

 **Contents**

**Volume 9**

**Selected papers presented at the Conference on Membranes in Drinking and Industrial Water Production  
20–24 October 2008, Toulouse, France**

Iron removal from aqueous solution by oxidation, precipitation and ultrafiltration A. Korchef (Soliman, Tunisia), I. Kerkeni (Soliman, Tunisia, and Montpellier, France), M. Ben Amor (Soliman, Tunisia), S. Galland and F. Persin (Montpellier, France) .....	1
Comparision of cellulose acetate and nanofiltration membranes for color removal from a Norwegian lake K. Majamaa (Rheimünster, Germany), M. Lehtinen (Helsinki, Finland) and P. Pilipenko (Sorumsand, Norway).....	9
Filtration charaterization methods in MBR systems: A practical comparison T. De la Torre, V. Iversen (Berlin, Germany), A. Moreau (Delft, The Netherlands) and J. Stüber (Berlin, Germany) .....	15
A pilot-scale comparison between granular media filtration and low-pressure membrane filtration for seawater pretreatment P.-J. Remize, J.-F. Laroche, J. Leparc and J.-C. Schrotter (Maisons-Laffitte, France).....	22
Influence of operating conditions on the retention of nickel in water by nanofiltration G.T. Ballet, A. Hafiane and M. Dhahbi (Soliman, Tunisia) .....	28
Treatment of nanofiltration membrane concentrates: Organic micropollutant and NOM removal B. Bozkaya-Schrotter, C. Daines, A. Brunel, J.-C. Schrotter and P. Breant (Maisons-Laffitte, France) .....	36
Modification and characterization of prepared polysulfone ultrafiltration membranes via photografted polymerization: Effect of different additives M. Amini (Tehran), M. Homayoonfal (Kashan), M. Arami (Tehran) and A. Akbari (Kashan, Iran) .....	43
Experimental and economical evaluation of a membrane crystallizer plant F. Macedonio, E. Drioli, E. Curcio and G. Di Profio (Arcavacata di Rende, Italy) .....	49
Groundwater treatment by reverse osmosis: Effect of brine recycling on fouling M. Belkacem, S. Bakhti and S. Aomraoui (Algiers, Algeria) .....	54
Enhanced treatment of polluted surface water from Yellow river (China) with biooxidation as pretreatment: Pilot scale studies X. Song (Zhengzhou, China) .....	59
Autopsy of RO desalination membranes. Part 1. Microbial characterization of foulants G. Schaule (Mülheim, Germany), S. Rapenne (Maisons-Laffitte, France), M. Strathmann, S. Grobe (Mülheim, Germany), C. Robert and V. Jacquemet (Maisons-Laffitte, France) .....	66
Autopsy of RO desalination membrane: Part 2. Chemical characterisation of the foulant L. Mondamert, J. Labanowski, J.M. Berjeaud (Poitiers), S. Rapenne (Maisons-Laffitte) and J.P. Croué (Poitiers, France) .....	73
Observation of cake layer formation and removal on microporous hollow-fibre membranes S. Buetehorn (Aachen, Germany), M. Brannock, P. Le-Clech, G. Leslie (Sydney, Australia), D. Volmering, K. Vossenkaul, T. Wintgens and T. Melin (Aachen, Germany) .....	82
Submicron powdered activated carbon used as a pre-coat in ceramic micro-filtration S.G.J. Heijman (Nieuwegein and Delft), J.Z. Hamad, M.D. Kennedy, J. Schippers and G. Amy (Delft, The Netherlands) .....	86
Antiscalants for near complete recovery of water with tandem RO process R.Y. Ning, T.L. Troyer and R.S. Tominello (San Diego, CA, USA).....	92
Development of a hybrid solar distillator of a basin type distillator and a membrane distillatory K. Murase, Y. Yamagishi and K. Tano (Tokyo, Japan) .....	96

