

MEMTEK 2019

6th MEMTEK International Symposium on Membrane Technologies and Applications

Symposium Program

DAY 1: 18 November 2019-MONDAY / Venue: Swissotel The Bosphorus

08.00-09.00	Registration
09.00-10.00	Opening Session (HALL: FUJI 1)
10.00-10.30	Coffee Break
10.30-12.30	Plenary Session 1 (HALL: FUJI 1) Chair: Ahmad Fauzi Ismail
10.30-11.10	Rong Wang (Nanyang Technological University, Singapore) Development of Novel Membranes for Effective Water Reuse and Desalination
11.10-11.50	Noreddine Ghaffour (KAUST, Saudi Arabia) Energy-Efficient Innovative Desalination Technologies for Water Supply Sustainability
11.50-12.30	How Yong Ng (National University of Singapore, Singapore) Membrane Bioreactor Technology for Water Reuse
12.30-12.40	Group Photo
12.40-14.00	Lunch

SESSION 1			
14.00-16.00	HALL: FUJI 1	HALL: FUJI 2	HALL: LAUSANNE
	Membrane Bioreactors	Membrane Fabrication	Specific Pollutant Removal by Membrane Processes
	Chair: Jules van Lier	Chair: Rong Wang	Chair: Vedat Uyak
14.00-14.20	Study about reasonable design with rigid flat sheet membrane Takahiro Suzuki, Beliz Turcali, Diego Ayala (United Kingdom, 265)	In-depth study of polyamide/carbon nanotube thin film nanocomposite desalination membranes Aysa Guvensoy, Suer Kurklu Kocaoglu, Cansu Yildirim, Sadiye Velioglu, Huseyin Enis Karahan, Birgul Tantekin Ersolmaz (Turkey, 195)	Removal of endocrine disrupting chemicals (EDCs) from textile industry effluent by nanofiltration Ayse Dudu Allar Emek, Ceren Eropak Yilmazer, Suna Cinar, Onur Kiraz, Mehmet Emin Pasaoglu, Reyhan Sengur Tasdemir, Ozlem Karahan Ozgun, Ismail Koyuncu, Ercan Citil, Aybala Koc Orhon, Esra Siltu, Sibel Mine Gucver (Turkey, 272)
14.20-14.40	Investigation of energy and operation flexibility of membrane bioreactors by using benchmark simulation model Recep Kaan Dereli, Haolun Wu, Eoin Casey (Ireland, 266)	Development and evaluation of an antifouling coating for reverse osmosis membranes which can be applied in modules Soraya Laghmari, Patrick May, Mathias Ulbricht (Germany, 141)	Cleaning up emulsified oil spills in sea water: Assessing microfiltration as a remediation strategy Volodymyr V. Tarabara, Seyma Kucuk, Charifa Hejase, Iryna Kolesnik, Jia Wei Chew (United States, 256)
14.40-15.00	The effect of polymeric granule as mechanical cleaning technology on membrane fouling in a hybrid membrane photobioreactor (HMPBR) Mahsa Keyvan Hosseini, Farshid Pajoum Shariati, Parisa Keyvan Hosseini, Soroush Azizi, Ali Hashemi (Iran, 193)	Development of polyamideimide based positively charged nanofiltration membranes Ayse Metecan, Aydin Cihanoglu, Sacide Alsoy Altinkaya (Turkey, 218)	Removal of dicofol and irgarol from wastewater using reverse osmosis Nigmet Uzal, Nuray Ates, Ulku Yetis, Filiz B. Dilek (Turkey, 229)
15.00-15.20	Effect of influent C/N ratio and internal recirculation rate on the performance of an oxidation ditch type pre-anoxic landfill leachate MBR system Mucahid Cakirgoz, Alper Bayrakdar, Baris Calli (Turkey, 248)	Thin film nanocomposite (TFN) membranes containing functionalized zeolite nanoparticles for desalination with improved boron rejection Suer Kurklu Kocaoglu, Aysa Guvensoy, Cansu Yildirim, Leon Loni Berkel, Cigdem Atalay Oral, Ahmet Sirkecioglu, Begum Tokay, Serife Birgul Tantekin Ersolmaz (Turkey, 186)	Boron removal from water sources by using membrane technologies Bihter Zeytuncu, Bahriye Eryildiz, Ayse Yuksekdog, Sevde Korkut, Turker Turken, Mehmet Emin Pasaoglu, Recep Kaya, Anil Kazak, Mustafa Ceylan, Memis Ilker Unlu, Suleyman Un, Seyfullah Yilmaz, Abdurrahman Celiker, Ismail Koyuncu (Turkey, 304)
15.20-15.40	Treatability of medical laboratory wastewater by membrane bioreactor (MBR) Recep Partal, Selda Murat Hocaoglu, Elmas Eva Oktem Olgun, Oltan Canli, Nevzat Ozgu Yigit (Turkey, 237)	Natural antibiofoulant olea europaea impregnated cellulose acetate mixed matrix membranes for food processing Yusuf Wibisono, Nimatul Izza, Shinta Rosalia Dewi, Muhammad Roil Bilad, Wetra Yandi (Indonesia, 176)	Membrane techniques in river basin management plan Gokcen Gokdereli, Kemal Berk Orhon, Ozge Hande Sahtiyanci Ozdemir, Aylin Okuldas Cetin, Tugba Canan Oguz, Erdogan Aytekin, Deniz Yilmaz Asik, Secil Karabay, Burhan Fuat Cankaya, Taner Kimence, Yakup Karaaslan, Bilal Dikmen (Turkey, 252)
15.40-16.00	Pilot scale microalgae harvesting: Cross flow membrane vs. submerged membrane Hande Ermis, Ismail Koyuncu, Mahmut Altinbas (Turkey, 108)	Membrane fabrication using cellulose nanocrystal precipitation Ecem Volkan, Pinar Zeynep Culfaz Emecen (Turkey, 166)	Removal of microbial pollutants and micropollutants with reverse osmosis membranes from drinking water Cansu Batir, Ismail Koyuncu (Turkey, 298)
16.00-16.30	Coffee Break + Poster Session		

