

Contents

Volume 128

*Selected papers presented at at the XII Scientific Conference
'Membranes and Membrane Processes in Environmental Protection' – MEMPEP 2018
13–16 June 2018, Zakopane, Poland*

The effect of unfavourable process conditions on the water desalination by membrane distillation M. Gryta (Poland)	1
The evaluation of 3D morphological structure of porous membranes based on a computer-aided analysis of their 2D images M. Przytulska, J.L. Kulikowski, M. Wasyleczko, A. Chwojnowski, D. Piętka (Poland)	11
Preparation and permeability of PVDF membranes functionalized with graphene oxide E. Tomczak, M. Blus (Poland)	20
Recovery of alpha-ketoglutaric acid from multi-component model solutions: impact of initial composition of dilute solution on the efficiency of the EDBM process M. Szczygiel'da, K. Prochaska (Poland)	27
Regeneration and long-term chemical stability of heterogeneous anion exchange membrane in perchloric acid E. Stránská, K. Weinertová, D. Neděla (Czech Republic)	34
Effective and selective Au(III) transport across plasticized membrane with resorcinarene derivatives C. Kozłowski, J. Kozłowska, M. Kołodziejska, I. Zawierucha (Poland)	39
The membrane composite scaffolds with antithrombotic features for adherent cells function sustention M. Antosiak-Iwańska, E. Godlewska, B. Kazimierczak, J. Kinasiiewicz, L. Granicka (Poland)	45
An environment-friendly multi-step membrane-based system to succinic acid recovery from the fermentation broth J. Antczak, M. Szczygiel'da, K. Prochaska (Poland)	51
Application of poly(ether-block-amide) membranes to gasoline desulfurization by pervaporation K. Konieczny, K. Rychlewska (Poland)	61
The application of nanofiltration in NaOH solution regeneration after ultrafiltration membrane cleaning A. Urbanowska, M. Kabsch-Korbutowicz (Poland)	70
The application of ultrafiltration composite GO/PAN membranes for removing dyes from textile wastewater B. Fryczkowska (Poland)	79
The application of membrane filtration for recovery of water from filtration bed backwashing stream E. Łaskawiec, M. Dudziak, J. Wyczarska-Kokot (Poland)	89
Integration of nanofiltration and reverse osmosis in desalination of mine water M. Bodzek, M. Rajca, M. Tytła, B. Tomaszevska (Poland)	96
Polyethersulfone ultrafiltration membranes modified with hybrid Ag/titanate nanotubes: physicochemical characteristics, antimicrobial properties and fouling resistance S. Mozia, M. Jose, P. Sienkiewicz, K. Szymański, D. Darowna, M. Zgrzebnicki, A. Markowska-Szczupak (Poland)	106
Two-level factorial experiments in the ultrafiltration of oil-water emulsions E. Tomczak, W. Kaminski, K. Cwirko (Poland)	119
The removal of chromium ions from water in Donnan dialysis process J.A. Wiśniewski, S. Szerzyna (Poland)	125
The possibility of the application of a potentiometric sensor with all-solid-state electrodes for the quality control of different natural waters W. Szpakowski, E. Brodnicka, M. Szpakowska (Poland)	133
The application of membrane extraction in the separation of zinc and cadmium ions E. Radzymińska-Lenarcik, K. Witt (Poland)	140

