



**Membranes in Drinking and Industrial Water Treatment—MDIW 2010, June 27–30, 2010, Trondheim, Norway**

Experimental study of the ultrafiltration for bi-disperse silica systems N.H. Ramli and P.M. Williams (Swansea, UK) .....	1
Optimizing the sparging condition and membrane module spacing for a ZW500 submerged hollow fiber membrane system B.G. Fulton and P.R. Bérubé (Vancouver, Canada) .....	8
Multistage filtration process for efficient treatment of oil-field produced water using ceramic membranes M. Ebrahimi, Z. Kovacs, M. Schneider (Giessen, Germany), P. Mund, P. Bolduan (Gladbeck, Germany) and P. Czermak (Manhattan KS, USA) .....	17
Optimisation of the geometry of a polymeric Multibore® ultrafiltration membrane and its operational advantages over standard single bore fibres M. Heijnen, R. Winkler and P. Berg (Greifenberg, Germany) .....	24
Influence of activated sludge characteristics on membrane fouling in a hybrid membrane bioreactor X.C. Wang, Y.S. Hu (Xi'an, China) and Q. Liu (Xuzhou, China) .....	30
Investigation of the sludge thickening potential of waste activated sludge using membranes J. Schaller (Berlin, Germany), W. Heine (Hamburg, Germany), A. Drews and M. Kraume (Berlin, Germany) .....	37
SDI: Is it a reliable fouling index? A. Alhadidi, A.J.B. Kemperman (Enschede, The Netherlands), J.C. Schippers (Delft, The Netherlands), M. Wessling and W.G.J. van der Meer (Enschede, The Netherlands) .....	43
Digital holographic interferometry visualization of PEG-10000 accumulation on an acetate cellulose membrane: assessment of polarization layer and adsorption phenomenon J. Fernández-Sempere, F. Ruiz-Beviá, R. Salcedo-Díaz, P. García-Algado and M. García-Rodríguez (Alicante, España) .....	49
Performance of ultrafiltration and coagulation in an UF-RO seawater desalination demonstration plant R. Schurer, A. Janssen (NH Rotterdam, The Netherlands), L. Villacorte and M. Kennedy (Delft, The Netherlands) .....	57
Improved elimination of organic micropollutants by a process combination of membrane bioreactor (MBR) and powdered activated carbon (PAC) P. Lipp, H.-J. Groß and A. Tiehm (Karlsruhe, Germany) .....	65
A comparative study of ultrafiltration and physicochemical process as pretreatment of seawater reverse osmosis G. Fernández (Granada, Spain), F. Plaza, G. Garralón (Bilbao, Spain), A. Garralón (Madrid, Spain), J.I. Pérez and M.A. Gómez (Granada, Spain) .....	73
Compact tertiary treatment based on the combination of MBBR and contained hollow fibre UF-membranes H. Ødegaard (Trondheim, Norway), U. Mende (Ratingen, Germany) E.O. Skjerping, S. Simonsen (Sandefjord, Norway), R. Strube (Vellinge, Sweden) and E. Bundgaard (Søborg, Denmark) .....	80
Techno-economical approach of GAC and microfiltration as a coagulant-free pre-treatment of seawater desalination M. Beery (Berlin, Germany), J.J. Lee, B.S. Oh, J.H. Kim (Gwangju, Korea) and J.-U. Repke (Freiberg, Germany) .....	87
Wastewater polycyclic aromatic hydrocarbons removal by membrane bioreactor D. González, L.M. Ruiz (Granada, Spain), G. Garralón, F. Plaza (Bilbao, Spain), J. Arévalo, J. Parada, J. Pérez, B. Moreno and M.Á. Gómez (Granada, Spain) .....	94

Flat sheet or hollow fibre – comparison of full-scale membrane bio-reactor configurations P. Krzeminski, J.A. Gil (Delft, The Netherlands), A. van Nieuwenhuijzen, J.H.J.M van der Graaf (Deventer, The Netherlands) and J.B. van Lier (Delft, The Netherlands).....	100
Three steps to control biofouling in reverse osmosis systems K. Majamaa (Tarragona, Spain), J.E. Johnson (MN, USA) and U. Bertheas (Horgen, Switzerland).....	107
Operating conditions and membrane selection for the removal of conventional and emerging pollutants from spring water using nanofiltration technology: the Tula Valley case F.N. Ruíz, A.A. Arévalo, J.C.D. Álvarez and B.J. Cisneros (Mexico, D.F.) .....	117
Operation of gravity-driven ultrafiltration prototype for decentralised water supply M. Boulestreau, E. Hoa (Berlin, Germany), M. Peter-Verbanets, W. Pronk (Dübendorf, Switzerland), R. Rajagopaul (Durban, South Africa) and B. Lesjean (Berlin, Germany) .....	125
Effect of membrane surface charge on filtration of heavy metal ions in the presence and absence of polyethylenimine F.M. Almutairi, P.M. Williams and R.W. Lovitt (Swansea, UK) .....	131
Nanofiltration removal of pharmaceutically active compounds M.J. López-Muñoz, A. Sotto and J.M. Arsuaga (Madrid, Spain) .....	138
Thermodynamic diagnostic of electrons densities in gas bubbles in aerated saturated refinery wastewater M.M. Ševaljević (Serbia), S.N. Simić (Bosnia, Herzegovina) and P.V. Ševaljević (Ljubljana, Slovenija) .....	144
Flux dependency of particulate/colloidal fouling in seawater reverse osmosis systems S.G.S. Rodríguez, M.D. Kennedy (Delft, The Netherlands), G.L. Amy (Thuwal, Kingdom of Saudi Arabia) and J.C. Schippers (Delft, The Netherlands).....	155
In-line coagulation prior to ceramic microfiltration for surface water treatment—minimisation of flocculation pre-treatment T. Meyn (Trondheim, Norway), J. Altmann (Berlin, Germany) and T. Leiknes (Trondheim, Norway).....	163
Industrialized modules for MED Desalination with polymer surfaces W. Heinzl (Krefeld), S. Büttner (Schloßplatz, Ebersberg) and G. Lange (Krefeld).....	177
Fouling minimised reclamation of secondary effluents with reverse osmosis (ReSeRO) A. Lerch, N. Siebdrath (Dresden, Germany), P. Berg (Greifenberg, Germany), V. Gitis (Beer Sheva, Israel) and W. Uhl (Dresden, Germany) .....	181