SESSION 2			
16.30-18.30	HALL: FUJI 1	HALL: FUJI 2	HALL: LAUSANNE
	Membrane Bioreactors	Membrane Fabrication	Resource Recovery Using Membrane Processes
	Chair: Sher Jamal Khan	Chair: Mohammad Mahdi A. Shirazi	Chair: Ali Kargari
16.30-16.50	High efficiency MBR modules developed recently in Turkey Turker Turken, Recep Kaya, Mehmet Emin Pasaoglu, İsmail Koyuncu (Turkey, 301)	Fabrication of PES MMMS with improve separation performances using two-dimensional rGO/ZIF-8 and MoS ₂ /ZIF-8 nanofillers Nur Hidayati Othman, Najihah Jamil, Nur Hashimah Alias, Fauziah Marpani, Munawar Zaman Shahrudin, Lau Woe Jye, Ahmad Fauzi Ismail (Malaysia, 151)	Recent membrane applications in sludge treatment and energy recovery Azize Ayol (Turkey, 214)
16.50-17.10	Quorum quenching specific genes screening among indigenous bacteria from full-scale membrane bioreactor and its application for biofouling control Sher Jamal Khan, Shabila Parveen, Talha Bin Umeed (Pakistan, 129)	Photoinduced thiol-yne click reactions for post modification of poly(oxindole biphenyl) membranes Mustafa Arslan, Bruno A. Pulido, Suzana P. Nunes, Yusuf Yagci (Turkey, 149)	Fabrication and characterization of nanocellulose based nanofiber pressure retarded osmosis membrane Mehmet Emin Pasaoglu, Ismail Koyuncu (Turkey, 300)
17.10-17.30	Control of biofilm thickness in membrane biofilm reactor via quorum quenching Banu Taskan, Halil Hasar (Turkey, 282)	Zwitterionic polysiloxane - polyamide hybrid network as an active layer for high-performance and chlorine-resistant TFC membranes Jalal-Al-Din Sharabati, Selda Erkoc Ilter, Serkan Guclu, Farzin Saffarimiandoab, Derya Imer, Serkan Unal, Yusuf Ziya Menceloglu, Izzet Ozturk, Ismail Koyuncu (Turkey, 302)	The effect of organic loading rate on performance of tubular membrane during volatile fatty acid extraction from anaerobic fermentation of citrus waste Lukitawesa Lukitawesa, Bahriye Eryildiz, Ria Millati, Ilona S Horvath, Mohammad J Taherzadeh (Sweden, 239)
17.30-17.50	Performance of a sulfate reducing fluidized bed membrane bioreactor (SR-FMBR) at medium and lower mesophilic temperatures (20 °C and 35 °C) Senem Teksoy Basaran, Guldenur Oztemur, Erkan Sahinkaya (Turkey, 125)	Effect of non-solvent additives to the casting solution on the structure and properties of polyethersulfone membranes Alexandr Victorovich Bilyukevich, Tatiana Alexandrovna Hliavitskaya (Belarus, 223)	Benchmarking industrial water purification systems with the aid of life cycle assessment Busra Burcu Yalamacilar, Nilay Elginoz, Fatos Germirli Babuna (Turkey, 244)
17.50-18.10	Effect of organic loading rate (OLR) on treatment and filtration performance in anaerobic membrane bioreactor (AnMBR) treating confectionery wastewater: Evaluation of membrane fouling Gokhan Balcioglu, Z. Beril Ozecelep (Turkey, 139)	Synthesis and characterization of nanocomposite ultrafiltration membranes modified with ZnO nanoparticles: effect of polymer type and casting solution composition Bahadir Mert Erdugan, Sakhavat Dadashov, Elif Demirel, Ender Suvaci (Turkey, 280)	Sericin recovery from silk wastewaters: Cost evaluation Tolga Pilevneli, Goksen Capar (Turkey, 228)
18.10-18.30	Analysis the impact of operational parameters in membrane biofouling of MBR processes Farid Alizad Oghyanous, Reza Yegani (Iran, 242)	Fabrication and performance of polyamide 6 electrospun nanofiber membrane (PA6-ENM) for biological treatment of wastewater containing acid red 18 Neda Adeli Ardabili, Mohammad Reza Alavi Moghaddam, Mohammad Karimi (Iran, 220)	The performance of a hybrid integrated forward osmosis (FO) and contact membrane distillation (CMD) processes to threat the olive mill effluents and recovery of some polyphenols Delia Teresa Sponza, Yudum Biyik (Turkey, 143)

