



Contents
Volume 205

Design development and performance evaluation of concentrating solar thermal desalination device for hot arid region of India S. Poonia, A.K. Singh, D. Jain (India)	1
Characterization and identification of organic molecules in thermal desalination plant scale T.N. Green, N. Hassan, N. Elwaer (Saudi Arabia), C. Fellows (Saudi Arabia, Australia), A. Meroufel, A. Al Mayouf, S. Ali (Saudi Arabia)	12
Improving the productivity of a single-slope solar still using Fresnel lenses under Iraq climatic conditions M.H.R. AlKtrane, Q. Al-Yasiri (Iraq, Hungary), A.E. Kabeel (Egypt)	22
Systematic design of a wind-driven reverse osmosis desalination plant for Arar City, Saudi Arabia E. Ali (Saudi Arabia)	31
Case study on the effects of feed water temperature on the performance of a reverse osmosis desalination system A. Kalendar, A. Kulaib (Kuwait), S. Hussain (Pakistan), Y. Alhendal (Kuwait)	46
Application of high performance FO nanofibers based membrane for model and real seawater desalination R.M. El Khaldi (Turkey, Palestinian Authority), M.E. Pasaoglu, Y.Z. Menciloglu, R. Ozdogan, M. Celebi, M.A. Kaya, I. Koyuncu (Turkey)	53
Amino-functionalized mesoporous nano-silica/polyvinylidene fluoride composite as efficient ultrafiltration membrane H. Abdallah, M.S. Shalaby (Egypt), A. Buonerba (Italy), A.M. Shaban (Egypt), L. Borea, T. Zarra, V. Belgiorno, V. Naddeo (Italy)	63
Leachate nanofiltration concentrate treatment by advanced electrochemical processes to achieve zero waste discharge: modeling and optimization G. Varank (Turkey)	76
Factors affecting the formation of DBPs by chlorine disinfection in water distribution system Kejia Zhang, Chungeng Qiu, Anhong Cai, Jing Deng, Xueyan Li (China)	91
Degradation of organics from landfill leachate by combined process of semi-aerobic aged refuse biofilter and ozone oxidation Xuqin Pan (China)	103
Performance of sand and granular activated carbon filtration coupling in tertiary urban wastewater treatment in Algeria R.M. Bouchenak Khelladi, A. Chiboub Fellah (Algeria), M. Pontié (France), M. Shabani (France, Iran), F.Z. Guellil (Algeria)	111
Effect of nitrogen loading on the nitrogen removal performance in membrane bioreactor coupled with elemental sulfur-based carriers Thi-Kim-Quyen Vo, Soyeon Kang, Jeong-Eun Lee, Sun-A An, Ahyoung Jeong, Jiyoung Song, Han-Seung Kim (Korea)	124
Remediation of nitrate-contaminated groundwater in a denitrifying bioelectrochemical system M.M. Vidotto, V.S. Liduino, T. Andrade, J.K. Faria, R.F. Bueno (Brazil)	131
Study on characteristics of co-pyrolysis of biomass and oil-based drill cuttings from shale gas development Boxun Zhou, M. Sanjrani, Shici Zhang, Hongli Diao, Yanyun Wang, Siyu Huang, Qi Liu, Shibin Xia (China)	139
Energy production and wastewater treatment using <i>Juncus</i> , <i>S. triquetra</i> , <i>P. australis</i> , <i>T. latifolia</i> , and <i>C. alternifolius</i> plants in sediment microbial fuel cell Z.S. Aswad, A.H. Ali, N.M. Al-Mhana (Iraq)	153

