







# EXPERT FILTRATION & SEPARATION

ifts

MEMBRANE CHARACTERIZATION FILTRATION & SEPARATION • LABORATORY EQUIPMENT PROCESS STUDIES • FILTER TESTING

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# **EDITORIAL**

The Société Française des Séparation Fluides Particules (SF2P, France) will be organizing the next World Filtration Congress (WFC14) in Bordeaux from June 30 to July 4. Held every 3 to 4 years, World Filtration Congresses take place in a member country of the International Filtration Delegates Association.

The aim of the WFC is to create a meeting place for scientists, engineers and applicators from all over the world, specialists in filtration and separative techniques, to discuss the latest advances in science and technology. The WFCs have enabled the development of processes in line with the socio-economic challenges of each era. Our committee wishes to preserve this tradition by placing WFC 14 at the heart of the challenges facing the world today and tomorrow. We hope that the project we have prepared will have the support of our entire community.

The congress will provide an opportunity to discuss the technical and scientific challenges and innovations in the field of fluid-particle separations. The scientific committee is keen to highlight the involvement of all these processes in environmental and sustainable development issues. Particular attention will be paid to a fast-growing area, the valorization of natural resources, in line with the biorefinery concept, of biosourced molecules to replace petrochemical products. Filtration and separative techniques for more sustainable processes, as well as water, climate and energy issues will also be addressed.

A trade show, bringing together solution providers, prime contractors, designers, consultants, etc., and specific forums will enable visitors to discover the innovations on display and to take advantage of discussions and debates with other professionals. Exchanges between academic researchers and industrial partners will be intensified through specific communications open to exhibitors, or through the creation of meeting spaces. The aim is to promote opportunities for friendly interaction during the event to discuss key topics in the field of separative techniques and filtration. The expected number of participants is 150 exhibitors and 700 scientific researchers.

SF2P's ambition is to offer the best possible welcome to experts from all over the world who will be attending WFC14, and to organize an exceptional event. That's why we've chosen Bordeaux as our host city, renowned for its economic, scientific and, of course, tourist appeal. We look forward to meeting you in Bordeaux, which will also seduce you with its diverse cultural, artistic, gastronomic and architectural heritage.

Vincent EDERY Managing Director IFTS

Professor PONTALIER President of SF2P



# PROGRAM SHORT COURSES

Registration required

#### 12:00 - 13:30 WELCOME ATTENDEES

#### LIQUID FILTRATION: EQUIPMENT

#### Wu CHEN, CHINA

- Introduction
- Key Particles and Liquid Properties in Solid/Liquid Separation
- Straining Equipment
- Cake Filters
- Depth Filters
- Membrane Filters
- Gravity Separators
- Centrifugal Separators
- Pre-treatment Coagulation, Flocculation & Filter Aids

#### ROOM H2

ROOM D2

13:30 - 15:30

COFFEE BREAK

16:00 - 18:00

#### CENTRIFUGAL SEPARATION IN BIOPHARMACEUTICAL INDUSTRY Wallace LEUNG, Duluth, UNITED STATES

#### Wallace Leono, Duluth, ONITED STATES

The purpose of this course is to introduce centrifugal separations for making drug substances and intermediates, such as monoclonal antibodies for cancer treatment. The building blocks for these drug substances are made from recombinant protein process through inserting a segment of a gene into a host cell (mammalian cells, yeast, bacteria, etc.) and allowing protein to be expressed extracellularly or intercellularly by the host cell in a fermenter or bioreactor. Separating extracellular or intracellular protein in the broth by centrifugal separation is a common practice in biopharmaceutical processing despite many challenges as it involves shear sensitive living cells from bacteria which are a few microns to mammalian cells and yeast which are tens of microns, and with density not too much different from that of the broth. This course will go through fundamentals to applications involving centrifugal separations in biopharmaceutical processing.

#### Learning objectives:

- Recombinant protein host cells
- Metrics of separation
  - Fundamentals of centrifugal sedimentation
  - Existing biopharmaceutical application examples insulin, hormones, enzymes, probiotics, etc.
- BREAK 16:00 - 18:00

13:30 - 15:30

COFFEE

- Selection and sizing of centrifugesTroubleshooting separation process
- Different process requirements centrate solids, cake dryness, sizing

#### Course outline:

- Chapter 1 Common host cells for recombinant protein processes; extracellular vs. intracellular protein; metrics protein yield, centrate solids, throughput, cell viability.
- Chapter 2 Centrifugal sedimentation
- Chapter 3 Batch and semi-batch, disk stack, decanters
- Chapter 4 Commercial applications to biopharmaceutical separations
- Chapter 5 Selection and sizing
- Chapter 6 Troubleshooting
- Chapter 7 Separation, flocculation, classification, and dewatering

### MONDAY, 30 JUNE 2025

Liquid filtration Gas filtration Membrane Sustainable development



#### **MEMBRANES: BASICS**

#### Patrice BACCHIN, Toulouse

- 1. Introduction to Membrane Separation Processes
  - Definition and fundamental principles
  - Classification of membrane processes
  - Comparison with other separation technologies
- Industrial applications and case studies

#### 13:30 - 15:30 COFFEE BREAK

16:00 - 18:00

#### 2. Membrane Structures, Operating Parameters, and Characterization

- Relationship between structure and function: pore size, selectivity, permeability
- Definition and measurements of operating parameters characterizing selectivity and performance
- Membrane characterization techniques

#### 3. Limitations of Membrane Processes: Fouling and Solutions

- Types of fouling
- Mechanisms and impact on performance
- Initiation to modeling
- Prevention and cleaning strategies



# **PROGRAM** SHORT COURSES

Registration required

#### ROOM H1

13:30 - 15:30

COFFEE

BREAK

16:00 - 18:00

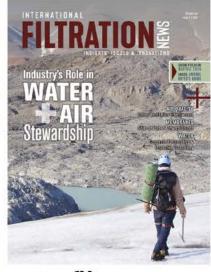
#### FILTER MEDIA: LIQUID FILTRATION TESTING BASICS

#### Nicolas PETILLON, Foulayronnes

- Introduction to Liquid filter testing
- Standardization organizations and test standards
- Industries, National and International Quality assurance in testing laboratories
- Types and applications of liquid clarification filters
- Types: Depth, Precoat, Cartridges, Membranes, Design and operation parameters, Fields of Application
- Types and characteristics of filtering media
- Granular, woven, non-woven, membranes
- Characteristics of liquids and particles







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	ROOM F	ROOM H	ΑΜΡΗΙ Α	
8:00 - 10:15			· · · · · · · · · · · · · · · · · · ·	
8:00 - 18:00				
10:15 - 11:00	ΑΜΡΗΙ Α			
11:00 - 12:00	АМРНІ А			
12:00 - 13:30				
13:30 - 14:10	KEYNOTE: Wu CHEN Opportunities, Trend and New Development in Liquid Filtration	KEYNOTE: Kyung-Ju CHOI Current and Sustainable Upcoming Filter Media	KEYNOTE: Wallace LEUNG Developing nanofibrous filter with low energy consumption and high efficiency	
	FUNDAMENTALS,MODELLING AND SIMULATION 1	FILTER ELEMENTS AND MEDIA 1	PETROLEUM AND BIO-BASED MEDIA	
14:20 - 14:40	0-001 Eugene VOROBIEV Predictive model of solid-liquid filtration and mechanical dewatering with compressible filter cakes	O-006 Marina ÄNGESLEVÄ Nuances of measurements of nonwoven filter media, ceramic, and electrospun membranes with capillary flow porometry	0-011 Alessia NICOSIA Sustainable silk fibroin filtration solutions for healthier environments	
14:40 - 15:00	O-002 Eugene VOROBIEV Evaluation of filtration diffusivity and internal pressure- porosity- permeability profiles during consolidation of compressible filter cakes based on the predictive model	O-007 Friedrich EDELMEIER New Developments in Woven Wire Filtration Media - 3D High Performance Filter Cloth for increased volume flow	O-012 Goda MASIONE Life cycle assessment of biobased polymer air filters: a comparative study with petroleum-based materials	
15:00 - 15:20	0-003 Erik LÖWER Correlating Particle Properties with 3D Pore Space Parameters in Cake Filtration: A Model-Based Approach	0-008 Guenter MUELLER Specialty- and high-performance polymers for meltblown technology: selection, processing, and resulting media properties	0-013 Dainius MARTUZEVICIUS Aerosol filtering materials from biobased polyamide as fabricated via melt blowing and electrospinning	
15:20 - 15:40	O-004 Sergiy ANTONYUK Experimental estimation of the model parameters for the CFD-DEM simulation of filtration processes	O-009 Martin MUELLER Composite-cloths: Combining smallest pores sizes and mechanical robustness in one filter medium	O-015 Ki Ro YOON A Study on the PTFE Fibrous Nonwoven Fabricated by Electrospinning Technique as Dust Filtration Media	
15:40 - 16:00	0-005 Urs Alexander PEUKER Model analysis for filter aid filtration	O-010 Nick EDWARDS LENZING Lyocell Enhanced Fibrillation - latest developments from Lenzing AG confer a sustainable competitive advantage in high-efficiency filter media design		
16:00- 16:30				
	FUNDAMENTALS, MODELLING AND Simulation 2	FILTER ELEMENTS AND MEDIA 2	NEW MEDIA FOR GAS FILTRATION	
16:30 - 16:50	O-036 Bernhard HOFFNER Insights into imperfections - considerations on the assessment of non-ideal filter cakes	O-039 Melanie FUHRMANN Data-Driven Modeling of Fluid Flow Through Porous Metal Wire Meshes	KEYNOTE: Santosh CHAVAN Reimagining Filtration: Raticulated & Activated Carbon	
16:50 - 17:10	0-037 Christopher KÜHNLE An effective digital approach to improve pleated filter performance	O-040 Elsi STRAND Ultrasonic self-cleaning of wire mesh filter elements in filtration of iron oxides	Reimagining Filtration: Reticulated & Activated Carbon Impregnated PU Foams for Modern Filtration Challenges	
17:10 - 17:30		0-041 Mansi GARG ProTex- energy saving filter media	0-042 Natacha KINADJIAN CAPLAT Purenat, the new media that reinvents photocatalysis	
17:30 - 18:15				
18:30 - 19:30				

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### TUESDAY, 1 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

ROOM D	АМРНІ В	АМРНІ С	ROOM E
Registration			
Expo Open			
Opening Ceremony			
Plenary Lecture: Herman NIRSCHL Autonomous Processing in Separat			
Lunch			
KEYNOTE: Zhaoxiang ZHONG Process Reengineering with Air-Purification Membranes for Environmental Sustainability	KEYNOTE: Kwang-Ho CHOO Catalytic Membrane Filters for Water Purification and Sanitization	KEYNOTE: Zhi WANG Development of membranes and membrane processes for CO2 capture	KEYNOTE: Hans THELANDIER Some thought regarding filtration in todays and future Bio refineries
INDUSTRIAL GAS CLEANING	FUNDAMENTALS, MODELING AND SIMULATION	MEMBRANE FOULING / Regeneration	BIOREFINERY
O-016 Sean MCLNTYRE A new gas permeation unit for Investigating PIM- 1 and cPIM-1 gas permeation under real-world conditions	0-021 Morshed MAHMUD Molecular insights inside the PIM-1 membrane with ethanol-water mixtures	0-026 Eric FAVRE Membranes for biogas upgrading - A modelling approach using MEMSIC simulation tool for innovative membranes benchmarking	0-031 Estelle COUALLIER Recovery of proteins from microalgae extracts using biocatalytic membranes
O-017 Shipeng WAN Highly-efficient SiC-base Catalytic Membrane for PM2.5 Capture Integrated with Urea Production under Solar Irradiation	O-022 Xianghong QIAN Free energy surface landscape of interfacial polymerization for polyamide membrane formation	0-027 Noreddine GHAFFOUR Effective membrane cleaning technique using CO2 nucleated bubbles	0-032 Camille DEMOULIN A sustainable combination of pre-treatment and filtration mode to upgrade mango pulp by microfiltration
0-019 Bruno LIMA Precoating Humidity in Filtration Cycles Performance	0-023 Fynn Jerome ASCHMONEIT Spacer orientation in reverse osmosis: A trade-off between pressure drop and filtration rate	O-028 Julie JAMBERT Control of clogging in microfluidic filtration chip using low frequency ultrasound	0-034 Louis LECLERCQ New developments of eco-extraction coupling microwaves and high speed centrifugation based on vegetal cells properties
O-020 Bruno LIMA Analysis of the influence of the sewing thread on the performance of filter bags	O-024 Mamadou Lamine NIANE Development of a numerical model of pervaporation for membrane crystallization or solvent dehydration	O-029 Jinwoo KIM Enhanced quorum quenching membranes: Optimizing polymer coatings for improved antifouling performance in membrane bioreactors	O-035 Anders Kjær JØRGENSEN Production of plant-based feed and food proteins by membrane and dead-end filtration
0-020bis Charles-Florian PICARD Perks and Challenges of Evaluating Air Purifiers in Realistic Environments: Insights from Case Studies in the Eurêka Lab-House (France)	O-025 Sebastian OSTERROTH Modeling and simulation of separation processes in hollow fiber modules	O-030 Kevin DEMONT Accumulation of biological particles on a model filter : kinetics of growth and morphological analysis	
Coffee Break - Exhibition - Poster			
INDUSTRIAL GAS CLEANING	MEMBRANE TECHNOLOGY / APPLICATIONS	NF	WASTE WATER TREATMENT
O-043 Dzmitry MISIULIA One dimensionless number to rule all dimensionless characteristics of a cyclone performance	0-046 Christine KLEFFNER Optimizing Membrane Elements for Enhanced Efficiency in Industrial Resource Recovery	O-049 Dawry-Javier CAPELLAN BATISTA Impact of physico-chemical interactions in organic solvent nanofilitration of hydroformylation complex media separation by a PDMS membrane	O-052 Volker BÄCHLE Development of an autonomous process for the selective leaching and filtration of metal ions from mining waste
0-044 Stanislovas ZDANEVICIUS Study on the influence of flow rate on gas flow distribution in an electric field manipulator: Experimental research	O-047 Ariella LIBERATI Stimuli-responsive polymer enhanced membrane filtration for separation of lithium from lithium-ion battery leachate		0-053 Sam VAN LANDUYT Enhancing sustainable industrial practices through reuse of metal oil filtration elements
0-045 Qing HE Experimental study of adsorption behavior of CH3I over microchannel reactors	O-048 Jean-Christophe P. GABRIEL Novel and Highly Selective Membranes Based on 2 & 3D Porous Nanomaterials		
Poster viewing session			

#### WELCOME RECEPTION





#### WELCOME AREA

08:00 - 18:30 Welcome attendees

#### ΑΜΡΗΙ Α

10:15 - 11:00 Opening ceremony

#### AMPHI A

11:00 - 12:00 Plenary session Autonomous Processing in Separation Technologies Hermann NIRSCHL, Munich, GERMANY

#### ESPACE PLURIEL

- 12:00 13:30 Lunch
- ROOM F Liquid filtration/ Keynote session
- 13:30 14:10 Liquid filtration Wu CHEN, CHINA

ROOM H Liquid filtration/ Keynote session

- 13:30 14:10 **Current and Sustainable Upcoming Filter Media** Kyung-Ju CHOI, Clean & Science, Louisville, UNITED STATES
- AMPHIA Gas filtration/ Keynote session
- 13:30 14:10 Developing nanofibrous filter with low energy consumption and high efficiency

Wallace LEUNG, Hong Kong Polytechnic University, Duluth, UNITED STATES

**ROOM D** Gas filtration/ Keynote session

13:30 - 14:10 Process Reengineering with Air-Purification Membranes for Environmental Sustainability

Zhaoxiang ZHONG, Nanjing Tech University, Nanjing, CHINA

#### AMPHI B Membrane / Keynote session

13:30 - 14:10 Catalytic Membrane Filters for Water Purification and Sanitization Kwang-Ho CHOO, Kyungpook National University, Daegu, REPUBLIC OF KOREA

#### AMPHIC Membrane / Keynote session

13:30 - 14:10 Development of membranes and membrane processes for CO2 capture

Zhi WANG, Tianjin University, Tianjin, CHINA



### TUESDAY, 1 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

**ROOM E** Sustainable development / Keynote session

13:30 - 14:10 Some thought regarding filtration in todays and future Bio refineries Hans THELANDIER, Chalmers University of Technology, Gothenburg, SWEDEN

#### **ROOM F** Liquid filtration / Session

#### 14:20 - 16:00 Fundamentals, Modelling and Simulation 1

14:20 O-001 Predictive model of solid–liquid filtration and mechanical dewatering with compressible filter cakes

Eugene VOROBIEV, UTC – Universite de Technologie de Compiegne, Compiègne

14:40 O-002 Evaluation of filtration diffusivity and internal pressure- porosity- permeability profiles during consolidation of compressible filter cakes based on the predictive model **Eugene VOROBIEV, UTC – Universite de Technologie de Compiegne, Compiègne** 

15:00 O-003 Correlating Particle Properties with 3D Pore Space Parameters in Cake Filtration: A Model-Based Approach
 Erik LÖWER, TU Bergakademie Freiberg, Freiberg, GERMANY
 Co-authors: Phillip GRÄFENSTEINER <sup>(2)</sup>; Orkun FURAT <sup>(2)</sup>; Urs PEUKER <sup>(1)</sup>; Volker SCHMIDT <sup>(2)</sup>
 Affiliations: 1 : TU Bergakademie Freiberg, Institute of Mechanical Process Engineering and Mineral Processing, Freiberg, GERMANY ; 2 : Ulm University, Institute of Stochastics, Ulm, GERMANY

15:20 O-004 Experimental estimation of the model parameters for the CFD-DEM simulation of filtration processes

Sergiy ANTONYUK, University of Kaiserslautern-Landau (RPTU), Kaiserslautern, GERMANY

15:40 O-005 Model analysis for filter aid filtration
 Urs Alexander PEUKER, TU Bergakademie Freiberg, Freiberg, GERMANY
 Co-authors: Diana NEUBER (1); Thomas BUCHWALD (1)
 Affiliations: 1: TU Bergakademie Freiberg, Freiberg, GERMANY

#### ROOM H Liquid filtration / Session

#### 14:20 - 16:00 Filter Elements and Media 1

- 14:20 O-006 Nuances of measurements of nonwoven filter media, ceramic, and electrospun membranes with capillary flow porometry
  - Marina ÄNGESLEVÄ, Porometer NV, Nazareth, BELGIUM

**Co-authors:** Dana DUTCZAK <sup>(1)</sup>; Eline PATTYN <sup>(1)</sup>; Izabela STRUZYNSKA-PIRON <sup>(1)</sup>; Anna SOBOLEWSKA <sup>(2)</sup>; Motyka MOTYKA <sup>(2)</sup>; Loubaba SHARAF <sup>(2)</sup> **Affiliations:** 1: Porometer NV, Nazareth, BELGIUM; 2: IB-FT GmbH, Berlin, GERMANY

- 14:40 O-007 New Developments in Woven Wire Filtration Media 3D High Performance Filter Cloth for increased volume flow Friedrich EDELMEIER, Haver & Boecker, Oelde, GERMANY
- 15:00 O-008 Specialty- and high-performance polymers for meltblown technology: selection, processing, and resulting media properties
   Guenter MUELLER, Sandler Group, Schwarzenbach An Der Saale, GERMANY
   Co-authors: Jana BUBLER <sup>(1)</sup>
   Affiliations: 1 : Sandler Group, Schwarzenbach an der Saale, GERMANY
- 15:20 O-009 Composite-cloths: Combining smallest pores sizes and mechanical robustness in one filter medium
   Martin MUELLER, G. Bopp + Co. AG, Fine Wire Weaving Plant, Zuerich, SWITZERLAND
- 15:40 O-010 LENZING<sup>™</sup> Lyocell Enhanced Fibrillation latest developments from Lenzing AG confer a sustainable competitive advantage in high-efficiency filter media design Nick EDWARDS, Lenzing Fibers Grimsby Ltd., Grimsby, UNITED KINGDOM



#### AMPHIA Gas filtration / Session

#### 14:20 - 16:00 Petroleum and bio-based media

- 14:20 O-011 Sustainable silk fibroin filtration solutions for healthier environments Alessia NICOSIA, National Research Council of Italy (CNR), Bologna, ITALY Co-authors: Fabrizio RAVEGNANI (1); Livia OTTAVIANO (2); Elena BURATTI (3); Giorgia MICCOLI (4); Roberto ZAMBONI <sup>(2)</sup>; Monica BERTOLDO <sup>(3)</sup>; Valerio MICELI <sup>(4)</sup>; Giovanna SOTGIU <sup>(2)</sup>; Tamara POSATI <sup>(2)</sup> Affiliations: 1 : The Institute of Atmospheric Sciences and Climate (ISAC) of the National Research Council of Italy (CNR), Bologna, ITALY; 2: The Institute for Organic Synthesis and Photoreactivity (ISOF) of the National Research Council of Italy (CNR), Bologna, ITALY ; 3 : Department of Chemical, Pharmaceutical and Agricultural Sciences, University of Ferrara, Ferrara, ITALY ; 4 : Laboratory Innovation of Agri-food Chains, ENEA Research Center, ENEA, Brindisi, ITALY
- 14:40 O-012 Life cycle assessment of biobased polymer air filters: a comparative study with petroleum-based materials

#### Goda MASIONE, Kaunas University of Technology, Kaunas, LITHUANIA

Co-authors: Inga STASIULAITIENE (1); Darius CIUŽAS (1); Edvinas KRUGLY (1); Martynas TICHONOVAS (2); Tadas PRASAUSKAS (1) ; Dainius MARTUZEVICIUS (1)

Affiliations: 1: Kaunas University of Technology, Kaunas, LITHUANIA; 2: Bious Labs Tech (Pazangiosios technologijos UAB), Kaunas, LITHUANIA

15:00 O-013 Aerosol filtering materials from biobased polyamide as fabricated via melt blowing and electrospinning

Dainius MARTUZEVICIUS, Kaunas University of Technology, Kaunas, LITHUANIA Co-authors: Goda MASIONE (1); Darius CIUŽAS (1); Edvinas KRUGLY (1); Martynas TICHONOVAS (2); Tadas PRASAUSKAS (1)

Affiliations: 1 : Kaunas University of Technology, Kaunas, LITHUANIA ; 2 : Bious Labs Tech (Pazangiosios technologijos UAB), Kaunas, LITHUANIA

15:20 O-015 A Study on the PTFE Fibrous Nonwoven Fabricated by Electrospinning Technique as **Dust Filtration Media** 

Ki Ro YOON, Korea Institute of Industrial Technology, Ansan-Si, REPUBLIC OF KOREA



