

Contents

Volume 211

Falling film flow characteristics on horizontal tubes and their effects on scale formation in seawater evaporators M. Waack, H. Glade, S. Nied (Germany)	1
Aspects of environmental impacts of seawater desalination: Cyprus as a case study D. Xevgenos (The Netherlands), M. Marcou (Cyprus), V. Louca, E. Avramidi (UK), G. Ioannou, M. Argyrou, P. Stavrou (Cyprus), M. Mortou (The Netherlands), F.C. Küpper (UK)	15
Groundwater quality change impacts on a brackish-water reverse osmosis water treatment plant design: the City of Clearwater, Florida D.W. Schroeder, Weixing Guo, T.M. Missimer (USA)	31
Sensitivity analysis of N alike partly covered PVT flat plate collectors integrated double slope solar distiller unit K. Bharti, S. Manwal, C. Kishore, R.K. Yadav, P. Tiwari, D.B. Singh (India)	45
Effect of spray nozzle orientations on the performance of the flash evaporator of LTTD desalination plant D. Balaji, R. Abraham (India)	60
Improved performance of nanocomposite forward osmosis membrane with polydopamine nanoparticles/polyphenylsulfone (PDA Nps/PPSU) substrate and UV irradiation treated polycarbonate active layer A. Borsalani, S.M. Tabatabae Ghomsheh, A. Azimi, M. Mirzaei (Iran)	69
Groundwater flow and contaminant transport models – a short review A.K. Chaudhry, K. Kumar, M.A. Alam (India)	80
Prediction of bed voidage in multi-phase fluidized bed using Air/Newtonian and non-Newtonian liquid systems S. Kandasamy, S. Venkatachalam (India)	92
Bio-electrochemical treatment of wastewater with high ammonium concentration S.A. Mousavi (Iran), S. Ibrahim (Malaysia), M.K. Aroua (Malaysia, UK), A. Mahmoudi, P. Darvishi (Iran)	99
Operating a semi-continuous raceway pond allows to link pH and oxygen dynamics to the interaction between microalgae and bacteria Le Anh Pham (France, Vietnam), J. Laurent, P. Bois, T.M. Teshome, A. Wanko (France)	105
High-efficiency denitrification for steel wastewater treatment by immobilized bacteria Lian-gang Hou, Jun Li, Fu-yin Sun, Xin-yu Zhang, Yang Liu (China)	117
Study of kinetic models of olive oil mill wastewater treatment using electrocoagulation process M. Ghahrchi, A. Rezaee, A. Adibzadeh (Iran)	123
Combination of coagulation and oxidation processes for treatment of real fish canning wastewater F. Ostovar, N. Abedinzadeh, S. Pourkarim, H. Mirblocki, M. Yazdi (Iran)	131
Experimental study of wastewater treatment containing sulfuric acid solutions using freezing and thawing method M. Guessous, A. Rich, S. Mountadar, F.Z. Karmil, J. El Hajri, M. Mountadar, M. Siniti (Morocco)	141
Microwave disintegration of sludge as a method of accelerating the aerobic stabilization process M. Malarski, J. Czajkowska, P. Nowak (Poland)	153
Determination of optimum treatment conditions for paint industry wastewater with the coagulation/flocculation method A. Aldemir, E. Hakkitanır, A. Özgüven (Turkey)	165
UV-vis light endeavoring decomposition of organic pollutant using $\text{Si}_{0.9}\text{Re}_{0.1}\text{O}_2$ novel developed photo-catalyst A. Mahmood, S.M. Ramay, W. Al-Masry (Saudi Arabia)	177

A comparative study on photocatalytic activities of various transition metal oxides nanoparticles synthesized by wet chemical route M.F. Warsi, N. Shaheen (Pakistan), M.I. Sarwar, P.O. Agboola, I. Shakir (Saudi Arabia), S. Zulfiqar (Egypt)	181
Analysis and assessment of water losses reduction effectiveness using examples of selected water distribution systems E. Ociepa (Poland)	196
Water safety plan: a novel approach to evaluate the efficiency of the water supply system in Garmsar S. Abolli, M. Alimohammadi, M. Zamanzadeh, M. Yunesian, K. Yaghmaeian, M. Aghaei (Iran)	210
Interactions between polycyclic aromatic hydrocarbons (PAHs)-degrading strain <i>Sphingomonas</i> sp. GY2B and nano bamboo charcoal Xueqin Tao, Jin Wang, Xingchun Duan, Mengyao Zou, Jianjun Du, Jinlian Zhang, Guining Lu (China)	221
Removal of phosphate from water using lanthanum-modified coal gangue Jianmin Zhou, Yongsheng Fu, Mengyao Zhang, Yiqing Liu, Shuhang Ding, Li Zhao (China)	229
Co(OH) ₂ /red phosphorus photocatalyst with spatially separated co-catalyst for efficient oxidation and reduction of pollutants Yuhua Ma, Yun Wang, Hong Du, Lu Xiao, A. Abulikemu (China)	241
Adsorption of Cr(VI) from aqueous solutions onto activated pomegranate peel waste E.A. Abdel-Galil, L.M.S. Hussin, W.M. El-Kenany (Egypt)	250
Treatment of aqueous selenocyanate (SeCN ⁻) using combined TiO ₂ photocatalysis and 2-line ferrihydrite adsorption S.A.A. Ahmed, M.S. Vohra (Saudi Arabia)	267
Two-dimensional MXene for efficient arsenic removal from aqueous solutions: experimental and molecular dynamics simulation A. Kayvani Fard, T. Rhadfi, G. McKay, Y. Manawi, V. Kochkodan, One-Sun Lee (Qatar), M.A. Atieh (UAE)	280
Electro-Fenton process efficiency for decolorization of aqueous solutions: study of the reaction kinetics E. Derakhshani, A. Naghizadeh, M. Farsi, M. Khazaei (Iran)	296
Prediction of RSM and ANN in the decolorization of Reactive Orange 16 using biochar derived from <i>Ulva lactuca</i> M. Kumar, S. Sujatha, R. Gokulan, A. Vijayakumar, S. Praveen, S. Elayaraja (India)	304

