

PROGRAM MONDAY APRIL 8

08:00 Registration and poster mounting in Gallerian

09:00 - 09:15 Opening ceremony (Location: Congresshall)

09:15 - 10:00 Plenary lecture (Location: Congresshall)
Understanding ion transport processes for ion separation and desalination processes
- Prof. Matthias Wessling (RWTH Aachen)

10:00 - 10:30 **Coffee break in Gallerian**

10:30 - 12:00 Parallel Sessions

Session 1: New Membranes – Part 1

Chairs: Mihail Barboiu and Ivo F.J. Vankelecom
(Location: Congresshall)

(OP-S1-1)

Keynote: Artificial Water Channels- toward biomimetic membranes for desalination

- Mihail Barboiu

(OP-S1-2)

Development of an aquaporin-based biomimetic reverse osmosis membrane for brackish water desalination

- Jan Benecke

(OP-S1-3)

3D printed fouling-resistant composite membranes

- Saeed Mazinan

(OP-S1-4)

Development of High Flux Ultrafiltration Polyphenylsulfone Membranes Applying the Systems with Upper and Lower Critical Solution Temperatures

- Tatiana Plisko

Session 2: Process Integration – Part 1

Chairs: Lidietta Giorno and Alberto Tiraferri
(Location: Gallerian)

(OP-S2-1)

Keynote: Development of immuno-selective biohybrid membranes for recognition, separation and concentration of trace cytokine

- Lidietta Giorno

(OP-S2-2)

Coupling nanofiltration with Fenton oxidation for pharmaceutical abatement in wastewater treatment

- Mattia Giagnorio

(OP-S2-3)

Ultrafiltration of w/o and o/w Pickering emulsions: Influence of particle type and concentration

- Maresa Kempin

(OP-S2-4)

CO₂ removal using gas - ionic liquid membrane contactors: A new perspective for anaesthesia

- Carla Martins

12:00 - 14:00 **Lunch and Poster Session 1 in Gallerian**

14:00 - 15:30 Parallel Sessions

Session 1: New Membranes – Part 2

Chairs: Mihail Barboiu and Ivo F.J. Vankelecom
(Location: Congresshall)

(OP-S1-5)

Highly stable polymeric membranes for a more sustainable chemical industry

- Suzana Nunes

Session 2: Process Integration – Part 2

Chairs: Lidietta Giorno and Alberto Tiraferri
(Location: Gallerian)

(OP-S2-5)

Spent pickling acid recovery using acid resistant nanofiltration membranes – a pilot study in Sandviken, Sweden

- Frederik Hedman

PROGRAM MONDAY APRIL 8

(OP-S1-6)

Using Cyrene as bio-based solvent: a new greener approach in membrane fabrication

- Alberto Figoli

(OP-S1-7)

Novel proton conductive membranes based on poly([HSO₃-BVI_m][TfO]-co-MMA) and poly([HSO₃-BVI_m][TfO]-co-hPFSVE) for fuel cell applications

- Alfredo Oritz

(OP-S1-8)

Stepwise synthesis of oligoamide coating on a porous support: Fabrication of membranes with controllable thickness of the barrier film

- Roni Kasher

(OP-S2-6)

Forward osmosis – nanofiltration system applied for the production of high quality water from wastewater: experimental results and system design

- Alberto Tiraferri

(OP-S2-7)

Advanced oxidation increases the efficiency of membrane distillation in the desalination of shale gas produced water

- Giulio Farinelli

(OP-S2-8)

Membrane distillation for brine treatment: membrane evaluation and coupling with solar thermal energy

- Francesco Ricceri

15:30 - 16:00

Coffee break in Gallerian

16:00 - 18:00 Parallel Sessions

Session 1: New Membranes – Part 3

Chairs: Mihail Barboiu and Ivo F.J. Vankelecom
(Location: Congresshall)

(OP-S1-9)

Keynote: Novel chemistries and approaches for membranes prepared via interfacial polymerisation

- Ivo F.J. Vankelecom

(OP-S1-10)

Nanocomposite pervaporation membranes for concentrated brine desalination

- Jingwei Hou

(OP-S1-11)

Two-component hollow fibre membrane for gas separation – preparation and properties

- Robert Válek

(OP-S1-12)

Mixed gas separation performance and upscaling of PolyPOSSimide membranes for H₂ purification

- Luca Ansaloni

(OP-S1-13)

Electrowinning of iron from spent leaching solutions using novel anion exchange membranes

