

Contents

Volume 90

Experimental study on the thermal performance characteristics of hollow-fiber vacuum membrane distillation module Hong-Jin Joo, Hee-Youl Kwak (Korea)	1
Effect of aeration on CaSO_4 scaling in membrane distillation process Jihyeok Choi, Yongjun Choi, Yongsun Jang, Yonghyun Shin, Sangho Lee (Korea)	7
Prediction of silica fouling using mathematical model and artificial neural network in a direct contact membrane distillation Yongjun Choi, Yongsun Jang, Sangho Lee (Korea)	16
Comparison of pretreatment methods for wastewater reclamation and seawater desalination in forward osmosis process Younghoon Ko, Yongjun Choi, Jaeseok Ju, Youngsun Jang, Sangho Lee (Korea)	23
Comparative study on the methods of calculating theoretical minimum energy requirement for desalination Seungwon Ihm, Sungwoo Woo (Korea)	32
Three-dimensional hollow fiber type of carbon nanotube electrode for enhanced ion adsorption capacity Mi-Young Lee, Heeyoung Kim, Jong-Oh Kim, Seoktae Kang (Korea)	46
Design challenges of the Jamnagar SWRO plant – from piloting to commissioning A. Drak (Israel), D. Vial, F. Heigl, R. Winkler, P. Berg (Germany), T. Efrat (Israel)	54
Extraction of zirconium from simulated acidic nitrate waste using liquid membrane in hollow fiber contactor G. Pandey, M. Paramanik, S. Dixit, S. Mukhopadhyay, R. Singh, S.K. Ghosh, K.T. Shenoy (India)	63
A review of Qatar's water resources, consumption and virtual water trade M.A. Alhaj (Qatar), S. Mohammed (India), M. Darwish, A. Hassan, S.G. Al-Ghamdi (Qatar)	70
A techno-economic review of solar-driven multi-effect distillation M. Alhaj, A. Hassan, M. Darwish, S.G. Al-Ghamdi (Qatar)	86
Fouling characterization of TiO_2 nanoparticle embedded polypropylene membrane in oil refinery wastewater treatment using membrane bioreactor (MBR) M. Fonouni, H. Etemadi, R. Yegani, S. Zarin (Iran)	99
A review of strategies for RO brine minimization in inland desalination plants J. Rioyo, V. Aravinthan, J. Bundschuh, M. Lynch (Australia)	110
A number of corrosion issues with regard to wastewater treatment plants A. Yinanç (Turkey)	124
Optimization of landfill leachate oxidation at extreme conditions and determination of micropollutants removal M.E. Argun, A. Alver, M. Karata (Turkey)	130
Effect of feeding regime, batch and continuous, on aerobic granulation process treating industrial soft drink wastewater M. Vafaie, A.A. Zinatizadeh, A. Asadi (Iran)	139
Evolution of sustainable product service system in the water management practice K. Balakrishnan, N.A. Zakaria, K.Y. Foo (Malaysia)	147
Elaboration of balance through adsorption of cadmium and selenium between water and underlying sediments via their analysis in drinking, wastewater and sediment samples T. Asim, R. Ahmed, M.S. Ansari (Pakistan)	157
Numerical investigation and optimization for performance analysis in Venturi inlet cyclone separator S. Venkatesh, M. Sakthivel (India)	168
Comparison of catalytic effect of Fe- MOF and Fe-ZIF for Fenton degradation of Eriochrom black T E. Hadinejad, S. Hashemian, S.A. Yasini (Iran)	180

A facile synthetic method of ZnO nanoparticles and its role in photocatalytic degradation of refractory organic matters Hanbing Zhang, Zhenyu Song, Dingyong Wang, Zhangfa Tong, Yuelong Qin (China)	189
Adsorption isotherms, kinetics and thermodynamics of NH ₄ ⁺ -N from aqueous solutions using modified ceramsite and its regeneration performance Tianpeng Li, Tingting Sun, Tallal Bin Aftab, Dengxin Li (China)	196
Kinetics for degradation of bisphenol A during aerobic composting of sewage sludge and sawdust Jun Zhang, Bo-Wen Yang, Tong-Bin Chen, Dun-Qiu Wang (China)	206
Comparison of the performance of <i>Moringa oleifera</i> seed protein and polyaluminum chloride in removal of humic acid from water Jingxi Tie, Zhihong Zheng, Xiaomei Zheng, Yaru Hao (China)	214
Comparison of the adsorptive action of hydrotalcite, <i>Moringa oleifera</i> and activated carbon in the treatment of landfill leachate N.C. de Almeida, V.J.A. de Oliveira, D.d.F. de Angelis (Brazil)	220
Phenol adsorption onto coffee waste – granular activated carbon: kinetics and equilibrium studies in aqueous solutions M.L. Díaz de León-Garza, E. Soto-Regalado, M. Loredo-Cancino, F.J. Cerino-Cordova, R.B. García-Reyes, N.E. Dávila-Guzmán, J.Á. Loredo-Medrano (Mexico)	231
Surface functionalization of D301 resin with urea: synthesis, characterization and application for effective removal of toxic heavy metal ions Fu-Qiang An, Xiao-Yan Xue, Min Li, Tuo-Ping Hu, Jian-Feng Gao (China)	241
Removal of copper through adsorption by magnesium hydroxide nanorod Jianwen Hao, Chenwei Dai, Yongchun Liu, Qing Yang (China)	252
Preparation and characterization of kaolin coated with Fe ₃ O ₄ nanoparticles for the removal of hexavalent chromium: kinetic, equilibrium and thermodynamic studies A. Mohagheghian, M. Pourmohseni, R. Vahidi-Kolur (Iran), Jae-Kyu Yang (Korea), M. Shirzad-Siboni (Iran)	262
As(V) removal from arsenic wastewater by fibrous anion exchangers Seung-Chan Lee, Jin-Kyu Kang, Eun-Hye Sim, Nag-Choul Choi, Song-Bae Kim (Korea)	273
Pectin based hydrogels and its ferrite nanocomposites for removal of nitro compounds F.I. Abou El Fadl, G.A. Mahmoud, N.A. Badawy, F.H. Kamal, A.A. Mohamed (Egypt)	283
Investigation of adsorption performance of activated carbon prepared from waste tire for the removal of methylene blue dye from wastewater H. Daraei (Iran), A. Mittal (India)	294
Comparative analysis of adsorption and light decomposition of methylene blue by ordered mesoporous C-Nb-TiO ₂ nanocomposites prepared via self-assembly and sol-gel methods Ying Ding, Jianzhong Zhu, Di Zhang, Shengtao Jiang, Khan Osama Sarwar, Shenglu Chen (China)	299
Examination of the adsorption for methylene blue using different adsorbents Ç. Sarıcı-Özdemir (Turkey)	311
Free-template synthesis of porous carbon nanofiber assembled by hollow carbon nanospheres and their adsorption kinetics and isotherms for methylene blue Tao Ni, Zhigang Jia, Ziyu Li, Shengbiao Li (China)	320
Highly facile removal of Acid Red 88 from aqueous samples by using synthesized iron oxide magnetic nanoparticles and 1-butyl-3 methylimidazolium tetrachloroferrate magnetic ionic liquid H. Helmi, F. Falaki, M. Karimi, F. Babaloii (Iran)	331
Modified cellulose fibers as adsorbent for dye removal from aqueous environment D. Suteu, S. Coseri, C. Zaharia, G. Biliuta, I. Nebunu (Romania)	341
Author Index	350