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PRESENTATIONS

PLENARY LECTURES (PL)

The presentation time for each plenary lecture is 55 min and 5 min for discussion.

KEYNOTE LECTURES (KL)

The presentation time for each keynote lecture is 35 min and 5 min for discussion.

SHORT LECTURES (SL)

The presentation time for each short lecture is 15 min and 5 min for discussion.

RECORDINGS

Audio/video recording of the lectures or copying of the lecture files is not allowed without the prior agreement of the speaker. The organisers reserve the right to take documentation photographs during the meeting.

POSTER PRESENTATIONS

Poster presentations will take place on Monday, May 16, from 16.00 to 18.30. Material for fixing posters will be provided.

TOPICS

CONFERENCE PERMEA

P1 – Membrane Development and Characterization

P2 – Transport Phenomena, Fouling, Modelling, and Simulation

P3 – Pressure Driven Membrane Processes

P4 – Thermally and Concentration Driven Membrane Processes

P5 – Gas and Vapour Separation

P6 – Other (General Session)

CONFERENCE MELPRO

M1 – Electromembrane Separation Processes

M2 – Integrated Membrane Processes in Technological Application

M3 – Electromembrane Processes in Energy Conversion and Storage

M4 – General Session and New Trends

PROGRAM AT A GLANCE

MONDAY, MAY 16, 2016

	HALL A	HALL B	HALL C
8.50	Opening Ceremony		
9.00	Plenary Session		
10.30	P1: Membrane Development and Characterization	P2: Transport Phenomena, Fouling, Modelling, and Simulation	M2: Integrated Membrane Processes in Technological Application
14.40		P3: Pressure Driven Membrane Processes	
	HALL A	FOYER, 1 ST FLOOR	
16.00	Poster Session		

TUESDAY, MAY 17, 2016

	HALL A	HALL B	HALL C
9.00	Plenary Session		
10.30	P1: Membrane Development and Characterization	P3: Pressure Driven Membrane Processes	M2: Integrated Membrane Processes in Technological Application
14.00		P6: Other (General Session)	
16.00		P4: Thermally and Concentration Driven Membrane Processes	
17.40			

WEDNESDAY, MAY 18, 2016

	HALL A	HALL B	HALL C
9.00	Plenary Session		
10.30	P1: Membrane Development and Characterization	P5: Gas and Vapour Separation	M1: Electromembrane Separation Processes
11.30	M3: Electromembrane Processes in Energy Conversion and Storage		M4: General Session and New Trends
14.00			
15.20			

THURSDAY MAY 19, 2016

	HALL A	HALL B	HALL C
9.00	Plenary Session		
10.30	M3: Electromembrane Processes in Energy Conversion and Storage	P5: Gas and Vapour Separation	M4: General Session and New Trends
12.10	Plenary Session		
13.10	Closing Ceremony		

SCIENTIFIC PROGRAM

MONDAY, MAY 16, 2016

HALL A + B

8.50 Opening Ceremony
E. Drioli¹, L. Novák² | ¹Italy, ²Czech Republic

9.00 – 10.00 Plenary Session
Chairman: L. Novák | Czech Republic

PL01 Thermally and Concentration Driven Membrane Processes
W. Kujawski, J. Kujawa, A. Kujawska | Poland

10.00 – 10.30 *Coffee break*

HALL A

10.30 – 11.50 P1: Membrane Development and Characterization
Chairman: K. Szalata | Spain

KL03 Macrostructure Related Oxygen Transport in Mixed Conducting Membranes
K. Li | United Kingdom

P1/SL01 Preparation and Characterization of Thin Film Nanocomposite Membranes Incorporated with SiO₂ and TiO₂ Nanoparticles
S. Saki, Y.E. Bülbül, N. Uzal, N. Ateş | Turkey

P1/SL02 Composite-Carbon Molecular Sieve Membranes. Preparation, Characterization and Influence of the Carbonization Temperature on the Gas Permeation Properties
M.A. Llosa Tanco¹, A. Mendes², D.A. Pacheco Tanaka¹ | ¹Spain, ²Portugal

11.50 – 13.00 *Lunch (Bohemia Restaurant)*

14.00 – 15.40 P1: Membrane Development and Characterization
Chairman: K. Li | United Kingdom

P1/SL03 Proton Conductive Polysulfone Biomimetic Membranes
K. Szalata¹, G. Pande², T. Gumi¹ | ¹Spain, ²India

- P1/SL04 Development of Composite Membranes Containing Iron Oxide Nanoparticles as Suitable Heterogeneous Nucleation Media for Crystallization
S. Majidi Salehi¹, A.C. Manjua², I.M. Coelho², G. Di Profio¹, E. Fontananova¹, E. Curcio¹, J.G. Crespo², C.A.M. Portuga² | ¹Italy, ²Portugal
- P1/SL05 Magneto-Responsive Polymer Hydrogel-Based Composite Membranes for Switchable Molecular Sieving
Xi Lin, M. Ulbricht | Germany
- P1/SL06 Ultrafiltration Membranes Based on Pes-Peg Blockcopolymers
J. Meier-Haack | Germany
- P1/SL07 Development of Ecological Ceramic Membranes from Agro-Industrial Wastes for a Membrane Bioreactor (MBR)
E. Zuriaga-Agustí, J.G. Berlanga-Clavijo, I. Pastor, B. Hernández, M-M. Lorente-Ayza, E. Sánchez, S. Mestre, M. Abellán, P. Simón | Spain

15.40 – 16.00 Coffee break

HALL B

10.30 – 11.50 P2: Transport Phenomena, Fouling, Modelling, and Simulation

Chairman: V. Nikonenko | Russia

- P2/SL21 TiO₂ Coated Polyacrylonitrile Membrane's Application to Treat Oily Wastewater
I. Kovács, G. Veréb, S. Beszédes, Sz. Kertész, C. Hodúr, Zs. László | Hungary
- P2/SL22 The Study of Ion Transport Mechanisms in Selective Nanopores
I.I. Ryzhkov, A.V. Minakov, D.V. Lebedev, S.V. Khartov | Russia
- P2/SL23 How Peptide Physicochemical and Structural Characteristics Affect Fouling on Anion-Exchange Membranes
M. Persico¹, S. Mikhaylin¹, A. Doyen¹, L. Firdaous², R. Hammami¹, L. Bazinet¹ | ¹Canada, ²France

- P2/SL24 A CFD-Assisted Design of Profiled Membranes
*S. Pawlowski¹, T. Rijnaarts², V. Geraldés¹,
D.C. Nijmeijer², J.G. Crespo¹, S. Velizarov¹ | ¹Portugal,
²Netherlands*

11.50 – 13.00 Lunch (Bohemia Restaurant)

14.00 – 14.40 P2: Transport Phenomena, Fouling, Modelling, and Simulation

Chairman: I. Kovács | Hungary

- P2/SL25 Mathematical Modelling of the Effect of Immobilized Nanoparticles on Transport Properties of Ion-Exchange Membranes
*V. Nikonenko¹, M. Porozhnyy¹, M. Cretin²,
E. Safronova¹ | ¹Russia, ²France*
- P2/SL26 Properties of Anion Exchange Membranes after Contact with Red Wine
*N. Pismenskaya¹, V. Sarapulova¹, V. Nikonenko¹,
P. Sizat², W. Garcia-Vasquez² | ¹Russia, ²France*

