



Contents

Volume 198

An experimental investigation of a solar-driven desalination system based on multiple effect membrane distillation A. Najib, J. Orfi, H. Alansary, E. Ali, Z. Abdulwahed, S. Alzahrani (Saudi Arabia), A. Chafidz (Indonesia)	1
Thermo-exergo-economic analysis of double slope solar still augmented with ferrite ring magnets and GI sheet M. Dubey, D.R. Mishra (India)	19
Experimental study on pyramid solar still utilizing different types of nano-particles Y.M. Taamneh, M.Y. Al-Abed Allah (Jordan)	31
Analysis of a novel humidification-dehumidification desalination system A.P. Baban, S. Krishnan (India)	41
Water quality analysis of the Yalong River in Panzhihua, China Yan Yang, Yiyang Zhou, Liuqing Zhang, Yiming Zhang, Guobiao Zhou, Liping Ren (China)	53
Geospatial analysis of groundwater quality in the major cities of Pakistan Z. Javed, S. Chand (Pakistan), R. Amer (USA)	61
Mineral particles fouling analysis and cleaning in seawater reverse osmosis desalination Wei Xue, Guochen Cheng, Yunfang Wu, Xiangyu Hou, Weizhen Wang, Jianhua Yin (China)	71
Treatment of dyed saline water using developed polyethersulfone/cellulose acetate nanofiltration blend membranes S.S. Ali, H. Abdallah (Egypt)	80
Nanofiltration polishing membrane process for fluoride removal N. Meftah, A. Mejdi, A. Ezzeddine, A. Bedoui, A. Hannachi (Tunisia)	90
A positively charged PI nanofiltration membrane with good separation for Li ⁺ and Mg ²⁺ Qiuyan Bi, Shiai Xu (China)	98
Investigation and modelling of a hybrid petroleum refinery wastewater treatment system using neural networks H.A. Mokhtari, S.A. Mirbagheri, N. Gisou, M. Ehteshami (Iran)	108
Effect of microalgae-to-palm oil mill effluent (POME) ratio for rapid effective pollutants removal and biomass production Q. Emparan, R. Harun, J.A. Kodiappan (Malaysia)	119
Treatment of olive mill and municipal wastewater mixture by pilot scale vertical flow constructed wetland A. El Ghadraoui, N. Ouazzani, A. Ahmali, T.E.H. El Mansour, F. Aziz, A. Hejjaj (Morocco), M. Del Bubba (Italy), L. Mandi (Morocco)	126
Seawater desalination by separating micro and nano salt particles with the use of magnetic and electric fields M. Vahedi Nejad, H.R. Nazif (Iran)	140
Optimization of micellar enhanced ultrafiltration for arsenic removal from simulated wastewater using experimental and kinetic models M. Yaqub, Seung Hwan Lee (Korea)	151
Selective ion adsorption with pilot-scale membrane capacitive deionization (MCDI): arsenic, ammonium and manganese removal E.E. Cañas Kurz, U. Hellriegel (Germany, Italy), V.T. Luong (Vietnam), J. Bundschuh (Australia), J. Hoinkis (Germany, Australia)	163
Preparation of activated carbon from <i>Camellia oleifera</i> shell and its application to adsorption of hexavalent chromium from aqueous solution: kinetics, equilibrium, and thermodynamics Zhigong Zheng, Haoyue Zhao, Xuehui Lin, Jinbei Yang, Ronghui Shi (China)	170

