

***Selected papers presented at the conference on
 Membranes in Drinking and Industrial Water Production – MDIW 2012
 10–12 September 2012, Leeuwarden, The Netherlands***

Evaluation of the five years operating data of a RO brackish water desalination plant in Las Palmas, Canary Islands, Spain: a historic case E. Ruiz Saavedra, A. Gómez Gotor, S.O. Pérez Báez, A. Ramos Martín, A. Ruiz García (Las Palmas), and A. Casañas González (Madrid, Spain)	4785
A design method of the RO system in reverse osmosis brackish water desalination plants (procedure) E. Ruiz Saavedra, A. Gómez Gotor, S.O. Pérez Báez, A. Ramos Martín, A. Ruiz García (Las Palmas), and A. Casañas González (Madrid, Spain)	4790
Cost analysis in RO desalination plants production lines: mathematical model and simulation J. Feo, J.J. Sadhwani and L. Alvarez (Las Palmas, Spain)	4800
The role of membrane technologies in water reuse applications P.S. Cartwright (Minneapolis, MN, USA)	4806
Evolution of membrane application for industrial recycling G. Turner (Bucks, UK)	4817
Cleaning protocol for a FO membrane fouled in wastewater reuse R. Valladares Linares, Z. Li, V. Yangali-Quintanilla, Q. Li and G. Amy (Thuwal, Saudi Arabia)	4821
Engineering application of MBR in treating the fiberglass wastewater M.-C. Su (Shoufeng), N.-H. Kao and W.-C. Huang (Tainan City, Taiwan)	4825
Fouling reduction in MBR-RO processes: the effect of MBR F/M ratio T. Kitade, B. Wu, T.H. Chong, A.G. Fane and T. Uemura (Singapore)	4829
Influence of operational variables on nitrogen removal in two full-scale MBR systems J. Arévalo, L.M. Ruiz, J. Pérez and M.A. Gómez (Granada, Spain)	4839
Influence of operational parameters over biomass growth and decay kinetic constants on membrane bioreactors L.M. Ruiz, J. Pérez and M.A. Gomez (Granada, Spain)	4847
UV-photografting modification of NF membrane surface for NOM fouling reduction M.N. Abu Seman (Pahang, Malaysia), N. Hilal (Swansea, UK) and M. Khayet (Madrid, Spain)	4855
Prevention of SWRO membrane fouling using nano-alumina depth filter I.M. El-Azizi (Janzour, Libya), K.M. Baker (Leeds, UK) and R.G.J. Edyvean (Sheffield, UK)	4862
Pre-treatment of co-digestion effluents before reverse osmosis (RO) application M. Kuglarz (Bielsko-Biala) and J. Bohdziewicz (Gliwice, Poland)	4872
Application of ceramic membranes for seawater reverse osmosis (SWRO) pre-treatment J.Z. Hamad, C. Ha (Thuwal, Saudi Arabia), M.D. Kennedy (Delft, The Netherlands) and G.L. Amy (Thuwal, Saudi Arabia)	4881
Drinking water ultrafiltration: state of the art and experimental designs approach C. Regula (Aix en Provence and Issy les Moulineaux), E. Carretier, Y. Wyart (Aix en Provence), M. Sergent (Marseille), G. Gésan-Guiziou (Rennes), D. Ferry (Marseille), A. Vincent, D. Boudot (Issy les Moulineaux) and P. Moulin (Aix en Provence, France)	4892
Treatment of spent filter backwash water from drinking water treatment with immersed ultrafiltration membranes J. Čurko, I. Mijatović (Zagreb), D. Rumora (Rijeka), V. Crnek, M. Matošić (Zagreb) and M. Nežić (Buzet, Croatia)	4901
Pressure fields in an industrial UF module: effect of backwash G. Cano, P. Steinle (Aix en Provence), J.V. Daurelle (Marseille), Y. Wyart (Aix en Provence), K. Glucina (Le Pecq), D. Bourdiol (Toulouse) and P. Moulin (Aix en Provence, France)	4907

