



Fouling evaluation in a MBR for dairy effluent treatment  
L.H. de Andrade, F.D. de Souza Mendes, N. Cerqueira, J.C. Espindola  
and M.C.S. Amaral (Belo Horizonte, Brazil)..... 11919

Fouling reduction of emulsion polyvinylchloride ultrafiltration membranes blended by PEG:  
the effect of additive concentration and coagulation bath temperature  
M.H. Davood Abadi Farahani, H. Rabiee, V. Vatanpour and S.M. Borghei (Tehran, Iran) ..... 11931

Vacuum enhanced direct contact membrane distillation for oil field produced water desalination:  
specific energy consumption and energy efficiency  
K. Okiel, A.H.M. El-Aassar (Cairo), T. Temraz, S. El-Etriby (Ismailia) and H.A. Shawky (Cairo, Egypt) ..... 11945

Mathematical and CFD modeling of vacuum membrane distillation for desalination  
S. Upadhyaya, K. Singh, S.P. Chaurasia, R.K. Dohare and M. Agarwal (Jaipur, India)..... 11956

Modeling and optimization of a hybrid power system supplying RO water desalination plant  
considering CO<sub>2</sub> emissions  
A. Hassan, M. El-Saadawi, M. Kandil and M. Saeed (Mansoura, Egypt) ..... 11972

Constructed and riverine wetlands design considerations for domestic and agricultural  
diffuse pollution treatment—a case study from Turkey  
K. Gunes (Kocaeli, Turkey), B. Tuncsiper (Niğde, Turkey), A. Drizo (Edinburgh, UK),  
F. Masi (Florence, Italy), S. Ayaz and H. Tufekci (Kocaeli, Turkey) ..... 11988

Natural radioactivity levels in commercialized bottled drinking water  
and their radiological quality assessment  
Kh. Asaduzzaman, F. Mannan, M.U. Khandaker, M.S. Farook, A. Elkezza, Y.M. Amin  
and S. Sharma (Kuala Lumpur, Malaysia)..... 11999

Advanced treatment of coking wastewater by heterogeneous photo-Fenton technology  
with Cu/Fe oxide catalysts  
Ran Zhang, Hong You (Harbin) and Donghai Wu (Nanjing, China) ..... 12010

Assessing the performance of solar desalination system to approach near-ZLD  
under hyper arid environment  
A.F. Mashaly, A.A. Alazba and A.M. Al-Awaadh (Riyadh, Saudi Arabia)..... 12019

Experimental comparisons of three submerged plants for reclaimed water purification  
through nutrient removal  
Xiaoqin Zhou, Zifu Li, Ruixue Zhao, Ruiling Gao, Yupan Yun, Mayiani Saino  
and Xuemei Wang (Beijing, China)..... 12037

Treatment of low-strength municipal wastewater containing phenanthrene  
using activated sludge and biofilm process  
S. Sfaelou (Patras, Greece), C.A. Papadimitriou (Thessaloniki, Greece), I.D. Manariotis (Patras, Greece),  
J.D. Rouse (Guam, Guam), J. Vakros and H.K. Karapanagioti (Patras, Greece)..... 12047

Assessment of groundwater quality using GIS and CCME WQI techniques:  
a case study of Thiruthuraiipoondi city in Cauvery deltaic region, Tamil Nadu, India  
S. Venkatramanan, S.Y. Chung (Busan, Korea), T. Ramkumar (Chidambaram, India),  
R. Rajesh (Busan, Korea) and G. Gnanachandrasamy (Chidambaram, India) ..... 12058

Effects of temperature on nutrient removal performance of a pilot-scale ABR/MBR combined process  
for raw wastewater treatment  
Peng Wu (Suzhou), Qi Peng (Shaoxing), Lezhong Xu, Jianfang Wang (Suzhou),  
Zhenxing Huang (Wuxi), Jiachao Zhang (Changsha) and Yaoliang Shen (Suzhou, China) ..... 12074

