



DAĞITIM YERLERİNE



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Sempozyum kapsamında yirmi dört ülkeden davetli konuşmacıları uluslararası seviyede sözlü sunum ve poster sunumları yapılacaktır.

MEMTEK 2023 membran teknolojileri konusunda ortaya çıkan gelişmeler ve gereksinimler hakkında bilgi alışverişinde bulunmak amacıyla araştırmacıları ve su sektörü uzmanlarını bir araya getirecektir.

Sempozyum programı ekte yer almakta olup detaylı bilgiye www.memtek2023.org web sayfasından ulaşabilirsiniz.

Bilgilerinizi rica ederim.

Saygılarımla,

e-imzalıdır

O. Fatih SOYSAL
Genel Sekreter

Ek : Memtek Program Listesi (11 Sayfa)

Dağıtım:

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1 st Day, October 17, 2023	
08.00-09.00	Registration
09.00-11.10	Opening Session
11.10-11.30	Coffee Break+Poster Session
11.30-13.00	Plenary Session 1 Chair Prof. Ismail KOYUNCU
11.30-12.00	Prof. Harsha RATNAWEERA (Norwegian University of Life Sciences, Norway) Development trends in digital tools in membrane processes
12.00-12.30	Prof. Izzet OZTURK (Istanbul Technical University, Türkiye) The Significance of membrane technologies on the management of sanitary landfill leachate
12.30-13.00	Prof. How Yong NG (National University of Singapore, Singapore) Development of vibrating membrane and quorum quenching technique for membrane fouling control in MBRs
13.00-13.15	Group Photo
13.15-14.15	Lunch+Poster Session

14.15-15.15	SESSION 1		
	Reuse and Concentrate Management Chair : Prof. Harsha RATNAWEERA Conference Hall	Ceramic Membranes Chair : Assoc. Prof. Chanhyuk PARK Senate Hall	Membrane Bioreactor Chair : Prof.Azize AYOL Seminar Hall
14.15-14.35	Post-treatment of high-rate activated sludge process effluent for irrigational use Hazal Gulhan, <u>Kadir Ozcelik</u> , Bahriye Eryildiz, Muhammed Nimet Hamidi, Ayse Yuksekdog, Ismail Koyuncu, Huseyin Guven, Mustafa Evren Ersahin, Hale Ozgun, Izzet Ozturk (Türkiye – 129)	Effect of calcination temperature in kaolin membranes structure <u>Atefeh Roozitalab</u> , Ali Kargari, Mansooreh Soleimani (Iran – 106)	Evaluating the performance of anaerobic membrane bioreactors and conventional systems with the LCA approach <u>Merve Yilmaz</u> , Ismail Koyuncu (Türkiye – 295)
14.35-14.55	Management of reverse osmosis concentrate of geothermal water by electrodialysis reversal method <u>Mustafa Burak Doganay</u> , Aseel Zaid, Esra Altioek, Aydın Cihanoğlu, Yakubu Abdullahi Jarma, Alper Baba, Nalan Kabay (Türkiye – 206)	Preparation of ceramic membranes from spherical coal fly ash and alumina nanofibers with conductive carbon coating <u>Ilya Ryzhkov</u> , Natalya Fadeeva, Ivan Kharchenko, Galina Akimochkina, Elena Fomenko (Russia – 298)	Investigation of innovative hybrid membrane bioreactor (If-Mbr) treatment technology for domestic wastewater <u>Elif Ceren Esen</u> , Muhammed Ahmet Demirbilekli, Turker Turken, Ismail Koyuncu (Türkiye-254)
14.55-15.15	Inland desalination brine reuse implementing duckweed, fish and halophytes growth for food production and improved environmental control <u>Gideon Oron</u> , Samuel Appelbaum, Ofer Guy (Israel – 152)	Synthesis ceramic membrane using fly ash and clay with the addition of sawdust to neutralize of peat water <u>Ildal Amri</u> , Zuqni Meldha, Muhammad Dandy Tito Angkoso, Yosia Jumaga, Nirwana Hamzah (Indonesia- 145)	Evaluation of conventional and innovative immobilization bead applications in Quorum Quenching membrane bioreactors Semanur Korkusuz, Rabia Ardic, Merve Yilmaz, <u>Borte Kose Mutlu</u> , Ismail Koyuncu (Türkiye-251)
15.15-15.45	Coffee Break+Poster Session		

