

Contents

Volume 57 Issue 16

Closed circuit PRO series no 3: status and prospects for PRO hydroelectric power generation from sea–river water like salinity gradients A. Efraty (Har Adar, Israel)	7131
Macropollutants removal from compost leachate using membrane separation process H. Hashemi (Shiraz), Y. Hajizadeh, M.M. Amin, B. Bina (Isfahan), Asghar Ebrahimi (Yazd), A. Khodabakhshi (Shahrekord), Afshin Ebrahimi and H.R. Pourzamani (Isfahan, Iran)	7149
Modeling the impacts of corrosion product formation on simultaneous sorption and reductive dehalogenation of organochlorine pesticide aldrin by high carbon iron filings (HCIF) Y. Lama, A. Sinha, G. Singh, S.A. Sahu and B.K. Mishra (Dhanbad, India)	7155
Preparation of modified cellulose acetate membranes using functionalized multi-walled carbon nanotubes for forward osmosis Haiyang Jin, Yangbo Huang, Xin Wang, Ping Yu and Yunbai Luo (Wuhan, China)	7166
Application of nanofiltration as a tertiary treatment in a polyester production industry for wastewater reuse F. Malekian (Tehran), M. Farhadian (Isfahan), M. Sohrabi (Tehran) and A. Razmjou (Isfahan, Iran)	7175
Analysis of environmental variables on population dynamic change of <i>Haliscomenobacter hydrossis</i> , the bulking causative filament in Macau wastewater treatment plant Congyuan Cao and Inchio Lou (Macau, China)	7182
<i>S. cerevisiae</i> cells modified with nZVI: a novel magnetic biosorbent for nickel removal from aqueous solutions U.A. Guler and M. Ersan (Sivas, Turkey)	7196
Adsorption of Ni(II) ions from aqueous solution onto a fungus <i>Pleurotus ostreatus</i> T. Mahmood, A. Khan, A. Naeem, M. Hamayun, M. Muska, M. Farooq and F. Hussain (Peshawar, Pakistan).....	7209
Chemical modification of silica gel with 4,40-((1Z,8Z)-2,5,8-triazanona-1,8-diene-1,9-diyl)diphenol and applications to chromium Cr(VI) ions in industrial wastewaters A. Çimen, E. Karakuş and A. Bilgiç (Karaman, Turkey)	7219
Effect of acid modification on adsorption of hexavalent chromium (Cr(VI)) from aqueous solution by activated carbon and carbon nanotubes Ihsanullah, F.A. Al-Khalidi, B. Abu-Sharkh, A.M. Abulkibash, M.I. Qureshi, T. Laoui (Dhahran, Saudi Arabia) and M.A. Atieh (Doha, Qatar).....	7232
Equilibrium and kinetic studies on adsorption of Pb(II) by activated palm kernel husk carbon Zheng-ji Yi (Beijing and Hengyang), Jun Yao, Hui-lun Chen, Fei Wang (Beijing), Xing Liu and Jin-sheng Xu (Hengyang, China)	7245
Kinetics and mass transfer models for sorption of titanium industry effluent in activated carbon N. Subash and R. Krishna Prasad (Coimbatore, India).....	7254
Biosorption behavior of Sr ²⁺ using straw-derived biochar: equilibrium and isotherm study S.M. Yakout (Riyadh, Saudi Arabia and Cairo, Egypt) and E. Elsherif (Cairo, Egypt)	7262
Removal of Cd(II) and Cu(II) from aqueous solution using Bengal gram husk as a biosorbent G. Pandey (Lucknow, India)	7270
Chemically enhanced primary treatment of textile effluent using alum sludge and chitosan M.B. Asif, N. Majeed, S. Iftekhar, R. Habib, S. Fida and S. Tabraiz (Taxila, Pakistan)	7280
Performance of oxidation-reduction potential-based hydrolysis and acidification process for high-strength antibiotic wastewater treatment Lei Ding, Xin Xu, Juan Zhang, Junna Shao and Yixian Zhao (Shanghai, China)	7287
Biodegradation of two azo dyes using <i>Dietzia</i> sp. PD1: process optimization using response surface methodology and artificial neural network P. Das, P. Banerjee, A. Zaman (Kolkata) and P. Bhattacharya (Durgapur, India)	7293