Investigation of parameters affecting the ultrafiltration of oil-in-water emulsion wastewater Z.L. Kiss, S. Kertész, S. Beszédes, C. Hodúr and Z. László (Szeged, Hungary)	4914
Enzyme recovery and fouling mitigation by ultrasound-enhanced ultrafiltration M. Ábel, G. Szabo (Szeged, Hungary), O. Poser (Dijon, France), Z. László and C. Hodúr (Szeged, Hungary)	4921
Performance assessment of prepared polyamide thin film composite membrane for desalination of saline groundwater at Mersa Alam-Ras Banas, Red Sea Coast, Egypt M.M. Said, A.H.M. El-Aassar, Y.H. Kotp, H.A. Shawky and M.S.A. Abdel Mottaleb (Cairo, Egypt)	4927
NanoMembraneWater: development of innovative hybrid processes for contaminated water treatment using nanoporous membranes S.D. Sklari, K. Szymanska, A.E. Pagana, P. Samaras V.T. Zaspalis and A.I. Zouboulis (Thessaloniki, Greece)	4938
Challenge tests with virus surrogates: an accurate membrane integrity evaluation system? O. Ferrer, R. Casas, C. Galvañ, F. Lucena, A. Vega, O. Gibert, J. Jofre and X. Bernat (Barcelona, Spain)	4947
Further treatment of highly concentrated brine with dynamic vapour recompression E. Vaudevire, E. Koreman, G. Galjaard, R. Trommel and M. Visser (Leeuwarden, The Netherlands).....	4958
Reclamation of secondary treatment effluent by nanofiltration and bentonite adsorption M.H. Sorour, H.F. Shaalan, A.G. Aboulmour and H.A. Hani (Dokki, Egypt)	4963
HYDRACap® MAX: innovative micro-filtration for reverse osmosis pretreatment and water reuse L. Boutarin, A. Leroux, D. Shin, B. Freeman and N. Jones (Oceanside, CA, USA)	4972
Economical and reliable mercury reduction in refinery and power plant discharge wastewater with robust microfiltration membrane technology C. Liu, K. Farooq (Port Washington, WI, USA), B. Doll (Dreieich, Germany) and R. Venkatadri (Port Washington, WI, USA)	4980
Treatment of pharmaceutical effluent by electrocoagulation coupled to nanofiltration T. Chaabane, S. Zaidi (Algiers, Algeria), A. Darchen (Rennes, France) and R. Maachi (Algiers, Algeria)	4987
Experimental evaluation of a modified air-gap membrane distillation prototype A. Kullab, R. Fakhrai and A. Martin (Stockholm, Sweden)	4998
Batch study for herbicide bentazon adsorption onto branches of pomegranates trees activated carbon J.M. Salman and M.J. Mohammed (Baghdad, Iraq)	5005
Removal of malathion using ceramic nanofiltration/adsorption system M.H. Sorour and H.F. Shaalan (Dokki, Egypt)	5009
Elimination of organic pollutants from wastewater. Application to p-nitrophenol S. Larous and A.-H. Meniai (Constantine, Algeria)	5014
Implementation research of new phosphorus free antiscalant at an aerobic ground water RO plant R.C.M. Jong, J. Duiven (Zwolle), G.G. Terhorst (Groot-Ammers) and K. Baas (Hertogenbosch, The Netherlands).....	5021
Sorptive removal of cadmium from aqueous solutions by Delonix regia derived lignin: effect of amination A.E. Okoronkwo, A.O. Adebayo and O.I. Omotunde (Akure, Nigeria).....	5026
Zinc removal from aqueous solutions by adsorption onto bentonite K. Bellir, M.B. Lehocine and A.-H. Meniai (Constantine, Algeria)	5035
Energy efficiency solutions for RO desalination plant N. Bhutani, A. Purohit, V.K. Mantravadi, S. Mekapati and S. Subbaiah (Bangalore, India).....	5049

Papers presented at 7th Aseanian Membrane Society Conference (AMS7), 4–7 July 2012, Busan, Korea

Editorial S.S. Kim, J.Y. Park, S.Y. Nam and H.J. Kim	5056
Extraction separation of Co(II) from Ni(II) in H ₂ SO ₄ solutions with carriers in hollow-fiber contactors J.-P. Yeh, S.-H. Lin, R.-D. Chien, S.-C. Chen and H.-Y. Chiao (Chung-Li, Taiwan).....	5057
Study on seawater nanofiltration softening technology for offshore oilfield polymer solution preparation B. Su, M. Dou, Y. Wang, X. Gao and C. Gao (Qingdao, China).....	5064
Adsorptive behavior of acrylic acid-grafted bacterial cellulose to remove cadmium for a membrane-adsorbent hybrid process Y. Ahn, M.-G. Ha and Y.-J. Choi (Busan, Korea)	5074