- Wouter Dirk van der Spoel Badenhorst

Session 3: By-Product Recovery

Chairs: Karin Schroen and Murielle Rabiller-Baudry
(Location: Gallerian)

(OP-S3-1)

Keynote: Microfluidics tools for improved understanding of membrane processes

- Karin Schroen

(OP-S3-2)

Membrane opportunities in lignocellulosic biorefineries

- Frank Lipnizki

(OP-S3-3)

Study of transfer of neutral solutes and inorganic salts during Nanofiltration in water and water/ethanol mixtures

- Murielle Rabiller-Baudry

(OP-S3-4)

Separation of volatile organic compound nitrogen mixture by polymer membrane

- Haoli Zhou

(OP-S3-5)

Electrodialysis of grass juices for road salt production: the Grass2Grit project

- Timon Rijnaarts

19:30

Get Together Dinner at The Sand Restaurant

08:00 Registration and poster mounting in Gallerian

08:30 - 10:00 Parallel Sessions

Session 4: Fouling and Cleaning – Part 1

Chairs: Alexey Volkov and Haofei Guo
(Location: Congresshall)

(OP-S4-1)

Keynote: Mitigation of membrane fouling during long-term operation on organics recovery from fermentation broth

- Alexey Volkov

(OP-S4-2)

Preparation of novel self-cleaning membranes with anti-biofouling properties to be used for water treatment within the Vicinaqua project

- Francesco Galiano

(OP-S4-3)

Using electrokinetic leakage to probe internal fouling of ultrafiltration membranes

- Anthony Szymczyk

(OP-S4-4)

Helical hollow fiber membranes via rope coiling

- Pinar Zeynep Culfaz Emecen

Session 5: Biotechnology and Biorefineries – Part 1

Chairs: Cristiana Boi and Michael Harasek
(Location: Gallerian)

(OP-S5-1)

Keynote: Mixed Matrix Membranes Adsorbers (MMMAs) for water contaminant removal in hemodialysis

- Cristiana Boi

(OP-S5-2)

Membrane contactors for biomedical applications

- Michael Harasek

(OP-S5-3)

Influence of the cell culture medium on tangential flow filtration for the purification of measles viruses

- Daniel Loewe

(OP-S5-4)

Industrial requirements for newly manufactured membranes for life science applications

- Marta Bojarska

10:00 - 10:30 Coffee break in Gallerian

10:30 - 12:30 Parallel Sessions

Session 4: Fouling and Cleaning – Part 2

Chairs: Alexey Volkov and Haofei Guo
(Location: Congresshall)

(OP-S4-5)

Monitoring of membrane fouling by means of surface charge analysis

- Christine Körner

(OP-S4-6)

In situ real-time monitoring techniques for membrane fouling in food, biorefinery and biotechnology industries

- Gregor Rudolph

(OP-S4-7)

Real-time assessment of biofouling in desalination membranes: Exploring a prototype at-line sensor using microbial enzyme activity

- Babar Khan

Session 5: Biotechnology and Biorefineries – Part 2

Chairs: Cristiana Boi and Michael Harasek
(Location: Gallerian)

(OP-S5-5)

Crosslinked cellulose-based membrane filters for micro- and ultrafiltration

- Dominik Ruhr

(OP-S5-6)

Protein adsorption in microfiltration processes

- Susanne Haindl

(OP-S5-7)

Membrane bioreactor as in vitro platform for hepatic stem cell differentiation

- Loredana De Bartolo

PROGRAM TUESDAY APRIL 9

(OP-S4-8)

Performance of reverse osmosis membrane for water reclamation. Evaluation of contaminants and micro-pollutants rejections and reverse osmosis element fouling.

- Julien Ogier

(OP-S4-9)

Removal of polycyclic aromatic hydrocarbons from aqueous solution by nanofiltration: Rejection and fouling mechanisms

- Yinhua Wan

(OP-S4-10)

Carbohydrate fouling on hydrophilic membranes? Cleaning investigation and fouling simulation

- Haofei Guo

(OP-S5-8)

Dunaliella salina biorefinery: a sustainable process for the recovery of carotenoids, polar lipids and glycerol

- Carla Brazinha

(OP-S5-9)

Membrane process for water recycle and lupanine recovery on lupin bean processing.