### TUESDAY, 1 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

ROOM D	filtration / Session	
14:20 - 16:00	lustrial gas cleaning	
	<ul> <li>O-016 A new gas permeation unit for Investigating PIM-1 and cPIM-1 gas permeation uncereal-world conditions</li> <li>Sean MCLNTYRE, Surface measurement systems, London, UNITED KINGDOM</li> <li>Co-authors: Andrew FOSTER <sup>(2)</sup>; Mustafa ALSHURAFA <sup>(2)</sup>; Paul IACOMI <sup>(1)</sup>; Peter BUDD <sup>(2)</sup>; Daryl WILLIAMS <sup>(3)</sup></li> <li>Affiliations: 1 : Surface measurement systems, London, UNITED KINGDOM ; 2 : University of Manchester, Manchester, UNITED KINGDOM ; 3 : Imperial College London, London, UNITED KINGDOK</li> </ul>	
	<ul> <li>O-017 Highly-efficient SiC-base Catalytic Membrane for PM2.5 Capture Integrated with Urea Production under Solar Irradiation</li> <li>Shipeng WAN, Nanjing Tech University, Nanjing, CHINA</li> <li>Co-authors: Zhong ZHAOXIANG (1)</li> <li>Affiliations: 1 : Nanjing Tech University, Nanjing, CHINA</li> </ul>	
	<ul> <li>O-019 Precoating Humidity in Filtration Cycles Performance Bruno LIMA, Federal University of São Carlos, São Carlos, BRAZIL</li> <li>Co-authors: Bárbara ANDRADE <sup>(1,2)</sup>; Bruno CASTRO <sup>(1,2)</sup>; Rafael SARTIM <sup>(2,3)</sup>; Mônica AGUIAR<sup>(1)</sup> Affiliations: 1: Federal University of São Carlos, São Carlos, BRAZIL; 2: Global R&amp;D Brazil, Vitória, BRAZIL; 3: Federal University of Espírito Santo, Vitória, BRAZIL</li> </ul>	
	<ul> <li>O-020 Analysis of the influence of the sewing thread on the performance of filter bags Bruno LIMA, Federal University of São Carlos (UFSCar), São Carlos, BRAZIL</li> <li>Co-authors: Rodrigo CARDOSO <sup>(1)</sup>; Bruno CASTRO <sup>(2)</sup>; Barbara ANDRADE <sup>(2)</sup>; Rafael SARTIM <sup>(2,3)</sup>; Môn AGUIAR <sup>(1)</sup></li> <li>Affiliations: 1: Federal University of São Carlos (UFSCar), São Carlos, BRAZIL; 2: ArcelorMittal Tubarã Serra, BRAZIL; 3: Federal University of Espírito Santo (UFES), Vitória, BRAZIL</li> </ul>	
	<ul> <li>O-020bis Perks and Challenges of Evaluating Air Purifiers in Realistic Environments: Insights from Case Studies in the Eurêka Lab-House (France)</li> <li>Charles-Florian PICARD (Lagord, FRANCE)</li> <li>Co-Authors : Jérôme NICOLLE <sup>(1,2)</sup></li> </ul>	

Affiliations: 1: TIPEE, Lagord, FRANCE; 2: RUPEElab, La Rochelle, FRANCE



#### AMPHI B Membrane / Session

14:20 - 16:00	Fun	damentals, Modelling and Simulation
	14:20	O-021 Molecular insights inside the PIM-1 membrane with ethanol-water mixtures Morshed MAHMUD, University of Rennes, Rennes
		<b>Co-authors:</b> Anthony SZYMCZYK <sup>(1)</sup> ; Aziz GHOUFI <sup>(2)</sup> ; Bart VAN DER BRUGGEN <sup>(3)</sup> <b>Affiliations:</b> 1 : Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes) - UMR 6226, F-35000, Rennes, FRANCE ; 2 : Institut de Chimie et des Matériaux Paris-Est (ICMPE), Université Paris- Est Créteil, Paris, FRANCE ; 3 : Process Engineering for Sustainable Systems (ProcESS), Katholieke Universiteit Leuven, Celestijnenlaan 200f, 3001, Leuven, BELGIUM
	14:40	O-022 Free energy surface landscape of interfacial polymerization for polyamide membrane formation Xianghong QIAN, University of Arkansas, Fayetteville, UNITED STATES
		<b>Co-authors:</b> Cannon HACKETT <sup>(1)</sup> ; Sumith WICKRAMASINGHE <sup>(1)</sup> <b>Affiliations:</b> 1 : University of Arkansas, Fayetteville, UNITED STATES
	15:00	O-023 Spacer orientation in reverse osmosis: A trade-off between pressure drop and filtration rate Fynn Jerome ASCHMONEIT, Aalborg University, Copenhagen, DENMARK
	15:20	O-024 Development of a numerical model of pervaporation for membrane crystallization or solvent dehydration Mamadou Lamine NIANE, Laboratoire de Mécanique Modélisations et Procédés Propres (M2P2), Aix En Provence
		<b>Co-authors:</b> Fatimatou toure LO <sup>(1)</sup> ; Mathias MONNOT <sup>(1)</sup> ; Emilie CARRETIER <sup>(1)</sup> ; Philippe MOULIN <sup>(1)</sup> <b>Affiliations:</b> 1 : Aix Marseille Univ, CNRS, Centrale Med, M2P2 UMR 7340, EPM, Aix en Provence, FRANCE
	15:40	O-025 Modeling and simulation of separation processes in hollow fiber modules Sebastian OSTERROTH, Fraunhofer institute for industrial mathematics, Kaiserslautern, GERMANY

Co-authors: Ralf KIRSCH <sup>(1)</sup> Affiliations: 1 : Fraunhofer Institute for Industrial Mathematics, Kaiserslautern, GERMANY



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# TUESDAY, 1 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

#### AMPHIC Membrane / Session

#### 14:20 - 16:00 Membrane fouling / regeneration

14:20 O-026 Membranes for natural gas upgrading – A modelling approach using MEMSIC simulation tool for innovative membranes benchmarking Eric FAVRE, MEMSIC, Nancy Co-authors: Alejandro ORSIKOWSKY <sup>(1)</sup> ; Kelvinraj NURSIAH <sup>(1,2)</sup> ; Roda BOUNACEUR <sup>(2)</sup> Affiliations: 1: TotalEnergies, Lacq, FRANCE ; 2: MEMSIC, Nancy, FRANCE 14:40 O-027 Effective membrane cleaning technique using CO2 nucleated bubbles Noreddine GHAFFOUR, KAUST, Jeddah, KSA, SAUDI ARABIA Co-authors: Alla ALPATOVA (1) Affiliations: 1: KAUST, Jeddah, KSA, SAUDI ARABIA 15:00 O-028 Control of clogging in microfluidic filtration chip using low frequency ultrasound Julie JAMBERT, Institut de Mécanique des fluides de Toulouse, Toulouse Co-authors: Olivier LIOT (1); Xavier JACOB (1); nicolas HENGL (1) Affiliations: 1 : Institut de Mécanique des fluides de Toulouse, Toulouse, FRANCE ; 2 : Institut de Mécanique des fluides de Toulouse, Toulouse, FRANCE ; 3 : Institut de Mécanique des fluides de Toulouse, FRANCE ; 4 : Institut de Mécanique des fluides de Toulouse, Toulouse, FRANCE 15:20 O-029 Enhanced quorum quenching membranes: Optimizing polymer coatings for improved antifouling performance in membrane bioreactors Jinwoo KIM, Kyungpook National University, Daegu, REPUBLIC OF KOREA Co-authors: Hyeona PARK <sup>(1)</sup> : Kwang-Ho CHOO <sup>(1)</sup>

Affiliations: 1 : Kyungpook National University, Daegu, REPUBLIC OF KOREA

15:40 O-030 Accumulation of biological particles on a model filter : kinetics of growth and morphological analysis

Kevin DEMONT, Toulouse Biotechnology Institute (INSA Toulouse), Toulouse Co-authors: Pierre JOSEPH<sup>(2)</sup>; Hélène MARTIN<sup>(1)</sup>; Philippe SCHMITZ<sup>(1)</sup>; Mickaël CASTELAIN<sup>(1)</sup> Affiliations: 1 : Toulouse Biotechnology Institute (INSA Toulouse), Toulouse, FRANCE ; 2 : Laboratoire d'Analyse et d'Architecture des Systèmes (LAAS), Toulouse, FRANCE



ROOM E	Susta	inable development / Session
14:20 - 16:00	Bior	efinery
	14:20	O-031 Recovery of proteins from microalgae extracts using biocatalytic membranes Estelle COUALLIER, CNRS, Saint-Nazaire
		<b>Co-authors:</b> Alexia POIDEVIN <sup>(1)</sup> ; Tim SCHREIBER <sup>(2)</sup> ; Martin SCHMIDT <sup>(2)</sup> ; Konrad LEOPOLD <sup>(2)</sup> ; Pascale GILLON <sup>(1)</sup> ; Alain RIAUBLANC <sup>(3)</sup> ; Agnes SCHULZE <sup>(2)</sup>
		Affiliations: 1 : CNRS- Nantes University - GEPEA, Saint-Nazaire, FRANCE ; 2 : IOM (Leibniz Institute of Surface Engineering), Leipzig, GERMANY ; 3 : INRAE BIA, Nantes, FRANCE
	14:40	O-032 A sustainable combination of pre-treatment and filtration mode to upgrade mango pulp by microfiltration
		Camille DEMOULIN, CIRAD, UMR QualiSud, Saint-Pierre, REUNION
		<b>Co-authors:</b> Manon SERVAL <sup>(1)</sup> ; Julien RICCI <sup>(1)</sup> ; Cyrielle GARCIA <sup>(2)</sup> ; Doralice VEILLANT <sup>(3)</sup> ; layal DAHDOUH <sup>(1)</sup>
		Affiliations: 1 : CIRAD, UMR QualiSud, Saint-Pierre, Réunion, FRANCE ; 2 : Université de la Réunion, ESIROI, Saint-Pierre, Réunion, FRANCE ; 3 : CIRAD, UPR Hortsys, Saint-Pierre, Réunion, FRANCE
	15:00	O-034 New developments of eco-extraction coupling microwaves and high speed centrifugation based on vegetal cells properties Louis LECLERCQ, IFTS, Foulayronnes
		<b>Co-authors:</b> Pascal GINISTY <sup>(1)</sup> ; Marc VALAT <sup>(2)</sup> ; Giuseppe SCIUME <sup>(2)</sup> ; Pierre PETRIACQ <sup>(3)</sup> ; Michel HERNOULD <sup>(3)</sup>
		Affiliations: 1 : IFTS, FOULAYRONNES, FRANCE ; 2 : I2M (UMR 5295), Université de Bordeaux , TALENCE, FRANCE ; 3 : INRAE (UMR 1332), Université de Bordeaux , VILLENAVE D'ORNON, FRANCE
	15:20	O-035 Production of plant-based feed and food proteins by membrane and dead-end filtration
	Anders Kjær JØRGENSEN, Aalborg University, Aalborg, DENMARK	
		<b>Co-authors:</b> Tuve MATTSSON <sup>(1)</sup> ; Simon GREGERSEN ECHERS <sup>(1)</sup> ; Sandie NIELSEN <sup>(1)</sup> ; Annsofie NIELSEN <sup>(1)</sup> ; Valdemar SKRIVER MELGAARD <sup>(1)</sup> ; Anna HOLST PEDERSEN <sup>(1)</sup> ; Peter STEPHENSEN LÜBECK <sup>(1)</sup> ; Mette LÜBECK <sup>(1)</sup> ; Mads Koustrup JØRGENSEN <sup>(1)</sup>

Affiliations: 1 : Aalborg University, Aalborg, DENMARK

#### ESPACE PLURIEL

#### 16:00 - 16:30 Coffee break - Visit the exhibition and the poster area

#### ROOM F Liquid filtration / Session

#### 16:30 - 17:30 Fundamentals, Modelling and Simulation 2

16:30 O-036 Insights into imperfections - considerations on the assessment of non-ideal filter cakes

### Bernhard HOFFNER, Technical University of Applied Sciences Mannheim, Mannheim, GERMANY

**Co-authors:** Florian SAUER <sup>(1)</sup>; Hendrik-Simon HENN <sup>(1)</sup> **Affiliations:** 1: Mannheim University of Applied Science, Mannheim, GERMANY

16:50 O-037 An effective digital approach to improve pleated filter performance Christopher KÜHNLE, Math2Market GmbH, Kaiserslautern, GERMANY Co-authors: Philipp EICHHEIMER <sup>(1)</sup>; Liping CHENG <sup>(1)</sup>; Andreas WIEGMANN <sup>(1)</sup> Affiliations: 1 : Math2Market GmbH, Kaiserslautern, GERMANY



### TUESDAY, 1 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

#### AMPHI H Liquid filtration / Session

#### 16:30 - 17:30 Filter Elements and Media 2

- 16:30 O-039 Data-Driven Modeling of Fluid Flow Through Porous Metal Wire Meshes Melanie FUHRMANN, Karlsruher Institute of Technology, Karlsruhe, GERMANY
   Co-authors: Sebastian REHM <sup>(2)</sup>; Martin MÜLLER <sup>(2)</sup>; Hermann NIRSCHL <sup>(1)</sup>; Marco GLEIB <sup>(1)</sup> Affiliations: 1 : Karlsruher Institute of Technology, Karlsruhe, GERMANY ; 2 : Spörl KG, Sigmaringendorf, GERMANY
- 16:50 O-040 Ultrasonic self-cleaning of wire mesh filter elements in filtration of iron oxides Elsi STRAND, Sofi Filtration Ltd, Espoo, FINLAND
   Co-authors: Riina SALMIMIES <sup>(1)</sup> Affiliations: 1 : Sofi Filtration Ltd, Espoo, FINLAND

17:10 O-041 ProTex- energy saving filter media
 Mansi GARG, Intensiv Filter Himenviro Technologies Gmbh, Velbert, GERMANY
 Co-authors: Manoj GARG <sup>(1)</sup>; Svasti MALIK <sup>(1)</sup>
 Affiliations: 1 : Intensiv Filter Himenviro Technologies Gmbh, Velbert, GERMANY

#### AMPHIA Gas filtration / Session

#### 16:30 - 17:30 New media for gas filtration

16:30 **Keynote lecture** - Reimagining Filtration: Reticulated & Activated Carbon Impregnated PU Foams for Modern Filtration Challenges

Santosh CHAVAN, The Vita Group, CRANCEY

**Co-authors:** Hans Juergen STOLZ <sup>(2)</sup>; Paul MAYALL <sup>(1)</sup>; Thomas JONCHERAY <sup>(2)</sup> **Affiliations:** 1 : The Vita Group, Manchester, UNITED KINGDOM ; 2 : Vita - Caligen Europe BV , Breda, NETHERLANDS

17:10 O-042 Purenat, the new media that reinvents photocatalysis
 Natacha KINADJIAN CAPLAT, Purenat, Bayonne
 Co-authors: Camille TEIXEIRA (1)
 Affiliations: 1 : Purenat, Bayonne, FRANCE

#### ROOM D Gas filtration / Session

#### 16:30 - 17:30 Industrial gas cleaning

16:30 O-043 One dimensionless number to rule all dimensionless characteristics of a cyclone performance

Dzmitry MISIULIA, University of Kaiserslautern-Landau (RPTU), Kaiserslautern, GERMANY

**Co-authors:** Sergiy ANTONYUK <sup>(1)</sup> **Affiliations:** 1 : Institute of Particle Process Engineering, University of Kaiserslautern-Landau (RPTU), Kaiserslautern, GERMANY

16:50 O-044 Study on the influence of flow rate on gas flow distribution in an electric field manipulator: Experimental research
 Stanislovas ZDANEVICIUS, Vilniustech, Vilnius, LITHUANIA
 Co-authors: Aleksandras CHLEBNIKOVAS (\*)
 Affiliations: 1 : Vilniustech, Vilnius, LITHUANIA

 17:10 O-045 Experimental study of adsorption behavior of CH3I over microchannel reactors Qing HE, Tianjin University, Tianjin, CHINA
 Co-authors: Wei TAN <sup>(n)</sup>; Guorui ZHU <sup>(n)</sup>; Yuntian FANG <sup>(n)</sup> Affiliations: 1 : Tianjin University, Tianjin, CHINA

#### AMPHI B Membrane / Session

#### 16:30 - 17:30 Membrane technology / applications

16:30 O-046 Optimizing Membrane Elements for Enhanced Efficiency in Industrial Resource Recovery

#### Christine KLEFFNER, Bochum UNiversity of Applied Sciences, Bochum, GERMANY Co-authors: Gerd BRAUN <sup>(1)</sup>; Sergiy ANTONYUK <sup>(2)</sup>

Affiliations: 1 : TH Köln - University of Applied Sciences, Cologne, GERMANY ; 2 : RPTU University Kaiserslautern-Landau, Kaiserslautern, GERMANY

16:50 O-047 Stimuli-responsive polymer enhanced membrane filtration for separation of lithium from lithium-ion battery leachate

Ariella LIBERATI, Institut Européen des Membranes, Univ. Montpellier, CNRS, ENSCM, Montpellier

**Co-authors:** Jean-Pierre MERICQ <sup>(1)</sup>; Bénédicte PRÉLOT <sup>(2)</sup>; Sophie MONGE <sup>(2)</sup>; Catherine FAUR <sup>(1)</sup> **Affiliations:** 1: Institut Européen des Membranes, Univ. Montpellier, CNRS, ENSCM, Montpellier, FRANCE ; 2 : Institut Charles Gerhardt Montpellier, Univ. Montpellier, CNRS, ENSCM, Montpellier, FRANCE

17:10 O-048 Novel and Highly Selective Membranes Based on 2 & 3D Porous Nanomaterials Jean-Christophe P. GABRIEL, CEA, Gif-Sur-Yvette Cedex

**Co-authors:** Sarah M. CHEVRIER <sup>(1)</sup>; Bo HAN <sup>(2)</sup>; Thibault ROSIER <sup>(1)</sup>; Fabien OLIVIER <sup>(1)</sup>; Lina CHERNI <sup>(1)</sup>; Kunli GOH <sup>(3)</sup>; Chuah Chong YANG <sup>(3)</sup>; Guillaume ZANTE <sup>(1)</sup>; Alex Yan QINGYU <sup>(2)</sup> **Affiliations:** 1: Université Paris-Saclay, Commissariat à l'Energie Atomique et aux Energies Alternatives, NIMBE, LICSEN, Gif-sur-Yvette Cedex, FRANCE ; 2 : Singapore CEA Alliance for Research in Circular Economy, Energy Research Institute @ NTU, Nanyang Technological University, Singapore, SINGAPORE ; 3 : Singapore Membrane Technology Centre, Nanyang Environment and Water Research Institute, Nanyang Technological Unive, Singapore, SINGAPORE

#### AMPHIC Membrane / Session

#### 16:30 - 17:30 NF

- 0-17.50
  - 16:30 O-049 Impact of physico-chemical interactions in organic solvent nanofiltration of hydroformylation complex media separation by a PDMS membrane Dawry-Javier CAPELLAN BATISTA, Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes) – UMR 6226, Rennes

**Co-authors:** Thierry RENOUARD <sup>(1)</sup>; Dihia CHABNI <sup>(1)</sup>; Murielle RABILLER-BAUDRY <sup>(1)</sup> **Affiliations:** 1: Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes) - UMR 6226, Rennes, FRANCE

#### **ROOM E** Sustainable development / Session

#### 16:30 - 17:30 Waste water treatment

16:30 O-052 Development of an autonomous process for the selective leaching and filtration of metal ions from mining waste

#### Volker BÄCHLE, Karlsruhe Institute of Technology (KIT), Karlsruhe, GERMANY

**Co-authors:** Andreas VOIGT  $^{(2)}$  ; Kai SUNDMACHER  $^{(2)}$  ; Sandesh HIREMATH  $^{(3)}$  ; Naim BAJCINCA  $^{(3)}$  ; Marco GLEIB  $^{(1)}$ 

Affiliations: 1 : Karlsruhe Institute of Technology (KIT), Karlsruhe, GERMANY ; 2 : Otto von Guericke University Magdeburg (OVGU), Magdeburg, GERMANY ; 3 : University of Kaiserslautern-Landau (RPTU), Kaiserslautern, GERMANY

16:50 O-053 Enhancing sustainable industrial practices through reuse of metal oil filtration elements

#### Sam VAN LANDUYT, Bekaert, Zwevegem, BELGIUM

18

Co-authors: Angela ISIBOR (2) ; Aurélie GOUX (1)

Affiliations: 1 : Bekaert, Zwevegem, BELGIUM ; 2 : Bekaert, Atlanta, UNITED STATES

### TUESDAY, 1 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

ESPACE PANORAMIQUE

17:30 - 18:15 Poster Viewing Session

ESPACE PLURIEL

18:30 - 19:30 Welcome reception

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	ROOM F	ROOM H	ΑΜΡΗΙ Α
8:00 - 18:00			
8:30 - 9:30			
9:30 - 10:00			
	FUNDAMENTALS, MODELLING AND SIMULATION 3	TESTING AND CHARACTERISATION	FUNDAMENTALS IN MEDIA
10:00 - 10:20	0-057 Marco GLEISS Advances in multiscale modeling of solid bowl centrifuges	O-061 Nicolas PETILLON New method to qualify liquid filters simulating real life conditions	O-067 Elise CABASET Are iso-permeable media necessarily iso-efficient?
10:20 - 10:40	O-058 Marco GLEISS. Combining mechanistic and data-driven approaches into a dynamic grey box model for decanter centrifuges	O-062 Nikolai BENZ Measuring of the interference resistance of a filter medium - Is it really possible?	0-068 Augustin CHARVET Solid volume fraction heterogeneities: benefits or drawbacks on fibrous filter performance?
10:40 - 11:00	O-059 André LIER Study of the compaction behaviour of suspended elastic- plastic particles during centrifugation	O-063 Gernot KRAMMER Exploring the transition between filter cake formation and deliquoring by inline surface position laser measurement	O-069 Nathalie BARDIN-MONNIER Effect of Submicronic and Nanometric Fibers on the Pressure Drop of Polydisperse Fiber Media
11:00 - 11:20	O-060 Lin LIU Highly accurate prediction of mini-hydrocyclone separation efficiency by coupling BP neural network and response surface method	0-064 René PEINADOR DAVILA Advanced Fluorescence and Membrane-Based Techniques for Direct Detection and Characterization of Micro/Nanoplastics in Aquatic Environments	O-070 Ralf KIRSCH Model-based prediction of the influence of nonuniform fiber material distribution on the performance of filtering face pieces and pleated filters
11:20 - 11:40		O-065 Andrew SCHNEIDER The effectiveness of various media types used in in-line incompressible liquid filter elements to separate solid nano particles in the range of 100nm-1µm in water, by means of laser light scattering and microscopic analysis.	0-071 Eunkyoung SHIM 3D X-ray tomographic microstructure analysis of dust- clogging inside nonwoven fibrous filter media
11:40 - 12:00		O-066 Nicolas HENGL Characterization of concentration polarization layers during cross-flow ultrafiltration of cellulose nanocrystals suspensions using micro-PIV and SAXS	O-072 Philipp EICHHEIMER Simulation of electret filter media behavior through modeling of charge distributions, dielectrophoresis, and charge decay
12:00 - 13:30			
12:45 à 13:15	Forum LUM GMbh: M. Sylvain GRESSIER & Prof. Dr. Dr. Dietmar LERCHE Filtration efficiency monitored by particle counting and sizing using Single Particle Light-Scattering Technology® (SPLS)		
13:30 - 14:10	KEYNOTE: Gajanan BHAT Recent Advances in Meltblown Nonwovens for Filter Media Applications: Nanofibers to Sustainable Materials	KEYNOTE: Urs PEUKER BERNHARD HOFFNER Recent findings in filter cake washing – fundamentals and application	KEYNOTE: Vincent EDERY Air quality in aircraft cabins