<i>Luffa acutangula</i> peel as an effective natural biosorbent for malachite green removal in aqueous media: equilibrium, kinetic and thermodynamic investigations Hon Wei Ng, Lai Yee Lee, Wei Leong Chan, Suyin Gan and N. Chemmangattuvalappil (Selangor, Malaysia).....	7302
Microwave-assisted synthesis of graphene and its application for adsorptive removal of malachite green: thermodynamics, kinetics and isotherm study R. Rathour (Durgapur), P. Das (Kolkata) and K. Aikat (Durgapur, India).....	7312
Application of activated carbon derived from waste <i>Delonix regia</i> seed pods for the adsorption of acid dyes: kinetic and equilibrium studies S.E. Subramani, D. Kumaresan and N. Thinakaran (Karaikudi, India)	7322
Utilization of inactivated aerobic granular sludge as a potential adsorbent for the removal of sunset yellow FCF Yanzhuo Zhang, Jun Li, Wenjing Li and Guanghui Chen (Beijing, China).....	7334
<i>Calligonum polygonoides</i> biomass as a low-cost adsorbent: surface characterization and methylene blue adsorption characteristics A. Nasrullah, H. Khan (Bannu), A.S. Khan (Bannu, Pakistan and Tronoh, Malaysia), N. Muhammad (Lahore, Pakistan), Z. Man (Tronoh, Malaysia), F.U. Khan (Bannu, Pakistan and Tronoh, Malaysia) and Z. Ullah (Tronoh, Malaysia)	7345
A novel anaerobic-anoxic/nitrifying-induced crystallization sequence batch reactor (A_2N -IC-SBR) process for enhancing phosphorus recovery and nutrient removal Jing Shi, Xiwu Lu, Zhengwen Xu and Mengyuan Fang (Nanjing, China)	7358
Biological aeration filter post-treating effluent from Fenton oxidation process of wastewater containing rhodamine B Yonghong Zhao, Tao Zhang and Xianxiong Chen (Ganzhou, China)	7369
Effect of salinity on nitrogen removal by simultaneous nitrification and denitrification in a sequencing batch biofilm reactor Zong-Lian She, Xiao-Ling Zhang, Mengchun Gao, Ya-Chan Guo, Lin-Ting Zhao and Yang-Guo Zhao (Qingdao, China)	7378
Comparable phosphate adsorption onto some natural aluminosilicates vs. Fe(III)oxihydroxide E. Chmielewska, R. Hodossyová (Bratislava), M. Koval'aková (Košice) and M. Urík (Bratislava, Slovak Republic).....	7387

***Selected papers presented at IDW 2014 – The 7th International Desalination Workshop
November 5–8, 2014, Jeju, Korea***

Recent development in thermally activated desalination methods: achieving an energy efficiency less than 2.5 kWh _{elec} /m ³ M.W. Shahzad (Thuwal, Saudi Arabia), Kyaw Thu, Kim Choon Ng (Singapore) and Chun Won Gee (Jejusi, South Korea).....	7396
Evaluation of energy and water recovery in forward osmosis–bioelectrochemical hybrid system with cellulose triacetate and polyamide asymmetric membrane in different orientations Euntae Yang (Gwangju, Korea), Kyoung-Yeol Kim (University Park, PA, USA), Kyu-Jung Chae (Busan), Mi-Young Lee and In S. Kim (Gwangju, Korea)	7406
Application of seawater dilution process to SWRO filtration system for low-energy desalination Sungil Lim, Hanbai Park, Haksoo Lee (Cheonan), Kyungtaek Yum, Hosun Lee (Incheon) and Dalsik Woo (Cheonan, Korea)	7414
Using tertiary-treated municipal wastewater as makeup water by reverse osmosis membrane T. Kornboonraksa (Klong Luang, Thailand)	7422
Evaluation of membrane-based desalting processes for RO brine treatment Songbok Lee, Youngjin Kim (Seoul, Korea), A.S. Kim (Honolulu, HI, USA) and Seungkwan Hong (Seoul, Korea)	7432
Treatment of reverse osmosis concentrate by electrolysis and MBR process Chan Young Kang, Jeong Jun Lee, Joon-Seok Kang, Young Soo Kim and Han-Seung Kim (Yongin, Korea)	7440

