



**Contents**  
**Volume 191**

Modeling the mass transfer of 1,4-dioxane in a nanofiltration membrane process C.J. Higgins, S.J. Duranceau (USA) .....	1
Influence of hydraulic pressure on pore wetting of direct contact membrane distillation (DCMD) Bomin Kim, Yongjun Choi, Jaehyun Ju, Jihyeok Choi, Sangho Lee (Korea) .....	11
A novel integrated module for hybridization of forward osmosis (FO) and membrane distillation (MD): effect of operating conditions Juyoung Lee, Jihyeok Choi, Yongjun Choi, Sangho Lee (Korea) .....	21
Effect of design and operating parameters on power generation in reverse electrodialysis (RED): experimental analysis and modeling Jaehyun Ju, Yongjun Choi, Sangho Lee, Hanki Kim, Namjo Jung (Korea) .....	29
Development of decision support system for emergency management in water treatment plants Jaehyun Ju, Yongjun Choi, Jihyeok Choi, Youngkyu Park, Sangho Lee (Korea) .....	40
Polyether modified benzimidazole as corrosion inhibitor for copper in sodium chloride solution Xiaoyong Xi, Qiuli Nan, Yuming Zhou, Qingzhao Yao, Li Song, Yiyi Chen, Shengqiu Lin, Guiyu Guan (China) .....	51
Investigation of the parameters influencing the evaporation rate of downward sprayed sea water in solar water desalination M.H. Amirkalaei, A. Khoshgard, H. Ahmadi-Danesh-Ashtiani, R. Fazaeli (Iran) .....	64
Evaluation of the impact of brine discharge position on salinity in the Persian/Arabian Gulf's slow flushing zone H.D. Ibrahim, E.A.B. Eltahir (USA) .....	72
Treatment prediction of sugar industry wastewater in moving-bed biofilm reactor using multi expression programming M. Talebidalouei, S.A. Mirbagheri, P. Nakhaei (Iran) .....	82
Reducing the ecological footprint of PVDF membrane storage R. Szabó, A. Anda (Hungary) .....	93
A novel regional annual precipitation predicting model Xianqi Zhang, Zhijie Zheng, Xiaoyan Wu (China) .....	100
Heavy metal pollution of water and bottom sediments of the Wilanowskie Lake M. Wojtkowska (Poland) .....	110
Environmental forensic study: tracing of pollution sources using environmetric technique in Balok and Tunggak Rivers near Gebeng industrial area, Kuantan, Pahang, Malaysia S.U.K.A. Wahab, M.A. Abu Samah, A.A. Sabuti, K. Yunus, A.J.K. Chowdhury, A. John, M.S.M. Aris, M.A.N. Mohamad, A.A. Abdul Hamid (Malaysia) .....	118
Highly efficient adsorptive removal of heavy metal ion and cationic organic pollutant from single and binary solutions using an EDTA-modified agricultural by-product-based adsorbent Yan Liu, Qiang Gao, Xinyang Zhang, Shijun Xu, Bo Jin, Kaisheng Xia, Bo Han, Chenggang Zhou (China) .....	126
Study on a new adsorbent for biosorption of cadmium ion from aqueous solution by activated carbon prepared from <i>Ricinus communis</i> H. Norouzi, D. Jafari, M. Esfandiari (Iran) .....	140
Chemically modified styrene butadiene styrene, characterization and adsorbent application for metal ions removal from aqueous solution S. Begum, K. Saeed (Pakistan) .....	153
Modified strawberry calyx as an efficient adsorbent for Ni(II) ions adsorption: a central composite design approach for multivariate sorption optimization A. Ahmed, A.N. Siyal, S. Bhatia, S.Q. Memon, A. Mahar (Pakistan) .....	164

