



Contents

Volume 170

Understanding microbial assembly on seawater reverse osmosis membranes to facilitate evaluation of seawater pretreatment options A.H.A. Dehwah, Hong Cheng (Saudi Arabia), T.M. Missimer (USA), Pei-Ying Hong (Saudi Arabia)	1
Evaluating the effect of periodic disinfectant type transitions on the corrosion rate of common distribution system metals A.B. Rodriguez, S.J. Duranceau (USA)	11
Development of a miniature low-temperature solar seawater desalination device Zetian Mao, Yan Chen, Jie Ren, Chunsheng Guo, Hai Liu, Jun Gao (China)	24
Optimizing porous material in shock electro dialysis unit J. Marek, J. Čížek, D. Tvrzník (Czech Republic)	38
Application of nanofiltration model for prediction of rejecting typical refractory compounds in coal gasification brine Kun Li, Wencheng Ma, Hongjun Han, Chunyan Xu, Yuxing Han, Dexin Wang, Weiwei Ma, Zhengwen Zhang (China)	46
Forward osmosis for concentration of tannin containing bark extract E. Järvelä, H. Kyllönen, J. Heikkinen, A. Grönroos (Finland), Chuyang Tang (Hong Kong)	55
Some kinetic and synergistic considerations on the oxidation of the azo compound Ponceau 4R by solar-mediated heterogeneous photocatalytic ozonation D.H. Quiñones-Murillo, A.A. Ariza-Reyes, L.J. Ardila-Vélez (Colombia)	61
Antibacterial activity of metal-containing clinoptilolite in natural seawater J. Dikić (Serbia), J. Hrenović, G. Durn, A. Kovačić (Croatia), N. Rajić (Serbia)	75
Preparation of thin film composite membranes using interfacial polymerization for treatment of industrial water containing heavy metals I. Ounifi (Tunisia), C. Ursino (Italy), A. Hafiane (Tunisia), A. Figoli (Italy), E. Ferjani (Tunisia)	80
Effect of salinity and temperature on air dissolution in an unpacked air saturator of a dissolved air flotation system V.R. Fanaie, M. Khiadani, Guangzhi Sun (Australia)	91
Equilibrium, thermodynamic and kinetic study for potassium permanganate adsorption by neem leaves powder H.A. Al-Aoh (Saudi Arabia)	101
Application of novel composite materials as sediment capping agents: column experiments and modelling M. Zamparas, G.L. Kyriakopoulos, V.C. Kapsalis (Greece), M. Drosos (China), I.K. Kalavrouziotis (Greece)	111
Shear strength characteristics of collapsed walls and influencing factors in the Benggang erosion region of southern China Hongyi Zhou, Huixia Li (China)	119
Fixed-bed column study for the removal of hexavalent chromium ions from aqueous solutions via pyrolysis of the rice husk S.M. Yakout (Saudi Arabia, Egypt), M.R. Hassan, H.A. Omar (Egypt)	128
UVC photolysis of phenanthrene in cyclodextrin solutions generated from contaminated soil washing Luoqing Xiang, Xu Zhang (China)	138
A new method for the removal of ammonium from drinking water using hybrid method of modified zeolites/catalytic ozonation S. Mirzade Ahari, R. Jalilzadeh Yangejeh, A.H. Mahvi, Y. Dadban Shahamat, A. Takdastan (Iran)	148
Coupling of chemical and biological processes in 17 α -ethynylestradiol removal from aqueous solutions: a critical evaluation of adsorption and catalysis contribution G. Russo, L. Grumetto, D.G. Mita, S. Rossi, M. Guida, I. Di Marco Pisciotano, P. Gallo (Italy)	158