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08.00-09.00	Registration		
SESSION 3			
09.00-11.00	HALL: FUJI 1	HALL: FUJI 2	HALL: LAUSANNE
	Membrane Bioreactors	Membrane Distillation, Pervaporation and Osmosis	Reuse and Concentrate Management
	Chair: Azize Ayol	Chair: Noreddine Ghaffour	Chair: Mehmet Kitis
09.00-09.20	Design of bio-degradation system by laccase-immobilized membranes and application of nano bubble for the membrane-enzyme reaction Soma Kitada, Ashkan Mokthor, Tomoya Nishioka, Tadashi Okobira (Japan, 171)	Influence of membrane properties on membrane distillation wetting in desalination Tianyi Zhang, Stéphanie Laborie, Corinne Cabassud (France, 120)	Grey water as a recent promising field for membrane scientists and engineers and as a probable market for the future Bilsen Beler Baykal (Turkey, 253)
09.20-09.40	Treatment of municipal wastewater by hollow fiber dynamic membrane bioreactors Onur Isik, Irem Orman, Amr Mustafa Abdelrahman, Mustafa Evren Ersahin, Hale Ozgun, Ibrahim Demir, Ismail Koyuncu (Turkey, 127)	Vacuum membrane distillation for specific concentration and purification applications Aamer Ali, Thomas Skovfoged Carlsen, Morten Lykegaard Christensen, Cejna Anna Quist Jensen (Denmark, 169)	Pilot scale feasibility of a domestic wastewater reuse system consisting ultrafiltration and reverse osmosis Recep Kaya, Turker Turken, Mehmet Emin Pasaoglu, Sevde Korkut, Ayse Yuksekdag, Ismail Koyuncu (Turkey, 303)
09.40-10.00	Self-forming dynamic membrane bioreactor for textile industry wastewater treatment Adem Yurtsever, Erkan Basaran, Deniz Ucar, Erkan Sahinkaya (Turkey, 140)	Application of sweeping-gas membrane distillation for bioethanol processing Mohammad Mahdi A. Shirazi, Ali Kargari (Iran, 159)	Recovery and reuse of water from concentrates of reverse osmosis units & effluent of cooling tower Koray Pullukcu, Mutlu Salt (Turkey, 208)
10.00-10.20	Investigation of electro-cleaning of membrane surface to control biofouling in dynamic membrane bioreactors (MBR) Bahar Ozbey Unal, Nadir Dizge, Bulent Keskinler, Ahmet Karagunduz (Turkey, 283)	CFD simulation of the temperature polarization in a direct contact membrane distillation (DCMD) process: Effects of feed and permeate side conditions Mohammadreza Momeni, Ali Kargari (Iran, 185)	Effect of halogen-based disinfectants on polyamide reverse osmosis (RO) membranes Enver Guler, Hilla Shemer, Raphael Semiat, Nalan Kabay, Mithat Yuksel (Turkey, 174)
10.20-10.40	Efficient treatment of domestic wastewaters by using a dynamic membrane bioreactor system Azize Ayol, Yasar Onur Demiral (Turkey, 215)	Preparation of composite membranes for pervaporation via dynamic technique Tatiana V Plisko, Alexandr V Bilyukevich, Katsiaryna S Burts, Guoqiang Li, Joanna Kujawa, Wojciech M Kujawski (Belarus, 227)	Recovery of wastewater and the valuable products from CIP solutions in dairy industry Cemre Gokce, Rukiye Mavus, Ekin Can Dolgun, Ece Asena Kaya, Huseyin Deligoz (Turkey, 152)
10.40-11.00	Comparison of different pore-sized membranes for the treatment of organized industrial zone wastewater in a laboratory scale membrane bioreactor Ibrahim Uyanik, Oktay Ozkan (Turkey, 165)	Some aspects of membrane phenomena in the Qur'an Abdulmonem Ali Elhassadi (Libya, 200)	
11.00-11.30	Coffee Break + Poster Session		

