



**Contents**

**Volume 138**

Enhancement of the thermal stability and mechanical properties of nanocrystalline cellulose/polyvinylidene fluoride ultrafiltration membranes by addition of graphene oxide  
Qinfeng Zou, Xuejiao Liu, Tianhao Wang, Liping Zhang (China) ..... 1

How does the loading rate affect the performance of an overland flow system in treating domestic sewage?  
Haibo Li, Yinghua Li, Xinyang Xu, Xi Chen, Lei Yang, Fei Su (China) ..... 12

Photosynthetic free and immobilized cells of *Scenedesmus abundans* for desalination of seawater  
V.R.V. Ashwaniy, M. Perumalsamy, P. Sivakumar (India) ..... 19

Application of the statistical experimental design to optimize the electrocoagulation technology in the treatment of cosmetic industry wastewater  
R.C.R. Reinehr, P.R. Giordanni, A.A.A. Alves, M.R. Fagundes Klen, A.R.M. Tones (Brazil) ..... 27

Synthesis of PVDF nanocomposite surface-modified membrane containing ZnO:Ca for dye removal from colored wastewaters in a fixed-bed photocatalytic membrane reactor  
A. Rajabi Abhari, A.A. Safekordi, M.E. Olya, N.M. Mahmoodi (Iran) ..... 36

Characteristics of ORP variation in subsurface wastewater infiltration system (SWIS) under hydraulic loading rate (HLR) fluctuation  
Haibo Li, Jianing Bai (China), Yinghua Li (China, USA), Xiaorong Zhang, Jifu Ma, Zhongxin Yang, Wei Yu (China) ..... 49

Long-term pilot plant study using direct chlorination for biofouling control of a chlorine-resistant polyamide reverse osmosis membrane  
C.V. Manalo, M. Ohno, S. Nishimoto, T. Okuda, S. Nakai, W. Nishijima (Japan) ..... 57

Preparation and characterization of PIM-1 and PIM-1/PU-blend membranes for pervaporation separation of phenol from water  
Xiang Yan, Hong Ye, Chunxuan Dong, Yichen Wu, Shengpeng Shi (China) ..... 68

Preparation and characterization of high-flux poly(m-phenylene isophthalamide) (PMIA) hollow fiber ultrafiltration membrane  
Qinliang Jiang, Kaisong Zhang (China) ..... 80

Steam cleaning for control of membrane fouling in ceramic membrane system  
Joon-Seok Kang, Seo Gyeong Park, Jeong Eun Lee, So Yeon Kang, Jeong Jun Lee, Vo Thi Kim Quyen, Han-Seung Kim (Korea) ..... 91

Effect of depth of water on various efficiencies and productivity of N identical partially covered PVT collectors incorporated single slope solar distiller unit  
D.B. Singh, N. Kumar, Harendra, S. Kumar, S.K. Sharma, A. Mallick (India) ..... 99

A study of reverse osmosis-desalinated water quality adjustment with artificially treated dolomite  
Shasha Chen, Hong Chen, Xueming Chen, Yueping Yang (China) ..... 113

Facile synthesis of sulfur-free expanded graphite under mild conditions and its adsorption property  
Dan Liu, Qinghua Mao, Yunshan Bai, Hongzhu Ma (China) ..... 120

Isolation and characterization of mercury-resistant bacteria from industrial wastewater  
S.Z. Abbas, Choo Jing Yee, K. Hossain, A. Ahmad, M. Rafatullah (Malaysia) ..... 128

Removal of cyanobacteria from supply waters by electroflotation using DSA® electrodes  
T.C.M. Nonato, T. Burgardt, A.A.A. Alves, M.L. Sens (Brazil) ..... 134

Production and concentration of fine colloidal silica by electro dialysis  
J. Maršálek (Czech Republic), G.C. de Vasconcellos (Brazil), T. Kotala, M. Bobák (Czech Republic) ..... 141

Aqueous metal ions adsorption by poly(ethylene glycol)-modified graphene oxide: surface area and surface chemistry effects  
Jia-Ying Yang, Bao-Yu Yue, Jie Teng, Xia Xu, Xiao-Ru Zhao, Xin-Yu Jiang, Jin-Gang Yu, Fang-Liang Zhou (China) ..... 147