14.40 – 15.40 P3: Pressure Driven Membrane Processes

Chairman: I. Kovács | Hungary

- P3/SL27 Process Optimization on Water Recovery from Real Reactive Dyeing Effluents
*B. Kocer, M. Erkanli, R.D. Zaf, L. Yilmaz, U. Yetis,
Z. Culfaz-Emecen | Turkey*
- P3/SL28 Treatment of a Chemical Industry Effluent by Nanofiltration and Reverse Osmosis
*Ö. Aktaş, E. Sahinkaya, A. Yurtsever, S. Demir,
M. Yüceyurt, A. Çakmak, Ç. Külekci, Ş. Tahmaz | Turkey*
- P3/SL29 Nanofiltration Rejection of Pesticides Used in the Mekong Delta Area
D. L. Nguyen, S. Gassara, P. Sizat, A. Deratani | France

15.40 – 16.00 Coffee break

10.30 – 11.50 M2: Integrated Membrane Processes in Technological Application*Chairman: J. Maršálek | Czech Republic*

- KL02 Membrane Technologies: Towards “Zero Liquid Discharge” for Agro-Food Industries
F. Lutin, Y. Legratiet, A. Gonin | France
- M2/SL55 Integration of MBr with Nf and Ro Processes for Industrial Wastewater Reuse-Pilot Tests
N. Kabay¹, M. Hacifazlioğlu¹, H.R. Tomasini^{1,2}, S. Ersen¹, T. Pek¹, M. Yuksel¹ | ¹Turkey, ²Italy
- M2/SL56 Deacidification of Cranberry Juice by Electrodialysis: Impact on Acid Migration and Protection of Intestinal Cell Barrier Integrity
L. Bazinet¹, E. Serre¹, Y. Boutin¹, M.-E. Langevin², F. Lutin², K. Pedneault¹, S. Lacour² | ¹Canada, ²France

11.50 – 13.00 *Lunch (Bohemia Restaurant)*

14.00 – 15.40 M2: Integrated Membrane Processes in Technological Application*Chairman: F. Lutin | France*

- M2/SL57 Ceramic Microfiltration of Cane Juice for High-Quality Cane Sugar Production
M. Beyerle, F. Rousset, A. du Plessix | France
- M2/SL58 Membrane Separation and Adsorption Used in Hybrid System for Bioproduction of Natural Flavors
I. Čeveňanský, M. Mihaľ, J. Markoš | Slovak Republic
- M2/SL59 Modelling and Design of Hybrid Systems for Natural Aromas Production
I. Červeňanský, M. Mihaľ, J. Markoš | Slovak Republic
- M2/SL60 Integrated Membrane Process for Butenes Production
L. Melone¹, A. Brunetti¹, E. Drioli¹, H.A. Al-Megren², M.C. Al-Kinany², G. Barbieri¹ | ¹Italy, ²Saudi Arabia
- M2/SL61 Refinement of Spent Diethylene Glycol
J. Maršálek, T. Kotala | Czech Republic

15.40 – 16.00 *Coffee break*

HALL A + FOYER, 1ST FLOOR

16.00 – 19.00 POSTER SESSION

Detailed program can be found on pages 30 – 44.

TUESDAY, MAY 17, 2016

HALL A + B

9.00 – 10.00 Plenary Session

Chairman: L. Giorno | Italy

PL02 Novel Membranes for Energy and Environments
Y. M. Lee | Republic of Korea

10.00 – 10.30 Coffee break

HALL A

10.30 – 11.50 **P1: Membrane Development and Characterization**

Chairman: B. Pospiech | Poland

KL01 Novel Aerogel Composite Membranes for Resolving the Carbon Abundance and Water Scarcity Issues
K.-J. Allan Tung, Y.-F. Lin | Taiwan

P1/SL08 Development and Performance of Novel Hollow Fiber Membranes for Low Pressure Nanofiltration
C.V. Gherasim, M. Wessling | Germany

P1/SL09 Development of Porous Hollow Fiber Membranes of Different Hydrophobic/Hydrophilic Surface Properties for Gas-Organic Liquid Membrane Contactors
A.A. Ovcharova¹, V.P. Vasilevsky¹, I.L. Borisov¹, S.D. Bazhenov¹, A.V. Bilydukevich², V.V. Volkov¹ | ¹Belarus, ²Russia

11.50 – 13.00 Lunch (Bohemia Restaurant)

14.00 – 15.20 **P1: Membrane Development and Characterization**

Chairman: K.-L. Tung | Taiwan

KL11 Advances in Biocatalytic Membranes and Membrane Bioreactors
L. Giorno, R. Mazzei | Italy

P1/SL10 Influence of Catalytic Additives on Water Dissociation in Bipolar Membranes
N. Sheldeshov, V. Zabolotskiy, K. Lebedev, N. Alpatova, N. Kovalev, A. Akimova, N. Kovaleva, T. Mochalova | Russia

P1/SL12 Gas Transport Across Pim-1 Confined in the Channels of Anodic Aluminum Oxide
E.A. Chernova, D.I. Petukhov, A.A. Eliseev | Russia

15.20 – 16.00 Coffee break

16.00 – 17.40 P1: Membrane Development and Characterization

Chairman: E.A. Chernova | Russia

P1/SL11 On the Use of Micro-Waves to Study the Long Term Stability of a Membrane
M. Rabiller-Baudry, C. Leperoux, J. Girard, P. Loulergue | France

P1/SL13 Gas Separation by the Conventional and Protic Ionic Liquids Supported on the Microporous Polymers
A.I. Akhmetshina, T.S. Sazanova, A.A. Atlaskin, I.M. Davletbaeva, I.V. Vorotyntsev | Russia

P1/SL14 Removal of Heavy Metal Ions from Wastewater by Transport Across Polymer Inclusion Membranes with Ionic Liquids
B. Pospiech, P. Czuprynski, T. Janda, J. Gega | Poland

P1/SL15 Exopolysaccharide Membranes for Ethanol Dehydration by Pervaporation
Inês T. Meireles, Carla Portugal, C. Brazinha, Vítor D. Alves, João G. Crespo, Isabel M. Coelho | Portugal

P1/SL16 Influence of Vapor Induced Phase Separation Parameters on PVDF Membrane Properties
M. Bojarska, C. Alexowsky, M. Ulbricht | Germany

HALL B

10.30 – 11.50 P3: Pressure Driven Membrane Processes

Chairman: A. Volkov | Russia

P3/SL30 Dealcoholization of Model Solutions by Reverse Osmosis and Diafiltration
K. Jastřembská, H. Jiráňková, P. Mikulášek | Czech Republic

P3/SL31 Applications of ME Process in the Food Industry
K. Albert, Gy. Vatai, A. Koris | Hungary

P6/SL42 CO₂ Photoreduction to Methanol in TiO₂-Based Nafion Membrane Reactor
A. Brunetti¹, M. Sellaro¹, E. Fontananova¹, L. Palmisano², M. Bellardita², E. Drioli^{1,2}, G. Barbieri¹ | ¹Italy, ²Republic of Korea

P6/SL43 An Efficient Aqueous Phase Synthesis of ZIF-8 Membrane on an Asymmetrically Porous Polymer Substrate for Gas Separation
E. Shamsaei, X. Lin, Z-X. Low, Z. Abbasi, Y. Hu, J.Z. Liu, H. Wang | Australia

11.50 – 13.00 Lunch (Bohemia Restaurant)

14.00 – 15.20 P6: Other (General Session)

Chairman: K. Albert | Hungary

P6/SL44 The Impact of Salt and Sulfate on the Performance Sequential Anaerobic-Aerobic MBr Treating Textile Industry Wastewaters
A. Yurtsever, E. Sahinkaya, Ö. Çınar | Turkey

P6/SL45 Development of Biofunctional Membranes for Oriented Antibody Immobilization
F. Militano, T. Poerio, R. Mazzei, E. Piacentini, A. Gugliuzza, L. Giorno | Italy