Liquid filtration Gas filtration Membrane Sustainable development

ROOM D	ΑΜΡΗΙ Β	ΑΜΡΗΙ C	ROOM E
Registration and Exhibition open			
Plenary Lecture: Christine SUN Advanced Filter Media Technologie	s, Trends, and Opportunities		
Coffee Break - Exhibition - Poster			
EUROPEAN PROJECTS For air quality and health	MEMBRANE TECHNOLOGY / Applications	MEMBRANE FOULING / Regeneration	BIOREFINERY
0-073 Katie KEDWELL IAQ and health - INQUIRE what chemical and biological determinants are relevant in homes with children under the age of five and what can we do to reduce exposure	O-077 Jueun LEE Inline spiking adaptation for enhanced virus filtration in continuous biopharmaceutical manufacturing	O-083 Kazuho NAKAMURA Response of the zeta potential to fouling status in Microfiltration and application for fouling monitoring	KEYNOTE: Frank LIPNIZKI Membrane processes
0-074 Martin LEHMANN IAQ and health - Monitoring in canteen, homes, schools to create knowledge for improving indoor air quality and health K-HEALTHinAIR	0-079 Gian Vincent DIZON Zwitterionic forward osmosis membranes for platelet concentration	0-084 Martin SCHMIDT Bioactive and self-cleaning polymer membranes	in lignocellulosic biorefineries
0-075 Katie KEDWELL IAQ and health - LEARN how filtration is beneficial for children in schools	O-081 Indira CHIMANLAL Could an ultra-thin dense coated membrane be an alternative to microporous membranes for membrane distillatio	O-085 Soyoun KIM A novel cleaning agent specialized for organic induced fouling of ceramic membranes	O-089 Thi Thanh Nga PHAM Ultrafiltration of hydrolysable tannins from sweet chesnut wood
KEYNOTE: Martin LEHMANN Cleaner Urban air with AeroSolfd solutions	O-082 Mahmoud ABDULHAMID Novel hexa-fluorinated intrinsically porous polyimide membranes for the desalination of high saline water by air-gap membrane distillation	0-086 Mads Koustrup JØRGENSEN Identification and quantification of organic and inorganic fouling by in-situ thermal conductivity measurements	O-090 Fu YANG Integrated ozone-forward osmosis process for tannery wastewater treatment and reuse in agriculture
reducing brake emissions and exposure at metro stations	O-082bis Dihia CHABNI Solvent delamination of UF and OSN membranes: a step in the LCA of spiral membrane aiming at assessing the environmental impact of the membrane material in separation processes.	0-087 Clémence COETSIER Surface modifications inspired by nature for biofilm control in membrane processes	O-091 Melanie MUNCH Exploring Explainable AI in Food Processing: Machine Learning Models for Skimmed Milk Microfiltration Transmission Ratio for UTP and GP Membranes
O-076 Marie HOFF Brake particle emission reduction by brake filters - an efficient option completing the toolbox		O-088 Yasaman JALILIAN Recycling end-of-life reverse osmosis membranes into tailored nanofiltration membranes via polyelectrolyte coatings	0-092 Wenping LI A Biogenic Filter Material for Bio Refinery Applications

Lunch

KEYNOTE: Amlan CHAKRABORTY Generating Synthetic Training Data for Machine Learning Applications in Air Filtration Systems KEYNOTE: Su-En WU Improvement in the Filtration Performance of Shear-Enhanced Dynamic Microfiltration by Structure Design KEYNOTE: Kasper HEDEGAARD Removal of PFAS using commercial polymeric microfiltration membranes coated with amphiphilic cyclodextrins KEYNOTE: Peter CARTWRIGHT The Challenges of Ongoing Contamination of Drinking Water Supplies - What Can Be Done About It?



	ROOM F	ROOM H	ΑΜΡΗΙ Α	
	COAGULATION / FLOCCULATION	TESTING AND Characterisation 2	AEROSOL FILTRATION	
14:20 - 14:40	0-093 Morten Lykkegaard CHRISTENSEN Recovery of phosphorus from lake sediment	0-098 Dominik HERPER Water Permeability Testing for Porous Materials	O-103 Gunnar DWARS Modeling particle deposition in turbulent curved channel flow with structured surfaces	
14:40 - 15:00	O-094 Anthony STICKLAND Suspension pelletisation and drainage using robust flocs	0-099 William HICKS Introducing FiltVia: A Vision Analysis tool to automate the assessment of a filter cake resistance	O-104 Feng CHEN Influence of vibration on gas-solid filtration performance of filters	
15:00 - 15:20	O-095 Pascal GINISTY. Degradation of Cationic Polyacrylamide-Based Flocculants (CPAM) Upon Contact with Metallic Surfaces: Impacts on Flocculation, Thickening, and Dewatering Applications	O-100 Bernd FRAENKLE Enhancing performance of filter presses with a filter plate-integrated sensor	O-105 Chih-Chieh CHEN Experimental study on optimal CADR filter thickness of indoor air purifier	
15:20 - 15:40	O-097 A S M MOHIUDDIN Dissolved organic carbon impacting the performance of contact filtration water treatment (pre-recorded presentation)	0-101 Andrzej KRASINSKI Reducing of biofouling rate of polymer media during filtration of water contaminated with bacteria by coating with photoactive TiO2-metal layers	O-106 Hui Ll Fabrication and performance of novel environmentally- friendly micro-nano fibrous filter media	
15:40 - 16:00	O-130 Laila HAMRAOUI Enhanced Dewatering of Mine Tailings: From Flocculation-Thickening to Filtration and Electrofiltration		O-107 Wallace LEUNG Enhanced nanoaerosol loading performance of multilayer PVDF nanofiber electret filters	
16:00 - 16:30				
	ALTERNATIVE AND INNOVATIVE Separation	FLOTTATION AND COMBINED PROCESSES	NEW MEASUREMENT METHODS	
16:30 - 16:50	O-128 Fuki KOIKE Study on the settling acceleration phenomenon due to density current and particle aggregation by applying horizontal DC electric field to fine particle slurry	O-131 Rémy CABALL Innovation in sewater reverse osmosis pre-treatment: Seadaf Filter as combined flotation and filtration at high velocity	0-134 Delphine DESHAYES Improving the quantification of microorganisms collected onto HVAC fibrous filters	
16:50 - 17:10	O-129 Simon PAAS Multidimensional process for wet classification of fine particles in a crossflow with superimposed electrical field	O-132 Rémy CABALL Seawater reverse osmosis pre-treatment Combination at Low Environmental Footprint	0-135 Vanessa LÖSCHNER A method to determine the pressure drop of dust cakes on surface filters under low pressure conditions	
17:10 - 17:30	O-32bis Houcine MHEMDI Optimizing Mustard Glucosinolate Purification Using Dead-End Ultrafiltration: Membrane Fouling and Juice Quality (pre-recorded presentation)	O-133 Celine LEVECQ Valédeau Drinking Water Treatment Plant (France), a flexible solution for territory security	O-136 Ralf HEIDENREICH Advances in welding furne separation by using a new measurement method	
	POSTER SESSION LIQUID FILTRATION	POSTER SESSION LIQUID FILTRATION	POSTER SESSION GAS FILTRATION	
17:30 - 17:40	P-01 Etienne FROGER Produce drinking water wherever you need it with the ANDRITZ mobile filtration unit (AMFU)	P-05 Lin LIU Influences and Characteristics of Back-washing for Double-layer Filter Materials in Filtration Treatment of Polymer Flooding Produced Water	P-02 Mônica AGUIAR Enhancing Automotive Cabin Air Filtration Efficiency Using Short Cellulose Acetate Nanofibers	
17:40 - 17:50	P-43 Michal STOR Removal of active pharmaceuticals ingredients from water using modified halloysite particles	P-08 Cuilong CHEN Analysis on the development and Standardization System Construction of Separation Machinery Industry in the Context of Dual Carbon Goals	P-12 Mônica AGUIAR Evaluation of the efficiency of bag filters with different filter media	
17:50 - 18:00			P-13 Mônica AGUIAR Production of triple-layer filter media from recycled polyethylene terephthalate (rPET) and polystyrene (rPS) using the electrospinning technique: Evaluation of air nanoparticle filtration and permeability	
18:00 - 18:10				
18:15 - 19:15	ROOM G			

22

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BORDEAUX FRANCE • 30 JUNE - 4 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

ROOM D	ΑΜΡΗΙ Β	АМРНІ С	ROOM E
FUNDAMENTALS	MF AND UF	MEMBRANE TECHNOLOGY / Applications	WATER TREATMENT
O-108 Sergiy ANTONYUK Influence of moisture on electret filters: a DNS study	O-113 Marie ARNOULD Extraction of Nanoplastics from Water and Size-based Separation using a novel Membrane Filtration System	0-118 Daniel BELL Oil-Water Separation in industrial process water streams using BOLL ceramic membrane filtration	0-124 Jihane MOUMOUH Effect of brackish water salinity on productivity of prototype based on humidification- dehumidification of air
O-109 Soleiman BOURROUS A phenomenological model to predict the porosity of nanometric particles deposit formed by air filtration	O-115 Fatemeh HAMIDAVI The Impact of Fiber Length and Concentration on Ultrafiltration Membrane Performance: Insights from Microplastic Fiber Filtration Experiment	0-119 Eman HUSSEIN ZIF-67/Bacterial cellulose membranes for dye removal and oil/water separation	O-125 Gina Paola ALFONSO SARMIENTO Optimization of an integrated hollow-fiber solar-powered VMD system for autonomous desalination
O-110 Wallace LEUNG New experimental results on pressure drop of a nanofiber filter		O-120 Asif SAUD Influence of Process Conditions and Different Ion(s) on Magnesium Sulfate Crystallization in Membrane Distillation Crystallization	O-126 Frank ROEGENER Drinking water production from unconventional sources
O-111 Qian ZHANG Case study on the clogging phase of filter media during dust separation using a multi-layer model with offset for dust cake growth		O-121 Antoine VENAULT Development of effective photocatalytic membrane reactors for the total removal/ degradation of tetracycline from water	0-127 Abdoulaye DOUCOURE Autonomous drinking water systems with energy storage
O-112 Christopher MULLER Gas-Phase Media Properties: What's Important and Why		0-122 Rodrigo CÂNDIDO Production of low-alcohol content wine by pervaporation	
Coffee Break - Exhibition - Poster			
AIR GAZ TREATMENT	NF	MEMBRANE FORMATION / Structure	WATER TREATMENT
O-138 Mônica AGUIAR Fabrication of Biocidal Electrospun PAN Filters Modified with CPC Surfactant and ZnO Nanoparticles for Efficient Filtration	O-140 Utpalkumar THUMMAR Recovery of homogeneous active catalysts in organic solvent nanofiltration: in-depth study of the benefits of using stable model complexes different from the pre-catalysts	O-143 Mihail BARBOIU Artificial Water Channels- toward Biomimetic Membranes for Desalination	O-146 Seonki LEE Effect of Hydraulic Head Changes on the Performance of Gravity-Driven Membrane Systems
O-139 Wallace LEUNG Breakdown of harmful Nox and VOC by photo- oxidation using titania nanofiber photocatalyst	O-141 Jian TAN Nanofiltration using Polysulfone Membranes	O-144 Sébastien RIGOURD Development of innovative hollow fibers and carbon hollow fibers	0-147 Indira CHIMANLAL Experimental investigation of the effects of solar heating on the performances of an integrated solar-powered hollow fiber VMD module at semi- industrial scale
O-139bis Mohammad Mehdi SHIRMOHAMMADI Nonwoven Coating Using Zeolite–Nano Silver Powder for Gas Adsorption and Antibacterial Purposes	O-142 Ze Xian Nicholas LOW Boron-nitride Nanosheets as Membrane Building Blocks for Water Purification and Gas Separations	0-145 Maryam Khadim MBACKE Development of nanofiltration membrane from cellulose triacetate made from millet husk	0-148 Patrick WIECHERS Efficient direct mechanical recycling of Li-ion battery production residues via ultrasonic delamination and dynamic cross-flow filtration
POSTER SESSION GAS FILTRATION	POSTER SESSION MEMBRANE	POSTER SESSION MEMBRANE	POSTER SESSION SUSTAINABLE DEVELOPMENT
P-15 Tianle YOU Study of the particle loading behavior and dendrite growth characteristics on a single fiber	P-03 Da-Qi CAO Recycling of polymeric substances from sewage via membrane technologies	P-23 Xuelong ZHUANG Development of Antifouling gamma-Al2O3/alpha- Al2O3 Nanofiltration Membranes for Enhanced Wastewater Treatment Efficiency	P-19 Soobin JANG Enhanced separation of C-phycocyanin and allophycocyanin using a coupled filtration and precipitation methods
P-14 Simone POZZA Application of graphene oxide on nonwoven microfibres as a promising air purification nanocomposite for removal of particulate matter	P-38bis René PEINADOR DAVILLA FLUORMIDABLE: A Fluorescence-Based Strategy for In Situ Detection and Mapping of Micro- and Nanoplastics in Coastal and Marine Environments	P-20 Jimin KANG Hybrid modeling approach for the prediction of potential fouling in filtration based on viscosity	P-37 Pierre-Yves PONTALIER Protein concentration from microalgae using stirred-cell ultrafiltration
P-16 Yongchun ZENG Modeling nonwoven filters and application to airflow study and pressure drop prediction			P-45 Kasper Skovbølling HEDEGAARD Modification of polypropylene filters with amphiphilic cyclodextrins by dip coating for PFAS removal
P-16bis Yixin ZOU A 5 nm to 10 micrometre Condensation Particle Counter suitable for testing all air filter grades			
INDEFI MEETING			



#### WELCOME AREA

08:00 - 18:15 Welcome attendees

#### AMPHI A

08:30 - 09:30 Plenary session

Advanced Filter Media Technologies, Trends, and Opportunities Christine SUN, World Filtration Institute, Clarksville, UNITED STATES

#### ESPACE PLURIEL

#### 09:30 - 10:00 Coffee break - Visit the exhibition and the poster area

#### **ROOM F** Liquid filtration / Session

#### 10:00 - 12:00 Fundamentals, Modelling and Simulation 3

10:00 O-057 Advances in multiscale modeling of solid bowl centrifuges Marco GLEISS, Institute of Mechanical Process Engineering and Mechanics - Karlsruhe Institute of Technology (KIT), Karlsruhe, GERMANY

10:20 O-058 Combining mechanistic and data-driven approaches into a dynamic grey box model for decanter centrifuges
 Marco GLEISS, Institute of Mechanical Process Engineering and Mechanics - Karlsruhe Institute of Technology (KIT), Karlsruhe, GERMANY
 Co-authors: Ouwen ZHAI <sup>(1)</sup>; Hermann NIRSCHL <sup>(1)</sup>
 Affiliations: 1 : Karlsruhe Institute of Technology, Karlsruhe, GERMANY

10:40 O-059 Study of the compaction behaviour of suspended elastic-plastic particles during centrifugation
 André LIER, University of Kaiserslautern-Landau (RPTU), Kaiserslautern, GERMANY

**Co-authors:** Fabian KRULL<sup>(1)</sup>; Sergiy ANTONYUK<sup>(1)</sup> **Affiliations:** 1 : Institute of Particle Process Engineering, University of Kaiserslautern-Landau (RPTU), Kaiserslautern, GERMANY

11:00 O-060 Highly accurate prediction of mini-hydrocyclone separation efficiency by coupling BP neural network and response surface method

#### Lin LIU, Northeast Petroleum University, Daqing, CHINA

**Co-authors:** Yahong WANG <sup>(1,2)</sup>; Lixin ZHAO <sup>(1,2,3)</sup>; Zhewei LIU <sup>(1,2)</sup> **Affiliations:** 1 : School of Mechanical Science and Engineering, Northeast Petroleum University, Daqing , CHINA ; 2 : Heilongjiang Key Laboratory of Petroleum and Petrochemical Multiphase Treatment and Pollution Prevention, Daqing, CHINA ; 3 : State Key Laboratory of Continental Shale Oil, Daqing, CHINA



Liquid filtration Gas filtration Membrane Sustainable development

#### ROOM H Liquid filtration / Session

	ing and Characterisation O-061 New method to qualify liquid filters simulating real life conditions Nicolas PETILLON, IFTS, Foulayronnes Co-authors: Lionel GERARD <sup>(2)</sup> Affiliations: 1 : IFTS, FOULAYRONNES, FRANCE ; 2 : FRANCEVIBRATION TECHNOLOGIES SAS, BARBERAZ, FRANCE
10:20	O-062 Measuring of the interference resistance of a filter medium – Is it really possible? Nikolai BENZ, University of Kaiserslautern-Landau, Kaiserslautern, GERMANY Co-authors: Fabian KRULL <sup>®</sup> ; Sergiy ANTONYUK <sup>®</sup> Affiliations: 1: University of Kaiserslautern-Landau, Kaiserslautern, GERMANY
10:40	O-063 Exploring the transition between filter cake formation and deliquoring by inline surface position laser measurement Gernot KRAMMER, Graz University of Technology, Graz, AUSTRIA Co-authors: Elias NEUHOLD <sup>(1)</sup> Affiliations: 1 : Graz University of Technology, Graz, AUSTRIA
11:00	O-064 Advanced Fluorescence and Membrane-Based Techniques for Direct Detection and Characterization of Micro/Nanoplastics in Aquatic Environments <b>René PEINADOR DAVILA, Institut de la Filtration et des techniques séparatives (IFTS),</b> <b>Foulayronnes</b>
11:20	O-065 The effectiveness of various media types used in in-line incompressible liquid filter elements to separate solid nano particles in the range of 100nm-1µm in water, by means of laser light scattering and microscopic analysis. Andrew SCHNEIDER, Ascent Filtration Testing, LLC, Livonia, UNITED STATES
11:40	O-066 Characterization of concentration polarization layers during cross-flow ultrafiltration of cellulose nanocrystals suspensions using micro-PIV and SAXS <b>Nicolas HENGL, Laboratoire rhéologie et procédés, Grenoble</b> <b>Co-authors:</b> Mathilde CHALLAMEL <sup>(1)</sup> ; Candice REY <sup>(1)</sup> ; Stéphane BAUP <sup>(1)</sup> ; Alain DUFRESNE <sup>(3)</sup> ; Henda DJERIDI <sup>(2)</sup> ; Frédéric PIGNON <sup>(1)</sup> <b>Affiliations:</b> 1 : Laboratoire rhéologie et procédés, Grenoble, FRANCE ; 2 : Laboratoire des écoulements géophysiques et industriels, Grenoble, FRANCE ; 3 : Laboratoire de génie des procédés papetiers, grenoble, FRANCE
	10:00 10:20 10:40 11:00 11:20



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#### AMPHIA Gas filtration / Session

#### 10:00 - 12:00 Fundamentals in media

- 10:00 O-067 Are iso-permeable media necessarily iso-efficient?
   Elise CABASET, Université de lorraine, Nancy
   Co-authors: Nathalie BARDIN-MONNIER <sup>(1)</sup>; Augustin CHARVET <sup>(1)</sup>; Dominique THOMAS <sup>(1)</sup>
   Affiliations: 1 : LRGP, Université de Lorraine, CNRS, Nancy, FRANCE
- 10:20 O-068 Solid volume fraction heterogeneities: benefits or drawbacks on fibrous filter performance?