Effect of organic carbon on microbial characteristics in partial nitrification system Yiqi Sun, Wei Bian, Shuyan Zhang, Jun Li, Guanghui Chen, Qing Zhao, Wenxiao Wang, Dongbo Liang (China) .....	159
Application of CuO/AC in DBD plasma for dye wastewater treatment: synthesis, optimization, and coupling mechanism Yongjun Shen, Yunli Wang, Kaixia Fan (China) .....	173
Insight into the water recovery characteristics of tetrabutylphosphonium hydrogen maleate ionic liquid draw solute in forward osmosis process Po-I Liu, Li-Ching Chung, David C. Wang, Chia-Hua Ho, Tzu-Yu Cheng, Hao-Xian Xu, Meng-Shun Huang, Teh-Ming Liang, Min-Chao Chang, Ren-Yang Horng (Taiwan) .....	183
Effectiveness of <i>Chlorella vulgaris</i> inactivation during electrochemical water treatment M. Valica, M. Pipiška, S. Hostin (Slovak Republic) .....	190
Active control optimization for anaerobic digestion processes Bui Duc Hong Phuc, Sam-Sang You, Nguyen Ngoc Nam, Hwan-Seong Kim (Korea) .....	200
Elimination of the endocrine disruptor diethyl phthalate (DEP) using porous materials in advanced oxidative processes (AOP) M.C. de Almeida, T.F. de Oliveira, F.P. de Sá Pereira (Brazil) .....	208
Disposal of cesium ion from wastewater using biocompatible titanate nanotube S.M. Banihashemi Jozdani, A. Nilchi, S. Abdolmohammadi (Iran) .....	219
Analysis of recovery by desalination systems in the west of Rio Grande do Norte, Brazil F.P. de Souza Antas, N. da Silva Dias, G. Cemirames de Sousa Gurgel, N. de Oliveira Miranda, C. dos Santos Fernandes, A. Moreira de Oliveira, J.C.R. Filho, O.N. de Sousa Neto, J.M. Chagas de Freitas, L.M. de Andrade (Brazil) .....	230
Degradation of bentazon herbicide by heterogeneous catalytic ozonation with ZnO-scallop shell nanocomposite: kinetic, reaction pathways and mineralization N. Karami, A. Mohagheghian, M. Shirzad-Siboni, K. Godini (Iran) .....	237
New methodology to develop high-resolution rainfall data using weather radar for watershed-scale water quality model Dong Jin Jeon, Y.A. Pachepsky (USA), Bumjo Kim, Joon Ha Kim (Korea) .....	248
Effective and rapidly removal of cationic and anionic dyes from aqueous solutions using <i>Elaeagnus angustifolia</i> L. fruits as a biosorbent T. Oymak, N. Eryugur (Turkey) .....	257
Exploring integrated impact of temperature and flow velocity on chlorine decay for a pilot-scale water distribution system Hyunjun Kim, Dawon Baek, Sanghyun Kim (Korea) .....	265
Photocatalytic degradation of acetaminophen in aqueous solution by Zn <sub>0.2</sub> Cd <sub>0.8</sub> S catalyst and visible radiation M.A. Meetani, A. Alaidaros, S. Hisaindee, A. Alhamadat (UAE), R. Selvaraj (Oman), F. Al Marzouqi, M.A. Rauf (UAE) .....	270
Efficient removal of Pb(II) ions from aqueous solution by novel PVA-sodium alginate immobilized sulfate reducing bacteria Hongguo Zhang, Minhua Su, Meng Li, Jia Yan, Jinfeng Tang, Changchen Gong, Diyun Chen, Tangfu Xiao, Yongheng Chen (China) .....	280
Heavy metals and geo-accumulation index development for groundwater of Mathura City, Uttar Pradesh S. Ahmed, S. Khurshid, F. Qureshi, A. Hussain, A. Bhattacharya (India) .....	291
Adsorption kinetics and thermodynamics of Methylene Blue by HKUST-1 R. Sabouni, A. Aidan, A. AlObeidli, F. Lahib, H. Husni Bacha, R. Kassermally, S. Jarmakani (UAE) .....	301
Seawater based mesoporous geopolymer as a sorbent for the removal and recovery of methylene blue from wastewater M. Padmapriya, S.T. Ramesh, V.M. Biju (India) .....	313
Removal of methylene blue in aqueous solution by a Fenton-like catalyst prepared from municipal sewage sludge Li Liu, Shisuo Fan, Yang Li (China) .....	326
Preparation of textile sludge-derived activated carbon via KI and KOH activation for fast and efficient removal of methylene blue Tang Shu Hui, M.A.A. Zaini (Malaysia) .....	335

Synergistic effectiveness of eggshell membranes-supported zinc oxide materials on the removal of organic dyes from wastewater Qing Lin, Shuiping Li, Qiuying Zhao, Wei Wang, Xiaojuan Zhang, Lingyun Hao (China) .....	346
Development of amine-functionalized magnetic mesoporous carbon for dyes removal from single and binary: adsorption performance and mechanism Fengping Hu, Min Wang, Xiaoming Peng, Hongling Dai, Yang Li (China) .....	353
Adsorption of light green anionic dye from solution using polyethyleneimine-modified carbon nanotubes in batch mode Yifan Gu, Mingyu Liu, Mengmeng Yang, Weili Wang, Shusheng Zhang, Runping Han (China) .....	368
Magnetic core layered double hydroxide over halloysite as a robust adsorbent for the treatment of dye-contaminated wastewater: a clean approach for industrial applications S. Vahidhabanu, A.A. Idowu, B. Ramesh Babu (India) .....	379
Author Index .....	389