P6/SL46 Treatment of Textile Industry Wastewater Using Pilot Scale Membrane Bioreactor
O. Isik, A. Yurtsever, O. Cinar, E. Sahinkaya | Turkey

P6/SL47 Combined Anaerobic Biodegradation of a Special Wastewater from a Municipal Solid Waste Treatment Plant
T. Rózsenberszki, L. Koók, P. Bakonyi, N. Nemestóthy, R. Kurdi, K. Bélafi-Bako | Hungary

15.20 – 16.00 Coffee break

16.00 – 17.20 P4: Thermally and Concentration Driven Membrane Processes

Chairman: F. Militano | Italy

KL06 Possibilities of Electromembrane Process for Chemical Base Production and Recovery
M. Bobak, P. Krizanek | Czech Republic

P4/SL32 Evaluation of Physicochemical Properties of Pomegranate Juice Concentrated by Osmotic Evaporation and Membrane Distillation
K.S. Bahçeci, M. Çelik | Turkey

P4/SL33 Porous Condenser for Thermally Driven Membrane Processes
A.V. Volkov, V.P. Vasilevsky, I.L. Borisov, O.V. Shorsheva, G.S. Golubev, E.G. Novitsky, V.V. Volkov | Russia

HALL C

10.30 – 11.50 M2: Integrated Membrane Processes in Technological Application

Chairman: M. Bryjak | Poland

KL04 Industrialization of Zeolite Membranes for Organic Dehydration
X. H. Gu | China

M2/SL62 Application of Electrodialysis with Heterogeneous Bipolar Membrane For H_2SO_4 and NaOH Reclamation from Industrial Wastewater
J. Kinčl, T. Jiříček, D. Neděla, N. Václavíková, M. Amrich, A. Ashrafi, J. Kroupa, J. Cakl, P. Doleček, B. Šiška, B. Velen, F. Toman, D. Černínová | Czech Republic

M2/SL63 Hybrid Electrodialysis with Bipolar Membranes – Ultrafiltration (EDBM-UF) Technology for the Casein Production
S.Mikhaylin¹, A.-V. Sion¹, V. Nikonenko², G. Pourcelly³, L. Bazinet¹ | ¹Canada, ²Russia, ³France

11.50 – 13.00 *Lunch (Bohemia Restaurant)*

14.00 – 15.20 M2: Integrated Membrane Processes in Technological Application

Chairman: J. Markoš | Slovak Republic

KL05 Electrodialysis at Overlimiting Currents: State-of-the-Art and Perspectives
G. Pourcelly¹, V.V. Nikonenko² | ¹France, ²Russia

M2/SL64 Bioreduction of Nitrate and Chromate in Sulfur/ Methanol Based Membrane Bioreactor
E. Sahinkaya, A. Yurtsever, D. Ucar | Turkey

M2/SL65 Fracsis: Ion Fractionation and Metathesis by a NF-ED Integrated System to Improve Water Recovery
Y. Zhang, Y.-F. Zhang, J. Du, L. Liu | China

15.20 – 16.00 *Coffee break*

16.00 – 17.20 M1: Electromembrane Separation Processes

Chairman: G. Pourcelly | France

M1/SL48 Analysis of the Structure of Heterogenous Ion-Exchange Membranes and Particles and Their Electrokinetic Behavior
M. Svoboda, L. Vobecká, N. Kurospayeva, L. Chroust, Z. Slouka | Czech Republic

M1/SL49 Determination of Diffusion Coefficients in Cation-Exchange Membranes by Time-Lag Permeation Method
K. Mitko, D. Majda | Poland

M1/SL50 Performance of CDi and MCDi Processes in NH_4^+ Removal
H. Sakar, O. Karatas, C. Balcik-Canbolat, A. Karagunduz, B. Keskinler | Turkey

M1/SL52 Salt Recovery from Reverse Osmosis Concentrate of Dye Bath Wastewater by Electrodialysis
C. Balcik-Canbolat, C. Sengezer, H. Sakar, A. Karagunduz, B. Keskinler | Turkey

WEDNESDAY, MAY 18, 2016

HALL A + B

9.00 – 10.00 Plenary Session

Chairman: G. Rios | France

PL03 Organic-Inorganic Composite Membranes:
Fundamental Study and Engineering Application
W. Jin | China

10.00 – 10.30 *Coffee break*

HALL A

10.30 – 11.50 P1: Membrane Development and Characterization

Chairman: A. Yaroslavtsev | Russia

P1/SL17 Hyflon AD60/PVDF Composite Membranes for
Vacuum Membrane Distillation
Z. Cui¹, D. Tong¹, E. Drioli², Z. Wang¹ | ¹China, ²Italy

P1/SL18 Polymer Inclusion Membranes Incorporating
Aliquat 336 Derivatives: The Compromise between
Stability and Efficiency
C. Fontàs, R. Vera, E. Anticó | Spain

P1/SL19 Chronopotentiometry of Ion-Exchange
Membranes: 1D and 3D Modelling and
Experiment
*S.A. Mareev¹, D.Yu. Butylskii¹, V.S. Nichka¹,
N.D. Pismenskaya¹, V.V. Nikonenko¹, M. Cretin²,
P. Sizat² | ¹Russia, ²France*

P1/SL20 New Cation Exchange Membranes Based
on Cross-Linked Sulfonated Polystyrene and
Polyethylene for Power Generation Systems
*E. Safronova, D. Golubenko, V. Tverskoi,
A. Yaroslavtsev | Russia*

11.50 – 13.00 *Lunch (Bohemia Restaurant)*

14.00 – 15.20 **M3: Electromembrane Processes in Energy Conversion and Storage**

Chairman: M. Matsumoto | Japan

- KL08 Membranes and Membrane Processes for Hydrogen Energy
A.B. Yaroslavtsev, I.A. Stenina, Yu.A. Karavanova, I.I. Ponomarev | Russia
- M3/SL66 Membranes for a Hydrogen Economy
G. Pourcelly | France
- M3/SL67 Ionic Liquids in Membrane Separations
Š. Schlosser, M. Blahušiak, J. Marták | Slovak Republic
- 15.20 – 16.00 Coffee break

HALL B

10.30 – 11.50 **P5: Gas and Vapour Separation**

Chairman: L. Neves | Portugal

- KL07 Membrane Gas Separations: Materials and Process Engineering Challenges for New Applications
E. Favre | France
- P5/SL34 Original Polyimide Gas Separation Membranes with Controlled Embedding of Nanoadditives
M. Lanč, K. Pilnáček, M. Klepić, O. Vopička, P. Sysel, A. Patrová, N.H. Vu, V. Fíla, M. Šoltys, F. Štěpánek, K. Friess | Czech Republic
- P5/SL35 CO₂ Separation from Humidified Mixtures by Thermally Rearranged Polymeric Membranes
A. Brunetti¹, M. Cersosimo¹, K.T. Woo², J. Lee², G. Dong², E. Drioli^{1,2}, Y.M. Lee², G. Barbieri¹ | ¹Italy, ²Republic of Korea

11.50 – 13.00 Lunch (Bohemia Restaurant)

14.00 – 15.20 **P5: Gas and Vapour Separation**

Chairman: K. Friess | Czech Republic

- P5/SL36 Carbon Dioxide Separation from Anaesthetic Circuits with Biocompatible Ionic Liquids and Membrane Contactors
C.F. Martins, L.A. Neves, M. Estevão, C.A.M. Afonso, I.M. Coelho, J.G. Crespo | Portugal