- Frederico Ferreira

(OP-S5-10)

Formation of Capillary Bridge on Fibre Matrices and its Hydrodynamics during Three-Dimensional Matrix-aided (3DM) Drying of Therapeutic Bioproducts

- Yejiog Yu

12:30 - 14:30

Lunch and Poster Session 2 in Gallerian

14:30 - 16:00 Parallel Sessions

Session 6: Emerging Membrane Processes – Part 1

Chairs: Wojciech Kujawski and Sylvie Braekevelt
(Location: Congresshall)

(OP-S6-1)

Keynote: Novel heterogeneous membranes for enhanced organic-organic separation by pervaporation

- Wojciech Kujawski

(OP-S6-2)

Membrane technology for enhanced oil recovery through produced water

- Amer Ali

(OP-S6-3)

Pilot-scale study of micropollutants concentration in municipal wastewater effluent using aquaporin-based forward osmosis membranes

- Sylvie Braekevelt

(OP-S6-4)

Graphene oxide composite membrane and pervaporation for inland reverse osmosis brine treatment

- Amir Razmjou Chaharmahali

Session 7: Petrochemical industry and gas separation – Part 1

Chairs: Masahiro Kimura and Sudip Majumdar
(Location: Gallerian)

(OP-S7-1)

Keynote: New polymeric separation membrane for hydrogen purification

- Masahiro Kimura

(OP-S7-2)

Acidic gases separation from binary and ternary methane based gas mixtures on the supported ionic liquid membranes

- Ilya Vorotyntsev

(OP-S7-3)

Facilitated transport membrane separation of olefins from paraffins – laboratory and field results

- Sudip Majumdar

(OP-S7-4)

On the role of competitive sorption in membranes for gas separation

- Maria Grazia de Angelis

16:00 - 16:30

Coffee break in Gallerian

16:30 - 18:00 Parallel Sessions

Session 6: Emerging Membrane Processes – Part 2

Chairs: Wojciech Kujawski and Sylvie Braekevelt
(Location: Congresshall)

(OP-S6-5)

Maximizing methane recovery using a membrane contactor process from anaerobic reactor effluents: Role of composite membranes

- Dilhara Sethunga

(OP-S6-6)

Advanced polymer membranes for membrane distillation

- Young Moo Lee

(OP-S6-7)

Limits of membrane distillation for concentrating brines: How high can MD go?

- Mohammad Rezaei

(OP-S6-8)

Fouling analysis and membrane wetting of hydrophobic Membranes in osmotic distillation during fruit juice concentration

- Mohammad Younas

Session 7: Petrochemical industry and gas separation – Part 2

Chairs: Masahiro Kimura and Sudip Majumdar
(Location: Gallerian)

(OP-S7-5)

Fabrication of TiO₂ doped BTESM organosilica membranes

- Simal Mirza

(OP-S7-6)

Development of poly(ionic-liquid)-based mixed matrix membranes with metal-organic frameworks for gas separation

- Ana Nabais

(OP-S7-8)

High-performance microporous polymer membranes prepared by interfacial polymerization for gas separation

- Shichun Li

20:00

Conference dinner at Congresshall

PROGRAM WEDNESDAY APRIL 10

08:30 - 10:00 Parallel Sessions

Session 8: Food technology – Part 1

Chairs: Maria Norberta De Pinho and Knud V. Christensen
(Location: Congresshall)

(OP-S8-1)

Keynote: Ultrafiltration/diafiltration for lactose reduction of cheese whey protein concentrates

- Maria Norberta De Pinho

(OP-S8-2)

Application of pressure-assisted forward osmosis for the concentration of dairy whey

- Anna Artemi

(OP-S8-3)

Sustainable production of protein fractions using microfiltration 0.1µm of milk : Impact of skim milk thermal history

- Manon Granger-Delacroix

(OP-S8-4)

Concentration of red clover juice using reverse osmosis and membrane distillation

- Knud Villy Christensen

Session 9: Water and wastewater – Part 1

Chairs: Anja Drews and Andriy Yaroshchuk
(Location: Gallerian)

(OP-S9-1)

Keynote: Recent progress in advanced engineering modelling of nanofiltration of multi-ion solutions

- Andriy Yaroshchuk

(OP-S9-2)

Gravity-driven Membrane Reactor: Applications and performances

- Bing Wu

(OP-S9-3)

Novel aeration of a large-scale flat sheet MBR: a CFD and experimental Investigation

- Kaisong Zhang

(OP-S9-4)

ZLD in the Spotlight - Innovative Concepts to Reuse and to Minimize Liquid Waste?

