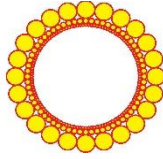


## GOLDEN LEVEL SPONSOR

PERVATECH



## PARTNERS



## MEDIA PATRONAGE



## INVITED LECTURERS

**Prof. Riitta Keiski**

Environmental and Chemical Engineering, University of Oulu  
Oulu, Finland

*Separation Processes for the Support of Sustainability – Case Studies Concerning the Recovery, Purification and Utilization of Industrial Side Streams*

**Prof. Nasib Qureshi**

United States Department of Agriculture  
Peoria, IL, USA

*Recovery of Butanol from Fermentation Broth by Pervaporation*

**Prof. Vladimir V. Volkov**

A.V.Topchiev Institute of Petrochemical Synthesis  
Moscow, Russian Federation

*Novel Generation of Thermopervaporation and Membrane Distillation: Porous Condenser*

**Dr Guillermo Zaragoza**

CIEMAT - Plataforma Solar de Almería  
Almería, Spain

*Membrane Distillation at Industrial Scale: State of the Art of Current Modules*

## CONFERENCE PROGRAMME

conference room of Hotel Uniwersytecki (83A, Szosa Chełmińska Street, Toruń)

### 20<sup>th</sup> June 2017 (Tuesday)

16.00 – 20.00 registration of participants

20.00 – 22.00 pre-conference networking (get-together party)

### 21<sup>st</sup> June 2017 (Wednesday)

08.00 – 10.00 registration of participants

09.00 – 09.15 opening ceremony

#### Session 1 Chair persons: Richard W. BAKER, Vladimir V. VOLKOV

09.15 – 10.00 L01 – Invited Lecture

**Riitta L. KEISKI**

*Separation Processes for the Support of Sustainability – Case Studies Concerning the Recovery, Purification and Utilization of Industrial Side Streams*

10.00 – 10.45 L02 – Invited Lecture

**Guillermo ZARAGOZA, J.A. ANDRÉS-MAÑAS, A. RUIZ-AGUIRRE**

*Membrane Distillation at Industrial Scale: State of the Art of Current Modules*

10.45 – 11.15 coffee break

#### Session 2 Chair persons: Aleksandra WOLIŃSKA-GRABCZYK, Aamer ALI

11.15 – 11.45 L03 – Keynote Lecture

**Maria TOMASZEWSKA, Agnieszka ŁAPIN**

*Conversion of KCl with Post-Hydrolytic Sulfuric Acid into  $KHSO_4$  in Reactor Coupled with DCMD*

11.45 – 12.15 L04 – Keynote Lecture

**Lies EYKENS, Kristien DE SITTER, Chris DOTREMONT**

*Broadening the Applications of Membrane Distillation towards High Salinity Brines*

12.15 – 12.35 L05 – Short Lecture

**Claudia URSINO, Francesco GALIANO, Emanuele DI NICOLO, Pasquale CAMPANELLI, Mariaconcetta CARNEVALE, Bartolo GABRIELE, Alessandra CRISCUOLI, Alberto FIGOLI**

*Innovative Hydrophobic Coating of Perfluoropolyether (PFPE) Derivatives on Commercial Hydrophilic Membranes for DCMD Application*

12.35 – 13.00	<b>PERVATECH</b> – presentation of the company (Golden Level Sponsor) <b>Rob de LANGE</b>
13.00 – 13.20	L06 – Short Lecture <b>Rob de LANGE</b> <i>Batch Pervaporation System for Ethanol Dehydration</i>
13.20 – 14.20	<b>lunch</b>
<b>Session 3</b>	<b>Chair persons: Maria TOMASZEWSKA, Guillermo ZARAGOZA</b>
14.30 – 15.00	L07 – Keynote Lecture <b>Yu HUANG, Tim C. MERKEL, Richard W. BAKER</b> <i>Pressure Ratio and Selectivity and Their Impact on Pervaporation/Vapor Permeation System Design</i>
15.00 – 15.20	L08 – Short Lecture <b>Aamer ALI, Alessandra CRISCUOLI, Francesca MACEDONIO, Enrico DRIOLI</b> <i>A Study of Membrane Characteristics for Wastewater Treatment through Membrane Distillation</i>
15.20 – 15.40	L09 – Short Lecture <b>Loreto GARCÍA-FERNÁNDEZ, Bo WANG, Maria Carmen GARCIA-PAYO, Kang LI, Mohamed KHAYET SOUHAIMI</b> <i>Hydrophobic Alumina Hollow Fiber Membranes with Different Morphological Structures for Air Gap Membrane Distillation</i>
15.40 – 16.10	<b>coffee break</b>
<b>Session 4</b>	<b>Chair persons: Riitta KEISKI, Anton FRIEDL</b>
16.10 – 16.30	L10 – Short Lecture <b>Katarzyna KNOZOWSKA, Anna KUJAWSKA, Joanna KUJAWA, Wojciech KUJAWSKI, Marek BRYJAK, Jan KUJAWSKI</b> <i>Properties of Commercial Membranes Applied in Pervaporative Separation of ABE from Binary Solution</i>
16.30 – 16.50	L11 – Short Lecture <b>Martin MILTNER, Florian KIRCHBACHER, Antonia ROM, Walter WUKOVITS, Michael HARASEK, Anton FRIEDL</b> <i>Solvent Recovery from ABE Solutions Applying Pervaporation under Realistic Process Conditions</i>