SESSION 4			
11.30-13.10	HALL: FUJI 1	HALL: FUJI 2	HALL: LAUSANNE
	Industrial Wastewater Treatment	Gas Separation	Membrane Fouling
	Chair: Izzet Ozturk	Chair: Birgul Tantekin Ersolmaz	Chair: Marek Bryjak
11.30-11.50	Treatment of 2nd Class Sanitary Landfill Facility Leachate in Turkey – Model of Istanbul- Fatih Çoker, Sibel Tokel, Aynur Kemirtlek, Aydın Baran, Mevlüt F. Peker (Turkey, 295)	Computational modelling of metal organic framework membranes for CO ₂ /CH ₄ separations Seda Keskin, Cigdem Altintas (Turkey, 199)	Monitoring of membrane fouling by means of surface charge analysis Gizem Akay, Christine Korner, Thomas Luxbacher (Turkey, 255)
11.50-12.10	Full scale sanitary landfill leachate treatment: Flat sheet vs hollow fiber Hamit Tolu, Hande Ermis, Erol Iren, Ismail Koyuncu, Mahmut Altinbas (Turkey, 299)	Mixed matrix membrane with divalent metal doped MOF-5: Characterization and permeation properties Hulya Aykac Ozen, Bahtiyar Ozturk (Turkey, 155)	Supporting module design, fabrication and operation to harness the benefits of HAOPs (heated aluminum oxide particles) for fouling control as a novel pretreatment in practical membrane-based water processes Tao Hua, Youngpil Chun, Aditya Anantharaman, Rong Wang (Singapore, 179)
12.10-12.30	New Kynar® PVDF material for highly durable fouling-resistant UF water membranes Francois Beaume, Takehiro Fukuyama, Walter Kosar, Gregory O'brien, Olivier Lorain (France, 106)	Design aspects and integration of the membrane reactors' system for carbon capture and hydrogen production process Secgin Karagoz (Turkey, 124)	Investigation of the factors affecting membrane fouling using data mining techniques Cagla Odabasi, Pelin Dologlu, Gizem Kusoglu (Turkey, 191)
12.30-12.50	Investigation of slaughterhouse wastewater treatment with newly designed membrane draft tube jet loop reactor (MDJLR) Burhanettin Farizoglu, Suleyman Uzuner, Baybars Ali Fil, Esmâ Sultan Ortaasyali (Turkey, 245)	Research progress of siloxane removal from biogas by membrane separation Yagmur Meltem Aydin Kizilkaya, Vedat Uyak (Turkey, 254)	RB5 dye removal using POM-based catalytic membrane contactor Ali Kemal Topaloglu, Yilmaz Yildirim, Mohammed Nasir Kajama, Aligoli Niaei (Turkey, 173)
12.50-13.10	Treatment of wastewater of Uşak region textile plants with a designed membrane process Menderes Levent, Huseyin Yagci (Turkey, 162)		Photocatalytic performance of NH ₂ -MIL125(Ti)/Polysulfone for methylene blue degradation from aqueous solution under dark, visible and UV light irradiation Abbas Ahmadi, Mohammad Hossein Sarrafzadeh, Maryam Mohamadi, Zeinab Mahdigholian (Iran, 270)
13.10-14.10	Lunch		