### 2011 Qingdao International Desalination Conference Symposium on Desalination and Water Treatment Global Platform for Water Solutions, June 20–23, 2011 Qingdao, China

Closed circuit desalination series no-2: new affordable technology for sea water desalination of low energy and high flux using short modules without need of energy recovery A. Efraty, R.N. Barak and Z. Gal (Har Adar, Israel).....	189
Removal of the heavy metal ion Cr(VI) by soybean hulls in dyehouse wastewater treatment Y. Sheng-quan (Guangdong, China), G. Si-yuan, Y. Yi-gang, W. Hui (Guangzhou, China) and Han-Rui (Guangdong, China).....	197
Lead(II) biosorption of an Antarctic sea-ice bacterial exopolysaccharide Y. Ma, B. Shen, R. Sun, W. Zhou and Y. Zhang (Jinan, PR China) .....	202
The study of membrane capacitive deionization from charge efficiency H. Li, C. Nie, L. Pan and Z. Sun (Shanghai, China).....	210
Microwave-assisted synthesis of ZnO for photocatalytic reduction of Cr(VI) in aqueous solution X. Liu, T. Lv, L. Pan, Z. Sun (Shanghai, China) and C.Q. Sun (Singapore).....	216
Measuring salinity and TDS of seawater and brine for process and environmental monitoring—which one, when? S.F.E. Boerlage (Australia) .....	222
Retrofitting and enlargement of the Palmahim SWRO desalination plant (150,000 m <sup>3</sup> d <sup>-1</sup> ) A. Drak, I. Sutzkover-Gutman and A. Hermoni (Akko, Israel) .....	231
Desalination of seawater using solar, ambient energy and waste heat from air conditioning system M.N.A. Hawlader (Kuala Lumpur, Malaysia) and Z.M. Amin (Singapore).....	235
A study on the removal of highly concentrated organic matters in saline lake water and the mechanism of magnesium ion loss in water treatment P. Jin, X. Jin, L. Zhou and X. Wang (Xi'an, China).....	241

Performance analysis of mixed feed LT-MED desalination system with thermal vapor compressor X. Liu, D. Liu, S. Shen, Y. Yang and F. Gao (Dalian, P.R. China) .....	248
Closed circuit desalination series no-3: high recovery low energy desalination of brackish water by a new two-mode consecutive sequential method A. Efraty (Har Adar, Israel) .....	256
Closed circuit desalination series no-4: high recovery low energy desalination of brackish water by a new single stage method without any loss of brine energy A. Efraty (Har Adar, Israel) .....	262
3D numerical simulation on mixing process in ducts of rotary pressure exchanger L. Yu, Z. Yi-Hui and B. Ming-Shu (Dalian, China) .....	269
Study on degradation behavior of <i>N,N</i> -dimethylacetamide by photocatalytic oxidation in aqueous TiO <sub>2</sub> suspensions B.-Z. Ge, J. Zhang, P. Lei, M.-Q. Nie and P.-K. Jin (Xi'an, P.R. China) .....	274
Kinetic and equilibrium study on uptake of iodide ion by calcined layered double hydroxides J. Chen, L. Lv (Zhejiang Province, China), J. He (Beijing, China) and L. Xv (Zhejiang Province, China) .....	279
Advanced purification of methyl orange high concentration Q. Ma, W. Bao (Taiyuan, China), L. Lin and H. Ma (Xi'an, China) .....	289
Calculation of energy consumption for crossflow RO desalination processes C. Liu, K. Rainwater and L. Song (Lubbock, USA) .....	295
On the significance of recirculation between intakes and outfalls of desalination and thermal power plants A.W.-K. Law (Nanyang Avenue, Singapore) .....	304
Fractal characteristics of al-humic flocs P.K. Jin, K. Zhang and X.C. Wang (Xi'an, China) .....	309
Geochemical study of groundwater mineralization in Guanzhong Basin, Shaanxi province, NW China M. Zhi-yuan, D. Hui-ping, L. Ting, H. Wei-wei and Y. Hua (Xi'an, China) .....	317
Desalination and water reuse—sustainably drought proofing Australia G.J. Crisp (WA, Australia) .....	323
Transport analysis of an air gap membrane distillation (AGMD) process M.N.A. Hawlader (Kuala Lumpur, Malaysia), R. Bahar, K.C. Ng and L.J.W. Stanley (Singapore) .....	333
Book Review .....	347
Author Index .....	349