



Contents

Volume 156

Comparative analysis of economic and institutional aspects of desalination for agriculture in the Sultanate of Oman and Spain
S.A. Al Jabri, S. Zekri (Oman), D. Zarzo (Spain), M. Ahmed (Oman) 1

Economic comparison between RO-wind and RO-PV desalination systems
R. Ben-Mansour, A.H. Al-Jabr (Saudi Arabia), R. Saidur (Saudi Arabia, Malaysia) 7

Spatial distribution and comprehensive evaluation of emerging organic pollutants in effluents from wastewater treatment plants in northern cities of China
Yuan Liu, Min Ji, Rumeng Wang, Hongyan Zhai, Shanshan Yu, Boyue Liu, Yingxin Zhao (China) 20

A case study on gravel-contact-aeration-oxidation system to treat the combined sewage and rainwater flowing into Keelung River, Taiwan
Jin Xu (China), Shang-Lien Lo (Taiwan) 32

Energy efficiency of wastewater treatment plant through aeration system
N.F. Azis@Aziz, N.A. Ramli, M.F.A. Hamid (Malaysia) 38

Fabrication of MoS₂/polyelectrolyte composite membrane on ceramic tube with enhanced nanofiltration performance
Jingyuan Zhou, Zhenping Qin, Tongtong Liu, Yue Ma, Quanfu An, Hongxia Guo (China) 46

Effects of using different ultrafiltration membranes on the removal efficiency of resistance genes from secondary effluent
Lihua Sun, Pengfei Shi, Qiwei Zhang, Jingjing Lv, Yajun Zhang (China) 52

Free drainage and bubble size for aqueous foams stabilized by sodium dodecyl benzene sulphonate
Junchao Wang, Zhipeng Li, Guixia Fan, Cuiling Ye, Guosheng Li, Yijun Cao (China) 59

Effects of C/N ratio on pollution removal efficiency and cell proliferation during the bioconversion of wastewater by photosynthetic bacteria
Fan Meng, Anqi Yang, Guangming Zhang, Jianzhen Li, Zhiguo Zou, Yi Zhang (China) 68

Characterizations of calcium silicate hydrates derived from coal fly ash and their mechanisms for phosphate removal
Quanzhi Tian, K. Sasaki (Japan) 78

Single and binary sorption of reactive dyes onto red seaweed-derived biochar: multi-component isotherm and modelling
J. Thivya, J. Vijayaraghavan (India) 87

Adsorption of Congo red from solution using chitosan modified carbon nanotubes
Weili Wang, Yangyang Du, Mingyu Liu, Mengmeng Yang, Runping Han (China) 96

Assessing willingness to pay for upgrading toilets in rural areas of Shaanxi and Inner Mongolia, China
Simei Wu, Huimin Li, Qin Li, Li Mi (China) 106

Special Issue on the International Conference on Desalination (InDACON-2018), 20–21 April, 2018

Editorial
G. Arthanareeswaran, D.B. Das (India) 116

Performance evaluation of PVT–CPC integrated solar still under natural circulation
K.N. Mishra, Md. Meraj, A.Kr. Tiwari, G.N. Tiwari (India) 117

Effect of orientation on the yield of low cost solar stills with coco peat and charcoal as an absorber material
M.A. Balu, D.V.S.K.Rao K, C. Naveen, Premalatha M (India) 126

Performance analysis of combined two stage desalination and cooling plant with different solar collectors
B. Anand, R. Shankar, T. Srinivas, S. Murugavelh (India) 136