- P5/SL37 Aging Behavior under CO₂/CH₄ Conditions of Thin Film Composite (TFC) Membranes Based On 6FDA Copolyimides with Different Content
V. Martin-Gil¹, Z. M. Ahmad¹, W. Dujardin², P. Sysel¹, G. Koeckelberghs², I.F.J. Vankelecom², V. Fila¹ | ¹Czech Republic, ²Belgium
- P5/SL38 Membrane Condensers in Waste Gaseous Streams for Water Recovery
F. Macedonio, A. Brunetti¹, M. Cersosimo¹, G. Barbieri¹, E. Drioli^{1,2} | ¹Italy, ²Republic of Korea
- P5/SL39 Simultaneous Hydrogen Sulphide and Carbon Dioxide Removal from Biogas by Water–Swollen Reverse Osmosis Membrane
P. Izák¹, Z. Sedláková¹, M. Kárászová¹, J. Vejražka¹, E. Esposito², J.C. Jansen² | ¹Czech Republic, ²Italy

15.20 – 16.00 Coffee break

HALL C

10.30 – 11.30 **M1: Electromembrane Separation Processes**

Chairman: J. Thomas | Czech Republic

- M1/SL51 Ionic Transport of Anion-Exchange Membranes Prepared From PVA-Based Block Copolymers
M. Higa, T. Mizuno, M. Anno | Japan
- M1/SL53 Lithium Selective Membranes in CDi Process
M. Bryjak, A. Siekierka, J. Kujawski | Poland
- M1/SL54 Advanced Oxidation Coupled with Electrodialysis for Detoxification of Lignocellulosic Hydrolysate
J. Du, B. Yan, Z. Sun, Y. Zhang | China

11.30 – 11.50 **M4: General Session and New Trends**

Chairman: J. Thomas | Czech Republic

- M4/SL72 Case Study: Ultrapure Water for Power&Energy
Z. Petras, J. Polasek | Czech Republic

11.50 – 13.00 Lunch (Bohemia Restaurant)

14.00 – 15.20 M4: General Session and New Trends

Chairman: X. Gu | China

- KL09 Challenges and Thresholds of Membrane Technology in Industry
S. Mayor | India
- M4/SL73 Effective Treatment of Mining Waters by ED Process Focused on Mineral Source Concentrate and Water of Superior Quality
J. Chromíková, J. Thomas, S. Heviánková, P. Hrbáčová, L. Kovalčík | Czech Republic
- M4/SL77 Fouling Monitoring in Reverse Electrodialysis Devices by 2D Fluorescence Spectroscopy
S. Pawlowski, C.F. Galinha, J.G. Crespo, S. Velizarov | Portugal

15.20 – 16.00 Coffee break

THURSDAY, MAY 19, 2016

HALL A + B

9.00 – 10.00 Plenary Session

Chairman: L. Novák | Czech Republic

- PL04 Realizations and Future Developments of Membrane Engineering
E. Drioli | Italy, Republic of Korea, Saudi Arabia

10.00 – 10.30 Coffee break

HALL A

10.30 – 11.50 M3: Electromembrane Processes in Energy Conversion and Storage

Chairman: Š. Schlosser | Slovak Republic

- M3/SL68 Issues Related to the Membrane Selection for Vanadium Redox Flow Batteries
P. Mazur, J. Charvát, J. Povedic, J. Vrana, J. Dundalek, J. Kosek | Czech Republic

- M3/SL69 Micro-Structured Hollow Fibres for Micro-Tubular Solid Oxide Fuel Cells (MT-SOFCS)
M.F. Rabuni, P. Punmeechao, T. Li, K. Li | United Kingdom

- M3/SL70 Optimal Membrane Nanostructure for Electrokinetic Energy Conversion
S. Haldrup, M. B. Kristensen, D.N. Østedgaard-Munck, J. Catalano, A. Bontien | Denmark

- M3/SL71 Effect of the Gas Flow-Field Design on the Actual Hydration of the PEMFC Membrane: An Operando Study by Micro-Raman Spectroscopy
T.B.H. Tran, S. Deabate, P. Huguet | France

11.50 – 12.10 Coffee break

HALL B

10.30 – 11.50 P5: Gas and Vapour Separation

Chairman: Z. Sedláková | Czech Republic

- KL10 Membrane Research for Water Treatment in KRICT
K.-H. Lee | Republic of Korea

- P5/SL40 Application of Supported Ionic Liquid Membranes for Biogas Separation
Z. Sedláková, M. Kárászová, J. Vejražka, P. Izák | Czech Republic
- P5/SL41 Recovery of Alcohols from Diluted Aqueous Solutions by Vapor Phase Membrane Separation with Water-Selective Membranes
M. Shalygin, A. Kozlova, V. Teplyakov | Russia

HALL C

10.30 – 11.30 M4: General Session and New Trends

Chairman: S. Mareev | Russia

- M4/SL78 A Life Cycle Approach to Compare CO₂ Capture Based on Chemical Absorption and Membrane Separation Processes
L. Giordano, D. Roizard, A. Gerard, E. Favre | France
- M4/SL75 Application of a Polymer Inclusion Membrane in the Recovery of Gold from an Aqua Regia Digest of Electronic Scrap
Y.Y.N. Bonggotgetsakul, R.W. Cattrall, S.D. Kolev | Australia
- M4/SL76 Recovery of Fe and Mn from Aqueous Solution Using Solvent Extraction and Liquid Membrane Permeation Using Ionic Liquids
P. Dore Ola, M. Matsumoto, K. Kondo | Japan
- M4/SL74 Electrodialysis with Filtration Membrane (EDFM): A Green and Ultra-Selective Technology for Bioactive Peptides Separation
L. Bazinet | Canada

11.50 – 12.10 Coffee break

HALL A + B

12.10 – 13.10 Plenary Session

Chairman: E. Drioli | Italy

- PL05 Integrated Membrane-Based Processes for Resource Recycling
B. Van der Bruggen | Belgium

13.10 – 13.30 Closing Ceremony

E. Drioli¹, L. Novák² | ¹Italy, ²Czech Republic

13.30 – 14.30 Lunch (Bohemia Restaurant)

POSTER SESSION

FOYER, 1ST FLOOR | PERMEA

16.00 – 19.00 | Monday, May 16, 2016

P1: Membrane Development and Characterization

- P1/P01 Development of Novel Hybrid Biopolymer Membranes for Pervaporation by SOL-GEL Processes
I.T. Meireles, R.M. Huertas, I.M. Coelho, J.G. Crespo
| Portugal
- P1/P02 Preparation of Polymer Inclusion Membrane with Sodium Diethyldithiocarbamate as a Carrier Reagent for Selective Transport of Zinc Ion
G. Arslan, A. Yilmaz, A. Tor, M. Ersoz | Turkey
- P1/P03 Poly (Imide-Siloxane) Matrices for Mixed Matrix Membranes
D. Patrova, P. Sysel, J. Vyšohlíd, O. Vopička, K. Friess | Czech Republic
- P1/P04 pH-Responsive Polyethersulfone Membranes Grafted with Acrylic Acid Derivatives for Water Treatment
K. Sikhwivhilu, M.L. Kgatle, L. Ndlwana, R.M. Moutloali, J.C. Ngila | South Africa
- P1/P05 Modified Poly (Vinyl Alcohol) Membranes for Fuel Cells Operating with the Formic Acid
M. Panasiuk, M. Szwał, A. Borodziński, W. Fabianowski | Poland
- P1/P06 Effect of the Preparation Conditions on the Properties of Polyetherimide Hollow Fibre Membranes for Gas Separation
R. Válek¹, M. Gruart², D. Malý¹, J. Peter¹ | ¹Czech Republic, ²France
- P1/P07 CNT Doped Forward Osmosis Membranes
E.O. Tatli, E. Celik, O. Cakmakci, I. Koyuncu, N.O. Yigit, M. Kitis | Turkey
- P1/P08 Polyphenylsulfone/Polysulfone Blend Membranes with Improved Permeability and Flux Recovery for Ultrafiltration
T.V. Plisko¹, J.A. Isaichykava¹, A.V. Bilydukevich¹, A.A. Ovcharova² | ¹Republic of Belarus, ²Russia

