Canopy and Soil Retention of Inorganic Nitrogen in a Subtropical Mixed Forest in Central-South China	4350
<i>Yu Hu, Chun-Yan Du, Guang-Ming Zeng, Gong Zhang, Fu Yang and Lu Huang</i>	
Marine Coastal Ecosystem Health Assessment: A Case Study in Jiaozhou Bay, China	4354
<i>Lei Sun and Yinglan Sun</i>	
Groundwater Chemistry in the Badain Jaran Desert Region of China	4358
<i>Wei Liu and Zhongjing Wang</i>	
Microclimatic Characteristics of the Heihe Oasis in the Hyperarid Zone of China	4365
<i>Wei Liu and Zhongjing Wang</i>	
A Multi-Objective Process Optimization Procedure under Uncertainty for Sustainable Process Design	4373
<i>Li Sun, Jiping Pan and Anqi Wang</i>	
Effect of Mn Toxicity on Ecophysiological Responses in Two Populus Cathayana Populations	4377
<i>Ke Chen and Yanbao Lei</i>	
Effects of Plant Species on Soil Properties in the Ecosystem Restoration - A Case Study in the Dry Valley of the Upper Minjiang River	4382
<i>S. L. Liu, B. J. Fu, K. M. Ma, G. H. Liu, W. B. Guan and Y. X. Kang</i>	
Field Simulation the Effects of Global Warming on the Freeze-Thaw Process of the Freshwater Marsh in the Sanjiang Plain, Northeast China	4388
<i>Xiao-Fei Yu and Guo-Ping Wang</i>	
Spatiotemporal Change of Ecological Capacity of Lancang River Valley in Yunnan Province	4391
<i>Shiliang Liu, Minxia Wen, Baoshan Cui and Min Yang</i>	
Distribution, Composition and Diversity of Restoration Vegetation on Tudiling Giant Panda Corridor in the Upper Reaches of Minjiang River, SW China	4396
<i>Yong Jian Wang, Jian Ping Tao, Wei Yin Zhang and Run Guo Zang</i>	
Modelling the Carrying Capacity of Urban Ecosystem	4400
<i>Linyu Xu, Zhifeng Yang and Wei Li</i>	
Fuzzy Synthetic Evaluation on Urban Ecosystem Health	4405
<i>Xiang-Mei Li, Jing-Xuan Zhou and Ren-Bin Xiao</i>	
Screening and Culture Condition Optimizing of Microbial Flocculant-Producing Bacterium	4409
<i>Jihong Zhao and Congbin Liu</i>	
Environment and Energy Challenge of Air Conditioner in China	4413
<i>Lin Wang, Aihua Ma, Xiwen Zhou, Yingying Tan, Xiaona Yan and Yu Wang</i>	
Study on Water Environment Capacity and Ecological Restoration in Lake Honghu of Hubei Province, China	4417
<i>Xuelei Wang, Tao Li, Jing Yu, Minghao Mo and Rui Xiao</i>	
Ecological Security Analysis : A Case Study in Heilongjiang Province of China	4421
<i>Wei Qiu, Qing-Liang Zhao, Zhi-Wei Zhao and Song Li</i>	
Temporal Changes in Landscape of Zhalong Wetland	4426
<i>Yuhong Zhang, Liying Su, Shuqing Zhang and Jing Ning</i>	