Selective removal of copper and cobalt from aqueous environment using new Cu(II) and Co(II) imprinted polymer and their determination by flame atomic absorption spectrophotometry B. Ara, M. Muhammad, Rani, T.U.H. Zia, K. Gul (Pakistan) .....	173
Selective separation of heavy metals from printed circuit board rinse wastewater via shear-induced dissociation coupling with ultrafiltration Hui-Shang Le, Han Zhou, Yun-Ren Qiu (China) .....	185
Identification of influencing factors of college students' pro-environmental behavior by DEMATEL-based ANP method Na Wang, Ying Gao, Meng Jia, Qun Zhao (China) .....	193
Screening of biodegradation potential for <i>n</i> -alkanes and polycyclic aromatic hydrocarbon among isolates from the north-western tip of Pahang N.H. Azizan, M.S. Abdul Rahim, Z.A.Z. Abidin, M.F. Sharif, A.J.K. Chowdhury (Malaysia) .....	207
Batch adsorption of methyl tert-butyl ether (MTBE) from aqueous solution by combined CNT and zeolite A. Behzadnejad, T. Ebadi (Iran), S. Taheri (Australia), E. Kowsari (Iran) .....	213
Activation of oxygen by copper coupled with ascorbic acid under solar and artificial light for Orange G oxidation L. Mammeri, W. Remache, S. Belaidi, M.E. Benssassi (Algeria), M. Tasbihi (Germany), T. Sehili, K. Djebbar (Algeria) .....	221
Adsorption removal of pharmaceutical and personal care products with functionalized metal-organic framework: adsorptive selectivity and mechanism Wan Zhou, Qizhou Dai, Tingting Zhan, Lin Wang, Xinze Bian, Siqi Fan, Pan Xiong, Yi Xia, Jianmeng Chen (China) .....	231
Performance evaluation of electrocoagulation process using aluminum and titanium electrodes for removal of urea S.M. Safwat, M. Mamdouh, E. Rozaik, H. Abd-Elhalim (Egypt) .....	239
Preparation of eco-friendly graphene oxide from agricultural wastes for water treatment H.-A.S. Tohamy, B. Anis, M.A. Youssef, A.E.M. Abdallah, M. El-Sakhawy, S. Kamel (Egypt) .....	250
A composite FeOOH@microalgae for heavy metals and Congo red removal from aqueous solution Junjun Wang, Juan Huang, Meiyang Xu, Zhanfei Li, Ling Fan, Ran Chen, Weimin Zeng, Xueling Wu, Jiaokun Li, Runlan Yu, Yuandong Liu, Li Shen (China) .....	263
Synthesis and characterization of modified sodium carboxymethyl cellulose and polyethylene glycol ester new copolymer as scale inhibitor Huchuan Wang, Jianjun Yang, Chenchen Fang, Chuanrun Li, Guochen Zhong, Chengjun Peng (China) .....	285
The elimination of cancerous pollutants by an advanced oxidative processes and adsorption in monosolute solutions mixtures in water M.C. de Almeida, T.F. de Oliveira, F.P. de Sá (Brazil) .....	292
Facile preparation of nano-Fe <sub>3</sub> O <sub>4</sub> /micro-carbon fiber from waste paper as self-propulsive solar-Fenton catalyst with excellent degradation performance and reusability Binda Lu, Gonggang Liu, Miaohua Liu, Xiu Zhu, Huaifei Liu, Binghui Xu, Shanshan Chang, Yuan Liu, Jinbo Hu (China) .....	300
Screening and identification of cellulolytic halotolerant strain and the degradation of wastewater Guizhong Zhou, Huiyang Zhao, Xitong Wang, Weiqian Zhang, Xinguo Zhang (China) .....	310
Engineered biochar as a tool for nitrogen pollutants removal: preparation, characterization and sorption study E. Viglašová (Slovakia, Czech Republic, Austria), M. Galamboš, D. Diviš, Z. Danková (Slovakia), M. Daňo (Czech Republic), L. Krivosudský (Slovakia), C.L. Lengauer (Austria), M. Matik, J. Briančin (Slovakia), G. Soja (Austria) .....	318
Gamma and UV radiation induced degradation of methotrexate (anti-rheumatic drug) in aqueous solution and conditions optimization M.I. Kanjal, M. Muneer, I.A. Bhatti, M. Saeed, Atta-ul-Haq, N.Z. Ud Den, E. ul Haq, J. Nisar, M. Iqbal (Pakistan) .....	332
Preparation of BiPO <sub>4</sub> nanosphere and its enhanced photocatalytic activity under simulated solar light degradation of tetracycline Zhongjie Zhang, Xiaojun Huang, Jingru Guo, Yajie Du, Liping Wang, Changyu Lu (China) .....	342
Optimization of microwave-enhanced oxidation of landfill leachate by response surface methodology Chih-Jung Yeh, Shang-Lien Lo (Taiwan), Jeff Kuo (USA), Yu-Chieh Chou (Taiwan) .....	350

Valence band position and photocatalytic properties based on different morphologies of $\text{Bi}_2\text{WO}_6$ Hao Zhou, Fengjun Zhang, Jibo Han, Xinjing Peng, Shuang Zhong (China) .....	362
Prediction models evaluating the production of trichloroacetaldehyde, a by-product of chlorination disinfection of raw water in northeast China Xu Jiang, Munan Zhao, Hengyue Bao, Yazhuo Wang, Zhenfeng Shi, Chong-wei Cui (China) .....	372
Adsorption and photocatalysis compiled toxic dyes mineralization using graphitic carbon nitride modified $\text{ZnFe}_2\text{O}_4$ and $\text{CoFe}_2\text{O}_4$ photocatalysts supported onto N-doped graphene N. Chandel, S. Sharma, V. Dutta (India), P. Raizada (India, Iran), A. Hosseini-Bandegharai (Iran), R. Kumar (India), V.K. Gupta, S. Agarwal (Saudi Arabia), P. Singh (India, Iran) .....	381
Removal of basic fuschin from aqueous solutions by low-cost peanut shells adsorbent in a fixed bed column A. Lahmar, Z. Hattab, R. Zerdoum, A. Berredjem, R. Djellabi, K. Guerfi (Algeria) .....	400
Sodium phthalate-2-sulfonate improves the biodegradation of dye reactive blue 13 and pentachlorophenol by <i>Pseudomonas</i> sp. in anaerobic conditions Yongxing Qian, Kefeng Zhang, Huixia Jin, Lecheng Lei, Huining Zhang, Jianqing Ma (China) .....	417
Tiger nut residue as a renewable adsorbent for methylene blue removal from solution: adsorption kinetics, isotherm, and thermodynamic studies A.N. Kani, E. Dovi, F.M. Mpatani, Zhaohui Li, Runping Han, Lingbo Qu (China) .....	426
An optimization study on adsorption of Reactive Blue 19 dye from aqueous solutions by extremely effective and reusable novel magnetic nanoadsorbent M. Pehlivan, S. Simsek, S. Ozbek, B. Ozbek (Turkey) .....	438
R. Fiaz, M. Hafeez, R. Mahmood (Pakistan) .....	412
Groundwater hydrochemistry of Aflou syncline, Central Saharan Atlas of Algeria M. Sekkoum, A. Safa, M. Stamboul (Algeria) .....	424
Prediction of a rosette dense jet group in crossflow ambient conditions using multi-gene genetic programming Xiaohui Yan, A. Mohammadian (Canada) .....	440
Electrostatic and hydrophobic interaction of ions in soil with anionic surfactant micelles in water S. Balbay (Turkey) .....	449
Author Index .....	452