




18th Aachener Membran Kolloquium - November 23rd/24th, 2022

Conference program

Tuesday, November 22nd, 2022, 6 p.m.: Welcome reception with Start-Up event and labtours

Wednesday, November 23rd, 2022

Opening session - Brüsselsaal - Chair: M. Wessling	
8:30	M. Wessling - AVT.CVT, RWTH Aachen University & DWI - Leibniz Institute for Interactive Materials
8:45	Evolution of Research on Next-Generation Desalination and Water Purification Membranes <u>M. Elimelech</u> Yale University
9:30	Industry & Start-Up pitches - moderated by C. Voss
10:15	Poster pitches - moderated by J. Potreck
10:45	Coffee break
Gas and vapor separation I - Brüsselsaal - Chair:	
11:00	Defect-Free Submicroporous Interfacially Polymerized Thin-Film Composite Membranes: New Opportunities for Gas- and Liquid Separations <u>I. Pinnau</u> - King Abdullah University of Science and Technology KAUST
11:30	Carbon Molecular Sieve Membranes Based on a Polyimide of Intrinsic Microporosity Precursor <u>W. Ogieglo</u> King Abdullah University of Science and Technology KAUST
12:00	Highly selective plasma-deposited organosilica layer for gas separation <u>J. Rubner</u> RWTH Aachen University
Water treatment I - K1 - Chair: M. Mohseni	
11:00	Hollow Fibre Nanofiltration membranes for clean and sustainable water <u>J. de Groot</u> University of Twente & NX Filtration
11:30	Nanofiltration to recover NaCl from spent ion exchange regenerant brines <u>M. Futterlieb</u> University of Duisburg-Essen
12:00	Capillary Nanofiltration Membranes: From plant scale surface water treatment to resource recovery from waste waters <u>J. Kamp</u> Pentair X-Flow
12:30	Lunch
Water treatment II - Brüsselsaal - Chair: G. H. Koops	
13:30	Membrane hybrid processes using powdered activated carbon for advanced wastewater treatment <u>T. Wintgens</u> RWTH Aachen University
14:00	Hydraulic Impedance for Analyzing Soft Colloidal Filter Cakes <u>A. Lützen</u> RWTH Aachen University & DWI - Leibniz Institute for Interactive Materials
14:30	Preplacement of one membrane train by double-decker hollow fiber module in MBR Konzen <u>K. Vossenkaul</u> Membion GmbH
Biotechnology - K1 - Chair:	
13:30	Route Towards a Platform of Hollow Fiber Membranes for Biopharmaceutical Applications <u>L. E. Grünig</u> Sartorius Stedim Biotech GmbH
14:00	Modification of hemodialysis membranes towards increased performance <u>J. Swartjes</u> Baxter International
14:30	The Membrane-stirrer: Bioprocess aeration of the 21st century <u>P. Bongartz</u> BioThrust
15:00	Coffee break & Poster session sponsored by  PENTAIR
Gas and vapor separation II - Brüsselsaal - Chair: T. Harhues	
16:30	Membranes: Smart enabler to a sustainable gas economy <u>G. Baumgarten</u> Evonik Industries AG
17:00	A new facility for the investigation of high pressure gas permeation on module scale <u>T. Brinkmann</u> Helmholtz-Zentrum Hereon
17:30	YODFAT ENGINEERS GENESIS Latvia CO₂ capture demonstration <u>D. Sherban</u> Yodfat Engineers
Membranes I - K1 - Chair: L. Hirschwald	
16:30	Filtration-enabled coating of membranes for enhanced separation performance <u>M. Ulbricht</u> University of Duisburg Essen
17:00	Bicontinuous Membranes for Gas Separation <u>W. Gödel</u> TU Chemnitz
17:30	Sustainability in polymeric membrane production <u>N. Tavajohi</u> Umeå University
19:00	Conference dinner in the City Hall

Thursday, November 24th, 2022

Plenary session - Brüsselsaal - Chair: M. Wessling	
9:15	<p>Application and challenges of CO₂ reducing gas diffusion electrodes in renewable value chains G. Schmid Siemens Energy AG</p>
10:00	<p>Rotation-in-a-Spinneret Produces Turbulence Promoting Microstructures Inside Hollow Fiber Membranes M. Tepper RWTH Aachen University & DWI - Leibniz Institute for Interactive Materials</p>
Coffee break	
<p>Membranes II - Brüsselsaal - Chair: N. Benes</p>	
11:00	<p>Advanced anion exchange membrane technology for cost-competitive green hydrogen production A. Maljusch Evonik Industries AG</p>
11:00	<p>Water treatment III - K1 - Chair: J. Potreck</p>
11:30	<p>Bio-based PEBA-derived membranes for carbon dioxide separation O. David TECNALIA, Basque Research and Technology Alliance (BRTA)</p>
11:30	<p>History and Future of Membranes in Wastewater Treatment N. Adams SUEZ Water Technologies & Solutions</p>
12:00	<p>Performance Evaluation of Next Generation PERVATECH HybSi® AR membranes for Solvent Dehydration using Pervaporation I. Lammerink - Pervatech</p>
12:00	<p>Experimental investigation of scaling behaviour and antiscalant effectiveness in reverse osmosis S. A. Kaushik DVGW-Forschungsstelle TUHH</p>
12:30	<p>The Potential of Forward Osmosis for Advanced Wastewater Treatment D. Reif TU Wien</p>
Lunch	
<p>Process engineering - Brüsselsaal - Chair: N. Nijmeijer</p>	
13:30	<p>Unlocking the potential of integrated process solutions: the role of Membrane Technology J. Andre Koch Separation Solutions</p>
13:30	<p>Desalination - K1 - Chair: C. Linnartz</p>
14:00	<p>Module options for scaling-up OSN flat sheet membranes for commercial plants M.-S. Haverkamp BORSIG Membrane Technology GmbH</p>
14:00	<p>Challenges in the theory of ion transport in reverse osmosis M. Biesheuvel WETSUS</p>
14:30	<p>H₂ extraction from H₂ blended natural gas P. Schiffmann Linde Engineering</p>
14:30	<p>Sustainable recovery of valuable salts from wastewaters J. Hao RWTH Aachen University & DWI - Leibniz Institute for Interactive Materials</p>
Closing session & Poster prize - Brüsselsaal - Chair: M. Wessling	
15:00	<p>What happens in front of the membrane? Visualizing mass transport at the membrane fluid interface Matthias Wessling AVT.CVT, RWTH Aachen University & DWI - Leibniz Institute for Interactive Materials</p>
15:30	Closure

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