Selected papers presented at the International Conference on Sustainable Water Treatment Technologies and Environment (SUST-WATER 2019)
14–16 October 2019, Tipasa, Algeria

Elaboration of tubular titania microfiltration membranes for wastewater treatment A. Boulkrinat, F. Bouzerara (Algeria)	319
Selective separation and recovery of Cr(VI) in the presence of other metal ions, especially Fe (III), by green emulsion liquid membrane K. Anarakdim (Algeria), G. Gutiérrez, M. Matos (Spain), H. Sidi, L. Hammani, O. Senhadji-Kebiche (Algeria)	323
Assessment of some physico-chemical and microbial pollutants in the water of the Euphrates River between the cities of Hit and Fallujah in Iraq W.M. Saod, S.S. Awad (Iraq), K. Mokadem (Algeria)	331
Removal of turbidity and chemical oxygen demand using an eco-friendly coagulant/flocculent (optimization and modelling through the response surface methodology) S. Arris, A. Ayat, M. Bencheikh-Lehocine, A.-H. Meniai (Algeria)	338
High elimination of dye from synthetic aqueous solution by chemical treated sewage sludge M. Zamouche, O. Moumeni, I. Mehcene, M. Temmam (Algeria)	349
Improving the reverse osmosis desalination system with tilted oval spacers in a zigzag configuration M. Amokrane, D. Sadaoui (Algeria)	359

**Selected papers presented at the 6th MEMTEK International Symposium on
Membrane Technologies and Applications (MEMTEK 2019)
18–20 November 2019, Istanbul, Turkey**

Fabrication, characterization and application of flat sheet PAN/CNC nanocomposite nanofiber pressure-retarded osmosis (PRO) membrane M. Emin Paşaoğlu, İ. Koyuncu (Turkey)	369
Can electro-cleaning solve the problem of membrane biofouling for membrane bioreactor? B. Ozbey Unal, N. Dizge, B. Keskinler, A. Karagunduz (Turkey)	382
Pilot scale microalgae harvesting by a membrane: cross flow vs. submerged membrane H. Ermis, I. Koyuncu, M. Altinbas (Turkey)	391
Quorum quenching specific genes screening among indigenous bacteria from full-scale membrane bioreactor and its application for biofouling control in a laboratory-scale membrane bioreactor S.J. Khan, S. Perveen, T. Bin Umeed, I. Hashmi (Pakistan)	399
Removal of endocrine-disrupting chemicals from textile industry effluents by nanofiltration A.D. Allar Emek, C. Eropak Yilmazer, S. Çınar, O. Kiraz, M.E. Paşaoğlu, R. Şengür Taşdemir, Ö. Karahan Özgün, İ. Koyuncu, E. Çitil, A. Koç Orhon, E. Şiltu, S.M. Güçver, Z. Turan, B. Dikmen, İ. Toröz, A. Tanik, Ü. Yetiş, C. Kinacı (Turkey)	411
Benchmarking industrial water purification systems with the aid of life cycle assessment B.B. Yalamacılar (Turkey), N. Elginoz (Sweden), F. Germirli Babuna (Turkey)	422
Cost analysis and selection of advanced water treatment methods for organic matter removal İ. Utku, R. Kaya, T. Türkmen, İ. Koyuncu (Turkey)	432
Recycling of precious materials by modified electrospun membranes B. Zeytuncu-Gökoğlu, R. Şengür Taşdemir, B. Tanç, S. Aktaş, İ. Koyuncu (Turkey)	439
Nutrient recovery from concentrated municipal wastewater by forward osmosis membrane and MgCl ₂ based draw solution M. Damirchi, I. Koyuncu (Turkey)	448
Investigating energy and operation flexibility of membrane bioreactors by using benchmark simulations Haolun Wu, R.K. Derel, E. Casey (Ireland)	456
Author Index	463