15.45-17.45	SESSION 2		
	Membrane Fabrication Chair : Prof. Mihail BARBOIU Conference Hall	Dynamic Membrane Technology Chair : Assoc. Prof. Mustafa Evren ERSAHIN Senate Hall	Innovative Membrane Processes Chair : Prof. Gideon ORON Seminar Hall
15.45-16.05	Membrane preparation with TEMPO-CNC suspensions via crossflow membrane filtration <u>Berk Can Icten</u> , Emre Bukusoglu, Pinar Zeynep Culfaz Emecen (Türkiye – 230)	Pre-deposition of activated sludge on a steel mesh supported dynamic membrane filtration reactor <u>Ibrahim Uyanik</u> , Emine Busra Colakoglu, Adem Yurtsever, Hamdi Mihciokur, Erkan Sahinkaya (Türkiye – 86)	APTES-functionalized WO ₃ as potential filler for Nafion to improve Hydrogen-Air fuel cell performance: Influence of membrane structure <u>Asmaa Selim</u> , Andras Tompos (Hungary – 296)
16.05-16.25	Zinc oxide blended polymeric membranes <u>Evrin Celik Madenli</u> , Fulya Sen, Ahmet Ercin, Dilara Kesiktaş, Halil Kandemir (Türkiye – 112)	Short and long-term NaOCl effect on the layer stability and viscoelastic properties of multilayered films <u>Goknur Donmez</u> , Aleyna Nur Basey, Hacer Yesim Cengiz, Ayca Muftuler, Fehime Nur Akyel, Eymen Konyali, Huseyin Deligoz (Türkiye-282)	Combined microfiltration-oxidation for treatment of per- and polyfluoroalkyl substances in wastewater <u>Fanjing Meng</u> , Philip Lein, Agnieszka Cuprys, Harsha Ratnaweera, Zakhar Maletskyi (Norway – 147)
16.25-16.45	High flux cellulose acetate desalination membranes modified by zwitterionic hybrid compounds <u>Selda Erkoc Ilter</u> (Türkiye – 121)	Innovative membrane with recovered carbon black (rCB) <u>Tugce Akca</u> , Gulmire Ilyasoglu, Ayse Yuksekdog, Borte Kose Mutlu, Ismail Koyuncu (Türkiye-257)	Post-treatment of biologically treated landfill leachate (LFL) using magnetic chitosan clay beads with adsorption process <u>Irem Ayranpinar</u> , Serdar Göcer, Melike Kozak, Ahmet Duyar, Kevser Cirik (Türkiye – 170)

16.45-17.05	Carbon molecular sieve membranes with integrally skinned asymmetric structure for organic solvent nanofiltration (OSN) and organic solvent reverse osmosis (OSRO) <u>Mahmoud Atef Abdulhamid</u> (Saudi Arabia – 89)	Quorum quenching (QQ) enzyme effects on biofilm formation on biocatalytic membranes <u>Enise Pekgenc</u> , Elif Ceren Esen, Bahar Yavuzturk Gul, Ismail Koyuncu (Türkiye-237)	Removal of Micropollutants in Municipal Wastewater using TiO ₂ -Diatomite Composite under UVC Irradiation <u>Selda Murat Hocaoglu</u> , Aida Isma Mohamad Idris, Irfan Basturk, Recep Partal, Elmas Eva Oktem Olgun (Türkiye- 187)
17.05-17.25	Functionalized carbon nanotube embedded thin film nanocomposite membranes for simultaneous desalination and boron removal Suer Kurklu Kocaoglu, <u>Aysa Guvensoy Morkoyun</u> , Cansu Yıldırım, Sadiye Velioglu, S. Birgul Tantekin Ersolmaz (Türkiye- 193)	Synthesis of polyepichlorohydrin based anion exchange membranes for renewable energy harvesting by reverse electrodialysis: Effect of crosslinking degree <u>Aydin Cihanoglu</u> , Enver Güler, Nalan Kabay (Türkiye- 293)	Membrane module integrated with atmospheric cold plasma reactor for the degradation of Perfluoroalkyl substances in aqueous environment <u>Kubra Ulucan Altuntas</u> , Enrico Filippetto, Mubbshir Saleem, Giulia Tomei, Ester Marotta, Cristina Paradisi (Türkiye- 312)
17.25-17.45	Evaluate the Impact of Integrated 3D Printed Spacers into a Cross-Flow Module on Improving Ultrafiltration Fouling Mitigation <u>Aws N. Al Tayawi</u> , Tamás Szabó, József Richárd Lennert, Szabolcs Kertész (Iraq-287)	Operational Performance and Filtration Capacity of Self-Forming Dy-namic Membrane Bioreactor (SFDM) System Equipped with Textile Fabric for High-Strength Wastewater Treatment <u>Azize Ayol</u> , Yasar Onur Demiral (Türkiye- 140)	Water quality and resilience of decentralised renewable energy powered membrane filtration system <u>Andrea Iris Schäfer</u> , Youssef Amine Boussouga, Bryce Sydney Richards (Germany-309)