Augustin CHARVET, Laboratoire Réactions et Génie des Procédés, Nancy Co-authors: Nathalie BARDIN-MONNIER <sup>(II)</sup>; Dominique THOMAS <sup>(II)</sup> Affiliations: 1 : Laboratoire Réactions et Génie des Procédés, Nancy, FRANCE

10:40 O-069 Effect of Submicronic and Nanometric Fibers on the Pressure Drop of Polydisperse Fiber Media Nathalie BARDIN-MONNIER, CNRS, Nancy

**Co-authors:** augustin CHARVET <sup>(1)</sup> ; dominique THOMAS <sup>(1)</sup> **Affiliations:** 1 : CNRS, LRGP université de Lorraine, Nancy, FRANCE

 11:00 O-070 Model-based prediction of the influence of nonuniform fiber material distribution on the performance of filtering face pieces and pleated filters
 Ralf KIRSCH, Fraunhofer Institute for Industrial Mathematics ITWM, Kaiserslautern, GERMANY

**Co-authors:** Christian MERCIER <sup>(1)</sup>; Dietmar HIETEL <sup>(1)</sup>; Schmeißer ANDRE <sup>(1)</sup>; Erik DAHRMANN <sup>(2)</sup>; Maximiliano TAGLIANI <sup>(2)</sup> **Affiliations:** 1 : Fraunhofer Institute for Industrial Mathematics ITWM, Kaiserslautern, GERMANY ; 2 : IMSTec GmbH, Klein-Winternheim, GERMANY

- 11:20 O-071 3D X-ray tomographic microstructure analysis of dust-clogging inside nonwoven fibrous filter media Eunkyoung SHIM, North Carolina State University, Raleigh, UNITED STATES Co-authors: Yu SONG (\*) Affiliations: 1 : North Carolina State University, Raleigh, UNITED STATES
- 11:40 O-072 Simulation of electret filter media behavior through modeling of charge distributions, dielectrophoresis, and charge decay
   Philipp EICHHEIMER, Math2Market GmbH, Kaiserslautern, GERMANY
   Co-authors: Liping CHENG <sup>(1)</sup>; Andreas WEBER <sup>(1)</sup>; Jürgen BECKER <sup>(1)</sup>; Dominik MICHEL <sup>(1)</sup>; Stefan SCHUMACHER <sup>(2)</sup>; Till VAN DER ZWAAG <sup>(2)</sup>; Thomas ENGELKE <sup>(2)</sup>; Andreas WIEGMANN <sup>(1)</sup>
   Affiliations: 1: Math2Market GmbH, Kaiserslautern, GERMANY 2: Institut für Umwelt & Energie

Affiliations: 1 : Math2Market GmbH, Kaiserslautern, GERMANY ; 2 : Institut für Umwelt & Energie, Technik & Analytik e. V. (IUTA), Duisburg, GERMANY



Liquid filtration Gas filtration Membrane Sustainable development

#### ROOM D Gas filtration / Session

#### 10:00 - 12:00 European projects for Air Quality and health

10:00 O-073 IAQ and health – INQUIRE what chemical and biological determinants are relevant in homes with children under the age of five and what can we do to reduce exposure **Katie KEDWELL, MANN+HUMMEL GmbH, Ludwigsburg, GERMANY** 

**Co-authors:** Lisa MELYMUK <sup>(2)</sup>; Pim LEONARDS <sup>(3)</sup>; Emma VINCENT <sup>(4)</sup>; Chiara GIORIO <sup>(5)</sup>; Linda SCHENK <sup>(4)</sup>; Sylvie REMY <sup>(6)</sup>; Pawel ROSTKOWSKI <sup>(7)</sup>; Martin LEHMANN <sup>(1)</sup>; Pernilla BOHLIN NIZZETTO <sup>(7)</sup> **Affiliations:** 1: MANN+HUMMEL GmbH, Ludwigsburg, GERMANY; 2: Marsarykova Univerzita, Brno, CZECH REPUBLIC; 3: Stichting VU, Amsterdam, NETHERLANDS; 4: Karolinska Institutet, Solna, SWEDEN; 5: The Chancellor Masters and Scholars of the University of Cambridge, Cambridge, UNITED KINGDOM; 6: VITO, Mol, BELGIUM; 7: NILU, Kjeller, NORWAY

10:20 O-074 IAQ and health – Monitoring in canteen, homes, schools to create knowledge for improving indoor air quality and health K-HEALTHinAIR

#### Martin LEHMANN, MANN+HUMMEL GmbH, Ludwigsburg, GERMANY

**Co-authors:** Johannes DALHEIMER <sup>(1)</sup>; Stella ZHANG <sup>(1)</sup>; Artur BADYDA <sup>(2)</sup>; Slawomir BRZEZNICKI <sup>(3)</sup>; Alexandra KRISTIAN <sup>(4)</sup>; Moshammer HANNS <sup>(4)</sup>; Jose FERMOSO DOMINGUES <sup>(6)</sup> **Affiliations:** 1: i2m GmbH, Ludwigsburg, GERMANY; 2: Warsaw University of Technology, Warsaw, POLAND; 3: Nofer Institute of Occupational Medicine, Lodz, POLAND; 4: Medizinische Universität, Vienna, AUSTRIA; 6: CARTIF, Valladolid, SPAIN

#### 10:40 O-075 IAQ and health – LEARN how filtration is beneficial for children in schools Katie KEDWELL, MANN+HUMMEL GmbH, Ludwigsburg, GERMANY

**Co-authors:** Andreas SCOPE <sup>(1)</sup> ; Wai Kei CHU <sup>(2)</sup> ; Martin LEHMANN <sup>(1)</sup> ; Monike ROCHA <sup>(3)</sup> ; Ernesto ALFARO-MORENO <sup>(3)</sup>

Affiliations: 1 : MANN+HUMMEL GmbH, Ludwigsburg, GERMANY ; 2 : KU Leuven, Leuven, BELGIUM ; 3 : International Iberian Nanotechnology Laboratory, Braga, PORTUGAL

### 11:00 **Keynote lecture** - Cleaner Urban air with AeroSolfd solutions reducing brake emissions and exposure at metro stations

#### Martin LEHMANN, MANN+HUMMEL GmbH, Ludwigsburg, GERMANY

**Co-authors:** Katie KEDWELL <sup>(1)</sup> ; Teresa MORENO <sup>(2)</sup> ; Stephanos AGATHOKLEOUS <sup>(2)</sup> ; Christof ASBACH <sup>(3)</sup> ; Paul HENNING <sup>(4)</sup> ; Hartmut NIEMANN <sup>(5)</sup> ; Tome CANAS <sup>(6)</sup> ; Carlos CASADO SANCHEZ <sup>(7)</sup> ; Keld ALSTRUP JENSEN <sup>(8)</sup>

Affiliations: 1 : MANN+HUMMEL GmbH, Ludwigsburg, GERMANY ; 2 : IDAEA-CSIC, Barcelona, SPAIN ; 3 : IUTA, Duisburg, GERMANY ; 4 : ZF Group, Mannheim, GERMANY ; 5 : Link Engineering Company, Limburg, GERMANY ; 6 : Metropolitano de Lisboa, Lisbon, PORTUGAL ; 7 : CARTIF, Valladolid, SPAIN ; 8 : The National Research Centre for the Working Environment, Copenhagen, DENMARK

11:40 O-076 Brake particle emission reduction by brake filters – an efficient option completing the toolbox

#### Marie HOFF, Université de Technologie de Compiègne, Compiègne

**Co-authors:** Martin MORGENEYER <sup>(1)</sup>; Cécile BEDOUET <sup>(5)</sup>; Nicolas BONNAUD <sup>(5)</sup>; Christophe BRESSOT <sup>(4)</sup>; Yan-Ming CHEN <sup>(3)</sup>

**Affiliations:** 1 : Sorbonne Universités, Université de Technologie de Compiègne (UTC), Laboratoire Transformations Intégrées de la Matière Renouvelable (TIMR, EA 4297), Compiègne, FRANCE ; 2 : MAT Friction NOYON SAS, Noyon, FRANCE ; 3 : Centre Technique des Industries Mécaniques (CETIM), Senlis, FRANCE ; 4 : Institut national de l'environnement industriel et des risques (INERIS), Verneuil-en-Halatte, FRANCE ; 5 : Mann+Hummel Filtration France, Laval, FRANCE



#### AMPHI B Membrane / Session

10.00 - 15.00	Men	nbrane technology / applications
		O-077 Inline spiking adaptation for enhanced virus filtration in continuous biopharmaceutical manufacturing Jueun LEE, Inha University, Incheon, REPUBLIC OF KOREA Co-authors: Youngbin BAEK <sup>(1)</sup> Affiliations: 1 : Inha University, Incheon, REPUBLIC OF KOREA
	10:20	O-079 Zwitterionic forward osmosis membranes for platelet concentration Gian Vincent DIZON, Chung Yuan Christian University, Taoyuan City, TAIWAN
		<b>Co-authors:</b> Antoine VENAULT <sup>(1)</sup> ; Chung-Jung CHOU <sup>(1)</sup> ; Yung CHANG <sup>(1)</sup> <b>Affiliations:</b> 1 : R&D Center for Membrane Technology and Department of Chemical Engineering, Chung Yuan Christian University, Taoyuan City, TAIWAN
	10:40	O-081 Could an ultra-thin dense coated membrane be an alternative to microporous membranes for membrane distillation? Indira CHIMANLAL, National Institute of Applied Sciences of Toulouse, Toulouse
		<b>Co-authors:</b> Corinne CABASSUD <sup>(1)</sup> ; Olivier LORAIN <sup>(2)</sup> <b>Affiliations:</b> 1 : National Institute of Applied Sciences of Toulouse, Toulouse, FRANCE ; 2 : Polymem, Toulouse, FRANCE
	11:00	O-082 Novel hexa-fluorinated intrinsically porous polyimide membranes for the desalination of high saline water by air-gap membrane distillation Mahmoud ABDULHAMID, King Fahd University of Petroleum and Minerals, Dhahran, SAUDI ARABIA
	11:20	O-082bis - Solvent delamination of UF and OSN membranes: a step in the LCA of spiral membrane aiming at assessing the environmental impact of the membrane material in separation processes. Dihia CHABNI (Rennes, FRANCE)
		<b>Co-Authors :</b> Fatima Zohra CHARIK <sup>(1)</sup> ; Murielle RABILLER-BAUDRY <sup>(1)</sup>

Affiliations : 1 : Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes), UMR 6226, Rennes, FRANCE



Liquid filtration Gas filtration Membrane Sustainable development

#### AMPHIC Membrane / Session

#### 10:00 - 12:00 Membrane fouling / regeneration

- 10:00 O-083 Response of the zeta potential to fouling status in Microfiltration and application for fouling monitoring
  - Kazuho NAKAMURA, Yokohama National University, Yokohama, JAPAN
- 10:20 O-084 Bioactive and self-cleaning polymer membranes
   Martin SCHMIDT, Palas GmbH, Karlsruhe, GERMANY
   Co-authors: Tim SCHREIBER (1); Andrea PRAGER (1); Stefan ZAHN (1); Agnes SCHULZE (1)
   Affiliations: 1 : Leibniz Institute of Surface Engineering (IOM), Leipzig, GERMANY
- 10:40 O-085 A novel cleaning agent specialized for organic induced fouling of ceramic membranes
   Soyoun KIM, Ewha Womans University, Seoul, REPUBLIC OF KOREA

**Co-authors:** Hyeyool KIM <sup>(1)</sup> ; Park CHANHYUK <sup>(1)</sup> **Affiliations:** 1 : Ewha Womans University, Seoul, REPUBLIC OF KOREA

11:00 O-086 Identification and quantification of organic and inorganic fouling by in-situ thermal conductivity measurements

Mads Koustrup JØRGENSEN, Aalborg University, Aalborg, DENMARK Co-authors: Astrid Ræbild KJUL<sup>(1)</sup>; Maryam TAVAKOLMOGHADAM<sup>(1)</sup>; Morten Lykkegaard CHRISTENSEN<sup>(1)</sup>

Affiliations: 1 : Aalborg University, Aalborg, DENMARK

- 11:20 O-087 Surface modifications inspired by nature for biofilm control in membrane processes Clémence COETSIER, LGC-University Toulouse 3, Toulouse
   Co-authors: Abigail BURATO ROSALES <sup>(1,2,3)</sup>; Pritam DAS <sup>(1)</sup>; Christel CAUSSERAND <sup>(1)</sup>; Cécile FORMOSA DAGUE <sup>(2,3)</sup>
   Affiliations: 1 : Laboratoire de Génie Chimique, Université de Toulouse, CNRS, Toulouse INP, UPS, 31062 Toulouse, France, Toulouse, FRANCE ; 2 : TBI, Université de Toulouse, INSA, INRAE, CNRS, 31400 Toulouse, France, Toulouse, FRANCE ; 3 : Fédération de Recherche Fermat, CNRS, 31000 Toulouse, France, Toulouse, FRANCE
- 11:40 O-088 Recycling end-of-life reverse osmosis membranes into tailored nanofiltration membranes via polyelectrolyte coatings
   Yasaman JALILIAN, LUT university, Lappeenranta, FINLAND
   Co-authors: Mohammadamin ESMAILI <sup>(1)</sup>; Wiebe DE VOS <sup>(2)</sup>; Mika MÄNTTÄRI <sup>(1)</sup>
   Affiliations: 1 : LUT university, Lappeenranta, FINLAND ; 2 : Twente University, Twente , NETHERLANDS



ROOM E	Sustainable development / Session
10:00 - 12:00	Biorefinery
	10:00 Keynote lecture - Membrane processes in lignocellulosic biorefineries Frank LIPNIZKI, Lund University, Lund, SWEDEN
	<ul> <li>10:40 O-089 Ultrafiltration of hydrolysable tannins from sweet chesnut wood Thi Thanh Nga PHAM, Toulouse-INP, Toulouse</li> <li>Co-authors: Brigitte DUBREUIL <sup>(1)</sup>; Marion LABAT <sup>(1)</sup>; Guillaume BILLERACH <sup>(1)</sup>; Nicolas BEAUFILS <sup>(1)</sup>; Pierre-Yves PONTALIER <sup>(1)</sup> Affiliations: 1: Toulouse-INP, TOULOUSE, FRANCE</li> </ul>
	<ul> <li>O-090 Integrated ozone-forward osmosis process for tannery wastewater treatment and reuse in agriculture</li> <li>Fu YANG, Sichuan University, Chengdu, CHINA</li> <li>Co-authors: Xingbao WANG <sup>(2)</sup>; Frederic PIGNON <sup>(3)</sup>; Yao JIN <sup>(4)</sup></li> <li>Affiliations: 1: Sichuan University, Chengdu, CHINA; 2: Taiyuan University of Technology, Taiyuan, CHINA; 3: Univ. Grenoble Alpes, Grenoble, FRANCE; 4: Sichuan University, Chengdu, CHINA</li> </ul>
	<ul> <li>11:20 O-091 Exploring Explainable AI in Food Processing: Machine Learning Models for Skimmed Milk Microfiltration Transmission Ratio for UTP and GP Membranes Melanie MUNCH, INRAE, Rennes</li> <li>Co-authors: Nadine LECONTE <sup>(1)</sup>; Geneviève GÉSAN-GUIZIOU <sup>(1)</sup> Affiliations: 1 : INRAE, UMR STLO, Rennes, FRANCE</li> </ul>
	<ul> <li>11:40 O-092 A Biogenic Filter Material for Bio Refinery Applications</li> <li>Wenping LI, Agrilectric Research Company, Lake Charles, UNITED STATES</li> <li>Co-authors: Chris NUNEZ <sup>(1)</sup></li> <li>Affiliations: 1 : Agrilectric Research Company, LAKE CHARLES, UNITED STATES</li> </ul>
ESPACE PLU	RIEL
12:00 - 13:30	Lunch
ROOM F	Forum Organized by LUM
12:45 - 13:15	Forum LUM GMbh - Filtration efficiency monitored by particle

Counting and sizing using Single Particle Light-Scattering Technology® (SPLS)

Sylvain GRESSIER, LUM GmbH France, Plaisir, Dietmar LERCHE, LUM GmbH, Berlin, GERMANY

#### **ROOM F** Liquid filtration / Keynote session

13:30 - 14:10 Recent Advances in Meltblown Nonwovens for Filter Media Applications: Nanofibers to Sustainable Materials Gajanan BHAT, University of Georgia, Athens, UNITED STATES

#### ROOM H Liquid filtration / Keynote session

13:30 - 14:10 Recent findings in filter cake washing – fundamentals and application Bernhard HOFFNER, Technical University of Applied Sciences Mannheim, Mannheim, GERMANY,

Urs Alexander PEUKER, TU Bergakademie Freiberg, Freiberg, GERMANY

14<sup>TH</sup> WORLD FILTRATION CONGRESS



Liquid filtration Gas filtration Membrane Sustainable development

ΑΜΡΗΙ Α	Gas filtration / Keynote session
13:30 - 14:10	Air quality in aircraft cabins
	Vincent EDERY, IFTS, Foulayronnes
ROOM D	Gas filtration / Keynote session
13:30 - 14:10	Generating Synthetic Training Data for Machine Learning
	Applications in Air Filtration Systems
	Amlan CHAKRABORTY, Entegris, Billerica, UNITED STATES
AMPHI B	Membrane / Keynote session
13:30 - 14:10	Improvement in the Filtration Performance of Shear-Enhanced
	Dynamic Microfiltration by Structure Design
	Su-En WU, Department of Chemical Engineering, Chung Yuan Christian University, Taoyuan City, TAIWAN
AMPHI C	Membrane / Keynote session
13:30 - 14:10	Removal of PFAS using commercial polymeric microfiltration
	membranes coated with amphiphilic cyclodextrins
	Kasper Skovbølling HEDEGAARD, Aalborg University, Aalborg, DENMARK
	<b>Co-authors:</b> Thorbjørn Terndrup NIELSEN <sup>(1)</sup> ; Mads Koustrup JØRGENSEN <sup>(1)</sup> <b>Affiliations:</b> 1 : Department of Chemistry and Bioscience, Aalborg University, Aalborg, DENMARK
	, and the separation of chemistry and bioscience, habong oniversity, habong, bentwerk
ROOM E	Sustainable development / Keynote session
13:30 - 14:10	The Challenges of Ongoing Contamination of Drinking Water
13.30 - 14.10	Supplies - What Can Be Done About It?

Peter CARTWRIGHT, Minneapolis, UNITED STATES



#### ROOM F Liquid filtration / Session

#### 14:20 - 16:00 Coagulation/flocculation

- 14:20 O-093 Recovery of phosphorus from lake sediment Morten Lykkegaard CHRISTENSEN, Aalborg University, Aalborg East, DENMARK Co-authors: Usuma NAKNIKHAM <sup>(1)</sup>; Gustav SIMONI <sup>(1)</sup> Affiliations: 1 : Aalborg University, Dronninglund, DENMARK
- 14:40 O-094 Suspension pelletisation and drainage using robust flocs
   Anthony STICKLAND, The University of Melbourne, Parkville, AUSTRALIA
   Co-authors: Yuxuan LUO<sup>(1)</sup>; Nilanka EKANAYAKE<sup>(1)</sup>; Peter SCALES<sup>(1)</sup>; Negin AMINI<sup>(2)</sup>; Adhikari SIRJANA<sup>(2)</sup>; Ellen MOON<sup>(2)</sup>
   Affiliations: 1: ARC Centre of Excellence for Enabling Eco-Efficient Beneficiation of Minerals, Department of Chemical Engineering, The University of Melbourne, Parkville, AUSTRALIA; 2: APC Centre of Excellence for Enabling Eco-Efficient Beneficiation of Minerals, Eaculty of Science
  - ARC Centre of Excellence for Enabling Eco-Efficient Beneficiation of Minerals, Faculty of Science, Engineering & Built Environment, Deakin University, Waurn Ponds, AUSTRALIA
- 15:00 O-095 Degradation of Cationic Polyacrylamide-Based Flocculants (CPAM) Upon Contact with Metallic Surfaces: Impacts on Flocculation, Thickening, and Dewatering Applications Pascal GINISTY, IFTS, Foulayronnes

**Co-authors:** Nissrine LOUKILI <sup>(1)</sup>; Laurent JOSSIC <sup>(1)</sup>; Yannick FAYOLLE <sup>(2)</sup>; Amar NAJI <sup>(4)</sup>; Nadia EL KISSI <sup>(1)</sup>; Albert MAGNIN <sup>(1)</sup>; Yahya RHARBI <sup>(1)</sup>

Affiliations: 1 : Univ. Grenoble Alpes, CNRS, Grenoble INP, LRP, Gières, FRANCE ; 2 : Université Paris-Saclay, INRAE, PRocédés biOtechnologiques au Service de l'Environnement, Antony , FRANCE ; 3 : IFTS - Institut de la Filtration et des Techniques Séparatives, Foulayronnes, FRANCE ; 4 : SIAAP - Direction Innovation , Paris, FRANCE

- 15:20 O-097 Dissolved organic carbon impacting the performance of contact filtration water treatment (pre-recorded presentation)
   A S M MOHIUDDIN, University of Technology Sydney, Ultimo, AUSTRALIA
   Co-authors: Saravanamuthu VIGNESWARAN <sup>(1)</sup>
   Affiliations: 1 : University of Technology Sydney, Ultimo, AUSTRALIA
- 15:40 O-130 Enhanced Dewatering of Mine Tailings: From Flocculation-Thickening to Filtration and Electrofiltration

#### Laila HAMRAOUI (Rabt And Benguerir, MOROCCO)

**Co-Authors :** Abdelmaula ABOULAICH <sup>(4)</sup> ; Jessica DESABRES <sup>(3)</sup> ; Nicolas BRICHEZ <sup>(3)</sup> ; Abdessamad KHALIL <sup>(1,2)</sup> ; Yassine TAHA <sup>(1)</sup> ; Mostafa BENZAAZOUA <sup>(1)</sup>

**Affiliations :** 1 : Mohammed VI Polytechnic University, Benguerir, MOROCCO ; 2 : Resources Valorization, Environment and Sustainable Development Research Team (RVESD), Department of Mines, Mines School of Rabat, rabat, MOROCCO ; 3 : Choquenet | Filter Presses & Engineered Filtration Solution, Chauny, FRANCE ; 4 : INNOVX, Benguerir, MOROCCO



Liquid filtration Gas filtration Membrane Sustainable development

#### ROOM H Liquid filtration / Session 14:20 - 16:00 Testing and Characterisation 2 14:20 O-098 Water Permeability Testing for Porous Materials Dominik HERPER, GKD - Gebr. Kufferath AG, Düren, GERMANY 14:40 O-099 Introducing FiltVia: A Vision Analysis tool to automate the assessment of a filter cake resistance William HICKS, AstraZeneca, Macclesfield, UNITED KINGDOM Co-authors: Sadie FINN (1) Affiliations: 1: AstraZeneca, Macclesfield, UNITED KINGDOM 15:00 O-100 Enhancing performance of filter presses with a filter plate-integrated sensor Bernd FRAENKLE, Lenser Filtration GmbH, Senden, GERMANY Co-authors: Edith CARPENTIER-KEITZL (1); Kai PODRATZKY (1) Affiliations: 1: Lenser Filtration GmbH, Senden, GERMANY 15:20 O-101 Reducing of biofouling rate of polymer media during filtration of water contaminated with bacteria by coating with photoactive TiO2-metal layers Andrzej KRASINSKI, Warsaw University of Technology, Faculty of Chemical and Process Engineering, Warsaw, POLAND Co-authors: Joanna KACPRZYNSKA-GOLACKA <sup>(2)</sup>; Michal STOR <sup>(1)</sup>; Jerzy SMOLIK <sup>(2)</sup>; Leon GRADON <sup>(1)</sup> Affiliations: 1 : Warsaw University of Technology, Warsaw, POLAND ; 2 : Lukasiewicz Research Network - Institute for Sustainable Technologies, Radom, POLAND AMPHIA Gas filtration / Session 14:20 - 16:00 Aerosol filtration 14:20 O-103 Modeling particle deposition in turbulent curved channel flow with structured surfaces Gunnar DWARS, University of Stuttgart, Stuttgart, GERMANY Co-authors: Max DENGLER (1); Carsten MEHRING (1) Affiliations: 1: University Of Stuttgart, Institute Of Mechanical Process Engineering, Stuttgart, GERMANY 14:40 O-104 Influence of vibration on gas-solid filtration performance of filters Feng CHEN, China University of Petroleum - Beijing, Beijing, CHINA Co-authors: Wenhan YU (1) ; Qianlin WANG (2) ; Zhongli JI (1) ; Xiaolin WU (1) ; Tianhui XIONG (1) Affiliations: 1 : China University of Petroleum - Beijing, Beijing, CHINA ; 2 : Beijing University of Chemical Technology, Beijing, CHINA 15:00 O-105 Experimental study on optimal CADR filter thickness of indoor air purifier Chih-Chieh CHEN, National Taiwan University, Taipei, TAIWAN Co-authors: Yu-Mei KUO (2) : Cindy LIN (3) ; Maxie LIN (4) ; Jason LIN (5) ; Chih-Wei LIN (1) ; Sheng-Hsiu HUANG (1) Affiliations: 1: National Taiwan University, Taipei, TAIWAN; 2: Chung Hwa University of Medical Technology, Tainan, TAIWAN ; 3 : Taipei American School, Taipei, TAIWAN ; 4 : Johns Hopkins University, Baltimore, Maryland, UNITED STATES; 5: California Institute of Technology, Pasadena, California, UNITED STATES 15:20 O-106 Fabrication and performance of novel environmentally-friendly micro-nano fibrous filter media Hui LI, Xinjiang Techinical Institute of Physics & Chemistry, Chinese Academy of Sciences, Urumqi, CHINA Co-authors: Ze-Xin CHEN (1); Desalegn ATALIE (1); Ma PENG-CHENG (1) Affiliations: 1: Xinjiang Techinical Institute of Physics & Chemistry, Chinese Academy of Sciences, Urumqi, CHINA 15:40 O-107 Enhanced nanoaerosol loading performance of multilayer PVDF nanofiber electret filters Wallace LEUNG, Hong Kong Polytechnic University, Duluth, UNITED STATES Co-authors: Qianggiang SUN (1) Affiliations: 1: Hong Kong Polytechnic University, Hong Kong, HONG KONG