Nanofiber membranes from cellulose triacetate for chiral separation T. Kawasaki and M. Yoshikawa (Matsugasaki, Japan)	5080
Case study on pressured microfiltration and reverse osmosis membrane systems for water reuse S.H. Joo, J.M. Park and Y.W. Lee (Seoul, Korea)	5089
Studies of supported phospholipid bilayers formed on nanofiltration membranes surface Z. Wang, Z. Zhang, X. Wang, L. Wang, M. Wang, S. Wang, J. Sheng, T. Wang, X. Liu and C. Gao (Qingdao, China)	5097
Self-assembly fabrication of ordered microporous films from a soluble polyimide modified by methyl groups based on Breath Figures Y. Liu (Tianjin), L. Wang (Beijing) and X. Han (Tianjin, China).....	5107
Performance improvement of countercurrent-flow direct contact membrane distillation in seawater desalination systems C.-D. Ho, T.-J. Yang and Y.-C. Chuang (Tamsui, Taiwan)	5113
Recent advances in membrane fouling caused by extracellular polymeric substances: a mini-review Z. Wang, X. Han, J. Ma, P. Wang, X. Mei and Z. Wu (Shanghai, China)	5121
Effect of operating conditions on the treatment of brackish groundwater by electrodialysis J.-H. Min (Econity) and H.-S. Kim (Seoul, Korea).....	5132
Synthesis and gas transport properties of UV-cured low-viscosity fluorine-containing telechelic polyimide membranes R. Shindo, A. Yokouchi, H. Shirokura, K. Yoshida, S. Miyata, S. Sato, S. Kanehashi and K. Nagai (Kawasaki, Japan).....	5138
Preparation and characterization of methyl-modified hybrid silica membranes for gas separation Y. Ma (Chongqing, China), H.R. Lee (Higashi-Hiroshima, Japan and Daejeon, Korea), K. Okahana, M. Kanezashi, T. Yoshioka and T. Tsuru (Higashi-Hiroshima, Japan)	5149
The removal of aniline from wastewater by electrodialysis in the presence of hydrochloric acid H. Meng, B. Li, B. Gong and C. Li (Beijing, China).....	5155
Effects of salinity on the removal of trace organic contaminants by membrane bioreactor treatment for water reuse N. Tadkaew (Wollongong), J. McDonald, S.J. Khan (Sydney) and L.D. Nghiem (Wollongong, Australia)	5164
Perfluorinated polymer for vanadium flow battery E.M. Choi, M.K. Kim, E.T. Kang, K.B. Kang and D.S. Kim (Daejeon, Korea)	5172
Treatment of ion-exchange resins regeneration wastewater using reverse osmosis method for reuse K. Ghasemipanah (Tehran, Iran)	5179
The evaluation of RO membrane performance with pretreatment membrane on municipal sewage treatment K. Lee, Y.-J. Choi, Y.-C. Kim and J.-B. Lee (Busan, Korea)	5184
Preparation of newly synthesized forward osmosis membrane I.-C. Kim (Daejeon), S.-H. Ahn, Y.-S. Jin (Daejeon and Seoul), B.-S. Kim, Y.-I. Park, J. Jegal (Daejeon), S.-H. Lee (Seoul), Y.-N. Kwon (Ulsan) and H.-W. Rhee (Seoul, Korea)	5191
Preparation of ultrafiltration membrane by newly synthesized AMC polymer I.-C. Kim, Y.-S. Jin, D.-H. Song, S.-H. Ahn, Y.-I. Park, B.-S. Kim, J. Jegal, B.-K. Seo (Daejeon), J.-H. Kim (Seoul), Y.-N. Kwon (Ulsan), C.-J. Mo, J.-J. Lee, D.-S. Kim and S.-H. Lim (Anyang, Korea).....	5196
Biological degradation of dissolved organic carbons and ammonia oxidation by biological activated carbon in PAC and membrane applied process C. Kim, S. Hwang, H.-S. Kim, H. Kim and S.H. Noh (Gangwon, Korea).....	5204
Effects of high turbidity inflow on PAC contactor operation and strategy for membrane fouling control in PMR (PAC membrane retrofitting) process C. Kim, S. Hwang, M. Cho (Wonju), J.-P. Park (Daejeon) and S.H. Noh (Wonju, Korea).....	5213
Effects of water temperature on fouling and flux of ceramic membranes for wastewater reuse H. Lee (Daejeon), S.G. Kim, J.S. Choi, S.K. Kim (Goyang), H.J. Oh (Daejeon) and W.T. Lee (Gumi, Korea)	5222
Preparation and characterization of amorphous carbon (a-C) membranes by molecular dynamics simulation M. Zhai (Higashi-Hiroshima, Japan and Dalian, China), T. Yoshioka (Higashi-Hiroshima, Japan), J. Yang, J. Lu, D. Yin and J. Wang (Dalian, China)	5231
Excellent dyes removal and remarkable molecular size rejection of novel biopolymer composite membrane P. Wu and M. Imai (Fujisawa, Japan)	5237