2nd Day, October 18, 2023

08.00-09.00

Registration

09.00-10.20

SESSION 3

Forward Osmosis
Chair : Prof. Vedat UYAK
Conference Hall

Membrane Fabrication
Chair : Prof. Ahmet KARAGUNDUZ
Senate Hall

Industrial Wastewater Treatment
Chair : Assoc. Prof. Kubra ULUCAN
ALTUNTAS
Seminar Hall

09.00-09.20

Selection of suitable draw solution for anaerobic osmotic membrane bioreactor using AHP analysis method
Ilknur Yalcin Guney, Sumeyye Hasanoglu, Coskun Aydin, Ilda Vergili, Zeren Beril Gonder, Gulsum Yilmaz, Yasemin Kaya (Türkiye - 102)

Clinoptilolite zeolite modified with different plasma gas pressures as a hydrophilic additive in fabrication of PES membrane for wastewater treatment
Nazanin Nasrollahi, Vahid Vatanpour, Mahdie Safarpour, Maryam Yousefpour, Ismail Koyuncu (Iran- 97)

Impact of draw solution (DS) concentration on the performance of anaerobic osmotic membrane bioreactors (AnOMBR) for slaughterhouse wastewater treatment
Sumeyye Hasanoglu, Ilknur Yalcin Guney, Gulsum Yilmaz, Yasemin Kaya, Coskun Aydin, Ilda Vergili, Zeren Beril Gonder (Türkiye - 103)

09.20-09.40

ZIF-67 enabled ultrasselective polyamide membrane for desalination and boron removal
Suer Kurklu Kocaoglu, Benny D. Freeman, S. Birgül Tanteekin Ersolmaz (Türkiye - 207)

Production of superhydrophobic membrane from waste biomass for water-oil separation :
Example of spent coffee grounds
Yagmur Meltem Aydin Kizilkaya, Gorkem Gedik , Vedat Uyak (Türkiye-258)

A novel, dual-layer nanofiber membrane for industrial textile wastewater treatment by direct contact membrane distillation
Mohammad Mahdi A. Shirazi, Saeed Bazgir, Fereshteh Meshkani (Iran- 111)

09.40-10.00		Fate of nanomaterials in the fabrication of polymeric membranes for water and wastewater treatment <u>Vahid Vatanpour</u> (Türkiye- 157)	Can the RO concentrates from process water preparation units of industries be directly reused? <u>Mehmet Kitis</u>, Nevzat Ozgu Yigit, Emrah Ozturk, Hasan Koseoglu, Bilgehan Ilker Harman, Sehnaz Sule Kaplan Bekaroglu, Evrim Celik Madenli (Türkiye- 85)
10.00-10.20		Removal of pharmaceutical by MOF doped UF membrane <u>Gulmire Ilyasoglu</u>, Ismail Koyuncu (Türkiye-250)	
10.20-10.50	Coffee Break+Poster Session		
10.50-11.50	Plenary Session 2 Chair Prof.Bulent KESKINLER		
10.50-11.20	Prof. Volodymyr V. TARABARA (Michigan State University, USA) Virus removal in water treatment systems: The role of virus adhesion		
11.20-11.50	Prof. Mihail BARBOIU (Institut Européen des Membranes, University of Montpellier, France) Artificial water channels-toward biomimetic membranes for desalination		
11.50-13.00	Lunch+Poster Session		