- P1/P09 New Approach to Preparation of High Flux Ultrafiltration Membranes from Polyphenylsulfone
T.V. Plisko¹, J.A. Isaichykava¹, A.V. Bilydukevich¹, A.A. Ovcharova² | ¹Republic of Belarus, ²Russia
- P1/P 10 Advanced Mixed Matrix Membranes with Ionic Liquids for CO₂ Capture
L.A. Neves, J.G. Crespo, I.M. Coelho | Portugal
- P1/P11 Stereoselective Behavior of Nafion Membranes towards A-Pinene Enantiomers
L. Brožová, J Žitka, P. Sysel, P. Izák | Czech Republic
- P1/P12 Imidazole Functionalized Cellulose Acetate Blended with Ionic Liquids for the Gas Separation
A.I. Akhmetshina, I.V. Vorotyntsev | Russia
- P1/P13 Fabrication of Hierarchically Structured Honeycomb PES/HYFLON AD Membranes and Potential Use in Water Desalination
A. Gugliuzza¹, M. L. Perrotta¹, G. Saielli¹, G. Casella¹, F. Macedonio¹, E. Drioli^{1,2} | ¹Italy, ²Republic of Korea
- P1/P14 Kerasep® Diamond II – A Premium Ceramic Membrane with Ultra-Long Durability
M. Beyerle, E. Wintenberge | France
- P1/P15 Microporous Nanoparticle-Containing Polyamide Thin Film Composite Membranes
A.M.A. Abdelsamad, M. Ulbricht | Germany
- P1/P16 Use of Different Nanoparticles for Preparation of Mixed Matrix Membranes with Antimicrobial Properties
J. Dolina, T. Lederer, L. Dvořák | Czech Republic
- P1/P17 Fabrication of Polysulfone/ PEI-SiO₂ Nanofiber Membranes with Enhanced Properties for Water Filtration
Y.E. Bülbül, S. Saki, I. A. İzoğlu, N. Uzal, N. Ateş | Turkey
- P1/P18 Stability of Candle-Shaped Filters Modified by Nanosilver and Polyethyleneimine
Z. Meloun, J. Dolina, T. Lederer, J. Soukupová, L. Dvořák | Czech Republic
- P1/P19 Impact of Different Nano ZN₀ Sizes on Membrane Filtration and Fouling Performance
L. Dvořák, Z. Meloun, J. Dolina, T. Lederer | Czech Republic

- P1/P20 Heavy Metal Removal Performance of Thin Film Nanocomposite Membranes Incorporated with SiO₂ and TiO₂ Nanoparticles
D. Apaydin, S. Saki, Y.E. Bulbul, N. Ates, N. Uzal | Turkey
- P1/P21 Dependence of Catalytic Effect of Iron Hydroxide (III) at Dissociation Rate of Water Molecules in Bipolar Membranes on Its Concentration
N. Sheldeshov, V. Zabolotskiy, N. Alpatova | Russia
- P1/P22 Effect of Various Batches of Ion-Exchange Resin on the Stability of Membrane Production
D. Malý, D. Neděla | Czech Republic
- P1/P23 Hybrid Membranes RaLEX[®] and Zirconium Compounds
D.V. Golubenko, Yu.A. Karavanova, P.A. Yurova, A.B. Yaroslavtsev | Russia
- P1/P24 Non-Laminated Ion-Exchange Membrane with Improved Mechanical Properties
J. Křivčík, D. Neděla, K. Weinertová, E. Stránská | Czech Republic
- P1/P25 Affecting Monovalent Selectivity of Anion-Exchange Membranes: Effect of Surface Modification and Applied Voltage
K. Weinertová, D. Neděla, E. Stránská, J. Křivčík | Czech Republic
- P1/P26 Mechanical Properties of Heterogeneous Bipolar Ion Exchange Membranes
D. Neděla, E. Stránská, K. Weinertová, J. Křivčík | Czech Republic
- P1/P27 Characterization of Ion Exchange Membrane with Special Surface Structure
E. Stránská, K. Weinertová, D. Neděla, J. Křivčík | Czech Republic
- P1/P28 Pan-Based Membranes for Aprotic Solvents Filtration
A.A. Yushkin, M.N. Efimov, A.A. Vasilev, A.V. Volkov | Russia
- P1/P29 Cellophane as a Membrane Material for the Process of Organic Solvents Nanofiltration
T. Anokhina, A. Yushkin, S. Antonov, A. Volkov | Russia

- P1/P30 The Preparation Development of Nanoenhanced Membranes and Their Performance for Water Treatment
I. Akin, G. Arslan, M. Karaman, M. Ersoz | Turkey
- P1/P31 Spatial Characterization of PES/PVP Based Membranes by FT-IR
M. Nachtnebel, H. Fitzek, C. Mayrhofer, B. Chernev, P. Pölt | Austria
- P1/P32 Structural Characteristics of Modified Perfluorinated Membranes
N. Kononenko¹, V. Nikonenko¹, D. Grande², C. Larchet² | ¹Russia, ²France
- P1/P33 Membrane Characterization in Electrolyte Environments: Cell Design and Procedure
K.R. Cooper, V.K. Ramani | USA
- P1/P34 Surface Charge – Electrostatic Interactions Dictate Membrane Fouling
A. Schulze, D. Breite, M. Went, A. Prager | Germany
- P1/P35 Recovery of Palladium(II) from Aqueous Solutions by Transport Across Polymer Inclusion Membranes (PIM) with Ammonium Ionic Liquid (IL)
B. Pospiech, W. Kujawski | Poland
- P1/P36 Extended Measurements of Ion-Exchange Material Properties
L. Zich, N. Káňavová | Czech Republic
- P1/P37 Application of Hydrophobic Porous Membranes for the Destroyed Paintings Conservation
J. Szczerbińska, J. Arszyńska, J. Kujawa, W. Kujawski | Poland

P2: Transport Phenomena, Fouling, Modelling, and Simulation

- P2/P38 Effect of Surface Charge of AMX-Sb Membrane on Development of Electroconvection
K. Nebavskaya¹, V. Sarapulova¹, N. Pismenskaya¹, P. Sizat², K. Sabbatovskiy¹, V. Sobolev¹ | ¹Russia, ²France
- P2/P39 Evidencing of Electrostatic Interactions in the Transfer Mechanism of Protein During Ultrafiltration in Water/Ethanol Media
H. Al Jawad^{1,2}, M. Rabiller-Baudry¹, P. Loulergue¹, S. Taha² | ¹France, ²Libanon