Table of Contents

Environmental Toxicology

Herbicide Effects on Target and Nontarget Weeds of Rice Fields in China: A Rational Control Strategy	4431
<i>Jiaying Shen, Lihua Zhu and Yibin Zhang</i>	
Effects of Water-Borne Copper on Ultrastructure of Gill and Hepatopancreas in <i>Eriocheir Sinensis</i>	4436
<i>Zhi-Biao Yang, Xiu-Guo Hua, Jian Yang, Yun-Long Zhao, Na Li, Chuan-Guang An, Cong-Li Yuan, Wen Zhang, Jian-Guo Zhu and Li Cui</i>	
Enrichment of Al in Rice Grains of Different Genotypes	4444
<i>Gang Chen, Aiping Liu, Jun Zhang, Guorong Sun, Weidong Zhou, Jiansheng Liang and Yongzhen Peng</i>	
Comparative Study on Photocatalytic Reduction of Cr (VI) by TiO₂ and Ce-TiO₂	4448
<i>De-Jin Wang and Xi-Mei Zhou</i>	
Studies of the Effect of Ultra-High Pressure on the Extraction of Polyphenols from Peach Residue	4452
<i>Guangyuan Zhao and Bo Li</i>	
Photodegradation Rate and Products of Acetochlor in Aqueous Solution	4455
<i>Rimao Hua, Li Xu, Yongde Yue, Feng Tang, Xuede Li and Xiangwei Wu</i>	
Ecological Risk Analysis Models Based on the Emergy Value of Ecosystem Services: A Case Study of Gansu Province in China	4463
<i>Sheng Zhao and Zizhen Li</i>	
Copper Toxicity on the Development and Architecture of Rice Root	4470
<i>Jiakuan Xu, Yulong Wang and Jianguo Liu</i>	
Effects of Zinc and Chromium Stresses on Quality of Rice Grain	4475
<i>Xuemei Zhu, Lijin Lin, Jirong Shao, Yuanxiang Yang, Xiaojun Jiang and Qingsong Zhang</i>	
High-Resolution Trace Element Profiles in Calcium Carbonate Shells using LA-ICP-MS: An Environmental Proxy and Biogeochemical Cycling?	4480
<i>Wei Guo, Shenghong Hu and Yuee Peng</i>	
The Effect of Cu on Ultrastructure of Wheat	4484
<i>Xin Xiao, Qiyang Feng, Yi Ding, Qingjun Meng and Shuang Zhang</i>	
The Effects of Cadmium on Soil Free Living Nematodes	4488
<i>Jing Zhao and Yuhui Qiao</i>	
The Aerosol Physical Characteristics of Desertification Grass Areas in North China during Spring	4492
<i>Ping Yue and Shengjie Niu</i>	
Primary Study on the Distribution of Hexachlorobenzene in Fuhe River Bottom Sediment	4495
<i>Qingjie Xie, Mao Xie and Tao Ma</i>	
Biodegradation of p-nitrophenol by <i>Pseudomonas Aeruginosa</i> HS-D38	4497
<i>Yongliang Zheng, Shangying Xu, Yongze Yuan, Wenxin Li, Yulin Zhong, Li Xiong and Deli Liu</i>	
Determining Priority Substances for Control on the Basis of Comparative Environmental Risk Assessment: Methodological Considerations	4501
<i>Hongbin Cao</i>	
Determination of Trace Pb in Environmental Samples by GF-AAS after Microsphere Phase Separation Extraction	4504
<i>Wei Guo, Wenjuan Liu, Shesheng Jin, Shenghong Hu, Hongfei Zhang and Yuee Peng</i>	
Cell Wall Pectin and its Binding Capacity Contribute to Aluminium Resistance in Buckwheat	4508
<i>Qiang Liu, Licheng Zhu, Li Yin, Cui Hu and Ling Chen</i>	
The Application and Development of the "Mussel Watch" System in China	4512
<i>Wengui Cai, Xiaoping Jia, Qin Lin, Chunhou Li and Juli Gan</i>	
Optimization of Microwave-Assisted Extraction of Ursolic Acid in Residues of <i>Eriobotrya Japonica</i>	4519
<i>Haili Dong and Hanjun Ma</i>	
Study on the PCDD/Fs in Jiaozhou Bay of Qingdao, China	4523
<i>Chun-Yan Yu, Yue Li, Shao-Bin Ju and Xiao-Yan Mu</i>	
The Dynamic Coupling Model of the Coordinative Development Between Regional Resource-Environment and Society-Economy	4527
<i>Chongming Li and Lieyun Ding</i>	
Urban Environment Quality Comprehensive Evaluation With Residue Information	4531
<i>Zhongliang Yue, Yuying Jia and Changqing Zhu</i>	