13.00-15.00	SESSION 4		
	Resource Recovery Using Membrane Processes Chair : Prof. Volodymyr V. TARABARA Conference Hall	Membrane Fabrication Chair : Prof. Vahid VATANPOUR Senate Hall	Modelling of Membrane Processes Chair : Prof. Mehmet KITIS Seminar Hall
13.00-13.20	Appropriate roof selection in rainwater harvesting for irrigation purposes Muhammed Nimet Hamidi, <u>Shayan Shitreh</u> , Ali Izzet Cengiz, Kadir Ozcelik, Bahriye Eryildiz, Omer Ekmekcioglu, Mehmet Cuneyd Demirel, Berk Canberk, Onur Isik, Ismail Koyuncu, Huseyin Guven, Hale Ozgun, Mustafa Evren Ersahin (Türkiye-286)	Effect of non-woven layer on thin film composite (TFC) reverse osmosis (RO) membrane performance <u>Sevde Korkut</u> , Ayse Yuksekdog, Ismail Koyuncu (Türkiye-256)	Computational modeling of porous membranes for gas separations <u>Seda Keskin Avcı</u> (Türkiye-263)
13.20-13.40	Quercetin recovery with ceramic membranes Evrin Celik Madenli, <u>Dilara Kesiktas</u> , Halil Kandemir, Mehmet Kitis (Türkiye - 114)	Impact of the temperature and humidity in the fabrication of nanofiber membrane on hollow-braided rope <u>Hamza Bakar</u> , Muhammed Furkan Aras, Mehmet Emin Pasaoglu, Ismail Koyuncu (Türkiye-259)	Dynamic modelling of a leachate treatment plant with membrane bioreactor process <u>Cansu Delibas</u> , Hazal Gulhan, Izzet Ozturk (Türkiye - 133)
13.40-14.00	Performance of polymer inclusion membranes on gold adsorption <u>Basak Keskin</u> , Bihter Zeytuncu, Ismail Koyuncu (Türkiye - 243)	Synthesizing and process electrospun polyacrylic acid (PAAc)/hexadecyl acrylate (HDA) hydrogel nanofiber and its application in emerging contaminant as a novel adsorption <u>Gulmire Ilyasoglu</u> , Turdimuhammet Abdulla, Ismail Koyuncu, Oguz Okay (Türkiye- 302)	Explaining organic solvent permeation through cellulose membranes of distinct morphologies <u>Ilker Kaygusuz</u> , Pınar Zeynep Culfaz Emecen (Türkiye - 225)

14.00-14.20	Metal recovery from secondary sources by using green solvents <u>Gizem Tuncay</u> , Ayse Yuksekdog, Borte Kose Mutlu, Ismail Koyuncu (Türkiye- 255)	Sudden development and applications of silicon carbide membranes for liquid filtration Farshid Bandi, Erdem Görgün, <u>Osman Ayalp</u> (Türkiye - 305)	Variability in nitrogen removal performance of a full-scale MBR plant operated under biomass induced kinetic limitation <u>Eda Aktan</u> , Goksin Ozyildiz, Elvan Bulutoglu, Zeynep Ece Kayas, Tuncay Yilmazcelik, Güclü Insel (Türkiye- 290)
14.20-14.40	A high-performance polydopamine coated polysulfone based ultrafiltration membrane: Application in the concentration of whey proteins <u>Ecem Onuk</u> , Elif Güngörmüş, Aydın Cihanoğlu, Sacide Alsoy Altinkaya (Türkiye- 179)	Purification and characterization of Aquaporin from thermophilic Geobacillus thermoleovorans ARTR1 using cell-free protein synthesis system <u>Kadircan Civelek</u> , Hande Mumcu, Enise Pekgenc, Nevin Gul Karaguler, Esra Ates Genceli, İsmail Koyuncu (Türkiye- 189)	Aquaporin-inspired functionalization of carbon nanotubes: Computational and experimental assessment of their desalination performance <u>Aysa Güvensoy Morkoyun</u> , Sadiye Velioglu, M. Goktug Ahunbay, S. Birgul Tantekin Ersolmaz (Türkiye- 218)
14.40-15.00	Ideal Bipolar Membrane Manufacture via catalyst and different solvents for BMED System Applications <u>Aytekin Celik</u> , Halil Hasar (Türkiye- 139)	Synthesis of Silica-Graphene Oxide Doped Membranes for Dye Removal from Aqueous Solutions via Polymer-Assisted Approach <u>Utkan Cinar</u> , Edanur Gebecik, Elif Demirel (Türkiye- 107)	Enhancing gas separation performance of poly (ether-block-amide) membranes by molecular rearrangement: a molecular simulation study <u>Foad Monemian Esfahani</u> , Ali Kargari (Iran- 156)
15.00-15.20		A Study on Mono- and Divalent Cation Separation Using Various Polymeric Films and Membranes <u>Hacer Yesim Cengiz</u> , Ayca Muftuler, Serkan Acar, Eymen Konyali, Hüseyin Deligoz (Türkiye - 289)	Effect of module geometry on the performance of Direct Contact Membrane Distillation (DCMD) in hollow fiber modules <u>Mohammadreza Momeni</u> , Ali Kargari, Mitra Dadvar, Arezou Jafari (Iran- 192)
15.00-15.30	Coffee Break+Poster Session		