Optimization of operating variables in a pilot-scale reverse osmosis membrane process  
for reclamation of tunnel construction wastewater  
Hyun Uk Cho (Pohang), Kyung Hwa Cho (Ulsan), Seokkoo Kang (Seoul)  
and Young Mo Kim (Gwangju, Korea) ..... 12082

Enhanced separation performance of PVDF/PAN blend membrane based on PVP tuning A. Anvari, A. Safekordi, M. Hemmati, F. Rekabdar, M. Tavakolmoghadam, A. Azimi Yancheshme and A. Gheshlaghi (Tehran, Iran) .....	12090
Hydrolysis and acidification of waste activated sludge enhanced by zero valent iron-acid pretreatment: effect of pH Cheng Huang, Congcong Liu, Xiuyun Sun, Jiansheng Li, Jinyou Shen, Weiqing Han, Xiaodong Liu and Lianjun Wang (Nanjing, China).....	12099
Isolation and preliminary identification of actinomycetes isolated from a wastewater treatment plant and capable of growing on methyl ethyl ketone as a sole source of carbon and energy S. Silini, H. Ali-Khodja, A. Boudemagh, A. Terrouche and M. Bouziane (Constantine, Algeria) .....	12108
Microwave-assisted preparation and characterization of organo-attapulgitites and comparison for 1-naphthol removal: equilibrium, kinetic, and thermodynamic studies Yanfeng Tai, Chunjie Shi, Guanghui Li and Jingmei Wu (Bengbu, China).....	12118
Removal of petroleum compounds from aqueous solutions in the aeration and reverse osmosis system J. Piekutin and I. Skoczko (Poland).....	12135
Study on co-biosorption of Zn (II) and Cu (II) in liquid phase V. Mishra (Dwarka, India) .....	12141
Optimization of biosorption of Zn(II) ions from aqueous solutions with low-cost biomass <i>Trametes versicolor</i> and the evaluation of kinetic and thermodynamic parameters T. Sahan (Van), H. Ceylan (Istanbul) and N. Aktas (Van, Turkey) .....	12156
Synthesis and characterization of polyaniline/Zr-Co-substituted nickel ferrite ( $\text{NiFe}_{1.2}\text{Zr}_{0.4}\text{Co}_{0.4}\text{O}_4$ ) nanocomposites: their application for the photodegradation of methylene blue M. Aamir, M.N. Ashiq, G. Yasmeen, B. Ahmad (Multan, Pakistan), M.F. Ehsan and Tao He (Beijing, China) .....	12168
Efficient adsorption of copper ion from aqueous solution by amino-functioned porous eggshell membrane Jian Hua Chen and Yi Hong Huang (Zhangzhou, China).....	12178
Design and model parameters estimation for fixed-bed column adsorption of Cu(II) and Ni(II) ions using magnetized saw dust M. Kapur and M.K. Mondal (Varanasi, India) .....	12192
Synthesis of surfactant-modified ZSM-5 nanozeolite for the removal of nickel(II) from aqueous solution S.N. Mirzababaei (Rasht), M. Taghizadeh (Babol) and E. Alizadeh (Rasht, Iran) .....	12204
An investigation on the use of date palm fibers and coir pith as adsorbents for Pb(II) ions from its aqueous solution A.A. Alghamdi (Yanbu, Saudi Arabia).....	12216
Development of enhanced groundwater arsenic prediction model using machine learning approaches in Southeast Asian countries Yongeun Park (Beltsville, MD, USA), M. Ligaray (Ulsan, Korea), Young Mo Kim, Joon Ha Kim (Gwangju, Korea), Kyung Hwa Cho (Ulsan, Korea) and S. Sthiannopkao (Busan, Korea) .....	12227
A simple clogging and backwashing efficiency model for filtration of arsenic-contaminated water M.A. Imteaz, Md.Y. Ahmed (Melbourne, Australia), Md.S. Khan (Dhaka, Bangladesh) and A. Ahsan (Kuala Lumpur, Malaysia).....	12237
Adsorption of chromium(VI) from saline wastewater using spent tea-supported magnetite nanoparticle A.A. Babaei, M. Ahmadi, G. Goudarzi, N. Jaafarzadeh (Ahvaz) and Z. Baboli (Behbahan, Iran).....	12244
Equilibrium and kinetic studies of azo dye molecules biosorption on phycocyanin-extracted residual biomass of microalga <i>Spirulina platensis</i> F. Deniz (Birecik) and R.A. Kepekci (Gaziantep, Turkey) .....	12257
Novel organic dye sorbent: synthesis and adsorption properties of multi-walled carbon nanotubes modified with gallic amide units Sining Zheng, Hongyu Guo, Fafu Yang and Biqiong Hong (Fuzhou, China).....	12264
The fast decolorization of Reactive Red 31(RR31) dye solution by ceric ammonium nitrate (CAN) E. Keshmirzadeh (Karaj), H. Modarress (Tehran) and R. Didehkhani (Karaj, Iran).....	12274
Direct blue 71 dye removal probing by potato peel-based sorbent: applications of artificial intelligent systems A. Maleki, H. Daraei, F. Khodaei, K.B. Aghdam (Sanandaj) and E. Faez (Tehran, Iran) .....	12281
Fabrication of polypropylene membrane via thermally induced phase separation as a support matrix of tridodecylamine supported liquid membrane for Red 3BS dye removal N. Othman, N. Harruddin, A. Idris, Z.-Y. Ooi, N. Fatihah and R.N. Raja Sulaiman (Skudai, Malaysia) .....	12287