Study of removal of heavy metals cadmium and lead using biosorption process J. Dias, A.L.F. de Brito, A.J.M. Barros, S. Prasad, A.C.S. Muniz (Brazil)	180
PPI/CNT nanocomposite for novel high capacity removal of the toxic heavy metals, Hg, Pb and Ni from water B. Hayati, A. Maleki, F. Najafi, R. Rezaee (Iran), S. Harikaranahalli Puttaiah (India), N. Marzban (Germany), G. McKay (Qatar)	190
Adsorption of lead (Pb ²⁺) onto salicylic acid-methanol modified steel slag from aqueous solution: a cost analysis A. Jonidi Jafari, M. Moslemzadeh (Iran)	200
Tertiary treatment of pulp and paper mill wastewater by iron-carbon micro-electrolysis coupled with H ₂ O ₂ Xia Shao, Kang Du (China)	211
Treatment of dinitrodiazophenol industrial wastewater by an ozone/persulfate process Xuemei Liu, Ling Wen, Chunxia Wang, Le Zhang, Aiping Zhang (China)	224
Evaluation of adsorption performance of phenol using non-calcined Mobil composition of matter No. 41 particles K.R. Kalash, M.H. Al-Furaiji, B.I. Waisi, R.A. Ali (Iraq)	232
Treatment of wastewater from the cleaning circuits of margarine industry by electrocoagulation/flotation process K. Naji, A. Salhi, J. Hassoune, A. Aarfane, M. Sisouane, T. Echcherki, M. El Krati, S. Tahiri (Morocco)	241
Investigation of the efficiency of powdered and granular magnetic activated carbon nano composites for the adsorption of metronidazole from aqueous solutions (isotherms and kinetics study) A.H. Nezhad, M. Khodadadi, N. Nasseh (Iran)	248
Effect of a novel cationic surfactant on dewaterability of activated sludge Zhenyu Wang, Zhu Tu, Lulu Lu, Zefeng Wang, Minghua Yang (China)	260
Evaluation of the acute toxicity on <i>Daphnia magna</i> throughout the catalytic wet peroxide oxidation of dissolved natural organic matter C.L. Guerrero-Romero, D. Revelo, A. Caicedo, M. Botina, A.M. García-Mora, R.A. Torres-Palma, L.-A. Galeano, I.A. Sánchez-Ortiz (Colombia)	272
Effect of antibacterial substance extracted from brown algae on bacteria isolated from wastewater H.A. Ibrahim (Saudi Arabia, Egypt), H.A. Amin (Egypt), S. Bondock (Saudi Arabia, Egypt)	284
Simultaneous removal of endocrine-disrupting chemicals and microbes from wastewater using plant-mediated nickel oxide nanoparticles Y. Ayub, A. Sardar (Pakistan), E.C. Lima (Brazil), R. Nazir, Naveed-ul-Ihsan, Y. Saleem, R. Shah, M. Abrar (Pakistan)	295
Methane production kinetics in the combination of high temperature thermal hydrolysis pretreatment and anaerobic co-digestion for municipal sludge and banana straw Qinghua Deng, Jian Zhang, Ping Xian, Zhengcheng Meng, Qing Fang (China)	307
The polyaromatic hydrocarbons types, concentrations, and sources in particulate matter and aquatic plant in Tigris River, Baghdad, Iraq F.M. Hassan, A.H.M.J. Al-Obaidy, S.M. Khalaf (Iraq)	314
Full-scale studies on the efficiency of combined SBR-RO treatment for pharmaceutical effluents – towards sustainable ZLD (zero liquid discharge) S.R. Sankar Reddy, M.K. Karnena, V. Saritha, B.K. Dwarapureddi (India)	323
Adsorption isotherm, kinetic modeling and mechanism of neutral red on <i>Auricularia auricularia</i> Yingjie Dai, Jingjing Li, Qiya Sun, Zhihua Liu (China)	335
Comparative study for removal of acid green 20 dye by electrocoagulation technique using aluminum and iron electrodes A.M. Shaker, A.A. Moneer, M.M. El-Sadaawy, N.M. El-Mallah, M.S.H. Ramadan (Egypt)	345
Synthesis, characterization, and photocatalytic activity of a novel Bi ₂ O ₃ /Ag ₃ VO ₄ heterojunction photocatalyst Chung-Hsin Wu, Chao-Yin Kuo, Cheng-Di Dong, Chiu-Wen Chen, Yi-Li Lin, Yu-Sheng Kuan (Taiwan)	364
Synthesis and characterization of TiO ₂ and Ag/TiO ₂ thin-film photocatalysts and their efficiency in the photocatalytic degradation kinetics of Orange G dyestuff D. Tekin, T. Tekin, H. Kiziltas (Turkey)	376

<i>Acacia nilotica</i> for adsorption of Bismarck Brown Y and Reactive Black 5 dyes in batch reactors: isotherm models and kinetics studies M.T. Amin (Saudi Arabia, Pakistan), A.A. Alazba, M. Shafiq (Saudi Arabia)	386
Application of experimental design methodology to optimize dye removal by <i>Mucuna sloanei</i> induced coagulation of dye-based wastewater P. Nnaji, C. Anadebe, O.D. Onukwuli (Nigeria)	396
Commercial waste wood in the removal of methylene blue from aqueous media A. Ahmadi, S. Ignatova (UK), M.R. Ketabchi (Malaysia), P. Clough, S. Masoudi Soltani (UK)	407
Decolourisation of Methylene Blue and Congo Red dye solutions by adsorption using chitosan A. Rahali, A. Riazi, B. Moussaoui, A. Boucherdoud (Algeria), N. Bektaş (Turkey)	422
One-step synthesis of magnetic activated carbons for methylene blue dye removal: activation conditions and adsorption studies Lee Lin Zhi, M.A.A. Zaini (Malaysia)	434
Author Index	445