Direct measurement of cake fouling potentials by powdered activated carbon during microfiltration of surface water Yongtae Ahn (Jinju), Seoktae Kang (Yongin), Byung-Uk Bae (Daejeon), Chaeyoung Lee (Hwaseong) and Wontae Lee (Gumi, Korea).....	7449
Effect of humic acid, photo-oxidation, and adsorption at air back-flushing in hybrid water treatment of multi-channel alumina MF and photocatalyst-coated PP beads Seung Jun Lee, Jin Yong Park (Gangwon) and Ji-tae Kim (Gyeonggi, Korea)	7456
Optimization of chemical cleaning condition for microfiltration process using response surface methodology Jungwoo Jung, Young-hoon Ko, Ji-sun Choi and Sangho Lee (Seoul, Korea)	7466
Combined coagulation/ceramic membrane ultrafiltration system for reclamation of degreasing washing water Gyeong-Wan Go, Eui-Jong Lee (Suwon), Seoktae Kang (Yongin) and Am Jang (Suwon, Korea)	7479
Microbial behavior and characteristics of biomass during starvation and their influence on ultrafiltration of activated sludge W. Lee (Gumi), Y. Son, Y. Ahn (Jinju), H. Kim (Jeonju), S. Kim (Gyeongsan), S. Kang (Yongin) and C. Lee (Hwaseong, Korea)	7487
Modified electrocoagulation process with porous nonwoven partition for advanced phosphorus control Sungyoun Kim, Kwang Ho Ahn and Kwang-Soo Kim (Goyang, Korea).....	7495
Removal of phosphate and suspended solids by electrocoagulation coupled with woven fabric membrane at pilot plant M. Sajjad, A. Aziz, Taehwan Jun and Kwang Soo Kim (Daejeon and Goyang-si, Korea).....	7502
Water blending effects on coagulation-flocculation using aluminum sulfate (alum), polyaluminum chloride (PAC), and ferric chloride (FeCl_3) using multiple water sources Hanbai Park, Sung-il Lim (Cheonan), Hosun Lee (Incheon) and Dal-Sik Woo (Cheonan, Korea)	7511
Effect of various pretreatments on the performance of nanofiltration for wastewater reuse Jeong Jun Lee (Yongin, Korea), Yun Chul Woo (Sydney, Australia), Joon-Seok Kang, Chan Young Kang and Han-Seung Kim (Yongin, Korea)	7522
Fatty acids fouling on forward osmosis membrane: impact of pH K. Ruengruahan, H. Kim, L.T. Hai Yen (Yongin), A. Jang (Suwon), W. Lee (Gumi) and S. Kang (Yongin, Korea)	7531
Effects of bubble size on air-scoured backwashing efficiency in a biofilter N.S. Park, S.M. Yoon (Jinju), S.H. Kim (Busan) and J.O. Kim (Seoul, Korea)	7538
Efficacy of synthesis conditions on functionalized carbon nanotube blended cellulose acetate membrane for desalination Hyeon-gyu Choi, Sang Hyeon Yoon, Moon Son (Gwangju, Korea), E. Celik (Isparta, Turkey), Hosik Park (Daejeon, Korea) and Heechul Choi (Gwangju, Korea)	7545
Organic matter removal and nitrification using a woven hollow fiber tube as biological media K.H. Ahn and K.S. Kim (Goyang, Korea)	7555
The effect of morphologies of carbon nanotube-based membranes and their leachates on antibacterial property Kwang-Jin Lee and Hee-Deung Park (Seoul, Korea).....	7562
Effects of aeration on/off times and hydraulic retention times in an intermittently aerated membrane bioreactor Changkyoo Choi (Gwangju), Moonil Kim (Ansan), Euntae Yang and In S. Kim (Gwangju, Korea).....	7574
Optimization of dewetting conditions for hollow fiber membranes in vacuum membrane distillation Yonghyun Shin, Jihyuck Choi, Taewoong Lee, Jinsik Sohn and Sangho Lee (Seoul, Korea)	7582
Membrane crystallization for salts recovery from brine—an experimental and theoretical analysis C.A. Quist-Jensen, F. Macedonio (Rende, Italy) and E. Drioli (Rende, Italy, Seoul, Korea and Jeddah, Saudi Arabia)	7593
Author Index.....	7604