- Jochen Henkel

10:00 - 10:30

Coffee break in Gallerian

10:30 - 11:30 Parallel Sessions

Session 8: Food technology – Part 2

Chairs: Maria Norberta De Pinho and Knud V. Christensen
(Location: Congresshall)

(OP-S8-5)

Storage stability of reverse osmosis filtered milk concentrates and the effect of thermal treatment before and after filtration

- Morten Vormsborg Christiansen

(OP-S8-6)

Production of anthocyanin extracts in an Enzyme – Membrane BioReactor (e-MBR)

- Maria Cinta Roda-Serrat

(OP-S8-7)

Physicochemical stability of heat treated skim milk concentrates produced by reverse osmosis

- Shyam Suwal

Session 9: Water and wastewater – Part 2

Chairs: Anja Drews and Andriy Yaroshchuk
(Location: Gallerian)

(OP-S9-5)

Influence of reverse salt flux on ammonium rejection in forward osmosis for nutrients recovery

- Mads Koustrup Jørgensen

(OP-S9-6)

Molecular dynamics simulations of confined water inside stacked graphene oxide membranes

- One-Sun Lee

PROGRAM WEDNESDAY APRIL 10

11:30 - 11:45 **Coffee break in Gallerian**

11:45 - 12:30 Plenary lecture (Location: Congresshall)
Biomimetic and Bioinspired membranes – challenges and future prospects.
- Prof. Claus Hélix-Nielsen (DTU, Denmark)

12:30 - 12:45 Closing ceremony

13:00 - 14:00 **Lunch in The Sand Restaurant**

POSTER SESSION 1 MONDAY APRIL 8

Poster #	Presenter	Abstract Title
PT-S1-1	Tatiana Plisko	Effect of molecular weight of polyacrylic acid (PAA) on polyethersulfone membrane structure and performance
PT-S1-2	Amir Razmjou Chaharmahali	High-value organic acid recovery for the valorisation of bio-ethanol dunder using two-stage membrane processing
PT-S1-3	Ania Pacak	Antimicrobial Shower Head - INTERREG V Europe program
PT-S1-4	Carla Brazinha	Recovery of aroma profile from by-products of the meat industry for petfood applications
PT-S1-5	Catharina Kahrs	Influences of polymeric additives in different solvent systems
PT-S1-6	Hui Liu	Preparation and characterization of ECTFE hollow fiber membrane via TIPS method
PT-S1-7	Ilya Vorotyntsev	The modeling of kinetic behavior of the unsteady-state in a closed-mode operation of a membrane gas separation module
PT-S1-8	Ilya Vorotyntsev	Evaluation of membrane assisted gas absorption technique for ammonia recovery after the Haber process
PT-S1-9	Jiali Wang	A new amphiphilic block copolymer to prepare integral asymmetric isoporous membranes via SNIPS
PT-S1-10	Juntae Jung	Tailoring nonsolvent-thermally induced phase separation (N-TIPS) by controlling S-NS (solvent - nonsolvent) diffusion using triple spinneret
PT-S1-11	Karin Persson	Anti-fouling Membranes using Graphene Oxide
PT-S1-12	M. Azam Rasool	Use of renewable green solvents in membrane preparation
PT-S1-13	Maria Grazia De Angelis	The addition of graphene and graphene oxide to thin PIM-1 films: effect on ageing, permeability and selectivity
PT-S1-14	Maria Norberta De Pinho	Synthesis of composites of polyurethane membranes/polycaprolactone fibers for membrane blood oxygenators
PT-S1-15	Mikael Sjölin	Purification and Retention of Sucrose in Sugar Beet Molasses by Utilizing Ceramic Nanofiltration Membranes
PT-S1-16	Mohammad Younas	Post combustion CO ₂ capture through PVDF/PDMS hollow fiber membrane module with sweep gas
PT-S1-17	Murielle Rabiller-Baudry	A simulation study of the integration of cascades of organic solvent nanofiltration membranes in the process of 10-undecenitrile hydroformylation
PT-S1-18	Luisa Neves	Adsorption influence in CO ₂ transport in mixed matrix membranes with metal-organic frameworks
PT-S1-19	Pinar Zeynep Culfaz Emecen	Cellulose membranes for ultrafiltration in organic solvents
PT-S1-20	Wojciech Kujawski	Sequential optimization of the preparation of membranes for gas separation by using the simplex method
PT-S1-21	Xanel Vecino	Nanofiltration and reverse osmosis processes for furfural recovery: a comparative study
PT-S1-22	Mehrdad Ebrahimi	Ceramic Membrane Technology for Efficient Recovery of Lignosulfonates from Spent Sulfite Liquor
PT-S1-23	Rania Morsi	Enhanced Multi-Functional Membranes for Water Treatment and Desalination: Optimization of the Fabrication Conditions
PT-S1-24	Andrea Aguilar Sanchez	Nano-cellulose hybrid coatings for antifouling polyethersulfone (PES) membranes
PT-S1-25	Alfredo Gonzales-Perez	Functional reconstitution of gramicidin A into block copolymer membranes
PT-S1-26	Marius Sandru	Novel preparation methods for enhancing CO ₂ selectivity of fast permeable gas separation membranes