SESSION 5			
14.10-15.50	HALL: FUJI 1	HALL: FUJI 2	HALL: LAUSANNE
	Chair: Corinne Cabassud	Chair: How Yong Ng	Chair: Nalan Kabay
14.10-14.40	Keynote History of Membrane Treatment of Sanitary Landfill Leachate in Turkey <u>Izzet Ozturk</u> (Turkey)	Keynote Deoiling of saline emulsions: Understanding oil droplet behavior at membrane surface <u>Volodymyr Tarabara</u> (USA)	Keynote CapMix for Harvesting Energy in Salinity Gradient Case <u>Marek Bryjak</u> , Anna Siekierka, Katarzyna Smolinska Kempisty, Nalan Kabay (Poland)
14.40-14.50	Fabrication of cellulose ultrafiltration membranes via alkaline hydrolysis of cellulose acetate membranes Aygen Savas, Zeynep Culfaz Emecen (Turkey, 180)	Application of microfiltration process to olive mill wastewater pretreatment using Box-Behnken Statistical Design Method Ezgi Oktav Akdemir (Turkey, 135)	Pre-treatment of textile reverse osmosis (RO) concentrate stream Recep Partal, Irfan Basturk, Selda Murat Hocaoglu, Ahmet Baban, Mehtap Dursun, Mehmet Dilaver (Turkey, 236)
14.50-15.00	Recycling of precious materials by modified electrospun membranes Bihter Zeytuncu, Reyhan Sengur Tasdemir, Beril Tanc, Serdar Aktas, Ismail Koyuncu (Turkey, 305)	Effect of polymer type on the ionic membranes manufacture Aytekin Celik, Halil Hasar (Turkey, 230)	Effect of ultrasound pre-treatment on separation of lysozyme from liquid egg white Muhammed Yuceer (Turkey, 158)
15.00-15.10	Defect free hollow fiber reverse osmosis membranes by combining layer-by-layer and interfacial polymerization Turkan Ormanci Acar, Mehrdad Mohammadifakhr, Nieck Benes, Wiebe De Vos (Turkey, 286)	The effect of current/voltage on acid and base production from NH ₄ Cl-NaCl mixed salt solution by bipolar membrane electrodialysis Muhammed Rasit Oner, Osman Nuri Ata, Arzu Kanca (Turkey, 263)	Recovery and reuse of hot water and chemicals in textile sector with pilot scale ceramic membrane system Meltem Agtas, Ozgur Yilmaz, M. Dilaver, K. Alp, İsmail Koyuncu (Turkey, 297)
15.10-15.20	Co-polyimide thin film nanocomposite membranes for gas separation Cansu Yildirim, Melis Tok Simsek, Gulen Buyukolca, Seyma Asena Ozensoy, Birgul Tantekin Ersolmaz (Turkey, 235)	Effect of membrane type for removal and recovery of lithium and boron from aqueous solutions by bipolar membrane electrodialysis (BMED) Deniz Ipekci, Samuel Bunani, Esra Altiok, Nalan Kabay, Muserref Arda, Kazuharu Yoshizuka, Syouhei Nishihama (Turkey, 196)	Concentrated yogurt production using polymeric ultrafiltration membranes: Permeate and retentate properties Cemre Gokce, Rukiye Mavus, Aysegul Kilic, Huseyin Deligoz (Turkey, 153)
15.20-15.30	Outperforming functionality: Composite/mixed matrix porous materials in membrane-based processes Nazely Diban, Enver Guler, Nalan Kabay, Izumi Kumakiri, Inmaculada Ortiz, Aleksandra Pacula, Maria Jose Rivero, Ali Tuncel, Ane Urutiaga (Spain, 234)	Blue energy production by reverse electrodialysis (RED) system as a function of salinity gradient Orhan Kinali, Mine Eti, Soma Kitada, Enver Guler, Nalan Kabay, Marek Bryjak (Turkey, 167)	Membrane Technology Applications for the Recovery of Rare Earth Elements (REEs) From Waste Slime Originated From Anatolia Ayse Yuksekdog, Borte Kose Mutlu, A. F. Siddiqui, M. R. Wiesner, İsmail Koyuncu (Turkey, 294)
15.30-15.40	Cost analysis and selection of advanced water treatment methods for organic matter removal Ilkay Utku, Ismail Koyuncu (Turkey, 119)	Enhancing the water desalination by pervaporation process using UiO-66 incorporated sodium alginate mixed matrix membrane Derya Unlu (Turkey, 148)	Electrocoagulation and nanofiltration integrated process application in purification of pistachio processing wastewater Yasin Ozay, Zelal Isik, Nadir Dizge (Turkey, 177)
15.40-15.50	Selective heavy metal ion retention from aqueous solution by polymer supported membrane system; Cd-Ni case Muhammed Fatih Can, Fatma Arslan (Turkey, 181)	Pervaporative seawater desalination using Bentonite incorporated Polyethylene Block Amine (Peba1657) Membrane Filiz Ugur Nigiz, Aydan Ilkay Yucak (Turkey, 137)	Nutrient recovery from concentrated municipal wastewater by forward osmosis membrane and MgCl ₂ based draw solution Mohammad Damirchi, Ismail Koyuncu (Turkey, 306)
15.50-16.20	Coffee Break + Poster Session		