Quantity and quality of surfactants in sediment of Tigris River, Baghdad, Iraq R.R. Al-Ani, F.M. Hassan, A.H.M.J. Al-Obaidy (Iraq)	168
Spatial distribution of fluoride and nitrate in groundwater and its associated human health risk assessment in residents living in Western Khorasan Razavi, Iran M. Qasemi, M. Afsharnia, M. Farhang, M. Ghaderpoori, A. Karimi, H. Abbasi, A. Zarei (Iran)	176
Adsorption of phosphate from solution by iron modified macroporous chelating resin Xiaoting Zhang, Ruize Zhang, Shanshan Chen, Kang Wen, Runping Han (China)	187
Application of polyaniline/activated carbon nanocomposites derived from different agriculture wastes for the removal of Pb(II) from aqueous media S.G. Mohammad, D.E. Abulyazied, S.M. Ahmed (Egypt)	199
Anti-crushing millimeter composite beads for removing 2,4-dichlorophenoxyacetic acid from aqueous solution Sheng Feng, Xianglin Huang, Guiliang Zhu, Wei Zheng, Cong Shao, Ning Zhou (China)	211
Adsorption of phenol and 2,4-dichlorophenol from wastewater: kinetic and equilibrium studies Yuzhen Li, Ning Zhang (China)	225
Application of response surface methodology for the optimization of Ni ²⁺ ions biosorption from aqueous solution using <i>Sargassum filipendula</i> A. Verma, S. Kumar, C. Balomajumder (India)	239
Photocatalytic treatment of amiodarone and levetiracetam in pharmaceutical industry effluent: process optimization using response surface methodology P. Chinnaiyan, S.G. Thampi, M. Kumar, M. Balachandran (India)	253
Synthesis of high-grade alumina from aluminum dross and its utilization for the sorption of radioactive cobalt M.M.E. Breky, E.H. Borai, A.T. Kassem (Egypt)	265
Preparation of PASP/SPP hydrogels with high adsorption capacity for Pb(II) Hao Wang, Li Wang (China)	277
Enhanced visible-light-driven photocatalytic activity of Ag ₂ WO ₄ /g-C ₃ N ₄ heterojunction photocatalysts for tetracycline degradation Yu Shi, Yu-bin Tang, Fang-yan Chen, Wei-long Shi, Feng Guo, Xin-gang Wang (China)	287
Preparation of Ag ₃ PO ₄ /CNH and the performance for photocatalytic degradation of microcystin-LR under visible-light Jun Xu, Shanqing Jiang, Jiahui Ma, Qiuya Zhang, Hui Peng, Li Jiao, Liping Wang (China)	297
Ultrasound assisted advanced oxidation processes for intensified Acid Green-3 dye degradation M.N. Chincholi, P.R. Gogate (India)	308
Photo-catalytic degradation of Acid Yellow 17 azo dye using ZrO ₂ -CeO ₂ hollow microspheres as a catalyst M. Farooq (Pakistan, Malaysia), A. Ramli (Malaysia), A. Naeem (Pakistan), L.A. Shah (China), T. Mahmood, M. Tariq, J. Khan, F. Perveen, M. Humayun (Pakistan)	318
Synthesis and stabilization of ZnO nanoparticles on a glass plate to study the removal efficiency of acid red 18 by hybrid advanced oxidation process (ultraviolet/ZnO/ultrasonic) M. Malakootian, A. Nasiri, A.N. Alibeigi, H. Mahdizadeh, M. Amiri Gharaghani (Iran)	325
Aloe vera biomass containing cellulosic moieties used as sustainable adsorbents for the removal of crystal violet dye from aqueous solution A. Ahmad (South Africa, Malaysia), D. Lokhat (South Africa), M. Rafatullah, A. Khatoon, S.H.M. Setapar (Malaysia)	337
Construction of Ag ₂ S@CaTiO ₃ heterostructure photocatalysts for enhanced photocatalytic degradation of dyes Yuxiang Yan, Hua Yang, Zao Yi, Tao Xian, Ruishan Li, Xiangxian Wang (China)	349
Comparative study of the degradation process of Azo textile dyes AB52 and AB210 in water using a type-Corona electric discharge C. Torres Segundo, J. Vergara Sánchez, E. Montiel Palacios, A. Gómez Díaz, P.G. Reyes Romero, H. Martínez Valencia (Mexico)	361

***Papers presented at the 5th International Conference on
Small and Decentralized Water and Wastewater Treatment Plants (SWAT 2018)
26–29 August 2018, Thessaloniki, Greece***

European experience of PPPs in the water supply sector: a critical evaluation M. Pempetzoglou (Greece), Z. Patergiannaki (UK)	369
Evaluation of public perception on key sustainability indicators for drinking water quality by fuzzy logic methodologies K. Kokkinos, E. Lakioti, P. Samaras, V. Karayannis (Greece)	378
Comparison of batch and novel continuous electrocoagulation processes in the treatment of paint industry wash water K. Rajaniemi, M. Raulio, S. Tuomikoski, U. Lassi (Finland)	394
Environmental diagnosis of traditional hammams of Dar Bouazza’s Commune, Morocco N. Chakri, B. El Amrani, F. Berrada, H. Jounaid (Morocco)	405
Evaluation of fouling prevention methods in a submerged membrane bioreactor treating domestic wastewater K. Azis, S. Ntougias, P. Melidis (Greece)	415
Selection of a rural arsenic treatment system using multi-criteria decision-making techniques D. Dölgen, M. Necdet Alpaslan (Turkey)	425
Author Index	433
Corrigendum to “Temporary step-wise cyclic operation controlled by DCS to mitigate fouling in RO water desalination” published in vol. 168 (2019) pp. 32–41 (doi:10.5004/dwt.2019.24448) M. Ghassoul, N. Al-Bastaki, S. Samsamuddin (Bahrain)	434