Molecular dynamics simulation study on characterization of bis(triethoxysilyl)-ethane and bis(triethoxysilyl)ethylene derived silica-based membranes T. Shimoyama, T. Yoshioka, H. Nagasawa, M. Kanazashi and T. Tsuru (Higashi-Hiroshima, Japan)	5248
Development of polystyrene sulfonate/glycol chitosan hybrid membrane for direct methanol fuel cell N. Horimatsu, T. Takahashi, D. Kobayashi, A. Shono and K. Otake (Tokyo, Japan)	5254
Optimum operating conditions in hybrid water treatment process of multi-channel ceramic MF and polyethersulfone beads loaded with photocatalyst B. Amarsanaa, J.Y. Park (Gangwon, Korea), A. Figoli and E. Drioli (Rende, Italy)	5260
Effect of chemical cleaning conditions on the flux recovery of fouled membrane Y.C. Woo, J.J. Lee, J.S. Oh, H.J. Jang and H.S. Kim (Yongin-si, Korea).....	5268
Partial nitrification in a membrane-aerated biofilm reactor with composite PEBA/PVDF hollow fibers G.M. Nisola, J. Orata-Flor, S. Oh (Yongin), N. Yoo (Seoul) and W.-J. Chung (Yongin, Korea).....	5275
The preparation of porous polyamide-imide nanofiber membrane by using electrospinning for MF application W.G. Jang, K.S. Jeon and H.S. Byun (Daegu, Korea)	5283
Performance analysis of forward osmosis processes from the integral equation theory A.S. Kim (Honolulu, HI, USA and Gyeonggi-do, Korea) and S.W. Kim (Carlisle, PA, USA)	5289
Wastewater treatment using membrane bioreactor and reverse osmosis process J. Chung (Gyeonggi-Do) and J.-O. Kim (Gangwon-Do, Korea)	5298
Removing aqueous ammonia by membrane contactor process C.-L. Lai, S.-h. Chen and R.-M. Liou (Tainan, Taiwan)	5307
Pervaporation of phenol wastewater with PVDF-PU blend membrane Y. Wu, G. Tian, H. Tan and X. Fu (Shanghai, China).....	5311
Ultrafiltration of humic acid and surface water with tubular ceramic membrane S. Xia, Y. Zhou, R. Ma, Y. Xie and J. Chen (Shanghai, China)	5319
Study on surface water treatment by hybrid sand filtration and nanofiltration Y. Wu, S. Xia, B. Dong, H. Chu and J. Liu (Shanghai, China).....	5327
Development of poly(amidoamine) dendrimer/poly(vinyl alcohol) hybrid membranes for CO ₂ separation S. Duan, T. Kai, I. Taniguchi and S. Kazama (Kyoto, Japan)	5337
Hybrid manganese/quartz sand filtration—nanofiltration processes for the removal of arsenic in water S. Xia, J. Chen, Y. Zhou, Y. Xie and R. Ma (Shanghai, China)	5343
Experimental analysis of transport characteristics for vertically aligned carbon nanotube membranes S.M. Park, Y.-K. Choi, S. Lee, Y. Baek, J. Yoon, D.K. Seo and Y.H. Kim (Seoul, Korea)	5349
Integration of forward osmosis with membrane distillation: effect of operating conditions J.-W. Koo, J.-H. Han, T. Yun, S. Lee (Seoul) and J.-S. Choi (Kyonggi-do, Korea).....	5355
Mixed-matrix membrane prepared from crosslinked PVA with NaA zeolite for pervaporative separation of water-butanol mixtures D. Oh (Yuseong-gu), S. Lee (Daejeon) and Y. Lee (Yuseong-gu, Korea).....	5362
Surface modification of PVDF membranes for water treatment via hydrophilic thermal cross-linking method Y.J. Byun, J.H. Kim and S.S. Kim (Yongin, Korea).....	5371
Author Index.....	5379