ROOM D	s filtration / Session		
14:20 - 16:00	Fundamentals		
	20 O-108 Influence of moisture on electret filters: a DNS study Sergiy ANTONYUK, University of Kaiserslautern-Landau (RPTU), Kaiserslautern, GERMANY		
	<b>Co-authors:</b> Daniel STOLL <sup>(1)</sup> <b>Affiliations:</b> 1 : RPTU Kaiserslautern-Landau, Kaiserslautern, GERMANY		
	<ul> <li>O-109 A phenomenological model to predict the porosity of nanometric particles deposit formed by air filtration</li> <li>Soleiman BOURROUS, IRSN, Gif-Sur-Yvette</li> <li>Co-authors: Alexandre LECOANET (*)</li> <li>Affiliations: 1 : IRSN, Gif-sur-Yvette, FRANCE</li> </ul>		
	O-110 New experimental results on pressure drop of a nanofiber filter Wallace LEUNG, Hong Kong Polytechnic University, Duluth, UNITED STATES		
	20 O-111 Case study on the clogging phase of filter media during dust separation using a multi-layer model with offset for dust cake growth Qian ZHANG, University of Wuppertal, Wuppertal, GERMANY		
	O-112 Gas-Phase Media Properties: What's Important and Why Christopher MULLER, AAF International, Louisville, UNITED STATES Co-authors: Tadesse ZEMELAK <sup>(1)</sup> Affiliations: 1 : AAF International, LOUISVILLE, UNITED STATES		
AMPHI B	embrane / Session		
1/.20 10:00	Eand UE		

#### 14:20 - 16:00 MF and UF

 14:20 O-113 Extraction of Nanoplastics from Water and Size-based Separation using a novel Membrane Filtration System
 Marie ARNOULD, Laboratoire de Génie Chimique de Toulouse, Toulouse
 Co-authors: Rosana QUINGONGO (1); Magali ALBIGNAC (2); Patrice BACCHIN (1);

Alexandra TER HALLE<sup>(2)</sup>; Christel CAUSSERAND<sup>(1)</sup> Affiliations: 1 : Laboratoire de Génie Chimique, Université de Toulouse, CNRS, INPT, UPS, Toulouse, FRANCE ; 2 : Laboratoire Softmat, Université de Toulouse, CNRS UMR 5623, Université Toulouse III -Paul Sabatier, Toulouse, FRANCE

14:40 O-115 The Impact of Fiber Length and Concentration on Ultrafiltration Membrane Performance: Insights from Microplastic Fiber Filtration Experiment **Fatemeh HAMIDAVI, University of Surrey, Guildford, UNITED KINGDOM Co-authors:** Siddharth GADKARI (\*); Judy LEE (\*) **Affiliations:** 1: University of Surrey, GUILDFORD, UNITED KINGDOM



Liquid filtration Gas filtration Membrane Sustainable development

#### AMPHIC Membrane / Session

#### 14:20 - 16:00 Membrane technology / applications

14:20 O-118 Oil-Water Separation in industrial process water streams using BOLL ceramic membrane filtration

Daniel BELL, Bollfilter, Kerpen, GERMANY

- 14:40 O-119 ZIF-67/Bacterial cellulose membranes for dye removal and oil/water separation Eman HUSSEIN, University of Nottingham, Nottingham, UNITED KINGDOM
   Co-authors: Konstantina KOURMENTZA <sup>(1)</sup>; Begum TOKAY <sup>(1)</sup>
   Affiliations: 1: University of Nottingham, Nottingham, UNITED KINGDOM
- 15:00 O-120 Influence of Process Conditions and Different Ion(s) on Magnesium Sulfate Crystallization in Membrane Distillation Crystallization
   Asif SAUD, Aalborg University, Aalborg, DENMARK
   Co-authors: Aamer ALI <sup>(1)</sup>; Cejna Anna Quist JENSEN <sup>(1)</sup>
   Affiliations: 1 : Aalborg University, Aalborg, DENMARK
- 15:20 O-121 Development of effective photocatalytic membrane reactors for the total removal/ degradation of tetracycline from water
   Antoine VENAULT, Chung Yuan Christian University, Taoyuan, TAIWAN
   Co-authors: Irish Valerie MAGGAY <sup>(1)</sup>; Shih-Hong LIU <sup>(1)</sup>; Yung CHANG <sup>(1)</sup>; Chechia HU <sup>(2)</sup>
   Affiliations: 1 : Chung Yuan Christian University, Taoyuan, TAIWAN ; 2 : National Taiwan University of Science and Technology, Taipei, TAIWAN
- 15:40 O-122 Production of low-alcohol content wine by pervaporation Rodrigo CÂNDIDO, Associação Fraunhofer Portugal Research, Vila Real, PORTUGAL Co-authors: Vanessa MENDES (\*) ; Ana Catarina FARIA (\*) ; Carlos MIGUEL (\*) Affiliations: 1 : Fraunhofer Portugal Center for Advanced Water, Energy, and Resource Management -AWAM, Vila Real, PORTUGAL

#### **ROOM E** Sustainable development / Session

#### 14:20 - 16:00 Water Treatment

14:20 O-124 Effect of brackish water salinity on productivity of prototype based on humidification-dehumidification of air **Jihane MOUMOUH, UM6P, Ben Guerir, MOROCCO** 

#### Co-authors: MOHAMED TAHIRI (2)

Affiliations: 1 : Mohammed VI Polytechnic University, Ben Guerir, MOROCCO ; 2 : Mohammadia School of Engineers, RABAT, MOROCCO

- 14:40 O-125 Optimization of an integrated hollow-fiber solar-powered VMD system for autonomous desalination Gina Paola ALFONSO SARMIENTO, Toulouse Biotechnology Institute, Toulouse Co-authors: Aras AHMADI (\*); Corinne CABASSUD (\*) Affiliations: 1 : Toulouse Biotechnology Institute, Toulouse, FRANCE
  - An induouse biotechnology institute, foulduse, FRANCE
- 15:00 O-126 Drinking water production from unconventional sources Frank ROEGENER, TH Köln, Cologne, GERMANY
- 15:20 O-127 Autonomous drinking water systems with energy storage Abdoulaye DOUCOURE, African Membrane Society, Roanoke, UNITED STATES Co-authors: Herve SUTY<sup>(2)</sup>; Sebastien ESCOURROU<sup>(2)</sup> Affiliations: 1 : African Membrane Society, Roanoke, UNITED STATES ; 2 : TERGYS , Blanquefort , FRANCE



#### ESPACE PLURIEL

#### 16:00 - 16:30 Coffee break - Visit the exhibition and the poster area

ROOM F	Liquid filtration / Session
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#### 16:30 - 17:30 Alternative and Innovative Separation

16:30 O-128 Study on the settling acceleration phenomenon due to density current and particle aggregation by applying horizontal DC electric field to fine particle slurry
 Fuki KOIKE, Hosei university, Koganei, JAPAN
 Co-authors: Kenta KITAMURA <sup>(1)</sup>; Takamasa MORI <sup>(1)</sup>
 Affiliations: 1 : Hosei university, Koganei, JAPAN

- 16:50 O-129 Multidimensional process for wet classification of fine particles in a crossflow with superimposed electrical field Simon PAAS, University of Kaiserslautern-Landau (RPTU), Kaiserslautern, GERMANY Co-authors: Sergiy ANTONYUK <sup>(1)</sup> Affiliations: 1 : University of Kaiserslautern-Landau (RPTU), Kaiserslautern, GERMANY
- 17:10 O-32bis Optimizing Mustard Glucosinolate Purification Using Dead-End Ultrafiltration: Membrane Fouling and Juice Quality (pre-recorded presentation) Houcine MHEMDI (Compiègne, FRANCE)
   Co-Authors : Mathieu HEBERT <sup>(1)</sup>; Vorobiev EUGENE <sup>(1)</sup> Affiliations : 1 : ESCOM/UTC, Compiegne, Compiègne, FRANCE

#### ROOM H Liquid filtration / Session

#### 16:30 - 17:30 Flottation and combined processes

16:30 O-131 Innovation in sewater reverse osmosis pre-treatment: Seadaf Filter as combined flotation and filtration at high velocity
 Rémy CABALL, SUEZ E&C, Paris La Défense
 Co-authors: Caroline BARBÉ <sup>(1)</sup>; Delia PASTORELLI <sup>(1)</sup>
 Affiliations: 1 : SUEZ E&C, Paris La Défense, FRANCE

16:50 O-132 Seawater reverse osmosis pre-treatment Combination at Low Environmental Footprint

Rémy CABALL, SUEZ E&C, Paris La Défense Co-authors: Caroline BARBÉ <sup>(1)</sup>; Delia PASTORELLI <sup>(1)</sup> Affiliations: 1 : SUEZ E&C, Paris La Défense, FRANCE

17:10 O-133 Valédeau Drinking Water Treatment Plant (France), a flexible solution for territory security

#### Celine LEVECQ, Sure International, Courbevoie

**Co-authors:** Jean GANNIER <sup>(2)</sup>; Juliette DEGOUL <sup>(2)</sup>; David HIZ <sup>(3)</sup>; Laurent GUEY <sup>(1)</sup> **Affiliations:** 1 : Engineering & Construction - Suez International, Paris La Défense, FRANCE ; 2 : Engineering & Construction , Villenave d'Ornon, FRANCE ; 3 : Engineering & Construction , Oswald, FRANCE



### WEDNESDAY, 2 JULY 2025

■ Liquid filtration ■ Gas filtration ■ Membrane ■ Sustainable development

### AMPHIA Gas filtration / Session

#### New measurement methods 16:30 - 17:30

16:30 O-134 Improving the quantification of microorganisms collected onto HVAC fibrous filters Delphine DESHAYES, Institut Mines Télécom Atlantique, Nantes, Loire-Atlantique, France

Co-authors: Yves ANDRÈS (1) ; Pierre LE CANN (2) ; Aurélie JOUBERT (1) Affiliations: 1 : Institut Mines Télécom Atlantique, Nantes, FRANCE ; 2 : Ecole des Hautes Etudes en Santé Publique, Rennes, FRANCE

- 16:50 O-135 A method to determine the pressure drop of dust cakes on surface filters under low pressure conditions Vanessa LÖSCHNER, Karlsruher Institute of Technology, Karlsruhe, GERMANY Co-authors: Meyer JÖRG (1); Achim DITTLER (1) Affiliations: 1: Karlsruher Institute of Technology, Karlsruhe, GERMANY
- 17:10 O-136 Advances in welding fume separation by using a new measurement method Ralf HEIDENREICH, Institut für Luft- und Kältetechnik gGmbH, Dresden, GERMANY Co-authors: Dirk KEBLAU (1); Stefan HERRMANN (1) Affiliations: 1 : Institut für Luft- und Kältetechnik gGmbH, Dresden, GERMANY

### **ROOM D** Gas filtration / Session

### 16:30 - 17:30 Air gaz treatment

16:30 O-138 Fabrication of Biocidal Electrospun PAN Filters Modified with CPC Surfactant and ZnO Nanoparticles for Efficient Filtration Mônica AGUIAR, Federal University of São Carlos, São Carlos, BRAZIL

Co-authors: Edilton SILVA (1) ; Souza CLOVIS (1) ; Wanderley OLIVEIRA (2) ; Paulo CHAGAS (1) ; Vádila GUERRA (1)

Affiliations: 1 : UFSCar, São Carlos, BRAZIL ; 2 : USP, Ribeirão Preto, BRAZIL

16:50 O-139 Breakdown of harmful Nox and VOC by photo-oxidation using titania nanofiber photocatalyst Wallace LEUNG, Hong Kong Polytechnic University, Duluth, UNITED STATES Co-authors: Yun LI <sup>(1)</sup>; Muzafar KANJWAL <sup>(1)</sup>

Affiliations: 1 : Hong Kong Polytechnic University, Hong Kong, HONG KONG

17:10 O-139bis Nonwoven Coating Using Zeolite–Nano Silver Powder for Gas Adsorption and Antibacterial Purposes Mohammad Mehdi SHIRMOHAMMADI, Ambassador, World Filtration Institute (WFI); **R&D Director, Termeh Co., Dubai, UNITED ARAB EMIRATES** Co-authors: Atefeh KHOSRAVI

Affiliations: Technical Manager, Termeh Co., Dubai, UNITED ARAB EMIRATES



AMPHI B	Membrane / Session
16:30 - 17:30	NF
	<ul> <li>16:30 O-140 Recovery of homogeneous active catalysts in organic solvent nanofiltration: indepth study of the benefits of using stable model complexes different from the precatalysts</li> <li>Utpalkumar THUMMAR, Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes) – UMR 6226, Rennes</li> </ul>
	<b>Co-authors:</b> Dawry Javier CAPELLAN BATISTA <sup>(1)</sup> ; Thierry RENOUARD <sup>(1)</sup> ; Murielle RABILLER-BAUDRY <sup>(1)</sup> <b>Affiliations:</b> 1 : Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes) - UMR 6226, Rennes, FRANCE
	16:50 O-141 Nanofiltration using Polysulfone Membranes Jian TAN, Pall Corporation, Cortland, UNITED STATES Co-authors: Varun VAKHARIA <sup>(1)</sup> Affiliations: 1 : Pall Corporation, Cortland, UNITED STATES
	<ul> <li>17:10 O-142 Boron-nitride Nanosheets as Membrane Building Blocks for Water Purification and Gas Separations</li> <li>Ze Xian Nicholas LOW, Nanjing Tech University, Nanjing, CHINA</li> </ul>
AMPHI C	Membrane / Session
16:30 - 17:30	Membrane formation / structure
	16:30 O-143 Artificial Water Channels- toward Biomimetic Membranes for Desalination Mihail BARBOIU, Institut Europeen des Membranes, Universite de Montpellier, Montpellier
	16:50 O-144 Development of innovative hollow fibers and carbon hollow fibers Sébastien RIGOURD, Canoe, Pessac
	<ul> <li>17:10 O-145 Development of nanofiltration membrane from cellulose triacetate made from millet husk</li> <li>Maryam Khadim MBACKE, Amadou Mahtar Mbow University, Dakar, SENEGAL</li> </ul>
	<b>Co-authors:</b> Moussa DIOP <sup>(2)</sup> ; Moustapha SENE <sup>(3)</sup> ; Anthony SZYMCZYK <sup>(4)</sup> <b>Affiliations:</b> 1 : Amadou Mahtar Mbow University, Dakar, SENEGAL ; 2 : School of Industrial and Biological Engineering , Dakar, SENEGAL ; 3 : SEN ENGINEERING International S.A. 21, Immorama Bulging 2nd floor, Hann Maristes, Dakar, SENEGAL ; 4 : Institute of Chemical Sciences of Rennes (UMR CNRS 6226), Chemistry and Process Engineering Team, Rennes, FRANCE
ROOM E	Sustainable development / Session
16:30 - 17:30	Water Treatment
	<ul> <li>16:30 O-146 Effect of Hydraulic Head Changes on the Performance of Gravity-Driven Membrane Systems</li> <li>Seonki LEE, Korea Maritime &amp; Ocean University, Busan, REPUBLIC OF KOREA</li> <li>Co-authors: Jaewoong JEONG <sup>(1)</sup>; Heewon BYEON <sup>(1)</sup>; Suyeon LEE <sup>(1)</sup></li> <li>Affiliations: 1 : Korea Maritime &amp; Ocean University, Busan, REPUBLIC OF KOREA</li> </ul>
	16:50 O-147 Experimental investigation of the effects of solar heating on the performances of an integrated solar-powered hollow fiber VMD module at semi-industrial scale <b>Indira CHIMANLAL, National Institute of Applied Sciences of Toulouse, Toulouse</b> <b>Co-authors:</b> Corinne CABASSUD <sup>(1)</sup>
	Affiliations: 1 : National Institute of Applied Sciences of Toulouse, Toulouse, FRANCE
	17:10 $O_{-1}$ /(8 Efficient direct mechanical recycling of Lision battery production residues via

17:10 O-148 Efficient direct mechanical recycling of Li-ion battery production residues via ultrasonic delamination and dynamic cross-flow filtration
 Patrick WIECHERS, Karlsruhe Institute of Technology, Karlsruhe, GERMANY
 Co-authors: Marco GLEIB (\*); Hermann NIRSCHL (\*)
 Affiliations: 1 : Karlsruhe Institute of Technology, Karlsruhe, GERMANY



### WEDNESDAY, 2 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

ROOM F	Liquid filtration / Poster presentation
17:30 - 18:15	<ul> <li>P-01 Produce drinking water wherever you need it with the ANDRITZ mobile filtration unit (AMFU)</li> <li>Etienne FROGER, ANDRITZ Euroslot SAS, Scorbé Clairvaux</li> </ul>
	7:40 P-43 Removal of active pharmaceuticals ingredients from water using modified halloysite particles Michal STOR, Warsaw University of Technology, Warsaw, POLAND Co-authors: Andrzej KRASINSKI <sup>(1)</sup> Affiliations: 1 : Faculty of Chemical and Process Engineering, Warsaw University of Technology, Warsaw, POLAND
ROOM H	Liquid filtration / Poster presentation
17:30 - 18:15	7:30 P-05 Influences and Characteristics of Back-washing for Double-layer Filter Materials in Filtration Treatment of Polymer Flooding Produced Water Lin LIU, Northeast Petroleum University, Daqing, CHINA
	7:40 P-08 Analysis on the development and Standardization System Construction of Separation Machinery Industry in the Context of Dual Carbon Goals <b>Cuilong CHEN, Sinomach General Machinery Science&amp; Technology Co., Ltd., Hefei,</b> <b>CHINA</b> <b>Co-authors:</b> DEYOU ZHANG <sup>(1)</sup>
	Affiliations: 1 : Secretariat of National Technical Committee for Standardization of Separation Machine, Hefei, CHINA
ΑΜΡΗΙ Α	Gas filtration / Poster presentation
17:30 - 18:15	<ul> <li>P-02 Enhancing Automotive Cabin Air Filtration Efficiency Using Short Cellulose Acetate Nanofibers</li> <li>Mônica AGUIAR, Federal University of São Carlos, São Carlos, BRAZIL</li> </ul>
	<b>Co-authors:</b> Paulo Augusto MARQUES CHAGAS <sup>(1)</sup> ; Wanderley P. OLIVEIRA <sup>(2)</sup> <b>Affiliations:</b> 1: Department of Chemical Engineering/University Federal of São Carlos, São Carlos - SP, BRAZIL; 2: Faculty of Pharmaceutical Sciences of Ribeirão Preto/University of São Paulo, Ribeirão Preto, BRAZIL
	7:40 P-12 Evaluation of the efficiency of bag filters with different filter media Mônica AGUIAR, Federal University of São Carlos, São Carlos, BRAZIL
	<b>Co-authors:</b> Ana Cristina Coelho VIEIRA <sup>(1)</sup> ; Rafael SARTIM <sup>(2,3)</sup> <b>Affiliations:</b> 1 : Federal University of São Carlos, São Carlos, SP, BRAZIL ; 2 : Federal University of Espírito Santo, Vitória, ES, BRAZIL ; 3 : ArcelorMittal, Serra, ES, BRAZIL
	<ul> <li>P-13 Production of triple-layer filter media from recycled polyethylene terephthalate (rPET) and polystyrene (rPS) using the electrospinning technique: Evaluation of air nanoparticle filtration and permeability</li> <li>Mônica AGUIAR, Federal University of São Carlos, São Carlos, BRAZIL</li> </ul>
	<b>Co-authors:</b> Felipe de Aquino LIMA <sup>(1)</sup> ; Paulo Augusto Marques CHAGAS <sup>(1)</sup> ; Vádila Giovana GUERRA <sup>(1)</sup> <b>Affiliations:</b> 1 : Federal University of São Carlos, São Carlos, BRAZIL



ROOM D	Gas fi	iltration / Poster presentation
17:30 - 18:15	17:30	P-15 Study of the particle loading behavior and dendrite growth characteristics on a single fiber
		Tianle YOU, South China University of Technology, Guangzhou, CHINA
		<b>Co-authors:</b> Zhengyuan PAN <sup>(2)</sup> ; Min TANG <sup>(1)</sup> ; Yun LIANG <sup>(1)</sup> <b>Affiliations:</b> 1 : South China University of Technology, guangzhou, CHINA ; 2 : University of Minnesota Minneapolis, Minnesota, UNITED STATES
	17:40	P-14 Application of graphene oxide on nonwoven microfibres as a promising air purification nanocomposite for removal of particulate matter <b>Simone POZZA, University of Campinas - UNICAMP, Limeira, BRAZIL</b>
		<b>Co-authors:</b> Manoel MEIRA <sup>(1)</sup> ; Marcos LOREVICE <sup>(2)</sup> ; Joyce CRISTALE <sup>(1)</sup> ; Diego MARTINEZ <sup>(2)</sup> <b>Affiliations:</b> 1 : University of Campinas - UNICAMP, Limeira, BRAZIL ; 2 : Brazilian Center for Research in Energy and Materials (CNPEM), Campinas, BRAZIL
	17:50	P-16 Modeling nonwoven filters and application to airflow study and pressure drop prediction
		Yongchun ZENG, Donghua University, Shanghai, CHINA Co-authors: Ying LI <sup>(1)</sup>
		Affiliations: 1 : College of Textiles, Donghua University, Shanghai, CHINA
	18:00	P-16bis - A 5 nm to 10 micrometre Condensation Particle Counter suitable for testing all air filter grades <b>Yixin ZOU, Cambustion Ltd, Cambridge, UNITED KINGDOM</b>
		<b>Co-Authors :</b> Simon PAYNE <sup>(1)</sup> ; Jon SYMONDS <sup>(1)</sup> ; Martin TOFTS <sup>(1)</sup>
		Affiliations : 1 : Cambustion Ltd, Cambridge, UNITED KINGDOM
AMPHI B	Mem	brane / Poster presentation
17:30 - 18:15	17:30	P-03 Recycling of polymeric substances from sewage via membrane technologies Da-Qi CAO, Beijing University of Civil Engineering and Architecture, Beijing, CHINA
		<b>Co-authors:</b> Zhen WANG <sup>(1)</sup> ; Xin SONG <sup>(1)</sup> ; Xiao-Min FANG <sup>(1)</sup> ; Jing-Yi JIN <sup>(1)</sup> ; Xiu-Zhen SUN <sup>(1)</sup> ; Jia-Lin HAN <sup>(1)</sup> ; Hui LIU <sup>(1)</sup> ; Yan JIN <sup>(1)</sup> ; Xiao-Di HAO <sup>(1)</sup> <b>Affiliations:</b> 1 : Beijing University of Civil Engineering and Architecture, Beijing, CHINA
	17:40	P-38bis FLUORMIDABLE: A Fluorescence-Based Strategy for In Situ Detection and
		Mapping of Micro- and Nanoplastics in Coastal and Marine Environments René PEINADOR DAVILA, Institut de la Filtration et des techniques séparatives (IFTS), Foulayronnes
		<b>Co-authors:</b> Amélie SURMONT <sup>(1)</sup> ; Vidal LAURENCE <sup>(1)</sup> ; Jérôme LABILLE <sup>(1)</sup> <b>Affiliations:</b> 1 : Institut de la Filtration et des techniques séparatives (IFTS), Foulayronnes, FRANCE
AMPHI C	Mem	brane / Poster presentation
17:30 - 18:15	17:30	P-23 Development of Antifouling gamma-Al2O3/alpha-Al2O3 Nanofiltration Membranes for Enhanced Wastewater Treatment Efficiency <b>Xuelong ZHUANG, Dongguk university, Seoul, CHINA</b>
	17:40	P-20 Hybrid modeling approach for the prediction of potential fouling in filtration based on viscosity
		Jimin KANG, Inha University, Incheon, REPUBLIC OF KOREA
		<b>Co-authors:</b> Youngbin BAEK <sup>(1)</sup> <b>Affiliations:</b> 1 : Inha University, Incheon, REPUBLIC OF KOREA

