



**Contents**  
**Volume 129**

A model to predict HAB occurrence near desalination plants in the Red Sea  
M.N. Gomaa, M.A. Al-Hazmi, H.E. Mohamed (Saudi Arabia), D.J. Mulla (USA),  
I. Hannachi (Saudi Arabia), K.M. Sheikho (USA), A.M. Abouwarda,  
E.A.H. Mostafa (Saudi Arabia), W.W. Carmichael (USA) ..... 1

Comparison of the intrinsic parameters (*A*, *B* and *S*) of a forward osmosis membrane  
using pressurized and non-pressurized methods  
S.N.S.A. Aziz, A.F.H.A. Rahman, M.N. Abu Seman (Malaysia), N. Hilal (UK) ..... 14

A novel method for calculating partition coefficient of saline water in direct contact membrane distillation:  
CFD simulation  
M. Hasanizadeh (Iran), P. Jafari (USA), S. Shirazian (Vietnam) ..... 24

Comparison of boron removal by ion-exchange resin in column and hybrid membrane process  
A. Alharati, Y. Swesi, K. Fiaty, C. Charcosset (France) ..... 34

Decarbonization and denitrification characteristics of a coupling ABR-MFC-MEC process  
treating black water  
Hongbo Liu, Yabo Xiong, Yonglian Guan, Suyun Xu (China) ..... 43

Effect of woody and non-woody bulking agents on biodrying of long-term storage sludge  
Tiantian Liu, Junguo He, Chongwei Cui, Jian Tang, Mengfei Wang (China) ..... 53

Evaluation of anaerobic stabilization pond for removal of pentachlorophenol from wastewater:  
response surface methodology  
A. Almasi, H. Soleimani, M. Mohammadi, H. Hossaini, M.H. Falahati (Iran) ..... 62

Pervaporation performance of silico-manganese nanohybrid/PU mixed matrix membranes  
for separation of phenol from water  
Hong Ye, Chunxuan Dong, Qiufeng Zhu, Xiang Yan, Shengpeng Shi (China) ..... 69

Achieving stable partial nitrification for low strength wastewater at low temperature  
in a continuous moving bed biofilm reactor under high DO concentration through ratio control  
Wei Bian, Dongbo Liang, Shuyan Zhang, Jun Li, Qing Zhao, Yiqing Sun (China) ..... 84

Separation of magnesium and lithium from brine with high Mg<sup>2+</sup>/Li<sup>+</sup> ratio  
by a two-stage nanofiltration process  
Qiuyan Bi, Shiai Xu (China) ..... 94

Effects of ultrasonic irradiation on organic matter of *Microcystis aeruginosa* cells  
Gongduan Fan, Huiping Peng, Xiaomei Zheng, Jing Luo, Wei Chen (China) ..... 101

Effects of spinning temperature on hollow fiber membrane prepared  
via thermally induced phase separation  
Yajing Zhao, Chaohuan Yang, Lan Cheng, Juan Wang, Yingdong Li,  
Haoyun Wu, Pingli Li (China) ..... 116

Electrocoagulation process performance in removal of TOC, TDS, and turbidity from surface water  
S.A. Bakry, M.E. Matta, K. Zaher (Egypt) ..... 127

The effects of different external voltages on simultaneous heterotrophic removal of sulphate and nitrate  
in a bioelectrochemical reactor: degradation efficiency, formation of elemental sulfur  
and bacterial community structure  
Hao Xu, Lu Shang, Na Tong, Shaobin Huang, Shaofeng Zhou, Shuang Li,  
Jianjun Li, Yongqing Zhang (China) ..... 139

An economical process to recover sulfuric acid and tetrabutylammonium ions  
from acidic saline wastewater with organics  
Jian Zhang, Dongfang Niu, Xincheng Zhang, Shuozhen Hu (China) ..... 149

Synthesis, characterization, kinetic and thermodynamic investigation of silica nanoparticles  
and their application in mefenamic acid removal from aqueous solution  
M. Al-Jabari, I. Khalid, S. Sulaiman, I. Alawi, J. Shilo (Palestinian Authority) ..... 160