- P2/P40 Large Electroviscous Effects in Sulfonated Polymeric Membranes
M.B. Kristensen, S. Haldrup, J.R. Christensen, J. Catalano, A. Bentien | Denmark
- P2/P41 Experimental Evidences of Effect of Surface Properties on Development of Electroconvection near Ion Exchange Membranes
K. Nebavskaya, V. Gil, V. Sarapulova, S. Mareev, N. Pismenskaya, V. Vasil'eva, V. Nikonenko | Russia
- P2/P42 Impact of Water Splitting on Electroconvection in Membrane Systems
A. Kovalenko, A. Pismenskiy, S. Mareev, M. Urtenov | Russia
- P2/P43 Current-Voltage Characteristic of an Electrodialysis Cell in Overlimiting Current Modes
A. Uzdenova, M. Urtenov, A. Kovalenko, V. Vasil'eva, E. Akberova, V. Nikonenko | Russia
- P2/P44 A Photoacoustic Spectroscopy as a Potential Method for the Membrane Fouling Investigation
A. Miśkiewicz, G. Zakrzewska-Kołodziej, S. Pasieczna-Patkowska | Poland
- P2/P45 How to Prevent Peptide Fouling on Cation-Exchange Membranes According to Their Physicochemical Characteristics
M. Persico¹, S. Mikhaylin¹, A. Doyen¹, L. Firdaous², R. Hammami¹, M. Chevalier², C. Flahaut², P. Dhulster², L. Bazinet¹ | ¹Canada, ²France
- P2/P46 Mathematical Modelling of Ions Transport through Bilayered Membrane
S. Melnikov, C. Lebedev, A. Achoh, A. But, V. Zabolotskiy | Russia
- P2/P47 Sweep Gas Membrane Distillation Modelling
V. Perfilov^{1,2}, J. Sanchez-Marcano¹, V. Fila² | ¹France, ²Czech Republic
- P2/P48 Performance Optimization for SWRO Membrane Elemental Arrays in a Pressure Vessel
K. Jeong¹, M. Park², J.H. Kim¹ | ¹Republic of Korea, ²USA

P3: Pressure Driven Membrane Processes

- P3/P49 Effect of Operating Parameters to the Quality of Elderberry Juice During Microfiltration
Sz. Bánvölgyi, J. Sebő, Gy. Vatai, D. Furulyás, M. Stéger-Máté, É. Stefanovits-Bányai | Hungary
- P3/P50 Influence of Feed Pretreatment on Membrane Microfiltration of Titanium Dioxide Dispersions by Combination of Organic and Inorganic Coagulants
M. Grulich, P. Mikulášek | Czech Republic
- P3/P51 Ultrasound Assisted Ultrafiltration in Enzyme Separation
B. Lemmer, D. Farkas, G. Kerényi, S. Beszédes, Zs. László, G. Keszthelyi-Szabó, C. Hodúr | Hungary
- P3/P52 US Application to Clean UF Membranes Used in the Dairy Industry
M.J. Luján Facundo, J.A. Mendoza Roca, B. Cuartas Uribe, S. Álvarez Blanco | Spain
- P3/P53 Application of Nanofiltration for Removal of Zinc from Industrial Wastewater
V. Kočanová, J. Cuhorka, L. Dušek, P. Mikulášek | Czech Republic
- P3/P54 Pilot Scale Nanofiltration Treatment of Olive Mill Wastewater
S. Sanches, C. Fraga, A. Almeida, N. Silva, S. Silva, P. Nunes, J.G. Crespo, V.J. Pereira | Portugal
- P3/P55 Scaling Risk Assessment in Nanofiltration of Mine Waters
E. Laskowska, K. Mitko, M. Turek, P. Dydo | Poland
- P3/P56 Evaluation of Emerging Pollutant Compounds Removal from Water by Nanofiltration
D.I. de Souza, A. Giacobbo, M.A.S. Rodrigues, A.M. Bernardes | Brazil
- P3/P57 Treatment of Petrochemical Wastewater by Reverse Osmosis
I.S. Lemmert¹, J.H. Striving¹, S.T. Pozzebon¹, A. Giacobbo¹, A.M. Bernardes¹, M.N. de Pinho², M.A.S. Rodrigues¹ | ¹Brazil, ²Portugal

- P3/P58 Hybrid PAC/NF Technology for Removing Emerging Contaminants, Colour and Organic Matter from Wastewaters Aiming Water Reuse
R.M.C. Viegas, E. Mesquita, M. Campinas, C.M.M. Almeida, M.J. Rosa | Portugal
- P3/P59 Removal of Emerging Contaminants from Drinking Water with Adsorption/Low Pressure Ceramic Membranes – The Life Hymemb Project
M. Campinas¹, R.M.C. Viegas¹, R. Coelho², H. Lucas², M.J. Rosa¹ | ¹Brazil, ²Portugal
- P3/P60 Electrostatic Interaction Modulation in Reverse Osmosis of a Charged Dye in Water / Ethanol Mixtures
A. Belouatek^{1,2}, P. Thomas¹, A. Szymczyk¹, M. Rabiller-Baudry¹ | ¹France, ²Algeria
- P3/P141 Cr(III) Removal from Aqueous Solution by Sorption-Microfiltration Hybrid System
S. Edebali, E. Pehlivan | Turkey

P4: Thermally and Concentration Driven Membrane Processes

- P4/P61 Continuous Dialysis of Mixture of Sulphuric and Phosphoric Acids
H. Bendová, Z. Palatý | Czech Republic
- P4/P62 Membrane Osmotic Distillation for Concentration of Juices from Colourful, Wild Berries
A. Boor, N. Nemestóthy, K. Bélafi-Bakó | Hungary
- P4/P63 Experimental Investigation of Membrane Distillation
T. Jiříček, T. Lederer, T. Pluhař | Czech Republic
- P4/P64 Comparative Study on Concentrating Processes of Aqueous Solutions
Zs. Nemeth, N. Nemestóthy, K. Bélafi-Bakó | Hungary
- P4/P65 Clarification and Concentration of Black Mulberry Juice Using Membrane Processes
I. Aktürk, K.S. Bahçeci | Turkey

P5: Gas and Vapour Separation

- P5/P66 New Silicone Rubbers for Gas Separation
E. Grushevenko, I. Borisov, O. Shorsheva, D. Bakhtin, A. Volkov | Russia

- P5/P67 Extra High Permeance TFC Support for CO₂ Selective Membranes
S. Bazhenov, D. Bakhtin, I. Borisov, V. Volkov, A. Volkov | Russia
- P5/P68 Improving the Process of Thermal Rearrangement in Polymers
A. Tena, D. Meis, S. Rangou, S. Shishatskiy, V. Filiz, V. Abetz | Germany
- P5/P69 Polyimides Membranes for Gas Separation Containing Glycoluril Units
L. Pavlovec, V. Šindelář, P. Sysel, K. Friess, Z. Pientka | Czech Republic
- P5/P70 Blend Membrane of Ionic Liquid and Polymers of Intrinsic Microporosity for Improved Gas Separation Applications
K. Halder, M.M. Khan, J. Gruenauer, G. Bengtson, V. Filiz, V. Abetz | Germany
- P5/P71 Polydimethylsildimethylene- and Polydimethylsiltrimethylene- Dimethylsiloxanes– Sorption Selective Membrane Materials
I.L. Borisov, A.A. Ovcharova, N.V. Ushakov, V.V. Volkov, E.Sh. Finkelshtein | Russia
- P5/P72 Gas Transport Properties of a Novel Polyimide and Its Enhanced Polyimide-Zeolitic Imidazolate Framework: ZIF-8 Mixed Matrix Membrane
M.Z. Ahmad, V. Fila, P. Sysel | Czech Republic
- P5/P73 Gas Transport Properties of Pebax MH 1657/ CUBTC and NH₂-CUBTC Mixed Matrix Membranes
T. Khosravi¹, M.R. Omidkhah¹, S. Kaliaguine², D. Rodrigue² | ¹Iran, ²Canada
- P5/P74 Promising Gas Transport Properties of Novel Mixed Matrix Membranes Made of PBI or PPO and PDA-Functionalized Titanate Nanotubes
Z. Pientka, V. Giel, D. Popelková, M. Perchacz, J. Peter | Czech Republic
- P5/P75 Gas Permeability Through Poly(4-Methyl-1-Pentene) as Two Phase Polymeric System
S.Y. Markova, D.A. Syrtsova, N.M. Smirnova, V.V. Teplyakov | Russia