Membrane separation process for the treatment and reuse of bath dye effluents Z. Badani (Algiers, Algeria and Toulouse, France), C. Cabassud (Toulouse, France) and H. Ait-Amar (Algiers, Algeria) .....	105
Removal of a cytostatic drug by a membrane bioreactor L.F. Delgado (Toulouse), C. Dorandeu, B. Marion (Montpellier), C. Gonzalez, V. Faucet-Marquis, S. Schetrite and C. Albasi (Toulouse, France) .....	112
Ultrafiltration of oily water under different conditions, considering critical and limiting flux M. Hesampour (Lappeenranta, Finland), B. Simon (Renne, France) and M. Nyström (Lappeenranta, Finland).....	119
Optimization of the operations conditions in membrane bioreactors through the use of ASM3 model simulations J. Lobos (Santiago, Chile, and Montpellier, France), M. Heran and A. Grasmick (Montpellier, France) .....	126
Change of energy consumption through the adjustment of feed flow rate in RO membrane process Y.C. Kim, S.-J. Park and I.-S. Park (Daejeon, Korea) .....	131
Treatment of landfill leachate in a bench scale MBR J. Svojitska (Aachen, Germany and Muttenz, Switzerland), T. Wintgens (Muttenz, Switzerland) and T. Melin (Aachen, Germany).....	136
Preparation and characterization of microfiltration membranes and their supports using kaolin (DD2) and CaCO <sub>3</sub> B. Boudaira, A. Harabia, F. Bouzerara (Constantine, Algeria) and S. Condom (Montpellier, France).....	142
Comparison of nanofiltration and adsorption techniques to remove arsenic from drinking water M. Cakmakci (Zonguldak), A.B. Baspinar, U. Balaban (Istanbul), V. Uyak (Denizli), I. Koyuncu and C. Kinaci (Istanbul, Turkey) .....	149
Organic foulants in estuarine and bay sources for seawater reverse osmosis – Comparing pre-treatment processes with respect to foulant reductions S.G. Salinas Rodríguez, M.D. Kennedy, J.C. Schippers and G.L. Amy (Delft, The Netherlands).....	155
Hybrid photocatalysis/submerged microfiltration membrane system for drinking water treatment E. Erdim, E. Soyer, S. Tasiyici and I. Koyuncu (Istanbul, Turkey) .....	165
Polyelectrolyte-modified polyethersulfone ultrafiltration membranes for wastewater treatment applications J. Kochan, T. Wintgens, J.E. Wong and T. Melin (Aachen, Germany) .....	175
Operation of MBR membrane modules used in a decentralised wastewater treatment plant: Field study and comparison of different cleaning strategies J. Stüber, C. Lüdicke, B. Lesjean, R. Gnirss and M. Kraume (Berlin, Germany).....	181
Optimum design of an RO membrane by using simulation techniques N. Afrasiabi, M. Ehteshami and R. Ardakanian (Tehran, Iran).....	189
Risk management approach for monitoring UF membrane integrity and experimental validation using MS2-phages A. Brehant, K. Glucina, I. Le Moigne and J.-M. Laine (Le Pecq, France).....	195
Natural and modified zeolite utilization in submerged membrane reactor for potable water treatment E. Soyer, E. Erdim, S. Tasiyici and I. Koyuncu (Istanbul, Turkey) .....	201
CFD modeling of unsteady fluid flow and mass transfer in spacer-filled membrane modules S.M.F. Hasani, M. Shakaib and M. Mahmood (Karachi, Pakistan).....	211
A statistical experimental design for the separation of zinc from aqueous solutions containing sodium chloride and <i>n</i> -butanol by micellar-enhanced ultrafiltration Sz. Kertész (Szeged, Hungary), J. Landaburu-Aguirre, V. García, E. Pongrácz (Oulu, Finland) and C. Hodúr (Szeged, Hungary) .....	221
Application and optimization in chromium-contaminated wastewater treatment of the reverse osmosis technology H. Mohammadi (Zanjan), M. Gholami and M. Rahimi (Tehran, Iran) .....	229
Characterization of nanoparticulate fouling and breakthrough during low-pressure membrane filtration P. Lipp, U. Müller, B. Hetzer and T. Wagner (Karlsruhe, Germany) .....	234
Effect of chemical preoxidation coupled with in-line coagulation as a pretreatment to ultrafiltration for algae fouling control H. Liang, W.-J. Gong, Z.-L. Chen, J.-Y. Tian, L. Qi and G.-B. Li (Harbin, China) .....	241
Indirect effects of membrane configuration on MBR sludge filterability A. Moreau (Delft, The Netherlands), G. Winkler (Cranfield, UK), J. van der Graaf (Delft, The Netherlands) and B. Jefferson (Cranfield, UK) .....	246

Use of advanced CFD tool to characterize hydrodynamic of commercial UF membrane module K. Glucina, Q. Derekx, C. Langlais and J.-M. Laine (Le Pecq, France) .....	253
Enhanced biological phosphorus removal in a novel sequencing membrane bioreactor with gravitational filtration (GFS-MBR) S. Xia , L. Jiang, H. Wang and Z. Zhang (Wuhan, China) .....	259
Process modeling of brackish and seawater nanofiltration J. Palmeri (Toulouse, France), N. Ben Amar (Tunis, Tunisia), H. Saidani (Tunis, Tunisia, and Montpellier, France ), A. Deratani (Montpellier, France).....	263
Removal of heavy metals from solution using biocompatible polymers S. Govender (Pretoria, South Africa, and Essen, Germany), W. Przybylowicz (Somerset West, South Africa) and P. Swart (Matieland, South Africa).....	272
Membrane hybrid processes for pretreatment before seawater reverse osmosis desalination C. Tansakul, S. Laborie and C. Cabassud (Toulouse, France) .....	279
Vacuum membrane distillation for an integrated seawater desalination process J.-P. Mericq, S. Laborie and C. Cabassud (Toulouse, France) .....	287
Erratum to "A long-term application of a pilot airlift membrane bioreactor for domestic wastewater treatment" [Desalination and Water Treatment, Volume 4 (2009) 212–217] F. Yang, Y. Wang (Sde Boker), A. Bick (Jerusalem and Ramat-Gan), A. Brenner (Beer Sheva), E. Ben-David (Rehovot) and G. Oron (Sde Boker, Beer Sheva and Haifa, Israel) .....	297
Erratum to "Brine recovery at industrial RO plants: Conceptual process design studies" [Desalination and Water Treatment, Volume 8 (2009) 54–67] R. Singh (Colorado Springs, CO, USA) .....	298
Erratum to "Pilot scale investigation of low pressure nanofiltration and reverse osmosis membrane techniques for the treatment of El-Salaam canal water, Sinai, Egypt" [Desalination and Water Treatment, Volume 8 (2009) 279–285] A. Hafez, M. Khedr, K. El-Khatib and H. Gadallah (Cairo, Egypt).....	299
Erratum to "Techno-economic study for integrated treatment plant of El-Salaam Canal water, Sinai, Egypt" [Desalination and Water Treatment, Volume 8 (2009) 286–293] A. Hafez, M. Khedr, K. El-Khatib and H. Gadallah (Cairo, Egypt).....	300
Author Index.....	301

