

Wednesday, December 4th, 2024

08:30	Opening Session - Brüsselsaal - Chair: Matthias Wessling, RWTH Aachen University	08:30
08:45	Opening - Matthias Wessling , AVT.CVT, RWTH Aachen University & DWI - Leibniz Institute for Interactive Materials	08:45
09:30	Keynote I - MTR's Experience Bringing Carbon Capture Membranes to Commercial-Scale Tim Merkel , Membrane Technology and Research, Inc.	09:30
10:00	Industry Pitches	10:00
	Coffee break	

10:15	Energy applications - Brüsselsaal - Chair: Tobias Harhues, RWTH Aachen University	Water treatment I - K1 - Chair: Hannah Roth, University of Twente	10:15
11:00	Poster Pitches: Electrodialysis, Energy applications, Process engineering, Gas and vapor separation	Poster Pitches: Water treatment, Membranes, Health, Biotechnology	11:00
11:30	Systematic material design and development for polymer electrolyte fuel cells and anion exchange membrane water electrolysis <u>Takeo Yamaguchi</u> , Tokyo Institute of Technology	New rules and challenges in the water sector - what's in for membranes? <u>Thomas Wintgens</u> ISA, RWTH Aachen University	11:30
12:00	Polymer-composite membranes as porous thin-film electrodes for electrochemical applications <u>Lukas Fischer</u> Technical Chemistry, Universität Duisburg Essen	Polymer membrane modification using electron beam irradiation for the removal of endocrine disruptors from water <u>Zarah Niavarani</u> , IOM Leipzig	12:00
12:30	Prediction of Conductivity vs. Selectivity Trends for Membranes Using Non-Equilibrium Ab Initio Molecular Dynamics <u>Abhishek Khetan</u> , MODES, RWTH Aachen University	Introducing powdered activated carbon counter flow to an inline dosing membrane hybrid process – impacts on membrane performance <u>Max Zimmermann</u> , ISA, RWTH Aachen University	12:30
Lunch			

13:30	<p>Water treatment II - Brüsselsaal - Chair: Stefan Herrmann, University of Twente</p> <p>Polyelectrolyte based Nanofiltration Membranes, Made to Order <i>Wiebe de Vos</i> Membrane Science and Technology, University of Twente</p>	<p>Process engineering - K1 - Chair: Matthias Heßelmann, RWTH Aachen University</p> <p>From colour removal to efficient total solutions <i>Henk Koops</i> NX filtration</p>	13:30	
14:00	<p>Composite hollow fiber nanofiltration membranes via chemistry in a spinneret <i>Hannah Roth</i> Membrane Science and Technology, University of Twente</p>	<p>Microsieve bulk filtration (an update) <i>Franz Liebermann</i> Microsieve Technologies</p>	14:00	
14:30	<p>Early scaling detection in conventional plug flow and upcoming closed-circuit reverse osmosis for antiscalant-free operation <i>Martin Futterlieb</i>, Mechanical Process Engineering, Universität Duisburg Essen</p>	<p>Recent and potential use of membrane contactors for the hydrogen industry <i>Norbert Selzer</i> Solventum</p>	14:30	
15:00	<p>Coffee break and Poster session sponsored by  PENTAIR</p>			15:00

16:30	Desalination I - Brusselsadl - Chair: Kerstin Brokelmann, RWTH Aachen University Electromembrane technologies for sustainable chemical industry: technology ranking and industrial perspectives <u>Michele Tedesco</u> , TNO	Health - KT - Chair: Lukas Hirschwald, RWTH Aachen University Blood purification beyond Low- and High Flux membranes for ESRD patients <u>Bernd Krause</u> Baxter	16:30
17:00	Project RIKovery – Recycling of Industrial Saline Waters through Ion Separation, Concentration and Intelligent Monitoring <u>Yuliya Schiesser</u> , Covestro	Polymer Membrane Surface Functionalization with Proteins and Enzymes by Electron Beam Irradiation <u>Martin Schmidt</u> IOM Leipzig	17:00
17:30	Partial Desalination with the Membrane Capacitive Deionisation for Monovalent Ions <u>Hanna Rosentrefer</u> TU Dresden	Hexagonal Membrane Bundle Design: A Novel Approach to Combined Lung and Kidney Support for Preterm Neonates <u>Danny van Galen</u> , University of Twente	17:30
19:00	Conference Dinner		19:00