- P5/P76 Transport of Dilute Organics Through Dense Membranes: Strong Impact on The Structure of the Membrane
S.C. Fraga¹, A. Kujawska², W. Kujawski², C. Brazinha¹, J.G. Crespo¹ | ¹Portugal, ²Poland
- P5/P77 Packaging Films and Edible Coatings: CO₂ and O₂ Barrier Properties Using On-Line Mass Spectrometry
S.C. Fraga, M.A. Azevedo, C. Brazinha, I.M. Coelho, J.G. Crespo | Portugal
- P5/P78 Gas Separation Performance of Mixed Matrix Membranes Based on Thermally Rearranged (Tr) Polymers and ZIF-11
M. Safak Boroglu, F. Durak, I. Boz | Turkey
- P5/P79 Gas Sorption in High Free Volume Polymers: Polymers of Intrinsic Microporosity
M. Lanč¹, K. Pilnáček¹, J.C. Jansen², P.M. Budd³, N.B. McKeown³, O. Vopička¹, K. Friess¹ | ¹Czech Republic, ²Italy, ³United Kingdom
- P5/P80 Comparison Study between Glassy and Rubbery Polymers for Relation between Pure and Mixed Gas Permeation
S.S.K. Jampa¹, M.O. Midda¹, A.K. Suresh¹, Huanting Wang^{1,2} | ¹India, ²Australia
- P5/P81 Investigation of the Sorption of Pure and Mixed Heavy Aromatic Compounds in Polymers Under Controlled Activity
E. Berger, D. Roizard, G. Mauviel, E. Favre, H. Simonaire | France
- P5/P82 Comparison of Organophilic and Hydrophilic Pervaporation Hybrid Systems with Distillation
A.J. Toth, A. Andre, E. Haaz, P. Mizsey | Hungary
- P5/P83 Modified Time Lag Method for Determining Membrane Parameters
D. Polak, M. Zalewski, M. Szwasz | Poland
- P5/P84 Determination of VOC Transport Parameters in PIMS Membranes by Numerical Analysis of Advanced Diffusion Models
M. Zgažar, M. Dubcová, K. Friess | Czech Republic

- P5/P85 Efficient Separation of Low Energy Content Gas Mixtures
*N. Nemestóthy¹, P. Bakonyi^{1,2}, K. Bélafi-Bakó¹ |
¹Hungary, ²Mexico*
- P5/P86 Destruction Effect of Contaminant Components of Biogas
*N. Nemestóthy, K. Bélafi Bakó, M. Barta, G. Nyuli |
Hungary*
- P5/P87 Permeation of Mixture Nitrogen-Methane in PDMS Membrane
*P. Brož, M. Bobák, R. Válek, M. Zgažar | Czech
Republic*
- P5/P88 Novel Membrane Column Concepts for High-Purity Gases Production
M.M. Trubyanov, I.V. Vorotyntsev, P.N. Drozdov, V.M. Vorotyntsev | Russia

P6: Other (General Session)

- P6/P89 Hydrophilic Membranes Modified with Graphene Oxide as Elastic RH Sensors
*A. Zduńczyk, B. Dzikowski, J. Weremczuk,
W. Fabianowski, G. Owczarek | Poland*
- P6/P90 Novel Membranes for Energy and Environments
Y. M. Lee | Republic of Korea
- P6/P91 Analytical Study of Net Power and Mechanical Efficiency of Pressure Retarded Osmosis
Y.C. Kim, S. Lee, S.-J. Park | Republic of Korea
- P6/P92 Surface Water Desalination Using Neutralization Dialysis
*M. Cherif¹, C. Larchet¹, L. Dammak¹, D. Grande¹,
V. Nikonenko² | ¹France, ²Russia*
- P6/P93 Applicability of Different Ionic Liquids as Carriers in Polymer Inclusion Membranes for Arsenic Removal from Waters
C. Fontàs, R. Vera, E. Anticó | Spain

16.00 – 19.00 | Monday, May 16, 2016**M1: Electromembrane Separation Processes**

- M1/P94 Electrolytic Utilization of Coal Mine Brines
K. Mitko, B. Podleśny, A. Jakóbi-Kolon, M. Turek | Poland
- M1/P95 Electrolysis Reversal for Desalting Petrochemical Wastewater
C. Viegas, B. C. Custódio, A. Giacobbo, L.B. Da Silva, J.Z. Ferreira, A.M. Bernardes, M.A.S. Rodrigues | Brazil
- M1/P96 Hybrid Electrolysis Stack with Filtration Membranes
O. Dlask, N. Václavíková | Czech Republic
- M1/P97 High Temperature Electrolysis Pilot Stack
M. Dolezel, L. Zich, M. Novotná | Czech Republic
- M1/P98 Conductivity of Heterogeneous Ion-Exchange Membranes in Solutions Containing Organic Electrolytes
S. Melnikov, D. Kolot, V. Zabolotskiy | Russia
- M1/P99 Effect of Membrane Surface Hydrophobicity on Scaling in Electrolysis Desalination
M. Andreeva^{1,2}, V. Gil¹, N. Pismenskaya¹ | ¹Russia, ²France
- M1/P 100 Transport Characteristics of Ion-Exchange Membranes with Strongly Basic and Weakly Basic Groups in the Acidic, Neutral and Alkaline NaCl Solutions
S.V. Zyryanova¹, N.D. Pismenskaya¹, A.E. Kozmai¹, E.E. Nevakshenova¹, S.A. Mareev¹, L. Dammak² | ¹Russia, ²France
- M1/P101 Permselectivity between Mono-Valent Anions in an ED Process Using Temperature-Responsive Anion-Exchange Membranes
M. Higa, R. Hironaga, T. Yamada, M. Chinen | Japan
- M1/P102 Evaluation of Fouling Behavior of Aromatic and Aliphatic Anion Exchange Membranes in Electrolysis Processes
M. Chinen, R. Hironaga, M. Higa | Japan

- M2/P103 Integration of Membrane Separation Processes to Water Reuse on the Petrochemical Industry
C.D. Venzke, A. Giacobbo, E. Hansen, P.M. De Aquim, A.M. Bernardes, M.A.S. Rodrigues | Brazil
- M2/P104 Membrane-Based Integrated Processes for Shale Fracturing Water Treatment
M. Szwast, M. Roguski, P. Gierycz, W. Piątkiewicz, Z. Szwast, A. Krasieński, A. Kowalski, A. Kowalik-Klimczak, M. Bojarska, P. Wierzba, M. Zalewski, J. Rajewski, B. Nowak, R. Nikpour-Khoshgrudi, T. Wołynko | Poland
- M2/P105 Study and Characterization of Sediment of Reghaia Lake Improving Quality of Water by Coupling Electrocoagulation and Nanofiltration
S. Derkaoui, A. Oulebsir, B. Chibane, H. Djelal, M. Taleb Ahmed | Algeria
- M2/P106 Integrated Membrane Processes for Leachate Treatment
M. Smolný, M. Kulhavý, J. Palarčík, J. Cakl | Czech Republic
- M2/P107 Concentrate Reduction in Desalination of MBR Effluent by Nf/Ro Processes
M. Gündoğdu¹, M. Hacifazlıoğlu¹, H. R. Tomasini^{1,2}, N. Kabay¹, M. Yüksel¹, T.Ö. Pek¹ | ¹Turkey, ²Italy
- M2/P108 The Use of Submerged Hollow Fiber Microfiltration in Treatment of Landfill Leachate
M. Kulhavý, M. Smolný, M. Růžička, H. Jiráňková, J. Cakl | Czech Republic