16.20-17.40	Plenary Session 2 (HALL: FUJI 1)
	Chair: Volodymyr Tarabara
16.20-17.00	Jules van Lier (Delft University of Technology, the Netherlands) Innovations in Anaerobic Membrane Bioreactor Technology
17.00-17.40	Ahmad Fauzi Ismail (Universiti Teknologi Malaysia, Malaysia) Membrane Technology for Desalination and Waste Water Treatment: State-of-the-art, Innovations and Challenges
17.40-18.10	Closing Session: Oral and Poster Presentation Awards
18.25	Bus Transport to Gala Dinner
20.00	Gala Dinner

DAY 3: 20 November 2019-WEDNESDAY / Venue: ITU MEM-TEK Research Center	
SPECIAL EVENT: 10th ANNIVERSARY OF MEM-TEK RESEARCH CENTER	
09.00-10.00	Welcome Reception
10.00-10.30	Opening Ceremony
10.30-12.30	Panel Discussion: The Journey of Membrane Technologies in Turkey: Role of MEM-TEK Research Center
12.30-13.30	Visit MEM-TEK Research Centre
	Technical Trips
13.00-18.00	Kömürçüoda Landfill Leachate Treatment Plant (MBR+NF) Ağva Municipal Wastewater Treatment Plant (MBR)
13.30-14.30	Farewell Reception

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List of Poster Presentations