POSTER SESSION 2 TUESDAY APRIL 9

Poster #	Presenter	Abstract Title
PT-S2-1	Aleksandra Zielińska	Microfiltration of model HA and BSA solutions using ceramic membrane
PT-S2-2	Amir Razmjou Chaharmahali	Developing new ion selective membranes with 2D subnanometer channels for extraction of Lithium from brine and seawater
PT-S2-3	Bing Wu	Effect of Mn (II) on Membrane Filtration of Microalgae (<i>Thalassiosira pseudonana</i>): Mn (II) Removal, Extracellular Organic Matter, and Membrane fouling
PT-S2-4	Carla Brazinha	Comparative studies on engineered perfluorocarbon based nanocapsules by ultrasound and membrane emulsification techniques for novel biotech/ biomedical applications
PT-S2-5	Claudia Galinha	Harvesting by Membrane Filtration and Permeate Treatment for Different Microalgae Systems
PT-S2-6	Ilya Vorotyntsev	Silicon-based membrane surface modification by ozonation and plasma treatment
PT-S2-7	Lelum Manamperuma	Effect of novel absorbent on drinking water treatment membrane fouling by natural organic matter
PT-S2-8	Marek Bobák	Pervaporation in the process of monoethylenglycol recycling
PT-S2-9	Maria Grazia De Angelis	Mixed matrix membranes containing metalorganic molecular sieves for gas separation at different temperatures
PT-S2-10	Maria Norberta De Pinho	Hybrid integral asymmetric cellulose acetate/silicon dioxide ultrafiltration membranes for uremic blood purification
PT-S2-11	Murielle Rabiller-Baudry	Impact of ageing on membrane cleanability at limiting and critical fluxes in the case of skim milk ultrafiltration.
PT-S2-12	Eilish Carson	Successful Treatment of Micropollutants and COD from Wastewater by the Nyex™ Combined Adsorption and Electrochemical Regeneration Process
PT-S2-13	Sang Hyun Park	Lithium recovery using membrane distillation: Experiment and process simulation
PT-S2-14	Sudip Majumdar	Dehydration of solvents in flow chemistry processes using fluoropolymer pervaporation membranes
PT-S2-15	Victor Manuel Candelario Leal	High water flux ultrafiltration SiC membranes for water filtration applications.
PT-S2-16	Xanel Vecino	Acid and base production by electrodialysis with bipolar membranes using vinasses from distillation process of grape marc
PT-S2-17	Basel Al-Rudainy	From lab to pilot scale: Reduction of membrane fouling during galactoglucomannan recovery by ultrafiltration
PT-S2-18	Mehrdad Ebrahimi	Ceramic Membrane Filtration for the Efficient Separation of Water from Diesel Fuel
PT-S2-19	Mehrdad Ebrahimi	Oilfield Produced Water Treatment with Innovative Ceramic Membranes
PT-S2-20	Daniel Loewe	Development and Characterization of an Enzyme Membrane Reactor (EMR) for Fructooligosaccharide Production
PT-S2-21	Marco Giacinti Baschetti	Amine enhanced, nanocellulose based, facilitated transport membranes for CO ₂ separation
PT-S2-22	Riccardo Rea	Modelling facilitated transport in Polyvinyl amine membranes for CO ₂ capture: insights from Molecular Dynamics and PC-SAFT EoS.
PT-S2-23	Tatiana Plisko	Effect of solvent nature on structure and performance of porous polyamide-imide membranes
PT-S2-24	Susana Luque	Ultrafiltration of oil-in-water emulsions at several pH in a cross flow unit
PT-S2-25	Donghyun Kim	Turbulent impinging jet-assisted microfiltration: comprehensive study on design, model, and application for harvesting microalgae using hollow fiber module
PT-S2-26	Federico Micolucci	Enhanced wastewater treatment combining direct membrane filtration and granular activated carbon at pilot scale
PT-S2-27	Sarah Meitz	Wastewater Vacuum-Membrane-Distillation for Ammonia gas recovery as fuel