Table of Contents

Effects of Thermal Shock on Some Freshwater Fishes	4535
<i>Lianxi Sheng and Jingbo Xu</i>	
Responds on the Growth of Interaction Competition Between Macro-Algae (<i>Ulva Pertusa</i> Kjellman) and Micro-Algae (<i>Platymonas Helgolandica</i> Kylin Var. <i>Tsingtaoensis</i>) Population Under the Enhanced UV-B Radiation	4539
<i>Peiyu Zhang, Xuexi Tang, Shuanglin Dong, Hengjiang Cai and Renjun Wang</i>	
Effects of Inoculation Proportions and UV-B Radiation on the Growth Competition between Two Red Tide Algae <i>Alexandrium Tamarensis</i> and <i>Skeletonema Costatum</i>	4543
<i>Peiyu Zhang, Xuexi Tang, Shuanglin Dong and Renjun Wang</i>	
Quantitative Structure-Activity Relationships for <i>Oryzias Latipes</i> Gill ATPase Endpoint	4547
<i>Jingbo Xu and Tisong Jing</i>	
Health Risk Assessment of Carbon Tetrachloride Contamination on Human in a Water Supply Source	4551
<i>Wei Xiang, Baoping Han, Xueqiang Zhu, Chao Li, Aiqin Xu and Xikun Liu</i>	
The Acute and Chronic Toxicity of Five Heavy Metals on the <i>Daphnia Magna</i>	4555
<i>Qingjun Meng, Xiangdong Li, Qiyang Feng and Zhiyang Cao</i>	
Research into the Influence of Lanthanum Ce on the Algae Diversity in the Yellow River	4559
<i>L. H. Yu, Y. B. Sun and C. Y. Song</i>	
Determination and Analysis of Toluene Diisocyanate Metabolites in Mice	4563
<i>Yu Bin Ji, Chenfeng Ji, Lei Yu, Lang Lang and Xiang Zou</i>	
Studies on Toxic Action on Immune System and Mechanism of Toluene Diisocyanate	4567
<i>Yu Bin Ji, Lei Yu, Lang Lang, Chenfeng Ji and Xiang Zou</i>	
The Effects of TDI on Mice Marrow Cells	4570
<i>Yu Bin Ji, Chenfeng Ji, Lang Lang, Lei Yu and Xiang Zou</i>	
Chemical Composition and Antimicrobial Activity of Volatile Oil of Six Gymnosperm Species Leaves from Shanghai	4573
<i>Yan-Qiu Cui, Xin-Hong Cui, Yi Zhu, Qun Zhang and Peng Nan</i>	
Evaluation of the Joint Aquatic Toxicity of PNCB, MDNB and CDNB Acting on Brocarded Carp (<i>Cyprinus Carpio</i>)	4578
<i>Hongyan Shen, Jingliang Yang, Min Li, Fang Wang and Zhenchuan Wang</i>	
Antifungal Activity of Quaternized Carboxymethyl Chitosan	4583
<i>Zhanyong Guo, Rongge Xing, Huahua Yu, Song Liu and Pengcheng Li</i>	
Successive Observation and Analysis of TSP Concentration in a SandDust Storm Case	4587
<i>Jianguo Shen, Ping Yue and Shenjie Niu</i>	
Characteristics of Extreme Temperature Event and Its Response to Regional Warming in Northwest China in Past 45 Years	4590
<i>Jinhu Yang and Zhihong Jiang</i>	
Micro-Structure Study of Mung Bean Seedling Root Affected by Cu^{2+}	4594
<i>Mei-Ping Zhang, Guo-Xiang Chen, Yong-Jie Shan, Rong Han and Chun-Xia Ding</i>	
A Review of Ecological Risk Assessment on Multiple Levels	4598
<i>Hui Zhang and Hongbin Cao</i>	
Physiological Responses of Radish (<i>Raphanus Sativus</i> L.) to Lead Stress	4602
<i>Ling-Li He, Li-Wang Liu, Yi-Qin Gong, Xi-Lin Hou, Xian-Wen Zhu, Jin-Lan Yang and Bin Wu</i>	
Other Topics Related to Environment	
The Impact of Chinese Industrial Exports on Environment	4606
<i>Hongyan Guo and Liyan Han</i>	
Effect of Autothermal Thermophilic Aerobic Digestion Operation on Reactor Temperatures	4610
<i>Jie Hong Cheng and Nan Wen Zhu</i>	
Dynamics of Enzymatic Hydrolysis Solution from Soybean Straw Fermentation the Making L-Lactic Acid by Immobile <i>Lactobacillus</i>	4616
<i>Ping Yang, Qian Yang, Zhong Xu and QiuJing Wang</i>	
Singlet-Excitation Energy Transfer Among Carotenoids in the HL-LH2 Complex from <i>Rhodospseudomonas Palustris</i>	4620
<i>Xiao-Hui Zhao, Rong-Xiang Zhang, Xiao-Dong Tian, Guang Li, Lian-Shui Zhang and Xiao-Ting Li</i>	