Removal of toxic ammonium ions from water using nanographene sheets M. Abdel Salam, L. Alkhateeb, M.A. Abdel-Fadeel (Saudi Arabia) .....	168
Hydraulic fracturing flow-back fluid treatment by ZVI/H <sub>2</sub> O <sub>2</sub> process P. Marcinowski, E. Zapałowska, J. Maksymiec, J. Naumczyk, J. Bogacki (Poland) .....	177
Aerobic granular sludge formation and COD removal in a continuous-flow microbial fuel cell Ping Yang, Wei Liao, Hui-qiang Li (China) .....	185
Evaluation of direct water reclamation from municipal wastewater by disk tube reverse osmosis membrane (DT-RO) based compact process Hui Gong, Zheng Li, Zhengyu Jin, Heng Xu, Kaijun Wang (China) .....	194
Yellow River runoff forecast based on Volterra adaptive filter Yanbin Li, Xinli Zhu, Cui Tian, Xiaoya Chang, Feng You (China) .....	201
A facile ternary molten salts method to synthesize magnesium borate (Mg <sub>2</sub> B <sub>2</sub> O <sub>5</sub> ) nanorods using desalinated concentrated seawater Licong Wang, Haihong Wu, Shubao Gao, Tao Li, Shaoyan Lu, Liang Wang, Xiping Huang (China) .....	207
Efficacy of <i>Sargassum filipendula</i> for the removal of Pb <sup>2+</sup> , Cd <sup>2+</sup> and Ni <sup>2+</sup> ions from aqueous solution: a comparative study A. Verma, Shashi Kumar, C. Balomajumder, Surendra Kumar (India) .....	216
Enhanced coagulant extraction from <i>Jatropha curcas</i> in aqueous solutions and the application in turbidity removal N. Khodapanah, A. Idris, L. Khodapanah (Malaysia), S.M. Soltani (UK), R. Yunus (Malaysia) .....	227
Selective removal of 2,4-dichlorophenol and 2,4,6-trichlorophenol in aqueous solutions by polyaniline-modified magnetic nanoparticles using high-performance liquid chromatography-UV detection J. Shah, M.R. Jan, B. Ara, M. Muhammad, Durr-e-Nayab, S. Bibi (Pakistan) .....	234
Two dimensional zeolitic imidazolate framework-8 for efficient removal of phosphate from water, process modeling, optimization, kinetic and isotherm studies A.A. Mohammadi, A. Zarei, H. Alidadi, M. Afsharnia, M. Shams (Iran) .....	244
Adsorption studies of an azo dye using polyaniline coated calcined layered double hydroxides S. Sahnoun, M. Boutahala (Algeria), G. Finqueneisel, T. Zimny (France), A. Kahoul (Algeria) .....	255
The degradation of toxic organic dyes in aqueous medium in greener ways: exploring the utility of Indian curry leaf plant and the nanoparticles synthesized using it D. Kumari, T. Mallick, P. Padhy, S. Mondal, A. Karmakar, N.A. Begum (India) .....	266
Carbonization of rubber ( <i>Hevea brasiliensis</i> ) seed shell by one-step liquid phase activation with H <sub>2</sub> SO <sub>4</sub> for methylene blue adsorption A.H. Jawad (Malaysia) .....	279
Research on construction of land surface temperature/vegetation index feature space Xinghan Wang, Peitong Cong, Chaoqun Liu, Xiaogang Wang (China) .....	289
Quantification method of water environmental value loss caused by water pollution based on emergy theory Minhua Ling, Cuimei Lv, Xi Guo (China) .....	299
Removal of lead ions using polyamide hollow fiber composite nanofiltration membrane containing crown ether Xinyu Zhao, Baoxin Hu, Yao Shi, Yingbo Chen, Dongqing Liu, Hong Chen, Yufeng Zhang (China) .....	304
Study on the fabrication and properties of polyphenylene sulfide (PPS) membrane and its application in VMD Tingting Fan, Zhenhuan Li, Bowen Cheng (China) .....	309
PCDD/Fs profile and risk assessment in water and sediments around a non-wood pulp and paper mill when a chlorine bleaching treatment is applied Qingcong Xiao, Hongchen Wang, Xiaoqian Song, Hanzheng Yuan, Yuanna Zhang (China) .....	319
Research progress on the precursors and formation mechanisms of typical N-DBPs in drinking water Guangyin Sun, Jie Yuan, Zhuowei Zhang, Huining Zhang (China) .....	325
Study on the periodic fluctuations of runoff with multi-time scales based on set pair analysis Yan Ye, Jinping Zhang, Jiachun Yang, Jian Li (China) .....	332
Enhanced release of sedimentary phosphorous following nitrate decline in a nitrate-rich reservoir and its management implications Zengwen Gao, Hong Li, Xilai Zheng (China) .....	337

Transformation of clofibric acid in sequencing batch reactor and microbial characteristics Xin Jin, Xiurong Zhu, Pengkang Jin, Xiaochang C. Wang (China) .....	345
Analysis of the alternative water conservation schemes in the Jiangsu Province Yuquan Zhang, Chunxia Yang, Yantao Zhu (China), E. Fernandez-Rodriguez (Mexico), Yuan Zheng, Shifeng Fu (China) .....	351
Author Index .....	358