The treatment of printing and packaging wastewater by electrocoagulation-flotation: the simultaneous efficacy of critical parameters and economics M.M. Emamjomeh, S. Kakavand, H.A. Jamali, S.M. Alizadeh, M. Safdari, S.E. Seyed Mousavi (Iran), K.S. Hashim (UK), M. Mousazadeh (Iran)	161
Experimental design study of nickel removal from aqueous solution by activated carbon and its pore size distribution modification using carbon dioxide gasification for enhancing adsorption efficiency M.A. Ale Ebrahim, T. Ebadi (Iran)	175
In situ transport and electrodeposition of Ag(I) on stainless steel electrode across carrier mediated supported liquid membrane Hanif-ur-Rehman, A.u.H.A. Shah, A. Khan, N. Ali (Pakistan)	189
P-binding mineral materials to enhance phosphate removal using nature-based solutions in urban areas A. Bus, A. Karczmarczyk (Poland)	198
Effects of heterogeneous environmental regulation on the control of water pollution discharge Hanqing Hu, Hongmei Cao, Lili Zhang, Yu Ma, Sijian Wu (China)	208
Preparation and evaluation of sodium oleate-derived multifunctional surfactants as oilfield chemicals Xuefan Gu, Huani Zhang, Peng Wang, Sanbao Dong, ManXue Wang, Shidong Zhu, Ya Wu, Jie Zhang, Chen Gang (China)	214
Rapid adsorption of acetochlor and metolachlor from aqueous solution onto solid waste coal fly ash Yingjie Dai, Zhile Pan, Chuanming Xing, Xin Chen, Junning Bai, Zhenzhen Bai, Laiyu Jin, Naixin Zhang, Huating Jiang, Junqian Tang, Yuwen Gao, Dexin Shan (China)	222
Removal kinetics and pathways of oxytetracycline by UV/PDS Honghai Xue, Ming Li, Tingting Liu, Hongliang Wang (China)	236
Decomposition and removal of hydrazine by Mn/MgAl-layered double hydroxides M.M. Kamel, M.S. Alhumaimess, M.H. Alotaibi, I.H. Alsohaimi (Saudi Arabia), H.M.A. Hassan (Saudi Arabia, Egypt), H.M. Alshammari, O.F. Aldosari (Saudi Arabia)	242
Photoactivity of TiO ₂ nanoparticles covered with nitro group in Fluoxetine and Rhodamine-B degradation A.J. Moreira, S.R.R. Padilha, V.R. de Mendonça, E.C. Paris, C. Ribeiro, G.P.G. Freschi, T.R. Giralddi (Brazil)	252
Employing UV/periodate process for degradation of p-chloronitrobenzene in aqueous environment A. Shokri, H. Moradi, M. Abdouss, B. Nasernejad (Iran)	264
Insights into a shift of microbial communities during the start-up of anammox reactor under mainstream and sidestream conditions Ming Zeng, Tingting Du, Zimeng Wu, Nan Wu, Shiyu Xie, Hongli Li, Yuhe Tian (China)	275
Mechanism of silver incorporated in biosand zeolite clay granular filters for the removal of <i>Cryptosporidium parvum</i> and <i>Giardia lamblia</i> from surface water at point of use R.C. Moropeng, M.N.B. Momba (South Africa)	286
Sulfate removal from drinking water by commercially available nanofiltration membranes: a parametric study A. Karabacak, F.B. Dilek, L. Yılmaz, M. Kitis, U. Yetis (Turkey)	296
Estimation of environmental radioactivity and radiation dose from exposure to radon in groundwater for inhabitants in Qassim Area, Saudi Arabia E.E. Massoud (Saudi Arabia, Egypt), A. El-Taher (Egypt), A.E.A. Elzain (Saudi Arabia)	308
Optimization and reduction of industrial load in a wastewater basin G. Kanat, D. Yeter (Turkey)	316
Application of erionite as an adsorbent for Cd ²⁺ , Cu ²⁺ , and Pb ²⁺ ions in water W.A. Khanday, S.A. Khanday (India), M. Danish (Malaysia)	328
Effect of water treatment residuals and cement kiln dust on COD adsorption and heavy metals from textile wastewater E. Mahmoud, W. Hammad (Egypt), O. Hakami (Saudi Arabia)	336
Preparation and performance of PAA-g-MWCNTs incorporated PVDF composite membrane using as dye adsorbent Guanglin Wang, Yangyang Huan, Guangfen Li (China)	343
Removal of hazardous textile dyes from water using Ni impregnated ZnO through sonophotocatalytic degradation F. Khitab, M.R. Jan, J. Shah (Pakistan)	357

Effects of silver loading in zinc oxide on the photodegradation of methyl orange and methylene blue A.G. Acedo-Mendoza, D. Vargas Hernández, D.G. Domínguez Talamantes (Mexico), E. Rodríguez Castellón (Spain), J.C. Tánori Córdova (Mexico)	373
Removal of crystal violet from aqueous solution using iron based metal organic framework S. Soni, P.K. Bajpai, D. Bharti, J. Mittal, C. Arora (India)	386
Hydrolysis of Congo red in subcritical water in the presence of CeO ₂ /ZSM5 catalyst Xu Zhang, Fan Yang, Jialing Qin, Huanghu Peng, Zezhou Chen, Lei Che, Shouxin Zhu, Wei Yang (China)	400
Removal of Acid Black 210 by adsorption on calcite A. Talhi, S. Merabet, L. Bouhouf, C. Boukhalifa (Algeria)	407
Oxidation study of an azo dye, naphthol blue black, by Fenton and sono-Fenton processes O. Moumeni (Algeria), O. Hamdaoui (Saudi Arabia), I. Daoui, F. Amrane (Algeria)	412
Adsorption of cationic dye in aqueous solution by chemically modified <i>Areca catechu</i> husk K.S. Baidya, U. Kumar (India)	422
Design and application of two-stage batch mode on methylene blue removal from solution by activated carbon for optimization of adsorbent consumption Ruize Zhang, Kang Wen, Runping Han (China)	435
Author Index	446