Table of Contents

Study on the Control Strategy of Economical Operation in Industrial Boiler	4625
<i>Na Liu and Xiaoye Zhang</i>	
A Comparative Study of High-Resolution Central Scheme for Solving the 2D Shallow Water Equations	4629
<i>Jianzhong Chen, Zhongke Shi and Yanmei Hu</i>	
Study on Forms of Sulfur in NW Coal and Behavior of Desulfurization	4633
<i>Jie Mi, Jiancheng Wang, Jun Ren, Weiren Bao, Yongqing Yang and Kechang Xie</i>	
Z-R Relationship from the Particle Size and Velocity (Parsivel) Optical Disdrometer and its Application in Estimating Areal Rainfall	4637
<i>Qian Chen, Shengjie Niu, Yu Zhang and Feng Xu</i>	
Empirical Study on International Oil Price and Oil Consumption	4641
<i>Fengdan Shi and Yuxian Hu</i>	
Objectively Evaluating Environmental Comprehensive Quality by Improved AHP Method	4645
<i>Yan Zhang, Hong Zhang, Zhenyu Zhong, Xiang Gao and Yinan Ni</i>	
Status and Solutions: Environment Contamination and Public Health Problems in a Mining Town , South China	4650
<i>Xin-Ying Zhang, Bo Hu, Ke-Bo Wei, Cai-Liu Zhao and Xiao-Lan Tang</i>	
Experimental Study of Bean Stalks As Bio-Toilet Conditioner for Treating Human Feces	4654
<i>Yu-Ling Liu, Liang-Min Gao, Xin Qian and Gen-Fa Lu</i>	
Thermal Calculation of Environmentally Friendly Gas-fired Vacuum Hot Water Boiler	4658
<i>Zhihong Zhang, Zhihua Zhou and Qinghua Ren</i>	
The Research of Copper Leaching from the Waste Computer Mainboards	4662
<i>Jing-Ying Li and Guang-Neng Sheng</i>	
Distribution Law and Transfer Mechnism of Mercury during Combustion of Pulverized Coals	4667
<i>Liqiang Qi and Yongtao Yuan</i>	
Geostatistical Analysis on Multi-Scale Variations of Soil Salinity in the Yellow River Delta	4669
<i>Hong Wang and Gaohuan Liu</i>	
Recovery of Red (Y2O3:Eu³⁺), Blue(Sr,Ca,Ba)10(PO4)6Cl2:Eu²⁺ and Green(LaPO4:Tb³⁺,Ce³⁺) Rare Earth Phosphors from Waste Phosphor Sludge by Liquid/Liquid Extraction	4674
<i>Guangjun Mei and Kefeng Xie</i>	
Study of Support Vector Machines Based on Immunogenetic Particle Swarm Algorithm in Short-Term Power Load Forecasting Model	4680
<i>Dongxiao Niu and Yongli Wang</i>	
Batch Kinetics and Modelling of the Fermentation Process of Ganoderma Applanatum Mycelia	4684
<i>Xin-Sheng He and Wen-Jing Ou</i>	
Toxicokinetics of Butylbenzyl Phthalate by Two Different Exposure Routes	4689
<i>Wen Lan Li, Zheng Ting Hu, Yu Bin Ji, Lang Lang and Bo Yang</i>	
The Environmental Geotechnical Problems of Xi'an City in Western Exploitation	4692
<i>Dequan Kong and Rong Wan</i>	
Genotypic Differences of Cd Uptake and Distribution in Radish (Raphanus Sativus L.)	4696
<i>Liwang Liu, Jinlan Yang, Xilin Hou, Yiqin Gong, Xianwen Zhu, Feng Wang, Cuiping Zhang and Ruizhen Chu</i>	
Mining Measurement of Spatial Autocorrelation Based on Spatial Adjacency Index: A Case Study in Land Use of Jiangxia District in Wuhan City	4700
<i>Liu Yang, Yanfang Liu, Yin Xia and Wei Liu</i>	
Difference of Growth, Copper Accumulation and Mineral Element Uptake in Two Elsholtzia Haichowensis Populations Under Copper And mineral Nutrition Stress	4704
<i>Wenshan Ke and Zhiting Xiong</i>	
Preparation of Novel TiO₂/Ti Photoelectrode and Photoelectrocatalytic Degradation of Rhodamine B	4709
<i>Chunhui Liu, Huiling Liu, Xiangyu Wang and Lei Han</i>	
Relationship Between Heterotrophic Bacteria and Some Physical and Chemical Parameters in a Northern City's Drinking Water Distribution Networks of China	4713
<i>Qing Wu, Xin-Hua Zhao and Xiao-Dan Wang</i>	
Ejina Desert Oasis: A Fragile "Ecological Screen" in Inland Region of Northwest China	4717
<i>Jianhuas Si, Qi Feng, Haiyang Xi, Zongqiang Chang and Yonghong Su</i>	