Experimental investigation on a hybrid desalination and cooling unit using humidification–dehumidification technique C. Chiranjeevi, T. Srinivas, R. Shankar (India)	148
Productivity improvement of single basin inclined solar still using enamel coating and copper chips S.S. Joshi, M.M.N.A. Shahed, R. Aware, N.A. Bhawe, S.S. Tagde (India)	161
Experimental study of modified dual slope hybrid photovoltaic (PV/T) solar thermal still R.U. Khan, B. Bhattacharyya, G. Singh (India)	168
Iron oxide modified polyethersulfone/cellulose acetate blend membrane for enhanced defluoridation application C. Evangeline, V. Pragasa, K. Rambabu, S. Velu, P. Monash, G. Arthanareeswaran (India), F. Banat (UAE)	177
Removal of glycosaminoglycans present in tannery saline soak wastewater using integrated biological reactor and amylase immobilised reactor P. Maharaja, S.V. Priyadharshini, R. Akshaya, S. Swarnalatha, G. Sekaran (India)	189
Performance evaluation of column-SBR in paper and pulp wastewater treatment: optimization and bio-kinetics N.A. Khan, S.U. Khan, D.T. Islam, S. Ahmed, I.H. Farooqi (India), M.H. Isa (Brunei Darussalam), A. Hussain, F. Changani, A. Dhingra (India)	204
Performance of composite PES/MOF-5 membranes for the treatment of textile wastewater G. Gnanaselvan (India, Korea), B. Sasikumar, G. Arthanareeswaran (India), Young Sun Mok (Korea)	220
Development and study of sandwiched layer ceramic membrane A. Saha, M. Dutta (India)	229
Optimization and extraction of pharmaceutical micro-pollutant – norfloxacin using emulsion liquid membranes S. Muthusarayanan, S.V. Priyadharshini, N. Sivarajasekar, R. Subashini, S. Sivamani, S. Dharaskar (India), N. Dhakal (The Netherlands)	238
A review of the artificial neural network based modelling and simulation approaches applied to optimize reverse osmosis desalination techniques R. Mahadeva, G. Manik, A. Goel (India), N. Dhakal (The Netherlands)	245
Influences of nano zero valent iron and Fe ²⁺ supported kaolin nanoparticles for metal ion separation through ultrafiltration K. Thiagarajan, G. Arthanareeswaran (India), Jihyang Kweon (Korea), D.B. Das (UK), V. Jaikumar (India)	257
Activated carbon from date seeds for chromium removal in aqueous solution K. Rambabu (India), F. Banat (UAE), G.S. Nirmala, S. Velu, P. Monash, G. Arthanareeswaran (India)	267
Biosorption – a case study of hexavalent chromium removal with raw pomegranate peel F.A. Salam, A. Narayanan (India)	278
Biosynthesized silver nanoparticles as antimicrobial agents and photocatalytic degradation of methylene blue K. Roja, P. Mehta, M. Premalatha, K. Jeyadheepan, C. Gopalakrishnan, N. Meenakshisundaram, K. Sankaranarayanan (India)	292
Organo-nanobentonite and organo-nanokaoline for effective removal of Pb(II) ions from battery effluent: characterization, isotherm, kinetic studies B. Uma Maheswari, V.M. Sivakumar, M. Thirumarimurugan (India)	303
Enhancement of limit of detection by inducing coffee-ring effect in water quality monitoring microfluidic paper-based devices R. Ghosh, V. Vaishampayan, A. Mahapatra, R. Malhotra, S. Balasubramanian, A. Kapoor (India)	316
Recovery and reuse of spent chrome tanning effluent from tannery using electro-oxidation technique M.S. Arokianathan, V. Muralidharan, L. Irudayarajan, S. Sundaramoorthy, R. Baddipudi, S. Palanivel (India)	323
Removal of 2, 4 dichlorophenol from aqueous medium using chemically modified low-cost adsorbent: kinetics, isotherm, thermodynamics and regeneration studies G.R. Devi, D.V. Lakshmi, N.N. Gandhi (India)	331

Removal of chromium (III) from tannery wastewater by electrochemical peroxidation process in a bench scale reactor G. Selvabharathi, S. Adishkumar, J.R. Banu (India)	340
Photocatalytic degradation of Methylene Blue using PANi/Ceria nanocomposite under visible light irradiation J. Vidya, P. Balamurugan (India)	349
Removal of solids from surfactant wastewater through synergetic utilization of <i>Strychnos potatorum</i> and <i>Colocasia esculenta</i> A. Sriram, G. Swaminathan, S. Subbarayan (India)	357
Comparative study on treatment of cassava wastewater using free, immobilized and biofilm of <i>Trichoderma harzianum</i> – <i>Trichoderma viride</i> consortium S. Saravanan, A. Kumari, A. Sriram (India)	370
Phycoremediation of hydrocarbon using two marine seaweeds from the Bay of Bengal coast of India L.L.J.L. Nisha, G. Arthanareeswaran, T.V. Poonguzhali, T.A. Mohan, J. Valentina (India)	378
Author Index	387