M2: Integrated Membrane Processes in Technological Application

- M2/P109 Hydrogen Recovery in Process of Organic Substrates Conversion Using Integrated Membrane Catalytic Reactor
D. Antonov, A. Fedotov, M. Tsodikov, V. Uvarov | Russia
- M2/P110 Ultrapure Hydrogen Production in the Integrated Membrane Reactor by Reforming Processes of Renewable Resources and Synthetic Fuel
A. Fedotov, D. Antonov, V. Uvarov, N. Basov, A. Yaroslavtsev, M. Tsodikov | Russia

- M2/P111 Practical Designs of Membrane Contactors and Their Performances in CO₂/CH₄ Separation
P.S. Lee, S.-J. Kim, A. Park, S.-E. Nam, And Y.-I. Park | Republic of Korea
- M2/P112 Membrane Catalysis on Bimetallic Zirconia Based Nanocatalysts for Methanol Steam Reforming Process
A. Lytkina, K.Fedorovich, N. Orekhova, M. Ermilova, A. Yaroslavtsev | Russia
- M2/P113 The Implementation of the Membrane Gas Separation to Increase the Efficiency of the Distillation, Crystallization and Absorption
V.M. Vorotyntsev | Russia
- M2/P114 Towards the Potential of Absorbing Prevaporation Based on Ionic Liquids for Gas Mixture Separation
I.V. Vorotyntsev, A.A. Atlaskin | Russia
- M2/P115 Fabrication of Hybrid Bipolar Membranes for Deionization
S. Mun, J. Lee, K. Lee, S. Kang | Republic of Korea
- M2/P116 An Ion-Exchange Membrane Process for Arsenate Removal from Sulphate – Containing Water Streams
M. Pessoa-Lopes, J.G. Crespo, S.Velizarov | Portugal
- M2/P117 Electro-Electrodialysis for Conversion of Waste Salt from Cyclohexanone Production
H. Jaroszek, W. Mikołajczak, M. Nowak, B. Pisarska, P. Markowicz, H. Stopa, M. Gruszka | Poland

M3: Electromembrane Processes in Energy Conversion and Storage

- M3/P118 Polymerizable Ionic Liquid Based on Vinylbenzylchloride and Tributylphosphine for Solid Electrolyte for Lithium Ion Batteries
J. Žitka, B. Galajdová, L. Pavlovec, J. Schauer, Z. Pientka | Czech Republic
- M3/P119 PFSA Membranes for VRFB: Influence of Membrane Properties on Battery Operating Parameters
J. Charvát, P. Mazúr, J. Pociď, J. Vrána, J. Dundálek, J. Kosek | Czech Republic
- M3/P120 Application of Supported Ionic Liquid Membranes in Microbial Fuel Cells
L. Koók, A. Horváth, P. Takács, T. Rózsenszki, N. Nemestóthy, K. Bélafi-Bakó | Hungary

- M3/P121 The Polarization Behaviour of the Anode in Bioelectrochemical Systems
L. Koók, T. Rózsenszki, N. Nemestóthy, P. Bakonyi, K. Bélafi-Bakó | Hungary
- M3/P122 Highly Ion Permselective Pore Filled Type Ion Exchange Membranes for Reverse Electrodialysis
Y.W. Choi, M.S. Lee, C.S. Kim, Y.G. Yoon, N.J. Jeong, K.S. Nahm | Republic of Korea

M4: General Session and New Trends

- M4/P123 Potentiometric PD-Sensors Based on Perfluoro Sulfonic Cation Exchange Membrane for Determination of Amino Acids in Electrodialysis
E. Safronova, A. Parshina, T. Denisova, S. Chertov, T. Titova, O. Bobreshova, A. Yaroslavtsev | Russia
- M4/P124 The Influence of the Carbon Electrode Structure to the Ion Adsorption Capacity in CDI Process
M. Paidar, A. Giurg, J. Mališ | Czech Republic
- M4/P125 Dissociation of Organic Solvents and Their Influence on Dissociation of Water Molecules in Bipolar Membrane
N. Sheldeshov, V. Zabolotskiy, N. Kovalev, A. Akimova | Russia
- M4/P126 Study of Solution Flow Uniformity in the Pilot Electrodialyser – Evaluation of Velocity Profile Across Membrane Stack
M. Němeček, R. Kodým, K. Bouzek, D. Šnita | Czech Republic
- M4/P127 Novel Polymer Gel Electrolyte for Lithium-Ion Batteries Based on Polyphosphazene
B. Galajdová¹, J. Žitka¹, S. Wiemers-Meyer², X. Mönnhoff² | ¹Czech Republic, ²Germany
- M4/P128 Evaluation of Antibacterial Properties on Composite Membranes Using Synthesized Biogenic Silver Nanoparticles
G. Arslan¹, F.T. Minhas², U. Arslan¹, M. Ersoz¹ | ¹Turkey, ²Pakistan
- M4/P129 Nanofibres for Waterproof Breathable Clothing Membranes
J. Růžičková, M. Tejkl, J. Buk, K. Vodsedálková | Czech Republic

- M4/P130 Heavy Metal Removal Performance of Thin Film Nanocomposite Membranes incorporated With SiO₂ and TiO₂ Nanoparticles
D. Apaydin, S. Saki, Y.E. Bulbul, N. Ates, N. Uzal | Turkey
- M4/P131 Thermally Stable Anion-Exchange Materials
J. Meier-Haack | Germany
- M4/P132 Performance of Spiral-Wound Forward Osmosis Membrane for Volume Reduction of High Salinity Wastewater
S. Lee, Y.C. Kim, S.-J. Park | Republic of Korea
- M4/P133 Development of Spiral Electrodes for CDI
O. Škorvan, J. Mališ, M. Paidar | Czech Republic
- M4/P134 Introduction of Fujifilm Apura Gas Separation Membrane Module
Y. Itami, P. Van Kessel | Netherlands
- M4/P135 Pervaporative Removal of Volatile Organic Compounds of Fruits from Aqueous Solutions Using Vacuum- and Sweeping-Gas Method
M.A. Molnár, E. Márki, Gy. Vatai | Hungary
- M4/P136 Atmospheric CO₂ Absorption by Membrane Contactor System
A. Nogalska¹, M. Ammendola², R. Garcia - Valls¹ | ¹Spain, ²Italy
- M4/P137 Possibilities of Electromembrane Process for Chemical Base Production and Recovery
M. Bobak, P. Krizanek | Czech Republic
- M4/P138 Phosphates Precipitation from Brine after Demineralisation of Whey by Electrodialysis
J. Ečer, A. Merkel, T. Dvořák | Czech Republic
- M4/P139 Pulsed Electric Field and Electroconvection Are Perspective Solutions to the Major Problems of Electrodialysis
S. Mikhaylin¹, V. Nikonenko², N. Pismenskaya², G. Pourcelly³, S. Choi⁴, H.J. Kwon⁵, J. Han⁴, L. Bazinet¹ | ¹Canada, ²Russia, ³France, ⁴USA, ⁵Republic of Korea
- M4/P140 Treatment of Textile Industry Wastewater Using Intermittently Aerated Dynamic Membrane Bioreactor
E. Sahinkaya, A. Yurtsever, S. Demir, Ö. Çınar | Turkey