Table of Contents

A Study of Suburban Energy Balance of Beijing City in Summertime	4723
<i>Junxia Dou and Weidong Liu</i>	
The Method of Pre-Warning for Safe Supply	4726
<i>Xuenong Yi, Ying Zhang and Yuqiong Gao</i>	
Effect of Surfactant SDS, Tween 80, Triton X-100 and Rhamnolipid on Biodegradation of Hydrophobic Organic Pollutants	4730
<i>Ningning Sun, Hongqi Wang, Yanjun Chen, Sijin Lu and Ying Xiong</i>	
Study on Biomass Pyrolysis and Emulsions from Biomass Pyrolysis Oils and Diesel	4735
<i>Guoli Qi, Peng Dong, Heng Wang and Heping Tan</i>	
Design a Real-time Monitor and Control System During Minitype Medical Waste Process Based on Fuzzy Algorithm	4738
<i>Lina Zhang and Xinhua Jiang</i>	
Multiobjective Optimization of Water Resources Based on Genetic Algorithm	4742
<i>Yue-Feng Sun, Xiao-Ling Wang, Sheng-Hong Zhang and Chuan-Shu Mei</i>	
The Current Situation of Construction & Demolition Waste Management in China	4747
<i>Wei Zhao and Susanne Rotter</i>	
Injection-Port Silylation Using N-O-bis-(Trimethylsilyl)-Trifluoroacetamide for the Determination of the Fecal Sterols by Gas Chromatography-Mass Spectrometry	4751
<i>Jingming Wu, Ruikang Hu, Junqi Yue, Zhaoguang Yang and Lifeng Zhang</i>	