16.50 – 17.10	L12 – Short Lecture <b>Jan KUJAWSKI, Marek BRYJAK</b> <i>Poly(Vinyl Butaryl)-Based Membranes for Butanol Recovery by Pervaporation Process</i>
17.10 – 17.30	L13 – Short Lecture <b>Sascha KIEBLICH, Tahereh SARCHAMI, Garret MUNCH, Kai GAO, Lars REHMANN, Wojciech KUJAWSKI, Erin JOHNSON</b> <i>The Application of Vacuum Pervaporation for Butanol Removal from PBE Fermentation Broths in the Value-Added Bioconversion of Glycerol</i>
17.30 – 18.00	meeting of steering committee
19.00 – 22.30	<b>conference dinner (Jan Olbracht Old-Town Brewery)</b> 15, Szczytna Street, Toruń

22<sup>nd</sup> June 2017 (Thursday)

**Session 5**      **Chair persons: Guillermo ZARAGOZA, Martin MILTNER**

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- 08.30 – 09.15    L14 – Invited Lecture  
**Vladimir V. VOLKOV, Ilya L. BORISOV,**  
**Georgy G. GOLUBEV, Vladimir P. VASILEVSKY**  
*Novel Generation of Thermopervaporation and Membrane  
Distillation: Porous Condenser*
- 
- 09.15 – 09.35    L15 – Short Lecture  
**Monica ALBERTO, Jose Miguel LUQUE-ALLED, Lei GAO,**  
**Maria ILIUT, Eric PRESTAT, Leon NEWMAN,**  
**Sarah J. HAIGH, Aravind VIJAYARAGHAVAN,**  
**Peter M. BUDD, Patricia GORGOJO**  
*Efficient Butanol Recovery Using Graphene-Based Composite  
Membranes via Pervaporation*
- 
- 09.35 – 09.55    L16 – Short Lecture  
**Ewelina CHRZANOWSKA, Magdalena GIERSZEWSKA,**  
**Ewa OLEWNIK-KRUSZKOWSKA**  
*Separation of Water-Alcohol Mixtures with Montmorillonite Modified  
Chitosan and Chitosan/Polyvinyl Alcohol Membranes*
- 
- 09.55 – 10.15    L17 – Short Lecture  
**Kseniia OTVAGINA, Alla MOCHALOVA, Tatyana**  
**SAZANOVA, Maria DMITRENKO, Anastasia PENKOVA,**  
**Ilya VOROTYNTSEV**  
*Novel Composite Membranes Based on Chitosan Copolymers  
for Pervaporation Dehydration of Organic Media*
- 
- 10.15 – 10.45    **coffee break**

**Session 6**      **Chair persons: Loreto GARCÍA-FERNÁNDEZ,**  
**Sang Yong NAM**

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- 10.45 – 11.05    L18 – Short Lecture  
**Jin WANG, Laura CHEKLI, Sherub PHUNTSHO,**  
**Youngjin KIM, Dengxin LI, Ho Kyong SHON**  
*Performance of a Novel Fertilizer-Drawn Forward Osmosis Aerobic  
Membrane Bioreactor (FDFO-MBR): Mitigating Salinity Build-Up  
by Integrating Microfiltration*
- 
- 11.05 – 11.25    L19 – Short Lecture  
**Magdalena WÓJTOWICZ, Eugenia GRABIEC, Piotr KUBICA,**  
**Andrzej JANKOWSKI, Aleksandra WOLIŃSKA-GRABCZYK**  
*Transport Properties of Thermally Rearranged Polymeric  
Membranes*
-