The conference on industrial applications of membrane technology

Conference program

Thursday, December 5th, 2024

09:15	Plenary Session - Brüsselsaal - Chair: Matthias Wessling, RWTH Aachen University		09:15
	Keynote II - Membrane reactors for chemical production <u>Fausto Gallucci</u> , Eindhoven University of Technology		
10:00	Keynote III - How Charged Membranes Recover Lithium: Separation of Ionic Mixtures <u>Kerstin Brökelmann</u> , AVT.CVT - RWTH Aachen University		10:00
10:45	Coffee break		10:45
11:00	Gas and vapor separation - Brüsselsaal - Chair: Jens Potreck, Pentair Design of high-performance gas separation membranes: From research to translation and commercialization <u>Ingo Pinnau</u> King Abdullah University of Science and Technology	Membranes I - K1 - Chair: Rhea Verbeke, KU Leuven Reactive coating of desalination membranes in spiral-wound modules: Increasing antifouling properties and potentially enabling "second life" applications <u>Mathias Ulbricht</u> , Universität Duisburg-Essen	11:00
11:30	Industrial adaptation of polymeric membranes in humid high H₂S natural gas feed streams <u>Thijs Peters</u> Sintef	Development of Surface-Patterned RO Membranes with Pronounced Regular Microstructures and Their Anti-Scaling Performance in Feed Spacer-filled channels <u>Maharshi Patel</u> , Universität Duisburg-Essen	11:30
12:00	High throughput Simulation (HTS) of gas separation processes and the application of AI <u>Peter Kreis</u> Evonik	Scale-Up of Carbon Molecular Sieve Membranes Based on Polymers of Intrinsic Microporosity Precursors <u>Wojciech Ogieglo</u> King Abdullah University for Science and Technology	12:00
12:30	Lunch		12:30
13:30	EU Projects I - Brüsselsaal - Chair: Felix Stockmeier, Evonik Development of a ceramic membrane-based process to re-refine used lubricant oil <u>Anita Buekenhoudt</u> vito	Membranes II - K1 - Chair: Maria Restrepo, RWTH Aachen University Epoxide-based membranes: an emerging platform for liquid and gas separations <u>Rhea Verbeke</u> KU Leuven	13:30
14:00	Development of membranes and membrane processes for H₂ and CO₂ separation from coke oven gas of steel industry <u>Hannes Richter</u> , Fraunhofer IKTS	Tips for developing thin film composite hollow fiber membranes by dip coating <u>Oguz Karvan</u> EMI Twente	14:00
14:30	Preparation and testing of sustainable membranes for MD applications <u>Mirko Frappa</u> University of Calabria	Visible-Light Active and Stable Bi₂WO₆ Composite Polymer Membranes for Photocatalytic Micropollutant Removal <u>Zahra Niavarani</u> , IOM Leipzig	14:30
15:00	Coffee break		15:00
15:15	EU Projects II - Brüsselsaal - Chair: Anita Buekenhoudt, vito From membranes to processes lifetime: an overview of the modelling activities within MEASURED project <u>Daniël Emmerly</u> Eindhoven University of Technology	Desalination II - K1 - Chair: Michele Tedesco, TNO Versatile fit-for-purpose membranes and processes <u>Jens Potreck</u> Pentair	15:15
15:45	Multi-scale modelling of membrane distillation demonstrators for wastewater treatment and desalination in MELODIZER project <u>Matteo Morciano</u> , Politecnico di Torino	Experimental investigation of transport properties of ion-exchange membranes equilibrated with highly concentrated multi-ionic solutions <u>Giorgio Purpura</u> , Università degli Studi di Palermo	15:45
16:15	Development & scale-up of advanced membranes for membrane distillation, gas separation and pervaporation <u>Yvonne van Delft</u> , TNO	Advances in two-compartment electrodialysis configurations with bipolar membranes for chemicals production <u>Antonia Filingeri</u> , Università degli Studi di Palermo	16:15
16:45	Closing session & Poster prize - Brüsselsaal - Chair: Robert Keller, RWTH Aachen University		16:45
	Keynote IV - Physics of filtration <u>Matthias Wessling</u> , RWTH Aachen University & DWI - Leibniz Institute for Interactive Materials		
17:15	Closure		17:15



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