The recovery and the separation of metal ions from galvanic wastewaters K. Witt, E. Radzyminska-Lenarcik (Poland)	148
Reverse osmosis of ammonium and sodium salt solutions and its model description S. Koter (Poland), V.I. Foamete, M.A. Constantin (Romania), I. Koter (Poland)	155
A method for investigating transport properties of partly biodegradable spherical membranes using vitamin B ₁₂ as the marker M. Grzeczkowicz, D. Lewińska (Poland)	170
The concept of multivariant use of geothermal water concentrates B. Tomaszewska, M. Tyszer, M. Bodzek, M. Rajca (Poland)	179
The influence of the nanofiltration method on the retentate composition after simulated chromium tannery wastewater concentration P. Religa, B. Kaźmierczak, M. Wojtkowska, E. Rogoś (Poland)	187
The influence of temperature and pressure of the feed on physical and chemical parameters of the membrane made of PEBA copolymer M. Szwast, D. Polak, B. Marcjaniak (Poland)	193
Influence of MgO nanoparticles on the physiochemical, transport and antimicrobial properties of polyethersulfone membranes P. Sienkiewicz, D. Darowna, M. Jose, M. Zgrzebnicki, A. Markowska-Szczupak, S. Mozia (Poland)	199
The use of polymeric and ceramic ultrafiltration in biologically treated coke oven wastewater polishing K. Rychlewska, A. Kwiecińska, M. Kochel, J. Figa (Poland)	207
The use of ultrafiltration in enhancement of chemical coke oven wastewater treatment A. Kwiecińska, M. Kochel, K. Rychlewska, J. Figa (Poland)	214
Purification and concentration of surfactant solutions using tubular nanofiltration modules I. Kowalska, A. Klimonda (Poland)	222
The application of the radiotracer method for the investigation of the cake layer formation on the membrane surface in the cross-flow flat-sheet membrane module A. Miśkiewicz, G. Zakrzewska-Kołtuniewicz (Poland)	228
Biofouling phenomena on the ceramic microfiltration membranes – an experimental research M. Lech, A. Trusek (Poland)	236
The polyamide membranes functionalized by nanoparticles for biofouling control A. Kowalik-Klimczak, E. Stanisławek, J. Kacprzyńska-Gołacka, A. Bednarska, E. Osuch-Słomka, J. Skowroński (Poland)	243
Catalytic membrane with the recombinant catalase from psychrotolerant bacteria <i>Serratia</i> sp. in dairy applications K. Czyżewska, A. Trusek (Poland)	253
The evaluation of the effectiveness of lithium separation by hybrid capacitive deionization from geothermal water with the uncertainty measurement application A. Siekierka, E. Kmiecik, B. Tomaszewska, K. Wątor, M. Bryjak (Poland)	259
Investigation on polyethersulfone membranes modified with Fe ₃ O ₄ -trisodium citrate nanoparticles K. Szymański, P. Sienkiewicz, D. Darowna, M. Jose, K. Szymańska, S. Mozia (Poland)	265
The required membrane length in electrodialytic desalination of river water M. Turek, D. Gierzkiewicz, E. Laskowska, M. Słowik, K. Mitko, P. Dydo, D. Sąkol-Sikora, T. Stawiarz, W. Krzyżak (Poland)	272
All solid state electrodes taste sensor with modified polymer membranes for discrimination of mineral water with different CO ₂ content E. Marjańska, M. Szpakowska (Poland)	278
Fluoride removal from aqueous solutions with the use of electrodialysis with mono-valent permselective anion-exchange membranes M. Grzegorzek, K. Majewska-Nowak (Poland)	285
The assessment of changes in the membrane surface during the filtration of wastewater treatment plant effluent E. Kudlek, M. Dudziak (Poland)	298
Nanofiltration treatment of swimming pool water in the aspect of the phenolic micropollutants elimination A. Lempart, E. Kudlek, M. Dudziak (Poland)	306
The influence of the moisture content in gaseous CO ₂ /N ₂ mixture on selected parameters of CO ₂ separation in a capillary polymeric membrane G. Wiciak (Poland)	314

The application of <i>Saccharomyces cerevisiae</i> in the two-chamber microbial fuel cell A. Trusek, L. Janczewski, M. Halon (Poland)	324
The analysis of possibilities to increase the efficiency of the zero-emission combined cycle power plant with the membrane reactor M. Job, J. Kotowicz (Poland)	330
The influence of temperature of methane fermentation combined with pressure driven membrane techniques on treatment efficiency and toxicity of meat industry wastewater A. Kwarcia-Kozłowska, L. Sławik-Dembiczak, M. Gała-Widera, J. Bień (Poland)	341
Modification of PES ultrafiltration membranes for removal of caffeine M. Adamczak, G. Kamińska, J. Bohdziewicz (Poland)	351
Polymers enhancing ultrafiltration separation of Cd(II) ions I. Korus (Poland)	358
Reclamation of water from dairy wastewater using polymeric nanofiltration membranes A. Kowalik-Klimczak, E. Stanisławek (Poland)	364
Nanofiltration enhancing the mine water treatment M. Bodzek, M. Rajca, M. Tytla, K. Konieczny, B. Tomaszewska (Poland)	372
Polysulfone-polyurethane (PSf-PUR) blend partly degradable hollow fiber membranes: preparation, characterization and computer image analysis W. Sikorska, C. Wojciechowski, M. Przytulska, G. Rokicki, M. Wasyleczko, J.L. Kulikowski, A. Chwojnowski (Poland)	383
Biodegradation of wastewater components causing O&G deposits formation in sewers E. Łobos-Moysa (Poland)	392
The use of membrane processes for the removal of phosphorus from wastewater M. Smol (Poland)	397
New approach to the utilisation of concentrates obtained during geothermal water desalination B. Tomaszewska (Poland)	407
Concentration of mine saline water in high-efficiency hybrid RO-NF system E. Laskowska, M. Turek, K. Mitko, P. Dydo (Poland)	414
Multistage ultrafiltration treatment of brine from fish processing in the aspect of regeneration and reuse in the production cycle D. Szaniawska, U. Gabriel-Polrolniczak, M. Kramarczyk (Poland)	421
Investigation of MIEX® resin sedimentation in the aspect of particle sizes remaining in the supernatant M. Rajca, R.T. Bray, A. Sokołowska, E. Kulbat (Poland)	430
The use of coagulation and reverse osmosis for petroleum hydrocarbons removal from water J. Piekutin (Poland)	437
Protection of water resources for sustainable development T. Cichoń, J. Królikowska (Poland)	442
Author Index	450