Abstract Number	Authors	Title	Country
105	Ibrahim Uyanik, Oktay Ozkan	Batch Experiment Design for a Membrane Bioreactor Treating Organized Industrial Zone Wastewater	Turkey
107	Hande Ermis, Ismail Koyuncu, Mahmut Altinbas	Microalgae Harvesting by Microfiltration Membranes	Turkey
121	Petros Gkotsis, Manassis Mitrakas, Efrosini Peleka, Anastasios Zouboulis	Fouling mitigation in MBRs by controlled growth of filamentous microorganisms	Greece
123	Seçkin Karagoz	Process Intensification by Hybrid Membrane-Adsorptive Reactors' System in Power Generation Process	Turkey
128	Onur Isik, Riza Hudayarizka, Amr Mustafa Abdelrahman, Mustafa Evren Ersahin, Hale Ozgun, Ismail Koyuncu	Impact of High Operational Flux on the Performance of Dynamic Membrane Bioreactor	Turkey
131	Emine Nakilcioglu Tas	The Use of Membrane Separation Technology for the Recovery of Polyphenols from Olive Mill Wastewater	Turkey
138	Tuba Unugul, Aydan Ilkay Yucak, Filiz Ugur Nigiz	Solvent-free production of blend ENR/NBR membranes and investigation the separation characteristic for aromatic hydrocarbons from water	Turkey
142	Ezgi Cermikli, Fatma Sen, Esra Altiok, Piotr Cyganowski, Joanna Wolska, Marek Bryjak, Nalan Kabay, Muserref Arda, Mithat Yuksel	Application of Adsorption-Membrane Filtration Hybrid Process for Boron Removal from Geothermal Water Using Novel N-Methyl-D-Glucamine Type Chelating Resins	Turkey
144	Yakubu Abdullahi Jarma, Ezgi Cermikli, Deniz Ipekci, Esra Altiok, Muserref Arda, Nalan Kabay	Separation and Recovery of Boron and Lithium Coexisting in Water via Bipolar Membrane Electrodialysis (BMED)-Effect of Acid, Base and Electrode Solutions Employed	Turkey
150	Rumeysa Yavuz, Derya Unlu	Biodiesel Synthesis Using Novel Process Intensification Technology: "Catalytic Membrane Reactor"	Turkey
160	Sadia Tul Munna, P. Zeynep Culfaz Emecen, Akin Akdag	Synthesis of a novel polymer for antimicrobial membrane applications	Turkey
170	Emine Nakilcioglu Tas	Advantages of Using Membrane Separation Technology in the Food Processing Industry	Turkey

Abstract Number	Authors	Title	Country
175	Yasin Akgul, Mustafa Kurtulus, Ali Toptas, Ali Kilic, Onur Iskender Inankur, Kivanc Alay, Ali Demir	Centrifugal Spinning: A Novel Approach for Nanofibrous Blood Filtration Membranes	Turkey
178	Toprak Caglar, Pinar Zeynep Culfaz Emecen, Levent Yilmaz	Micellar Enhanced Ultrafiltration with Nonionic Surfactants	Turkey
194	Hadi Fakhri, Suleyman Ovez, Sevcan Aydin, Ilayda Dilara Unlu	Potential use of Eichhornia crassipes (water hyacinth) in the membrane bioreactor for prohibiting of antibiotic resistance development	Turkey
197	Orhan Kinali, Mine Eti, Soma Kitada, Enver Guler, Nalan Kabay, Marek Bryjak	Effect of Flow Velocity on Performance of Reverse Electrodialysis (RED) System for Harvesting Salinity Gradient Energy	Turkey
201	Fulya Yalcili, Arife Ozudogru, Yusuf Basaran, Yakup Karaaslan	Assessment of Drinking Water Resources and Treatment Plants in Turkey	Turkey
202	Cejna Anna Quist Jensen, Aamer Ali	Novel Membrane Technology for Produced Water Treatment	Denmark
203	Zeynep Bilici, Yasin Ozay, Ahmet Karagunduz, Bulent Keskinler, Nadir Dizge	Pilot-scale dual-stage ultrafiltration polymeric MBR and subsequent RO system for textile wastewater treatment and reusability of wastewater for dyeing process	Turkey
204	Aytac Perihan Akan, John Chau, Kamalesh K. Sirkar	Post-combustion CO ₂ capture and recovery via polypropylene membrane coated with fluorosiloxane in a membrane contactor and activated methyl-diethanolamine hybrid systems	Turkey
205	Niyazi Erdem Delikanli, Mehmet Kitis, Nevzat Ozgu Yigit	The Comparison of MBR Modules Performance on Treatment of Textile Wastewaters	Turkey
210	Zeynep Bilici, Yasin Ozay, Nadir Dizge	Investigation of Plastic Recycling Plant Wastewater Reusability using Membrane Process	Turkey
211	Ece Akbulut Atlan, Nurcan Bac, Erde Can	Development and Characterization of Poly (Arylene Ether Sulphone) – Zeolite Beta Based Polymer Electrolyte Membranes for Direct Methanol Fuel Cell (DMFC) Applications	Turkey
213	Niyazi Erdem Delikanli, Hasan Koseoglu, Nevzat Ozgu Yigit, Mehmet Kitis, Bilgehan Ilker Harman, Tugba Sardohan Koseoglu, Muhammed Talha Aydin	Competitive Heavy Metal Adsorption with Coated Ceramic Membrane	Turkey
219	Nigmet Uzal, Ozlem Ozcan, Seda Saki	Modification of commercial TFC RO membrane incorporated with zwitterionic L-DOPA and TiO ₂ nanoparticle	Turkey
222	Mert Yildirim, Zeki Candan	Using Possibilities of Renewable Nanocellulose in Membrane Technology	Turkey

