

## Contents

### Volume 188

Evaluation of anti fouling and chemical resistance of flower membrane prepared using thermally induced phase separation (TIPS) process Kwang Seop Im, Jeong Woo Lee, Tae Yang Son, V. Vijayakumar, Jae Young Jang, Sang Yong Nam (Korea) .....	1
Multi-objective optimization for solving water shortage issues in arid zones via the analytic hierachal process (AHP): the Israeli case S. Jan, A. Cohen, G. Oron (Israel) .....	10
Assessment of the integrated nuclear plant for electricity production and seawater desalination in Iran S.H. Ghazaie, K. Sadeghi, E. Fedorovich, E. Sokolova, S. Makhuhin (Russia) .....	20
A comparison study of the adsorption of metal ions by chitosan derivatives in aqueous solution E. Igberase, P.O. Osifo (South Africa) .....	31
Degradation of pyridine by a novel bacterial strain, <i>Sphingobacterium multivorum</i> JPB23, isolated from coal-coking wastewater Tingting Jin, Bianxia Bai, Xinyan Yu, Jiahong Ren, Ruixiang Liu, Fenglin Bai, Hui Zhang (China) .....	45
Techno-economic evaluation of a gas turbine-based power, water desalination and cooling system M. Zamzam, A. Namjoo, E. Jahanshahi Javaran (Iran) .....	98
Systematic research on rheological behavior for flocculants-conditioned sludge suspension Guohong Feng, Zhi Hu, He Ma, Tiantian Bai, Yabing Guo (China) .....	121
Effect of anion on the corrosion inhibition of cationic surfactants and a mechanism study Yun Bai, Jie Zhang, Sanbao Dong, Jinling Li, Rongjun Zhang, Chunsheng Pu, Gang Chen (China) .....	130
RSM and ANN modelling of dissolved oxygen response using paper industry effluent in semi batch fermenter J. Sumathi, M. Arulmozhi, S. Sundaram (India) .....	140
Multivariate optimization and kinetics for treatment of fracturing flowback fluids with <i>Chlorella vulgaris</i> Ran Li (China, Canada), Jie Pan, Li Zhang (China), Yang Liu (China, Canada) .....	151
Sulfate-containing wastewater treatment, electricity generation and community structure in an anaerobic fluidized bed-microbial fuel cell Jibai Wang, Youxian Gao, Shuxin Liu, Qin Cai, Changmiao Lai, Ping Yang (China) .....	159
Preparation of activated red mud particle adsorbent and its adsorption mechanism for phosphate ions Longjiang Li, Qin Zhang, Xianbo Li, Wei Cheng, Lan Ban (China) .....	169
Fabrication and characterization of a visible light-driven SrCO <sub>3</sub> -Ag <sub>2</sub> CO <sub>3</sub> composite photocatalyst via a gas-phase co-precipitation route with CO <sub>2</sub> Changlin Yu, Mengdi Zhang, Qizhe Fan, Kai Yang, Wenyu Xie, Weiya Huang (China) .....	185
Performance evaluation of multi-walled carbon nanotubes for decolorization of synthetic industrial wastewater: equilibrium, kinetics, and thermodynamics M. Afsharnia, A. Naghizadeh, A. Karimi, B. Mansouri (Iran), O.S. Ayanda (Nigeria) .....	194
Synthesis and interface activity of a series of carboxylic quaternary ammonium surfactants Yun Bai, Jie Zhang, Sanbao Dong, Jinling Li, Rongjun Zhang, Chunsheng Pu, Gang Chen (China) .....	202
Enhancement and mechanism of electrochemical degradation of pyridine contaminated wastewater Lijing Xue, Weiwu Hu, Chuanping Feng, Nan Chen, Hongyan Chen, Zhengxia Hu (China) .....	212
Removal of Cr(III) from aqueous solutions using waste kelp-derived biochar Ning Zhao, Haiming Huang, Xiaomei Lv, Jing Li, Guojun Guo, Yulei Liu (China) .....	223
Adsorption of methylene blue from effluent using golden mussel ( <i>Limnoperna fortunei</i> ) shell as a low-cost material D. Mantovani, H.B. Quesada, R. de Souza Antônio, L.F. Cusoli, L. Nishi, A. Diório, P.F. Soares, R. Bergamasco, M.F. Vieira (Brazil) .....	232