11.25 – 11.45	L20 – Short Lecture <b><u>Edyta RYNKOWSKA</u>, Kateryna FATYEYEVA, Krzysztof DZIESZKOWSKI, Joanna KUJAWA, Wojciech KUJAWSKI</b> <i>Effect of Reactive Ionic Liquid and Plasticizer Incorporation on Physicochemical and Transport Properties of Cellulose Acetate Propionate-Based Membranes</i>
11.45 – 12.05	L21 – Short Lecture <b><u>Wenqi LI</u>, Patricia LUIS</b> <i>Understanding Coupling Effects in Pervaporation of Multi-Component Mixtures by Hansen Solubility Parameters</i>
12.05 – 12.25	L22 – Short Lecture <b><u>Anna SIEKIERKA</u>, Marek BRYJAK</b> <i>Lithium Recovery by Hybrid Capacitive Deionization</i>
12.30 – 13.30	<b>lunch</b>
<b>Session 7</b>	<b>Chair persons: Joanna KUJAWA, Galina POLOTSKAYA</b>
14.00 – 14.20	L23 – Short Lecture <b><u>Ankitkumar M. KANSARA</u>, Puyam S. SINGH</b> <i>Enhanced Selectivity of Alcohol/Water Pervaporation Process by Modified Silicalite-1 Filled Polydimethylsiloxane Membrane</i>
14.20 – 14.40	L24 – Short Lecture <b><u>Cilian Ó'SÚILLEABHÁIN</u>, Greg FOLEY</b> <i>Engineering of Pervaporation Systems: Modelling of Dehydration Modules, Including Recycles</i>
14.40 – 15.00	L25 – Short Lecture <b><u>Alexandra PULYALINA</u>, Alexander TOIKKA, Galina POLOTSKAYA</b> <i>Characterization and Pervaporation Performance of Novel Polyheteroarylenes</i>
15.00 – 15.30	L26 – Invited Lecture <b><u>Nasib OURESHI</u>, Anton FRIEDL</b> <i>Recovery of Butanol from Fermentation Broth by Pervaporation</i>
<b>Session 8</b>	<b>Chair persons: Richard W. BAKER, Vladimir V. VOLKOV, Maria TOMASZEWSKA, Aleksandra WOLIŃSKA-GRABCZYK</b>
15.45 – 18.00	<b>poster session (+ snacks)</b>
18.30 – 19.30	<b>dinner</b>

23<sup>rd</sup> June 2017 (Friday)

Session 9 Chair persons: Aleksandra WOLIŃSKA-GRABCZYK,  
Kristien DE SITTER

09.00 – 09.20	L27 – Short Lecture <b>Tarik ELJADDI, Denis ROIZARD, Lorena GIORDANO</b> <i>Towards the Synthesis of Greener Membranes: Interest of PVA as Porous Support for Membrane Application in Liquid Separations</i>
09.20 – 09.40	L28 – Short Lecture <b>Piotr KUBICA, Eugenia GRABIEC, Magdalena WÓJTOWICZ, Andrzej JANKOWSKI, Aleksandra WOLIŃSKA-GRABCZYK</b> <i>Influence of Zeolite MFI, Zinc Benzimidazolate and Copper Terephthalate Particles on Gas Transport in Mixed-Matrix Membranes</i>
09.40 – 10.00	L29 – Short Lecture <b>J.-Th. KÜHNERT, M. WEYD, H. RICHTER, I. VOIGT, U. LUBENAU, R. MOTHE, Ch. KÖPKE, G. NEUHAUS</b> <i>Zeolite NaA Membranes for Improved Glycol Dewatering in Natural Gas Drying</i>
10.00 – 10.30	<b>coffee break</b>
10.30 – 10.50	L30 – Short Lecture <b>Pierru ROBERTS, S.J.F GATES, P. VAN DER GRYP</b> <i>Dehydration of Hydrazine Hydrate Using Commercially Available Polymeric Membranes Using Pervaporation</i>
10.50 – 11.10	L31 – Short Lecture <b>Andras Jozsef TOTH, Eniko HAAZ, Peter MIZSEY</b> <i>Novel Method for Evaluation of Pervaporation Membrane Efficiency: Membrane Flash Index (MFLI)</i>
11.10 – 11.40	L32 – Keynote Lecture <b>Joanna KUJAWA, Samer AL-GHARABLI, Wojciech KUJAWSKI, Hassan A. ARAFAT</b> <i>Tunable Separation in Membrane Distillation by Chemical Functionalization of Polyvinylidene fluoride Membranes Using Piranha Reagent</i>
11.40 – 12.00	L33 – Short Lecture <b>Polina VAKULIUK, Ihor TKACHENKO, Valery SHEVCHENKO, Joanna KUJAWA, Wojciech KUJAWSKI</b> <i>Nanostructured Superhydrophobic Polymer Membranes for Membrane Distillation</i>
12.15 – 12.45	<b>closing remarks</b>
13.00 – 14.00	<b>lunch</b>