Abstract Number	Authors	Title	Country
226	Tatiana V Plisko, Alexandr V Bilydukevich	Novel technique for polyacrylonitrile membrane preparation with enhanced antifouling performance	Belarus
231	Nigmet Uzal, Ayse Gul, Ozlem Ozcan, Erkan Sahinkaya	Recovery of Caustic from Mercerization Process Wastewaters using Membrane Processes	Turkey
243	Petros Gkotsis, Manassis Mitrakas, Efrosini Peleka, Anastasios Zouboulis	Fouling mitigation in MBRs by controlling the filamentous microorganisms growth: Influence of denitrification process	Greece
259	Zeynab Mahdigholian, Mohammad Hossein Sarrafzadeh, Abbas Ahmadi	A Review on Application of Ceramic Membrane in Photocatalytic Membrane Reactor(PMR) for Dye Removal: Modification, Mechanism and Challenges	Iran
261	Shakiba Samsami, Mohammad Hossein Sarrafzadeh, Maryam Mohammadi, Iman Moshiri Tabrizi	A Review of Membrane Fouling in Forward Osmosis Processes for Application in Wastewater Treatment	Iran
268	Iman Moshiri Tabrizi, Mohammad Hossein Sarrafzadeh, Rahmat Sotudeh Gharebagh	CFD- assisted design of dense effluent discharge systems	Iran
277	Yagmur Meltem Aydin Kizilkaya, Vedat Uyak	Electrodialysis Desalination of Crude Glycerol	Turkey
278	Nur Ozparlak, Nilay Baylan, Suheyla Cehreli	Equilibrium studies on the transport of carboxylic acids through bulk liquid membrane containing tributylamine	Turkey
279	Nur Ozparlak, Nilay Baylan, Suheyla Cehreli	Facilitated transport of formic acid through bulk liquid membrane using tributylamine as carrier	Turkey
288	Canan Onac, Hamza Korkmaz Alpoguz	Electro Membrane Extraction of Cr(VI) under Constant Current	Turkey
289	Shanthana Lakshmi, Yamini Sudha, Alberto Figoli, Ashok Khanna	Permeation studies of CO ₂ through ionic liquid loaded polymer microspheres (membrane)	Iraq
290	Sehnaz Sule Kaplan Bekaroglu, M. Kacikoc, Mehmet Kitis	Membrane Technologies for Removing Microplastics in Water and Wastewater Treatment	Turkey
292	Alonso Gonzalez Cabello, Mario Grageda Zegarra	Bipolar Membrane Electrodialysis for Production of Lithium Hydroxide from Concentrated Brines	Chile
293	Esra Eray, Vittorio Boffa, Mads K. Jørgensen, Giuliana Magnacca, Victor Candelario	Fabrication and Characterization of Silicon Carbide Membranes for Wastewater Treatment	Denmark
307	Gülây Özcan, Selin Hanife Eryürük , İlkey Özsev Yüksek, Pelin Altay, Raziye Atakan	Development of Boron Additive, Flame Retardant and Antibacterial Textile Surfaces from Cotton Textile Wastes	Turkey