## WEDNESDAY, 2 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

ROOM E	Susta	inable development / Poster presentation
17:30 - 18:15	17:30	P-19 Enhanced separation of C-phycocyanin and allophycocyanin using a coupled filtration and precipitation methods <b>Soobin JANG, Inha University, Incheon, REPUBLIC OF KOREA</b>
		<b>Co-authors:</b> Youngbin BAEK <sup>(1)</sup> <b>Affiliations:</b> 1 : Inha University, Incheon, REPUBLIC OF KOREA
	17:40	P-37 Protein concentration from microalgae using stirred-cell ultrafiltration Pierre-Yves PONTALIER, Laboratoire de Chimie Agro-industrielle (LCA), Université de Toulouse, INRAE, Toulouse INP, Toulouse
		<b>Co-authors:</b> Hussein RIDA <sup>(1,2)</sup> ; Sara OBEID <sup>(1,2)</sup> ; Nicolas BEAUFILS <sup>(1)</sup> <b>Affiliations:</b> 1 : Laboratoire de Chimie Agro-industrielle (LCA), Université de Toulouse, INRAE, Toulouse INP, Toulouse, FRANCE ; 2 : Platforme de Recherche et d'Analyses en Sciences de l'Environnement (PRASE), Université Libanaise, Beirut, LEBANON
	17:50	P-45 Modification of polypropylene filters with amphiphilic cyclodextrins by dip coating for PFAS removal <b>Kasper Skovbølling HEDEGAARD, Aalborg University, Aalborg, DENMARK</b>

### ROOM G

18:15 - 19:15 INDEFI meeting



	ROOM F	ROOM H	ΑΜΡΗΙ Α	
8:00 - 19:15				
8:30 - 9:30				
9:30 - 10:00				
	CENTRIFUGAL SEPARATION	HYBRID AND COMBINED PROCESSES	FUNDAMENDALS AND SIMULATION	
10:00 - 10:20	KEYNOTE: Deyou ZHANG New Technology of Separation Machinery and its	0-153 Eliott JACQUEMIN Hybrid process based on nanofiltration and catalytic ozonation for antibiotics removal and membrane fouling mitigation	KEYNOTE: Philipp EICHHEIMER Advanced simulation of adsorption processes for next-	
10:20 - 10:40	Engineering Application in Key Links of Lithium Industry	O-154 Morten NIELSEN Nanofiltration and reverse osmosis for the recovery and purification of phosphorus from sewage sludge ash	generation filter media development	
10:40 - 11:00	O-149 Wallace LEUNG Novel centrifugal classification of inclusion body from recombinant protein process	O-157 Jiha SHIM Impact of induced gas flotation on ceramic membrane filtration efficiency in oil sands process-affected water treatment	O-159 Jakub WIEREMIEJCZUK Numerical study of particle deposition on filter fibers: Effect of particle mobility after initial deposition	
11:00 - 11:20	O-150 Yipeng JI Oscillation characteristics of oil core induced by rotating rate of the tubular axial vortex separator	O-158 Egon EHRFELD Dynamic cross-flow filtration for continuous recovery of catalysts - Theory and industrial practice	O-160 Alain GINESTET Impact of baffles on airflow distribution in industrial dust collectors: a numerical simulation study	
11:20 - 11:40	O-151 Meili LIU Design and performance study of a hydrocyclone with wide operating window for downhole oil-water separation		O-161 Yu SONG Prediction of filter structures and filtration performance at compressed state via in-situ 3D imaging and numerical simulation	
11:40 - 12:00	O-152 Cuilong CHEN Design and Application Research of PVDF Fluoroplastic Centrifuge Extractor			
12:00 - 13:30				
13:30 - 14:10	KEYNOTE: Prof. Dr. Dr. Dietmar LERCHE Analytical centrifugation (AC) has a strong cross- discipline impact inclusive of separation and filtration even 100 years after the breakthrough innovation of the ultracentrifuge that led to the Nobel Prize (Svendborg)	KEYNOTE: Godwin SEVERA Metal Based Ionic Liquid Composites for Acidic Gas Capture	KEYNOTE: Jennifer NIESSNER Indoor air quality - a counterpart to energy efficiency and thermal comfort?	



Liquid filtration Gas filtration Membrane Sustainable development

ROOM D	ΑΜΡΗΙ Β	ΑΜΡΗΙ C	ROOM E	
Registration and Exhibition open				
<b>Plenary Lecture: Hervé BUISSON</b> Water Filtration: Challenges and Opportunities in the Age of Sustainability				
Coffee Break - Exhibition - Poster				
INDUSTRIAL GAS CLEANING	MEMBRANE TECHNOLOGY / Applications	MEMBRANE FORMATION / Structure	WASTE WATER TREATMENT	
O-163 Peter BÄCHLER Mitigation of nanoparticle emissions from a biomass power plant for district heating by application of pulse-jet cleaned filters	O-169 Jeonghwan KIM Electroless plating combined with air blowing step technique for highly conductive hollow- fiber membrane in submerged electrochemical membrane filtration	O-175 Djamel TALEB Modification of nanoporous filtration membranes by cold plasma polymerisation and application to heavy metals removal	O-181 Rajashree YALAMANCHILI A holistic approach to evaluating forward osmosis - reverse osmosis (FO-RO) hybrid systems for simultaneous water reuse and resource recovery	
O-164 Alessio FUOCO PIMs and MOF based Mixed Matrix Membranes for CO2 Capture	O-170 Kibaek LEE Disrupting autoinducer-2 bacterial communication to combat membrane biofouling in an MBR for wastewater treatment and water reuse	O-176 Sergio SANTORO Lithium Recovery from Natural and Anthropic Brines via Solar-Driven Photothermal Membrane Crystallization	O-182 Sylvie BAIG Choice of media for biofilters: importance of their characteristics for long-term performance control in wastewater treatment	
O-165 Zhen LIU Optimization design and application of magnetic separation technology for black powder in natural gas pipeline	O-171 Seonbong LEE Membrane filtration for separating isoform DNA with adsorption technology	P-176bis Patricia PREDIGER Preparation of polymeric membranes containing doped mesoporous carbon and their application in the removal of heavy metals from a real electroplating effluent	0-182bis Thi-Dieu-Hien VO Biomass harvesting efficiency by rotating membrane in revolving algal biofilm system under different conditions	
O-166 Ala BOUHANGUEL In situ study in a municipal waste incinerator of the collection of particles contained in fumes by a downscaled wet scrubber	0-172 S. Ranil WICKRAMASINGH Integrated Electrocoagulation and Zwitterionic Modified Nanofiltration Membranes for Removal of Microcystin		O-184 Mélanie SOUBEYRAT Reuse of treated wastewater for watering green spaces, a credible alternative	
O-167 Lingzhen KONG Absorption mass transfer and separation characteristics of efficient tubular natural gas dehydration	O-173 Guillaume DERUY PFAS retention by hollow fiber nanofiltration and reverse osmosis membrane		O-185 Tarik ELJADDI Use of Ultrafiltration for Biosecurity in Fish Farming and Environmental Protection for a Blue Transformation of Aquaculture	
O-168 Young Ok PARK Filtration characteristics of commercial scale DeNOx catalyst cartridge filter bags				
Lunch				
KEYNOTE: Lauretta RUBINO VERT GPF-Retrofit Program for Cleaner Urban Mobility to Reduce Nanoparticle Emissions via Filtration within the HORIZON Europe AeroSolfd Project	KEYNOTE: Anthony SZYMCZYK Electrokinetic and electrochemical characterization of porous polymer membranes	KEYNOTE: Emilie ROLLAND Novel membranes based on charged 2D nanomaterials	KEYNOTE: Eugène VOROBIEV Innovative physical pretreatments improve filtration properties of biomass and open the new opportunities for filtration and separation technologies	



	ROOM F	ROOM H	ΑΜΡΗΙ Α	
	ADVANCES IN FILTRATION AND SEPARATION	DEPTH FILTRATION AND FILTER AIDS	HVAC SYSTEMS	
14:20 - 14:40	0-187 Sajid HASSAN Evaluating the effect of key parameters on cake solids concentration and throughput in High Pressure Dewatering Rolls Mark-II	0-192 Nazila BOLOURIEH Evaluation of TSS removal from synthetic stormwater using construction and demolition waste fractions as porous media	O-197 Alain GINESTET Enhancement of design and performances of droplet separators for air handling units	
14:40 - 15:00	O-188 Egon EHRFELD Dynamic and continuous sieve filtration of highly viscous suspensions with large solids concentration - Theory and industrial practice	O-193 Tarik ELJADDI Design and validation of a locally assembled sand filter to remove iron from drinking water in Mali	O-198 Alain GINESTET Could general ventilation filters be used as acoustic silencers?	
15:00 - 15:20	O-189 Timo DOBLER HiBar filter - An optimal solution for challenging filtration tasks?	O-194 Masashi IWATA Substantial enhancement in suspended particle capture during precoat filtration by modifying the precoat layer with fine bubbles	O-199 Christian PETERS Gas Adsorption Test of HVAC Filter according to ISO 10121	
15:20 - 15:40	O-190 Da-Qi CAO Dead-end forward osmosis deep dewatering technology	0-195 Wenping LI Cycle Rate Analysis Method for Optimizing Filter Aid Selection	O-200 Elise BILLOD Development of synthetic multilayer filter media with high performance and enhanced energy saving	
15:40 - 16:00	0-191 Christian SCHEIDLE Innovative mining process supported by enhanced two stage filtration concept		0-201 Ingrid RÜCKERT 3D composites for more sustainable HVAC systems	
16:00 - 16:30				
	FILTRATION/SEPARATION APPLICATIONS 1	MEMBRANE APPLICATIONS	PERSONAL PROTECTIVE Equipment	
16:30 - 16:50	O-222 Oliver ASMUS AGXX - an innovative technology to prevent microbial contamination in water and air filtration	O-225 Jang-Hoon HA Preparations and characterizations of low-cost porous ceramic membranes	O-228 Sandrine CHAZELET Efficiency of Powered Air-Purifying Respirators in simulated wearing conditions	
16:50 - 17:10	0-223 Kenta KITAMURA Novel Approach to Water Treatment Utilizing Nanoparticle Slurry and DC Electric Field	0-226 Zakarya CHAFIQ ELIDRISSI High-Performance MoS2 Nanofiltration Membrane for Dye Separation: Experimental and Modeling Analysis	O-230 Yuxin ZHAO Ultrathin transparent PTFE membrane prepared by mechanical exfoliation for efficient air aerosol filtration	
17:10 - 17:30	O-224 Yun LIANG Impact of Surfactants on Water Droplet Capture and Coalescence by Single Fibers in Diesel		O-230bis Mohammad Mehdi SHIRMOHAMMADI Respiratory Masks: New Developments, Opportunities, and Trends	
	POSTER SESSION LIQUID FILTRATION	POSTER SESSION MEMBRANE	POSTER SESSION GAS FILTRATION	
17:30 - 17:40	P-10 Nikolai BENZ CFD-DEM simulation of micro-mechanisms between particles and filter medium by solid-liquid separation	P-27 Timo ROTHAUSEN Sandfilter Backwash Water Treatment - Piloting at a municipal German freshwater producer	P-11 Junxian CHEN A microwave sensor for droplet contents measurement in high-pressure natural gas pipelines	
17:40 - 17:50	P-06 Lin LIU Effect of Different Filter Materials on Filtration Process of Polymer Flooding Produced Water: A Numerical Simulation Study	P-38 Youness KOUZI Are membrane cascades an efficient tool for the enhancement of RO desalination performances either for brackish or seawaters ?	P-17 God JEAN Approach for dimensioning a lab-scale wet scrubber for analysis of gas-particle-droplet interactions	
17:50 - 18:00	P-39bis Jaewoo LEE Reverse osmosis membranes coated with silk-derived materials to enhance anti-scaling and storage stability via a waste-to-resource approach	P-29 Gaetan BLANDIN Evaluation of chemical and mechanical resistance of FO and RO dense membranes for improved lifetime and recycling	P-18 Deli LIU Integrated application of cyclone separation and deep filtration in natural gas defoaming	
18:00 - 18:10		P-41 Cejna Anna Quist-Jensen High-purity water recovery from industrial effluents using membrane distillation		
18:15 - 19:15	ROOM G			
20:00				



Liquid filtration Gas filtration Membrane Sustainable development

ROOM D	AMPHI B	АМРНІ С	ROOM E
MATERIAL AND SENSOR	FUNDAMENTALS, MODELING AND SIMULATION	MEMBRANE FORMATION / STRUCTURE	PRETREAMENT
0-202 Martin LAUER Breakthrough sensor for adsorption filters	O-207 Baptiste BOIT Sustainable Ingredient Innovation with membrane process modeling - application to nanofiltration and reverse osmosis	0-212 Fatima Zohra EL BERRICHI Preparation of ceramic flat membrane from the local kaolin intended for the filtration application	0-217 Juya AZADI Dewatering properties of disrupted sludge through ultrasonication and re-flocculation
O-203 Félicie THERON Development and advanced characterization of a biobased media for air filtration	O-208 Maher HATOUM Coupling Process Systems Engineering with Life Cycle Assessment for Sustainable Ultrafiltration	O-214 Irish Valerie MAGGAY Development of a Three-Stage Filtration System Using Tailored Phase-Inversion Membranes from a Single Casting Solution	O-218 Karim MEZIANI Impact of polymer dosing modes on sludge conditioning and dewatering
0-204 Simon PAYNE More accurate measurements of the most penetrating particle size using aerosols classified by aerodynamic diameter	O-209 Anna QUIST-JENSEN Direct contact membrane distillation module design for external heat recovery Cejna	O-215 Saad ALAMI YOUNSSI Fabrication of a Cost-Effective Crosslinked and Intercalated rGO-Based Membrane for Efficient Dye Removal	O-219 Fatima Zohra EL BERRICH Hybrid process for treating textile dyeing wastewater by coupling Coagulation-Flocculation, Adsorption and Fenton oxidation
O-205 Y Lan PHAM Characterising dynamic filter removal efficiency of volatiles in real-time	O-210 Agathe LIZÉE Electrokinetic measurements as a new tool to characterize membrane wetting	O-216 Youness KOUZI Comparative Study of Activation Methods to Enhance the Stability and Efficiency of Graphene Oxide Membranes on Low-Cost Silica-Rich Supports	O-220 Pascal GINISTY Using raw and modified chitosan as an alternative of petrosourced flocculents for digested sludges thickening and dewatering
O-206 Alexandre KHALDI Integration of monitoring system onto air particle filter	0-211 Maksym LOGINOV Optimization of concentration-fractionation via membrane filtration: equations vs. reality		0-221 Danielle SLOMBERG Towards nature-based solutions in waste water treatment: role of biopolymer properties in coagulation-flocculation and removal of suspended mineral matter
Coffee Break - Exhibition - Poster			
COMPARISON METHODS	MEMBRANE FOULING / Regeneration	MEMBRANE FORMATION / Structure	BIOPOLYMER
O-231 Chih-Chieh CHEN Comparison of performance evaluation methods for air cleaners	O-234 Louise MIKKELSEN Cross-membrane sensing of milk fouling on an immersed flat sheet module by measuring thermal conductivity in real time	0-237 Yuanhui GAO 3D Printed TPMS-Structured Ceramic Membranes for High-Temperature Industrial Exhaust Filtration	O-241 Soufiane BAKRI ALAOUI Enhanced treatment of olive mill wastewater using infiltration-percolation with low-cost adsorbents
O-232 Xin FENG Effect of the competitive gases in the performance evaluation for Gas-phase air cleaning devices (GPACD)	0-235 Estelle COUALLIER Probing the fouling induced by biomolecules of a polymer microfiltration membrane using 3D cryo-FIB/SEM	0-238 Wentai HE Auxetic highly stretchable all-ceramic nanofibrous membranes for high-temperature industrial emission filtration	O-266bis Aka DOCHE Forward osmosis to concentrate blood platelets : optimising process conditions
O-233 Martin SCHMIDT Influence of test parameters to the comparability of test results of air filter elements	0-236 Murielle RABILLER-BAUDRY Enzymatic detergents vs alkaline detergents: which are better for cleaning PES/PVP ultrafiltration membranes fouled by skim milk?	0-239 Ying FENG Development and selective adsorption characteristics of molecular imprinted Chitosan composite membrane	
POSTER SESSION MEMBRANE	POSTER SESSION MEMBRANE	POSTER SESSION MEMBRANE	POSTER SESSION SUSTAINABLE DEVELOPMENT
P-34 Courfia DIAWARA Reverse Osmosis and Scientific Issues for Seawater Desalination in West Africa - Osmose Inverse et Enjeux Scientifiques pour le Dessalement de l'Eau de Mer en Afrique de l'Ouest	P-25 Maximilian AMTHOR-STAHL Next level optimization of your Dynamic Crossflow Filter (DCF) performance with digital twins	P-24 Jae Yeon HWANG A study on the feasibility of hemodialysis application through lab-scale hemodialyzer made of ceramic hollow fiber membranes by removing uremic toxins	P-28 Christel CAUSSERAND Mamb'Eaux Project Assessment of the life span of membranes in an MBR for the treatment of urban and industrial wastewater
P-40 Soumana GAGARA Contribution to the Surface Water Quality Assessment: A Case Study of the Microfiltration and Reverse Osmosis Systems applied to the Kivu Lake Water In The Province Of South Kivu In DR Congo		P-41bis Houcine MHEMDI Dead-End Ultrafiltration of Sugar Beet Juice Extracted from Cold Electrically Pre-Treated Slices: Influence of Membrane Polymer on Fouling Mechanisms and Permeate Quality	P-30 Mohamed TAKY Understanding the effect of organic load on aerobic ceramic membrane bioreactor: performance, fouling propensity and machine learning algorithm
		P-42bis Zakarya CHAFIQ ELIDRISSI High-performance MoS2-based composite membrane for efficient dye removal: Experimental and theoretical analysis	P-46 Muhammad Khairul AFDHOL Utilization of jenitri as a biosorbent for produced- water in oil fields

SF2P meeting (by invitation)

GALA DINNER



### WELCOME AREA

08:00 - 18:15 Welcome attendees

### AMPHI A

### 08:30 - 09:30 Plenary session

Water Filtration: Challenges and Opportunities in the Age of Sustainability Hervé BUISSON, Veolia Water Technologies, Paris

### ESPACE PLURIEL

09:30 - 10:00 Visit the exhibition and the poster area

#### ROOM F Liquid filtration / Session

### 10:00 - 12:00 Centrifugal Separation

10:00 **Keynote lecture** - New Technology of Separation Machinery and its Engineering Application in Key Links of Lithium Industry

Deyou ZHANG, HeFei General Machinery Research Institute Co., Ltd., Hefei, CHINA Co-authors: BIXIAO ZHU <sup>(1)</sup>

Affiliations: 1 : HeFei General Machinery Research Institute Co., Ltd. , Hefei, CHINA

- 10:40 O-149 Novel centrifugal classification of inclusion body from recombinant protein process Wallace LEUNG, Hong Kong Polytechnic University, Duluth, UNITED STATES
- 11:00 O-150 Oscillation characteristics of oil core induced by rotating rate of the tubular axial vortex separator

**Yipeng JI, Beijing Institute of Petrochemical Technology, Beijing, CHINA Co-authors:** Lei ZHANG <sup>(1,3)</sup>; Xiujun WANG <sup>(2)</sup>; Jiaqing CHEN <sup>(1,3)</sup>; Zhao HUA <sup>(2)</sup>; Chunyao WANG <sup>(1,3)</sup>; Yinghao SUN <sup>(1,3)</sup>

**Affiliations:** 1: Beijing Institute of Petrochemical Technology, Beijing, CHINA; 2: CNOOC Research Institute Co. LTD, Beijing, CHINA; 3: Beijing Key Laboratory of Pipeline Critical Technology and Equipment for Deepwater Oil & Gas Development, Beijing, CHINA

11:20 O-151 Design and performance study of a hydrocyclone with wide operating window for downhole oil-water separation

#### Meili LIU, Beijing Institute of Petrochemical Technology, Beijing, CHINA

**Co-authors:** Jiaqing CHEN <sup>(1,3)</sup>; Zheyuan ZHANG <sup>(1,3)</sup>; Yongxiang FENG <sup>(1,3)</sup>; Deli JIA <sup>(2)</sup>; Yang GAO <sup>(2)</sup> **Affiliations:** 1: Beijing Institute of Petrochemical Technology, Beijing, CHINA; 2: Oil Production Engineering Research Institute of Petroleum Exploration & Development, Beijing, CHINA; 3: Beijing Key Laboratory of Pipeline Critical Technology and Equipment for Deepwater Oil & Gas Development, Beijing, CHINA

11:40 O-152 Design and Application Research of PVDF Fluoroplastic Centrifuge Extractor Cuilong CHEN, Sinomach General Machinery Science& Technology Co., Ltd., Hefei, CHINA

**Co-authors:** BIXIAO ZHU <sup>(1)</sup> **Affiliations:** 1 : Sinomach General Machinery Science& Technology Co., Ltd., Hefei, CHINA