Removal of methylene blue from water by magnetic Fe <sup>0</sup> /Fe <sub>3</sub> O <sub>4</sub> /graphene composite Shan Chong, Ting Huang, Guangming Zhang, Jianbin Guo, Xueyan Li (China) .....	239
Preparation of tobermorite onto flux-calcinated diatomite surface and the adsorption properties and mechanism of methylene blue Mingyang Li, Zijie Ren, Huimin Gao, Anling Zhang, Zhiming Sun (China) .....	247
Enhanced adsorptive removal of methylene blue by low-temperature biochar derived from municipal activated sludge Weisheng Chen, Yiping Guo, Xiao Mi, Yang Yu, Guoting Li (China) .....	257
Simultaneous removal of the toxic tungsten ions and rhodamine B dye by graphene nanosheets from model and real water S.A. Hameed (Saudi Arabia), M.A. Abdel-Fadeel (Saudi Arabia, Egypt), H.M. Al-Saidi, M. Abdel Salam (Saudi Arabia) .....	266
Impulse analysis process of rice growers participating in water conservancy and irrigation management and countermeasures and suggestions for agricultural scientific research units to play a guiding role – take the Qingan County of Heilongjiang Province as an example Hongyan Sun, Ningbo Cui, Hongwen Bi, Yu Zhang, Jingyuan Wang, Haifeng Zhang, Dan Li, Deli Li, Yongshan Chai (China) .....	277
Endophytic bacteria of <i>Anisophyllea disticha</i> (Raja Berangkat) from tropical lake environment in Malaysia Z.A.Z. Abidin, N. Zolkefli, R. Shahari, A.J.K. Chowdhury (Malaysia) .....	282
Landscape pattern and ecotourism carrying capacity of Pan'an Lake wetland park in Xuzhou City, China Xuehong Tan, Yunle Peng, Shengli Liu, Pin Liu (China) .....	288
Discussion of application of low impact development technology in the construction of sponge city in China Wei Huang, Wen Lin, Lei Huang, Hong Weng, Ping Huang, Qingyun Xia (China) .....	297
Relations between factor-market distortion and environmental pollution – analysis of intermediate effect based on technological innovation Fang Liu, Shu Bing Qiu (China) .....	303
Water environmental safety assessment and dynamic evolution in China Xin Yu Wang, Zhi Yu Fu, Si Jian Wu (China) .....	309
Calculation model for section strength of moisture-proof layer of wooden building envelope near water area Wenbo Mao, Aiping Song (China) .....	316
Modeling analysis of port breakwater influence on water supply and drainage construction in coastal buildings Aiping Song, Wenbo Mao (China) .....	325
Determination of Cr in water and sediment of Haidian Creek by cloud point extraction-flame atomic absorption spectrometry Shanhu Hu, Yanshi Wang, Linqian Chen, Zheng Wang, Zhuang Tong, Qin Deng, Shengxu Luo (China) .....	333
Optimization of irrigation technical parameters of brackish water film hole furrow irrigation based on SRFR and Hydrus-3D model Haiyan Ma, Ningjiang Lv, Qian Huang, Xiaolei Yu, Yan Xue, Wei Wang (China) .....	342
Diversity of culturable aerobic denitrifying bacteria in a rotating biological contactor combined with anaerobic-anoxic-oxic wastewater treatment system Zhenfei Han, Pengyi Lv, Tianming Gao, Jinxue Luo, Xiaozhen Liu, Manjiao Song, Zaixing Li, Yuxiu Zhang, Zhihui Bai (China) .....	356
Water wave decay and run-up in the numerical water wave tank Gang Xu, Guichao Niu, Tong Lu, Haoyi Li, Shuqi Wang (China) .....	375
The leakage analysis of submarine pipeline connector based on a new fractal porous media model Ming Liu, Lan Zhang, Liquan Wang, Hengxu Liu, Yongquan Sun, Yingjun Wang (China) .....	390
A novel algorithm for calculating the vertical velocity of incompressible flow based on variation Kefeng Mao, Xi Chen, Liang Wang (China) .....	400
Water limited stress at jointing stage on fresh waxy maize yield and its interactions with plant density under field conditions Weiqiang Zhang, Hui Wang, Zhichao Pei, Pingdong Sun, Jihui Wei, Biao Shi, Hongjian Zheng, Lina Xu, Lifeng Wu, Yuan Guan (China) .....	406

Huangshaping mining karst area groundwater pollution propagation modelling and its control, remediation by using monitoring program and microalgae plant R. Gilbert (China), M.A. Ashraf (China, Malaysia) .....	415
Isolation of heavy metal resistance bacteria from lake sediment of IIUM, Kuantan Z.A.Z. Abidin, P.N.E. Badaruddin, A.J.K. Chowdhury (Malaysia) .....	431
Water quality influence the phytoplankton and bacteria abundance: a comparison between shallow freshwater and saltwater ponds M.M. Rahman, H. Hamidah (Malaysia) .....	436
Phytoremediation for rehabilitating bauxite-mined sites M.F.A.M. Zuber, I.C. Phang, Z. Zainuddin (Malaysia) .....	444
Impacts of trade of reclaimed wastewater on water management in Palestine A.F.M. Alsayed (China, Palestinian Authority), M.A. Ashraf (China, Malaysia), H.Q. Shaheen (Palestinian Authority) .....	450
Author Index .....	464