Study on adsorption behavior of Acid Orange 10 onto modified wheat husk S. Banerjee, R.K. Gautam, A. Jaiswal, P.K. Gautam and M.C. Chattopadhyaya (Allahabad, India) .....	12302
Enhancement of the biodegradability of a mixture of dyes (methylene blue and basic yellow 28) using the electrochemical process on a glassy carbon electrode I. Yahiaoui, F. Aissani-Benissad (Bejaia, Alegria), F. Fourcade and A. Amrane (Rennes, France).....	12316
Study of methyl orange adsorption properties on ZnO–Al <sub>2</sub> O <sub>3</sub> nanocomposite adsorbent particles H. Tajizadegan, O. Torabi, A. Heidary, M.H. Golabgir and A. Jamshidi (Isfahan, Iran) .....	12324
Basic Violet 10 (BV10) removal from aqueous solutions using sawdust of <i>Swietenia mahagoni</i> (mahogany trees): adsorbent characterization, adsorption isotherm, kinetics, and thermodynamic studies N. Ertugay (Erzincan, Turkey) .....	12335
Preparation of thiacalix[4]arenetetrasulfonate-modified D201 resin and its adsorption of heavy metal ions Xiao-Jun Hu, Yong-Biao Peng and Yu-Shuang Li (Shenyang, China) .....	12350
Mechanism of bisphenol A removal by a submerged membrane bioreactor in the treatment of synthetic municipal sewage: staged analyses Hongwei Zhang, Yufei Wang, Jie Wang (Tianjin) and Yuqian He (Shijiazhuang, China) .....	12364
Adsorptive removal of bisphenol-A by rice husk ash and granular activated carbon— A comparative study P. Sudhakar, I.D. Mall and V.C. Srivastava (Roorkee, India) .....	12375
Biosorption of fluoride from drinking water using spent mushroom compost biochar coated with aluminum hydroxide Gui-jie Chen, Chuan-yi Peng (Hefei), Jiang-yu Fang (Huangshan), Yang-yang Dong, Xiao-hui Zhu and Hui-mei Cai (Hefei, China) .....	12385
Sorption and desorption of tetrabromobisphenol-A on acidic montmorillonite (K10) Li Xiang, Zaili Zhang and Jia Xiaoshan (Guangzhou, China) .....	12396
Author Index .....	12408