Liquid filtration Gas filtration Membrane Sustainable development

ROOM H	Liquid filtration / Session
10:00 - 12:00	Hybrid and Combined Processes
	<ul> <li>10:00 O-153 Hybrid process based on nanofiltration and catalytic ozonation for antibiotics removal and membrane fouling mitigation</li> <li>Eliott JACQUEMIN, Institut Européen des Membranes, Montpellier</li> <li>Co-authors: Martin DROBEK <sup>(0)</sup>; Loubna ATFANE <sup>(0)</sup>; Eddy PETIT <sup>(0)</sup>; Julie MENDRET <sup>(0)</sup>; Stéphan BROSILLON <sup>(0)</sup></li> <li>Affiliations: 1: Institut Européen des Membranes, Montpellier, FRANCE</li> </ul>
	<ul> <li>10:20 O-154 Nanofiltration and reverse osmosis for the recovery and purification of phosphorus from sewage sludge ash</li> <li>Morten NIELSEN, Aalborg University, Aalborg Øst, DENMARK</li> <li>Co-authors: Morten CHRISTENSEN <sup>(1)</sup></li> <li>Affiliations: 1 : Aalborg University, Aalborg Øst, DENMARK</li> </ul>
	<ul> <li>10:40 O-157 Impact of induced gas flotation on ceramic membrane filtration efficiency in oil sands process-affected water treatment</li> <li>Jiha SHIM, Pusan national university, Busan, REPUBLIC OF KOREA</li> <li>Co-authors: Jeong SANGHYUN <sup>(1)</sup></li> <li>Affiliations: 1 : Pusan national university, Busan, REPUBLIC OF KOREA</li> </ul>
	<ul> <li>O-158 Dynamic cross-flow filtration for continuous recovery of catalysts - Theory and industrial practice</li> <li>Egon EHRFELD, BOKELA GmbH, Karlsruhe, GERMANY</li> <li>Co-authors: Timo DOBLER (1)</li> <li>Affiliations: 1 : BOKELA GmbH, Karlsruhe, GERMANY</li> </ul>
AMPHI A	Gas filtration / Session
10.00 - 12.00	Fundamendals and simulation

### 10:00 - 12:00 Fundamendals and simulation

10:00	<b>Keynote lecture</b> - Advanced simulation of adsorption processes for next-generation filter media development <b>Philipp EICHHEIMER, Math2Market GmbH, Kaiserslautern, GERMANY</b>
	<b>Co-authors:</b> Weber ANDREAS <sup>(1)</sup> ; Tabea STERBAK <sup>(1)</sup> ; Andreas WIEGMANN <sup>(1)</sup> <b>Affiliations:</b> 1 : Math2Market GmbH, Kaiserslautern, GERMANY
10:40	O-159 Numerical study of particle deposition on filter fibers: Effect of particle mobility afte initial deposition <b>Jakub WIEREMIEJCZUK, University of Stuttgart, Stuttgart, GERMANY</b>

# Co-authors: Carsten MEHRING <sup>(1)</sup> Affiliations: 1 : University of Stuttgart, Stuttgart, GERMANY 11:00 O-160 Impact of baffles on airflow distribution in industrial dust collectors: a numerical simulation study

Alain GINESTET, CETIAT, Villeurbanne Co-authors: Mirela ROBITU <sup>(1)</sup> Affiliations: 1 : CETIAT, Villeurbanne, FRANCE

11:20 O-161 Prediction of filter structures and filtration performance at compressed state via insitu 3D imaging and numerical simulation
 Yu SONG, Donghua Univeristy, Shanghai, CHINA
 Co-authors: Huimin GE <sup>(1)</sup>
 Affiliations: 1 : Donghua Univeristy, Shanghai, CHINA

**ROOM D** Gas filtration / Session

### 10:00 - 12:00 Industrial gas cleaning 10:00 O-163 Mitigation of nanoparticle emissions from a biomass power plant for district heating by application of pulse-jet cleaned filters Peter BÄCHLER, Karlsruhe Institute of Technology, Karlsruhe, GERMANY Co-authors: Jörg MEYER (1) ; Roman LIGOTSKI (2) ; Petra KRUG (2) ; Achim DITTLER (1) Affiliations: 1: Karlsruhe Institute of Technology, Karlsruhe, GERMANY; 2: BWF Envirotec GmbH, Offingen, GERMANY

10:20 O-164 PIMs and MOF based Mixed Matrix Membranes for CO2 Capture Alessio FUOCO, National Research Council of Italy, Rende, ITALY

Co-authors: Martina VACCARO (); Carmen RIZZUTO (); Marcello MONTELEONE (); Johannes C JANSEN <sup>(1)</sup>; Francesco DELLA CROCE <sup>(2,3)</sup>; Marco LESSI <sup>(2,3)</sup>; Marco TADDEI <sup>(2,3)</sup>; Caterina Grazia BEZZU (1,4) : Mariolino CARTA (1)

Affiliations: 1 : National Research Council of Italy, Rende, ITALY ; 2 : University of Pisa, Pisa, ITALY ; 3 : National Interuniversity Consortium of Materials Science and Technology, Florence, ITALY ; 4 : Swansea University, Swansea, UNITED KINGDOM

10:40 O-165 Optimization design and application of magnetic separation technology for black powder in natural gas pipeline Zhen LIU, China University of Petroleum, Beijing, Beijing, CHINA Co-authors: Tianyu ZHANG (1) ; Zhongli JI (1) ; Xiaolin WU (1) Affiliations: 1: China University of Petroleum, Beijing, Beijing, CHINA

11:00 O-166 In situ study in a municipal waste incinerator of the collection of particles contained in fumes by a downscaled wet scrubber

Ala BOUHANGUEL, IMT Atlantique / GEPEA, Nantes Co-authors: Angela HOYOS (1,2) ; Aurélie JOUBERT (1) ; Marc HENRY (2) ; Sylvain DURÉCU (2) ; Laurence LE COO (1)

Affiliations: 1 : IMT Atlantique / GEPEA, NANTES, FRANCE ; 2 : Séché Environnement, Centre de R&D, SAINT-VULBAS, FRANCE

11:20 O-167 Absorption mass transfer and separation characteristics of efficient tubular natural gas dehydration

Lingzhen KONG, Beijing Institute of Petrochemical Technology, Beijing, CHINA

Co-authors: Jiaging CHEN (1.3); Huan SUN (1.3); Biao KONG (1.3); Oi LI (2); Changhe LI (2); Sicheng WANG (1,3); Yang YANG (1,3)

Affiliations: 1 : Beijing Institute of Petrochemical Technology, Beijing, CHINA ; 2 : Sinopec Petroleum Exploration and Production Research Institute, Beijing, CHINA; 3: Beijing Key Laboratory of Pipeline Critical Technology and Equipment for Deepwater Oil & Gas Development, Beijing, CHINA

11:40 O-168 Filtration characteristics of commercial scale DeNOx catalyst cartridge filter bags Young Ok PARK, DAEHANPNC CO., Ltd., Dangjin City, REPUBLIC OF KOREA Co-authors: Wonil SHIN (1); Kwang Deuk KIM (1); Sang Do KIM (1) Affiliations: 1 : DAEHANPNC CO., Ltd., Dangjin, REPUBLIC OF KOREA





Liquid filtration Gas filtration Membrane Sustainable development

### AMPHI B Membrane / Session

### 10:00 - 12:00 Membrane technology / applications

- 10:00 O-169 Electroless plating combined with air blowing step technique for highly conductive hollow-fiber membrane in submerged electrochemical membrane filtration **Jeonghwan KIM, Inha University, Incheon, REPUBLIC OF KOREA**
- 10:20 O-170 Disrupting autoinducer-2 bacterial communication to combat membrane biofouling in an MBR for wastewater treatment and water reuse
   Kibaek LEE, Chonnam National University, Gwangju, REPUBLIC OF KOREA
   Co-authors: Gyeongho CHOI <sup>(1)</sup>; Jinju HAN <sup>(1)</sup>; Changun KIM <sup>(1)</sup>; Hyeona PARK <sup>(2)</sup>; Kwang-Ho CHOO <sup>(2)</sup>
   Affiliations: 1 : Chonnam National University, Gwangju, REPUBLIC OF KOREA ; 2 : Kyungpook National University, Daegu, REPUBLIC OF KOREA
- 10:40 O-171 Membrane filtration for separating isoform DNA with adsorption technology Seonbong LEE, Inha university, Incheon, REPUBLIC OF KOREA
   Co-authors: Jiwon NA<sup>(1)</sup>; Youngbin BAEK<sup>(1)</sup>
   Affiliations: 1 : Inha university, Incheon, REPUBLIC OF KOREA
- 11:00 O-172 Integrated Electrocoagulation and Zwitterionic Modified Nanofiltration Membranes for Removal of Microcystin
   S. Ranil WICKRAMASINGHE, University of Arkansas, Fayetteville, UNITED STATES
   Co-authors: Chidambaram THAMARAISELVAN <sup>(1)</sup>; Xianghong QIAN <sup>(1)</sup>
   Affiliations: 1 : University of Arkansas, Fayetteville, UNITED STATES
- 11:20 O-173 PFAS retention by hollow fiber nanofiltration and reverse osmosis membrane **Guillaume DERUY, Aix Marseille University, Aix-En-Provence Co-authors:** Mathias MONNOT<sup>(1)</sup>; Philippe MOULIN<sup>(1)</sup>; Marc HENRY<sup>(2)</sup> **Affiliations:** 1: Aix Marseille University, AIX-EN-PROVENCE, FRANCE; 2: Séché Environnement, SAINT-VULBAS, FRANCE

### AMPHIC Membrane / Session

### 10:00 - 12:00 Membrane formation / structure

- 10:00 O-175 Modification of nanoporous filtration membranes by cold plasma polymerisation and application to heavy metals removal
  - Djamel TALEB, Institut UTINAM UMR CNRS 6213, Besancon

**Co-authors:** Sébastien DÉON <sup>(1)</sup> ; Patrick FIEVET <sup>(1)</sup> ; Vincent ROUCOULES <sup>(2)</sup> ; Aissam AIROUDJ <sup>(2)</sup> ; Florence BALLY-LE-GALL <sup>(2)</sup>

Affiliations: 1 : Institut UTINAM (UMR CNRS 6213), Université de Franche-Comté, Besançon, FRANCE ; 2 : IS2M (UMR 7361), Université de Haute-Alsace, Mulhouse, FRANCE

10:20 O-176 Lithium Recovery from Natural and Anthropic Brines via Solar-Driven Photothermal Membrane Crystallization Sergio SANTORO, University of Calabria, Rende, ITALY

**Co-authors:** Marco AQUINO <sup>(1)</sup>; Antonio POLITANO <sup>(2)</sup>; Efrem CURCIO <sup>(1)</sup>; Roviel Berhane ZEGEYE <sup>(1)</sup> **Affiliations:** 1: University of Calabria, Rende, ITALY ; 2: University of L'Aquila, L'Aquila, ITALY

### 10:40 P-176bis Preparation of polymeric membranes containing doped mesoporous carbon and their application in the removal of heavy metals from a real electroplating effluent **Patricia PREDICER, 007.985.780-92, Campinas, BRAZIL**

**Co-authors:** MARIA VITORIA RAPOSO RODRIGUES <sup>(1)</sup>; CAMPAROTTO NATALIA GABRIELE <sup>(1)</sup>; RAFAEL L OLIVEIRA <sup>(2)</sup>

Affiliations: 1 : State University of Campinas - UNICAMP, Campinas, BRAZIL ; 2 : Institute of Low Temperature and Structure Research, Wroclaw, POLAND

ROOM E	Susta	inable development / Session
10:00 - 12:00	Was	te water treatment
	10:00	O-181 A holistic approach to evaluating forward osmosis - reverse osmosis (FO-RO) hybrid systems for simultaneous water reuse and resource recovery <b>Rajashree YALAMANCHILI, University of Girona, Girona, SPAIN</b> <b>Co-authors:</b> Juan Pablo ROJAS TRIGO <sup>(1)</sup> ; Ignasi RODRIGUEZ-RODA <sup>(1)</sup> ; Gaëtan BLANDIN <sup>(1)</sup> <b>Affiliations:</b> 1: University of Girona, GIRONA, SPAIN
	10:20	O-182 Choice of media for biofilters: importance of their characteristics for long-term performance control in wastewater treatment Sylvie BAIG, Suez International, Paris La Défense Co-authors: Gilles HÉBRARD <sup>(2)</sup> ; Dominique BASTOUL <sup>(2)</sup> ; Juan MALDONADO <sup>(2)</sup> ; Béatrice FOURNIER <sup>(1)</sup> ; Cécile BOURDON <sup>(1)</sup> ; Adriana GONZALEZ OSPINA <sup>(1)</sup> Affiliations: 1: Suez International, Paris La Défense, FRANCE; 2: Toulouse Biotechnology Institute (TBI), Université de Toulouse, CNRS, INRAE, INSA, Toulouse, FRANCE
	10:40	O-182bis Biomass harvesting efficiency by rotating membrane in revolving algal biofilm system under different conditions <b>Thi-Dieu-Hien VO, Nguyen Tat Thanh University, Ho Chi Minh, VIETNAM</b> <b>Co-authors:</b> Van-Truc NGUYEN <sup>(2)</sup> ; Thi-Ngoc-Chau LE <sup>(1)</sup> ; Do-Dat HUYNH <sup>(1)</sup> ; Nhu-Trang TRAN-THI <sup>(1,3)</sup> ; Philippe BEHRA <sup>(3)</sup> ; Pierre-Yves PONTALIER <sup>(3)</sup> <b>Affiliations:</b> 1: Faculty of Applied Science and Technology, Nguyen Tat Thanh University, Ho Chi Minh, VIETNAM; 2: Faculty of Engineering and Technology, Saigon University, Ho Chi Minh, VIETNAM; 3: Laboratoire de Chimie Agro-industrielle (LCA), Université de Toulouse, INRAE, Toulouse INP, Toulouse, FRANCE
	11:00	O-184 Reuse of treated wastewater for watering green spaces, a credible alternative Mélanie SOUBEYRAT, SEBICO, Boé Co-authors: Emma BOISSIÈRE <sup>(2)</sup> ; Lucie BÉGUIN <sup>(2)</sup> ; Pierre-Colin GERVAIS <sup>(1)</sup> ; Arnaud FERTET <sup>(3)</sup> ; Philippe FAUCON <sup>(3)</sup> Affiliations: 1 : SEBICO, Boé, FRANCE ; 2 : Institut de la Filtration et des Techniques Séparatives, Foulayronnes, FRANCE ; 3 : ARRDHOR - CRITT Horticole, Rochefort, FRANCE
	11:20	O-185 Use of Ultrafiltration for Biosecurity in Fish Farming and Environmental Protection for a Blue Transformation of Aquaculture <b>Tarik ELJADDI, Institut de la Filtration et des Techniques Séparatives (IFTS),</b> <b>Foulayronnes</b> <b>Co-authors:</b> Vincent EDERY <sup>(1)</sup> <b>Affiliations:</b> 1 : Institut de la Filtration et des Techniques Séparatives (IFTS), Foulayronnes, FRANCE

### ESPACE PLURIEL

12:00 - 13:30 Lunch

### **ROOM F** Liquid filtration / Keynote session

13:30 - 14:10 Analytical centrifugation (AC) has a strong cross-discipline impact inclusive of separation and filtration even 100 years after the breakthrough innovation of the ultracentrifuge that led to the Nobel Prize (Svendborg)

Dietmar LERCHE, LUM GmbH, Berlin, GERMANY

### **ROOM H** Liquid filtration / Keynote session

13:30 - 14:10 Metal Based Ionic Liquid Composites for Acidic Gas Capture Godwin SEVERA, UNITED STATES



Liquid filtration Gas filtration Membrane Sustainable development

#### AMPHIA Gas filtration / Keynote session

### 13:30 - 14:10 Indoor air quality - a counterpart to energy efficiency and thermal comfort?

Jennifer NIESSNER, Insititute for Flow in Additively Manufactured Porous Media (ISAPS) / Heilbronn University of Applied Sciences, Heilbronn, GERMANY

**Co-authors:** Simon BERGER <sup>(1)</sup>; Lukas SPRINGSKLEE <sup>(1)</sup>

Affiliations: 1 : Institute for Flow in Additively Manufactured Porous Media (ISAPS), Heilbronn University of Applied Sciences, Heilbronn, GERMANY

#### **ROOM D** Gas filtration / Keynote session

### 13:30 - 14:10 VERT GPF-Retrofit Program for Cleaner Urban Mobility to Reduce Nanoparticle Emissions via Filtration within the HORIZON Europe AeroSolfd Project

Lauretta RUBINO, VERT Association, Niederweningen, SWITZERLAND Co-authors: Andreas MAYER (1); jan CZERWINSKI (1); Thomas LUTZ (1); Lars LARSEN (1) Affiliations: 1: VERT Association, Niederweningen, SWITZERLAND

#### AMPHI B Membrane / Keynote session

### 13:30 - 14:10 Electrokinetic and electrochemical characterization of porous polymer membranes

#### Anthony SZYMCZYK, ISCR, Rennes

**Co-authors:** A. LIZÉE <sup>(1)</sup> ; Z.E. HAMMACHE <sup>(1)</sup> ; P. LOULERGUE <sup>(1)</sup> ; A. PENSEL <sup>(1)</sup> **Affiliations:** 1 : Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes), UMR 6226, Rennes, FRANCE

#### AMPHIC Membrane / Keynote session

### 13:30 - 14:10 Novel membranes based on charged 2D nanomaterials

#### Emilie ROLLAND, CEA, Orsay

**Co-authors:** Sarah CHEVRIER <sup>(1)</sup>; Fabien OLIVIER <sup>(1,2)</sup>; Lina CHERNI <sup>(1)</sup>; Kunli GOH <sup>(3)</sup>; Chong Yang CHUAH <sup>(3)</sup>; Jean-Christophe GABRIEL <sup>(1,2)</sup>

Affiliations: 1: Université Paris-Saclay, Commissariat à l'Energie Atomique et aux Energies Alternatives, NIMBE, LICSEN, Gif sur Yvette, FRANCE ; 2 : Singapore CEA Alliance for Research in Circular Economy, Energy Research Institute @ NTU, Nanyang Technological University, Singapore, SINGAPORE ; 3 : Singapore Membrane Technology Centre, Nanyang Environment and Water Research Institute, Nanyang Technological University, Singapore, SINGAPORE

#### **ROOM E** Sustainable development / Keynote session

# 13:30 - 14:10 Innovative physical pretreatments improve filtration properties of biomass and open the new opportunities for filtration and separation technologies

Eugene VOROBIEV, UTC - Université de technologie de Compiègne, Compiègne



ROOM F	Liquid filtration / Session			
14:20 - 16:00	Advances in Filtration and Separation			
	<ul> <li>14:20 O-187 Evaluating the effect of key parameters on cake solids concentration and throughput in High Pressure Dewatering Rolls Mark-II</li> <li>Sajid HASSAN, The University of Melbourne, Melbourne, AUSTRALIA</li> <li>Co-authors: Raul CAVALIDA (1); Nilanka EKANAYAKE (1); Peter SCALES (1); Robin BATTERHAM (1); Anthony STICKLAND (1)</li> <li>Affiliations: 1: The University of Melbourne, Melbourne, AUSTRALIA</li> </ul>			
	<ul> <li>14:40 O-188 Dynamic and continuous sieve filtration of highly viscous suspensions with large solids concentration - Theory and industrial practice</li> <li>Egon EHRFELD, BOKELA GmbH, Karlsruhe, GERMANY</li> <li>Co-authors: Timo DOBLER <sup>(1)</sup></li> <li>Affiliations: 1: BOKELA GmbH, Karlsruhe, GERMANY</li> </ul>			
	<ul> <li>15:00 O-189 HiBar filter – An optimal solution for challenging filtration tasks? Timo DOBLER, BOKELA GmbH, Karlsruhe, GERMANY</li> <li>Co-authors: Egon EHRFELD<sup>®</sup>; Jürgen HAHN<sup>®</sup> Affiliations: 1: BOKELA GmbH, Karlsruhe, GERMANY</li> </ul>			
	15:20 O-190 Dead-end forward osmosis deep dewatering technology Da-Qi CAO, Beijing University of Civil Engineering and Architecture, Beijing, CHINA			
	15:40 O-191 Innovative mining process supported by enhanced two stage filtration concept Christian SCHEIDLE, Lenzing AG - Division Lenzing Filtration, Lenzing, AUSTRIA Co-authors: Stefan SCHOEPF <sup>(1)</sup> Affiliations: 1 : Lenzing AG - Division Lenzing Filtration, Lenzing, AUSTRIA			

#### ROOM H Liquid filtration / Session

### 14:20 - 16:00 Depth filtration and Filter aids

- 14:20 O-192 Evaluation of TSS removal from synthetic stormwater using construction and demolition waste fractions as porous media Nazila BOLOURIEH, Lut University, Lappeenranta, FINLAND Co-authors: Teemu KINNARINEN (1) Affiliations: 1: Lut University, Lappeenranta, FINLAND 14:40 O-193 Design and validation of a locally assembled sand filter to remove iron from drinking water in Mali Tarik ELJADDI, Institut de la Filtration et des Techniques Séparatives (IFTS), Foulayronnes Co-authors: Antoine Amayoko DOUYON <sup>(2)</sup> ; ABDOULAYE DOUCOURE <sup>(2)</sup> ; Vincent EDERY <sup>(1)</sup> ; Roger BEN AIM (1) Affiliations: 1 : Institut de la Filtration et des Techniques Séparatives (IFTS), Foulayronnes, FRANCE ; 2 : Donyatek, Bamako, MALI 15:00 O-194 Substantial enhancement in suspended particle capture during precoat filtration by modifying the precoat layer with fine bubbles Masashi IWATA, Sanshin Mfg. Co., Ltd., Inuyama, JAPAN Co-authors: Kei YAGISHITA (1); Shuichiro OGURI (1); Tominori KITAGAWA (1); Ryosuke OGOMA (1); Hiroshi YAGISHITA <sup>(1)</sup>; Koichi YAGISHITA <sup>(1)</sup> Affiliations: 1 : Sanshin Mfg. Co., Ltd., Inuyama, JAPAN
- 15:20 O-195 Cycle Rate Analysis Method for Optimizing Filter Aid Selection Wenping LI, Agrilectric Research Company, Lake Charles, UNITED STATES