15.30-17.30	SESSION 5		
	Resource Recovery Using Membrane Processes Chair : Prof. Izzet OZTURK Conference Hall	Gas Separation Chair : Assoc. Prof. Evrim Celik MADENLI Senate Hall	Industrial Wastewater Treatment Chair : Assoc. Prof. Hale OZGUN Seminar Hall
15.30-15.50	Separation of drugs of the caine family from wastewaters using commercial nanofiltration membranes <u>Tamás Szabó</u> , Péter Gyenes, Máté Sütő, Alberto Tiraferri (Hungary- 88)	Revealing membrane-based H ₂ /CO ₂ separation performances of MXene family via molecular simulations <u>Sirin Massoumilari</u> , Melih Dogancı, Sadiye Velioglu (Türkiye – 175)	Examination of the Quorum Quenching mechanism in membrane bioreactors for the treatment of industrial wastewater <u>Rabia Ardic</u> , Semanur Korkusuz, Merve Yilmaz, Borte Kose Mutlu, Ismail Koyuncu (Türkiye-253)
15.50-16.10	Membrane treatment for water recycling and resource recovery in a textile district <u>Francesca Tuci</u> , Michele Allocca, Donatella Fibbi, Riccardo Gori (Italy – 165)	Novel high-free volume polymeric membranes for separation of CO ₂ from natural gas <u>Sadiye Velioglu</u> , Tugba Baysal, Aysa Güvensoy Morkoyun, Goktug Ahunbay, Serife Birgul Tantekin Ersolmaz, D. Bezgin, Victoria Ryzhikh, A. Kuznetsov (Türkiye – 191)	Occurrence and toxic impact of antiviral drugs <u>Bahriye Eryildiz</u> , Bahar Yavuzturk Gul, Ece Polat, Ismail Koyuncu (Türkiye – 242)
16.10-16.30	Electro-baromembrane separation of ions with the same charge: experiment and modeling <u>Victor Nikonenko</u> , Dmitrii Butylskii, Semyon Mareev, Andrey Kislyi, Vasiliy Troitskiy (Russia-245)	The effect of number of metal layer in Mxene membranes on CO ₂ /CH ₄ separation performances <u>Eyup Yazkan</u> , Sadiye Velioglu (Türkiye – 197)	Efficient removal of water from oily aqueous mixtures by vacuum filtration using bacterial cellulose membranes <u>Aslihan Calhan</u> , Ayca Hasanoglu, Ilknur Kucuk, Oguzhan Gunduz (Türkiye -276)
16.30-16.50	Promising ways to improve the efficiency of electrodialysis recovery of phosphates from wastewater <u>Natalia Pismenskaya</u> , Olesya Rybalkina, Kseniya Solonchenko (Russia-246)	Deoxygenation of alkanolamine CO ₂ solvents using composite membranes in gas- liquid membrane contactor <u>Stepan Bazhenov</u> , Sergey Shirokikh, Denis Kalmykov, Petr Safronov, Alexey Yushkin, Tatiana Anokhina (Russia-264)	Steroid hormone micropollutant removal by single-walled carbon nanotubes incorporated in nanofiber-ultrafiltration composite membranes <u>Han Ya Lin</u> , Minh Nhat Nguyen, Rabia Ardic, Ismail Koyuncu, Andrea Iris Schäfer (Germany- 306)

16.50-17.10	Resource Recovery in Anaerobic Microfiltration Osmotic Membrane Bioreactors D. Akyildiz1, S. Hasanoglu1, I. Yalcin Guney1, M.N. Ciner1, Y. Kaya1, G. Yilmaz1, Z.B. Gönder1, C. Aydiner2, I. Vergili1 (Türkiye – 104)	Molecular design of poly (ether-block-amide) copolymers for gas separation <u>Foad Monemian</u> , Ali Kargari (Iran -115)	Investigation of a real industrial zone wastewater treatment with JLMBR system <u>Suleyman Uzuner</u> , Behice Yagmur Aydin, Burhanettin Farizoglu (Türkiye-261)
17.10-17.30	Membrane filtration of soft drink wastewater for reuse in cooling tower <u>Goksen Capar</u> , Mustafa Caglar Gürbüz (Türkiye - 236)	Separating nitrogen from vapor phase ethanol/isopropanol mixture by mixed matrix membranes <u>Fatma Sahin</u> , Halil Kalipcilar (Türkiye- 205)	
17.30-17.50		Thin film composite/nanocomposite membranes for helium recovery and purification Cansu Yıldırım, Melis Tok Simsek, <u>Birgül Tantekin Ersolmaz</u> (Türkiye - 221)	
17.50-18.30	Closing Session Oral and Poster Presentation Awards		
18.45	Bus Transport to Gala Dinner		
19.00	Gala Dinner		

3rd Day, October 19, 2023

10.00-17.00

Technical Visit:

1. Komurcuoda Landfill Leachate Treatment Plant (MBR+NF)
2. Agva Municipal Wastewater Treatment Plant (MBR)