

Contents

Volume 35

Editorial	1
Application of membranes to treat wastewater for its recycling and reuse:	
new considerations to reduce fouling and increase recovery up to 99 percent	
A.G. Pervov and A.P. Andrianov (Moscow, Russia)	2
Towards sustainable desalination	
D.L. Owen (Ceredigion, UK).....	10
The scope to improve the efficiency of solar-powered reverse osmosis	
T.Y. Qiu and P.A. Davies (Birmingham, UK)	14
Processing of porous alumina substrate for multilayered ceramic filter	
F. Patel, M.A. Baig and T. Laoui (Dhahran, Saudi Arabia)	33
RO brine treatment and disposal methods	
N. Afrasiabi and E. Shahbazali (Tehran, Iran)	39
Nanofiltration of surface water for the removal of endocrine disruptors	
A.F. Salvaterra , G. Sarmento, M. Minhalma and M.N. de Pinho (Lisbon, Portugal).....	54
Optimization of coagulation step in membrane treatment of municipal secondary effluents	
A. Felder, R. Epsztein, N. Villensky and V.Gitis (Beer-Sheva, Israel)	62
Review of fouling by mixed feeds in membrane filtration applied to water purification	
X. Shi, R. Field and N. Hankins (Oxford, UK)	68
Flat sheet MBRs: analysis of TMP rise and surface mass transfer coefficient	
R.W. Field (Oxford, UK), K. Zhang (Xiamen, China), Z. Cui (Oxford, UK) and B.-K. Hwang (Asan, South Korea)	82
Investigation of a MBR membrane fouling model based on time series analysis	
system identification methods	
P. Paul (Middlesex, United Kingdom)	92
Comparative study between activated sludge versus membrane bioreactor for textile wastewater	
S. Lorena (Pasto, Nariño), C. Martí (Barcelona, Spain) and S. Roberto (Pasto, Nariño)	101
Comparison of phenomenological membrane bioreactor activated sludge biological models with alternative versions based on time series input-output approaches	
P. Paul (Middlesex, United Kingdom)	110
Laboratory investigation of using and fouling and cleaning of polyethersulfone membranes employed in the removal of carboxymethylcellulose and poly(vinyl alcohol) from aqueous solutions	
R.E. Belazzougui, S. Mimoune, F.O. Daoud, A Ouradi and A. Benaboura (Algiers, Algeria)	118
The practice of engineering and the idea of justice: concepts and challenges illustrated by the development of membrane desalination	
W.R. Bowen (Swansea, UK).....	125
Cycling batch vs continuous enrichment of endogenous nitrifiers in membrane bioreactors	
treating petrochemical wastewater	
S.Di Fabio (Verona, Italy), C. Cavinato (Venice, Italy), D. Bolzonella (Verona, Italy), G. Vecchiato (Venice, Italy) and F. Fatone (Verona, Italy)	131
Transmission of and fouling by long chain molecules during crossflow microfiltration of algal suspensions: influence of shear	
P. Pongpairoj, R. Field , Z. Cui (United Kingdom), F. Wicaksana and A.G. Fane (Singapore)	138

Effects of operating parameters on the removal performance of electrodialysis for treating wastewater containing cadmium G. Lee (Busan, Republic of Korea)	150
Removal of bromate and associated anions from water by Donnan dialysis with anion-exchange membrane S. Kliber and J.A. Wiśniewski (Wroclaw, Poland)	158
Application of membrane processes in drinking water treatment—state of art M. Bodzek, K. Konieczny and A. Kwiecińska (Gliwice, Poland).....	164
Laboratory operation of MBR and SBR models with selected inhibitors of nitrification A. Blšťáková, I. Bodík, S. Sedláček and M. Drtil (Bratislava, Slovak Republic).....	185
Dairy wastewater purification by vibratory shear enhanced processing S. Kertész, Z. László, E. Forgács, G. Szabó and C. Hodúr (Szeged, Hungary)	195
Ion conductivity of hybrid ion exchange membranes incorporating nanoparticles A.B. Yaroslavtsev, E.Yu. Safronova , A.A. Lysova , S.A. Novikova , I.A. Stenina (Moscow, Russia) and V.I. Volkov (Moscow reg., Russia)	202
Interaction between the electric and concentration fields in the fractionation of two macromolecules using a Hybrid Membrane Cell – CFD study S.I.S. Pinto, J.M. Miranda and J.B.L.M. de Campos (Porto Portugal).....	209
Study on operation of a microbial fuel cell using mesophilic anaerobic sludge K. Bélafi-Bako, B. Vajda and N. Nemestothy (Veszprém, Hungary)	222
Polishing of ceramic ultrafiltration membrane permeates by ion exchange A. Urbanowska and M. Kabsch-Korbutowicz (Wrocław, Poland)	227
The influence of membrane and water properties on fouling during ultrafiltration A. Płatkowska-Siwiec and M. Bodzek (Gliwice, Poland)	235
Comparative study on heavy metal removal from industrial effluents by various separation methods D. Németh (Veszprém, Hungary), J. Labidi, L. Gubicza and K. Bélafi-Bakó	242
Operation of MBR pilot plant—industrial wastewater treatment in Duslo Šal'a Inc. I. Bodík (Bratislava, Slovak Republic), D. Vilím (Praha, Czech Republic), A. Dornáková (Bratislava, Slovak Republic), P. Németh (Šal'a, Slovak Republic) and M. Buday (Bratislava, Slovak Republic)	247
Synthesis and CO ₂ sorption in poly(1-trimethylsilyl-1-propyne) and polyvinyltrimethylsilane containing ethylene oxide groups and N-butylimidazol-based “ionic liquids” groups Y.V. Kiryukhina, V.S. Khotimskiy, V.V. Tepliakov (Moscow, Russia), D. Roizard and D. Barth (Nancy, France)	255
Evaluation of separation characteristic of polysulfone membranes modified by polymer solvents etching C. Wojciechowski, A. Chwojnowski, K. Dudziński and E. Łukowska (Trojdena, Poland)	263
Concentration of Cornelian cherry fruit juice by membrane osmotic distillation K. Bélafi-Bakó and A. Boór (Veszprém, Hungary)	271
Simulation of a hybrid process involving extraction into ionic liquid impregnated microparticles and microfiltration M. Blahušiak and Š. Schlosser (Bratislava, Slovakia)	275
Modelling of a pervaporation membrane reactor during esterification reaction coupled with separation to produce ethyl acetate A. Hasanoğlu and S. Dinçer (İstanbul, Turkey).....	286
Adsorption and mobility of Cu (II), Cd (II), Pb (II) ions adsorbed on (hydr)oxide polymer sorbents M _x O _y · nH ₂ O, M = Zr (IV), Ti (IV), Sn (IV), Mn (IV) K. Kudelko, T. Maltseva and V. Bieliakov (Kiev)	295
Author Index.....	300