Liquid filtration Gas filtration Membrane Sustainable development

AMPHI A	Gas filtration / Session		
14:20 - 16:00	<ul> <li>HVAC systems</li> <li>O-197 Enhancement of design and performances of droplet separators for air handling units</li> <li>Alain GINESTET, CETIAT, Villeurbanne</li> <li>Co-authors: Mirela ROBITU (*); Hervé BINGAN (*) Affiliations: 1 : CETIAT, Villeurbanne, FRANCE</li> </ul>		
	<ul> <li>14:40 O-198 Could general ventilation filters be used as acoustic silencers?</li> <li>Alain GINESTET, CETIAT, Villeurbanne</li> <li>Co-authors: Francois BESSAC <sup>(1)</sup>; Francois-Xavier BECOT <sup>(2)</sup>; Fabien CHEVILLOTTE <sup>(2)</sup></li> <li>Affiliations: 1 : CETIAT, Villeurbanne, FRANCE ; 2 : MATELYS Lab., Vaulx-en-Velin, FRANCE</li> </ul>		
	<ul> <li>15:00 O-199 Gas Adsorption Test of HVAC Filter according to ISO 10121 Christian PETERS, Topas GmbH, Dresden, GERMANY</li> <li>Co-authors: Schuetz SVEN <sup>(1)</sup>; Paul SCHUMACHER <sup>(1)</sup>; Daniel GOEHLER <sup>(1)</sup>; Jonas LANDGRAF <sup>(1)</sup>; Thomas EIPPER <sup>(1)</sup>; Sebastian KOST <sup>(1)</sup>; René ADAM <sup>(1)</sup> Affiliations: 1 : Topas GmbH, Dresden, GERMANY</li> </ul>		
	<ul> <li>15:20 O-200 Development of synthetic multilayer filter media with high performance and enhanced energy saving</li> <li>Elise BILLOD, Ahlstrom, Pont-Evêque</li> <li>Co-authors: Stephanie PIGEOT-RÉMY (1)</li> <li>Affiliations: 1 : Ahlstrom Specialties, Pont-Evêque, FRANCE</li> </ul>		
	15:40 O-201 3D composites for more sustainable HVAC systems Ingrid RÜCKERT, Hollingsworth & Vose, Bad Vilbel, GERMANY Co-authors: Andrew WILLIS <sup>(2)</sup>		

Affiliations: 1 : Hollingsworth & Vose, Bad Vilbel, GERMANY ; 2 : Hollingsworth & Vose, East Walpole, UNITED STATES



ROOM D	Gas filtration / Session			
14:20 - 16:00	Material and sensor			
	14:20	O-202 Breakthrough sensor for adsorption filters Martin LAUER, Institute of Air Handling and Refrigeration (ILK) Dresden, Dresden, GERMANY		
		<b>Co-authors:</b> Daniel KOCHALE <sup>(1)</sup> ; Alexander TÜRKE <sup>(1)</sup> <b>Affiliations:</b> 1 : Institute of Air Handling and Refrigeration (ILK) Dresden, Dresden, GERMANY		
	14:40	O-203 Development and advanced characterization of a biobased media for air filtration <b>Félicie THERON, IMT Atlantique, Nantes</b>		
		<b>Co-authors:</b> Emeline LOBRY <sup>(2)</sup> ; Jérémie VIGUIÉ <sup>(3)</sup> ; Géraldine LAYRAC <sup>(2)</sup> ; Elisabeth LYS <sup>(1)</sup> ; Anne HÉBRAUD <sup>(2)</sup> ; Guy SCHLATTER <sup>(2)</sup> ; Evelyne MAURET <sup>(3)</sup>		
		Affiliations: 1 : IMT Atlantique, Nantes, FRANCE ; 2 : ICPEES, Strasbourg, FRANCE ; 3 : LGP2, Grenoble, FRANCE		
	15:00	O-204 More accurate measurements of the most penetrating particle size using aerosols classified by aerodynamic diameter <b>Simon PAYNE, Cambustion Ltd, Cambridge, UNITED KINGDOM</b>		
		<b>Co-authors:</b> Jonathan SYMONDS <sup>(1)</sup> <b>Affiliations:</b> 1 : Cambustion Ltd, Cambridge, UNITED KINGDOM		
	15:20	O-205 Characterising dynamic filter removal efficiency of volatiles in real-time Y Lan PHAM, Fraunhofer Institute for Process Engineering and Packaging IVV, Freising, GERMANY		
		Co-authors: Jonathan BEAUCHAMP <sup>(1)</sup> Affiliations: 1 : Fraunhofer Institute for Process Engineering and Packaging IVV, Freising, GERMANY		
	15:40	O-206 Integration of monitoring system onto air particle filter Alexandre KHALDI, IMT Atlantique, Plouzané		
		<b>Co-authors:</b> Hankai WU <sup>(1,3)</sup> ; Laurent DUPONT <sup>(1)</sup> ; Fabrice SEGUIN <sup>(1,3)</sup> ; Cyril LAHUEC <sup>(1,3)</sup> ; Ala BOUHANGUEL <sup>(2)</sup> ; Félicie THÉRON <sup>(2)</sup> ; Aurélie JOUBERT <sup>(2)</sup> ; David KERNEIS <sup>(5)</sup> ; Michel DUCLOS <sup>(4)</sup> <b>Affiliations:</b> 1: IMT Atlantique, Optics department, Plouzané, FRANCE; 2: IMT Atlantique, GEPEA,		

CNRS UMR 6144, Nantes, FRANCE ; 3 : Lab-Sticc, UMR6285, IMT Atlantique, BREST, FRANCE ; 4 : Groupe Titanair, Rillieux la Pape, FRANCE ; 5 : ETT, Ploudalmézeau, FRANCE



Liquid filtration Gas filtration Membrane Sustainable development

### AMPHI B Membrane / Session

14:20 - 16:00	Fun	damentals, modeling and simulation
	14:20	O-207 Sustainable Ingredient Innovation with membrane process modeling – application to nanofiltration and reverse osmosis Baptiste BOIT, Roquette Freres, La Gorgue Co-authors: Vincent COURBOIS <sup>(1)</sup> Affiliations: 1 : Roquette Freres, La Gorgue, FRANCE
	14:40	O-208 Coupling Process Systems Engineering with Life Cycle Assessment for Sustainable Ultrafiltration Maher HATOUM, INP-ENSIACET, Toulouse Co-authors: Jean François FABRE (*); Joel ALBET (*); Claire VIALLE (*); Caroline SABLAYROLLES (*); Pierre Yves PONTALIER (*) Affiliations: 1: INP-ENSIACET, Toulouse, FRANCE
	15:00	O-209 Direct contact membrane distillation module design for external heat recovery Cejna Anna QUIST-JENSEN, Aalborg University, Aalborg East, DENMARK Co-authors: Hussein Fairousha SULAIMAN <sup>(1)</sup> ; Cejna Anna QUIST-JENSEN <sup>(1)</sup> Affiliations: 1 : Aalborg University, Aalborg, DENMARK
	15:20	O-210 Electrokinetic measurements as a new tool to characterize membrane wetting Agathe LIZÉE, Institut des Sciences Chimiques de Rennes (ISCR), Rennes Co-authors: Patrick LOULERGUE (1) ; Anthony SZYMCZYK (1) Affiliations: 1 : Univ Rennes, CNRS, ISCR - UMR 6226, Rennes, FRANCE
	15:40	O-211 Optimization of concentration-fractionation via membrane filtration: equations vs. reality <b>Maksym LOGINOV, INRAE, Rennes</b> <b>Co-authors:</b> Geneviève GESAN-GUIZIOU <sup>(1)</sup> ; Juliette CANY <sup>(1)</sup> ; Mariana BRAUSE CORREA <sup>(1)</sup> ; Nadine LECONTE <sup>(1)</sup> ; Fabienne GARNIER-LAMBROUIN <sup>(1)</sup> ; Ibra SALL <sup>(1)</sup> ; Claire FARGUES <sup>(1)</sup> ; Hedi ROMDHANA <sup>(1)</sup> ; Violaine ATHES-DUTOUR <sup>(1)</sup> <b>Affiliations:</b> 1: INRAE, Rennes, ERANCE

Affiliations: 1: INRAE, Rennes, FRANCE



### AMPHIC Membrane / Session

### 14:20 - 16:00 Membrane formation / structure

14:20 O-212 Preparation of ceramic flat membrane from the local kaolin intended for the filtration application

#### Fatima Zohra EL BERRICHI, Université 8 Mai 1945., Guelma, ALGERIA

**Co-authors:** Imane ABBOU <sup>(1)</sup> ; Zouhair SALAH <sup>(2)</sup> ; Jamila BAHROUNI <sup>(2,3)</sup> ; Feryelle AOUAY <sup>(2,4)</sup> ; Afef ATTIA <sup>(2)</sup> ; Raja BEN AMAR <sup>(2)</sup> ; Esma CHOUKCHOU-BRAHAM <sup>(1)</sup>

Affiliations: 1 : Laboratory of Toxicomed, University Abou Beker Belkaid Tlemcen, BP119, 13000 Tlemcen, Algeria, Tlemcen, ALGERIA ; 2 : Research unit «Advanced Technologies for Environment and Smart cities», Faculty of Science of Sfax, University of Sfax, Sfax 3000, Tunisia, Sfax, TUNISIA ; 3 : Institut de Chimie et des Matériaux Paris-Est (ICMPE), Université Paris-Est Créteil (UPEC), UMR 7182, CNRS. 2-8 rue Henri Dunant, Thiais 94320, France, Paris, FRANCE ; 4 : Institut Europeen des Membranes, IEM UMR-5635, CNRS, ENSCM, University Montpellier, Place Eugène Bataillon, 34095 Montpellier, France, Montpellier, FRANCE

 14:40 O-214 Development of a Three-Stage Filtration System Using Tailored Phase-Inversion Membranes from a Single Casting Solution
 Irish Valerie MAGGAY, Chung Yuan Christian University, Zhongli, TAIWAN
 Co-authors: Antoine VENAULT (\*); Yung CHANG (\*)
 Affiliations: 1: Chung Yuan Christian University, Zhongli, TAIWAN

15:00 O-215 Fabrication of a Cost-Effective Crosslinked and Intercalated rGO-Based Membrane for Efficient Dye Removal

Saad ALAMI YOUNSSI, University Hassan II of Casablanca, Mohammedia, MOROCCO Co-authors: Youness KOUZI <sup>(1,2)</sup>; Dounia BEQQOUR <sup>(1)</sup>; Murielle RABILLER-BAUDRY <sup>(2)</sup> Affiliations: 1 : University Hassan II of Casablanca, Mohammedia, MOROCCO ; 2 : Université de Rennes, Rennes, FRANCE

15:20 O-216 Comparative Study of Activation Methods to Enhance the Stability and Efficiency of Graphene Oxide Membranes on Low-Cost Silica-Rich Supports Youness KOUZI, University Hassan II of Casablanca, Casablanca, MOROCCO Co-authors: Brahim ACHIOU <sup>(1)</sup>; Saad ALAMI YOUNSSI <sup>(1)</sup>; Murielle RABILLER-BAUDRY <sup>(2)</sup> Affiliations: 1 : University Hassan II of Casablanca, Casablanca, MOROCCO ; 2 : Université de Rennes, Rennes, FRANCE



Liquid filtration Gas filtration Membrane Sustainable development

### **ROOM E** Sustainable development / Session

### 14:20 - 16:00 Pretreament

- 14:20 O-217 Dewatering properties of disrupted sludge through ultrasonication and reflocculation Juya AZADI, Meijo University, Nagoya, JAPAN
  - Co-authors: Tensei TAKEYA (1) ; Nobuyuki KATAGIRI (1)
  - Affiliations: 1 : Meijo University, Nagoya, JAPAN
- 14:40 O-218 Impact of polymer dosing modes on sludge conditioning and dewatering Karim MEZIANI, Centre des technologies de l'eau - Cteau, Laval, CANADA Co-authors: Dongocie TRAORE <sup>(0)</sup>; Driss BARRAOUI <sup>(0)</sup>; Karen MESTA <sup>(0)</sup>; Nathan LEHOUX <sup>(2)</sup> Affiliations: 1 : CTEAU, Laval, CANADA; 2 : Groupe Industries Fournier Inc, Thetford Mines, CANADA
- 15:00 O-219 Hybrid process for treating textile dyeing wastewater by coupling Coagulation-Flocculation, Adsorption and Fenton oxidation Fatima Zohra EL BERRICHI, Université 8 Mai 1945., Guelma, ALGERIA

**Co-authors:** Ibtissem SLATNI <sup>(1)</sup>; Nor El Houda FARDJAOUI <sup>(1)</sup>; Hamza SAKHRI <sup>(2)</sup>; Malika GHAZI <sup>(3)</sup>; Joelle DUPLAY <sup>(4)</sup>; Feryal IKABL <sup>(5)</sup>

Affiliations: 1 : Laboratoire de Genie civil et d'hydraulique, Université 8 Mai 1945, Guelma, ALGERIA ; 2 : Ecole Nationale Supérieure de Technologie et de l'Ingénierie, Annaba, ALGERIA ; 3 : TERIVA Environment, Strasbourg, FRANCE ; 4 : Institut Terre et Environnement Strasbourg (ITES) - UMR 7063 - Ecole et Observatoire des Sciences de la terre (EOST), Strasbourg, FRANCE ; 5 : Department of Environmental Engineering, Ondokuz May?s Üniversitesi, Samsun, TURKEY

15:20 O-220 Using raw and modified chitosan as an alternative of petrosourced flocculents for digested sludges thickening and dewatering Pascal GINISTY, IFTS, Foulayronnes

**Co-authors:** Vincent RODRIGUEZ <sup>(2)</sup>; Danielle SLOMBERG <sup>(3)</sup>; Jerome LABILLE <sup>(3)</sup>; Soline LEBRE <sup>(4)</sup>; Hélène CARRERE <sup>(4)</sup>; Audrey BATTIMELLI <sup>(4)</sup>; Ghislain DAVID <sup>(5)</sup>; Claire NEGRELL <sup>(5)</sup>; Christelle WISNIEWSKI <sup>(6)</sup>

Affiliations: 1 : IFTS, Foulayronnes, FRANCE ; 2 : CEA Cadarache, Bagnols sur Ceze, FRANCE ; 3 : CEREGE, Aix en provence, FRANCE ; 4 : INRAE LBE, Narbonne, FRANCE ; 5 : institut Charles Gerhard Ecole Nationale supérieure de Chimie de Montpellier, Montpellier, FRANCE ; 6 : QualiSud CIRAD Universit2 Montpellier, Montpellier, FRANCE

15:40 O-221 Towards nature-based solutions in waste water treatment: role of biopolymer properties in coagulation-flocculation and removal of suspended mineral matter **Danielle SLOMBERG, CEREGE/Aix-Marseille University, Aix-En-Provence** 

**Co-authors:** Wala ZOGHLAMI  $^{(1,2)}$  ; Jérôme LABILLE  $^{(1)}$  ; Pascal GINISTY  $^{(3)}$  ; Armand MASION  $^{(1)}$  ; Nicolas ROCHE  $^{(1,4)}$ 

Affiliations: 1 : CEREGE/Aix-Marseille University, Aix-en-Provence, FRANCE ; 2 : UMET/Lille University, Villeneuve d'Ascq, FRANCE ; 3 : IFTS, Foulayronnes, FRANCE ; 4 : IWRI/Mohammed VI Polytechnic University, Ben Guerir , MOROCCO



### ESPACE PLURIEL

### 16:00 - 16:30 Coffee break - Visit the exhibition and the poster area

ROOM F	Liquid filtration / Session
16:30 - 17:30	<ul> <li>Filtration/Separation Applications 1</li> <li>16:30 O-222 AGXX - an innovative technology to prevent microbial contamination in water and air filtration</li> <li>Oliver ASMUS, Heraeus Precious Metals CmbH &amp; Co. KG, Hanau, GERMANY</li> <li>Co-authors: Tobias SCHWOB (); Martin DANZ (); Christian CIEMER ()</li> <li>Affiliations: 1: Heraeus Precious Metals GmbH &amp; Co. KG, Hanau, GERMANY</li> </ul>
	<ul> <li>16:50 O-223 Novel Approach to Water Treatment Utilizing Nanoparticle Slurry and DC Electric Field</li> <li>Kenta KITAMURA, Hosei University, Koganei City, JAPAN</li> <li>Co-authors: Takamasa MORI (*)</li> <li>Affiliations: 1 : Hosei University, Koganei city, JAPAN</li> </ul>
	<ul> <li>17:10 O-224 Impact of Surfactants on Water Droplet Capture and Coalescence by Single Fibers in Diesel</li> <li>Yun LIANG, South China University of Technology, Guangzhou, CHINA</li> <li>Co-authors: Qiang SONG <sup>(1)</sup>; Jian HU <sup>(1)</sup>; Xinyu WANG <sup>(1)</sup></li> <li>Affiliations: 1: South China University of Technology, Guangzhou, CHINA</li> </ul>
ROOM H	Membrane / Session
16:30 - 17:30	<ul> <li>Membrane applications</li> <li>16:30 O-225 Preparations and characterizations of low-cost porous ceramic membranes Jang-Hoon HA, Korea Institute of Materials Science, Changwon, REPUBLIC OF KOREA</li> <li>Co-authors: Hong-Joo LEE <sup>(1)</sup>; Jongman LEE <sup>(1)</sup>; In-Hyuck SONG <sup>(1)</sup> Affiliations: 1: Korea Institute of Materials Science, Changwon, REPUBLIC OF KOREA</li> </ul>

16:50 O-226 High-Performance MoS2 Nanofiltration Membrane for Dye Separation: Experimental and Modeling Analysis

### Zakarya CHAFIQ ELIDRISSI, University of Lorraine and University of Hassan II Casablanca, Nancy

**Co-authors:** Brahim ACHIOU <sup>(1)</sup>; Sabine RODE <sup>(1)</sup>; Bouchra BELAISSAOUI <sup>(1)</sup>; Saad ALAMI YOUNSSI <sup>(2)</sup>; Mohamed OUAMMOU <sup>(2)</sup>

Affiliations: 1 : University of Lorraine , Nancy, FRANCE ; 2 : University of Hassan II, Casablanca, MOROCCO



Liquid filtration Gas filtration Membrane Sustainable development

### AMPHI A Gas filtration / Session

### 16:30 - 17:30 Personal protective equipment 16:30 O-228 Efficiency of Powered Air-Purifying Respirators in simulated wearing conditions Sandrine CHAZELET, INRS, Vandoeuvre-Les-Nancy Co-authors: Jean-Christophe APPERT-COLLIN<sup>(2)</sup>: Stéphanie PACAULT<sup>(1)</sup> Affiliations: 1 : INRS, Vandoeuvre-les-Nancy, FRANCE ; 2 : Laboratoire Réactions et Génie des Procédés, CNRS UMR 7274, Nancy, FRANCE 16:50 O-230 Ultrathin transparent PTFE membrane prepared by mechanical exfoliation for efficient air aerosol filtration Yuxin ZHAO, Nanjing Tech University, Nanjing, CHINA Co-authors: Shasha FENG <sup>(I)</sup> ; Yutang KANG <sup>(I)</sup> ; Zhaoxiang ZHONG <sup>(1,23)</sup> ; Weihong XING <sup>(1,3,4)</sup> Affiliations: 1: State Key Laboratory of Materials-Oriented Chemical Engineering, National Engineering Research Center for Special Separation Membrane, Nanjing Tech University, Nanjing, CHINA; 2: School of Environmental Science and Engineering, Nanjing Tech University, Nanjing , CHINA; 3: Suzhou Laboratory, Suzhou, CHINA; 4 : Jiangsu University, Zhenjiang, CHINA 17:10 O-230bis Respiratory Masks: New Developments, Opportunities, and Trends Mohammad Mehdi SHIRMOHAMMADI, Ambassador, World Filtration Institute (WFI); R&D Director, Termeh Co., Dubai, UNITED ARAB EMIRATES **ROOM D** Gas filtration / Session 16:30 - 17:30 Comparison methods 16:30 O-231 Comparison of performance evaluation methods for air cleaners Chih-Chieh CHEN, National Taiwan University, Taipei, TAIWAN Co-authors: Yu-Mei KUO<sup>(2)</sup>: Hui-Jing LI<sup>(1)</sup>: Pei-Yao TSAI<sup>(1)</sup>: Ruei-Chun LIN<sup>(1)</sup>: Sheng-Hsiu HUANG<sup>(1)</sup>: Chih-Wei LIN (1) Affiliations: 1 : National Taiwan University, Taipei, TAIWAN ; 2 : Chung Hwa University of Medical Technology, Tainan, TAIWAN 16:50 O-232 Effect of the competitive gases in the performance evaluation for Gas-phase air

- C-232 Effect of the competitive gases in the performance evaluation for Gas-phase air cleaning devices (GPACD)
   Xin FENG, China Academy of Building Research, Beijing, CHINA
   Co-authors: shaoyang ZHOU<sup>(1)</sup>; Bin LU<sup>(1)</sup>; yanguo ZHANG<sup>(1)</sup>; Hui ZHANG<sup>(1)</sup>; Ang LI<sup>(2)</sup>
   Affiliations: 1: China Academy of Building Research, Beijing, CHINA; 2: China National Accreditation Service for Conformity Assessment, Beijing, CHINA
- 17:10 O-233 Influence of test parameters to the comparability of test results of air filter elements Martin SCHMIDT, Palas GmbH, Karlsruhe, GERMANY



### AMPHI B Membrane / Session

### 16:30 - 17:30 Membrane fouling / regeneration

16:30 O-234 Cross-membrane sensing of milk fouling on an immersed flat sheet module by measuring thermal conductivity in real time Louise MIKKELSEN, Center for Membrane Technology, Aalborg, DENMARK

**Co-authors:** Ben KRØYER <sup>(2)</sup>; Simon JENSEN <sup>(2)</sup>; Carsten KALLESØE <sup>(2)</sup>; Jan BENDTSEN <sup>(2)</sup>; Morten CHRISTENSEN <sup>(1)</sup>; Mads JØRGENSEN <sup>(1)</sup> **Affiliations:** 1: Center for Membrane Technology, Aalborg, DENMARK ; 2 : Department of Electronic Systems, Aalborg, DENMARK

16:50 O-235 Probing the fouling induced by biomolecules of a polymer microfiltration membrane using 3D cryo-FIB/SEM Estelle COUALLIER, CNRS, Saint-Nazaire

**Co-authors:** Hélène ROBERGE <sup>(1,2)</sup> ; Philippe MOREAU <sup>(2)</sup> ; Patricia ABELLAN <sup>(2)</sup> **Affiliations:** 1 : CNRS- Nantes University - GEPEA, Saint-Nazaire, FRANCE ; 2 : Nantes Université, CNRS, Institut des Matériaux de Nantes Jean Rouxel, IMN, Nantes, FRANCE

17:10 O-236 Enzymatic detergents vs alkaline detergents: which are better for cleaning PES/PVP ultrafiltration membranes fouled by skim milk?
 Murielle RABILLER-BAUDRY, Université de Rennes, Rennes

**Co-authors:** Sophie KAVUGHO MISSION <sup>(1)</sup>; Lucie LE PETIT <sup>(1)</sup>; Sara EL MORR <sup>(1)</sup>; Anna PRUDHOMME <sup>(1)</sup> **Affiliations:** 1 : Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes) - UMR 6226, Rennes, FRANCE

### AMPHIC Membrane / Session

### 16:30 - 17:30 Membrane formation / structure

16:30 O-237 3D Printed TPMS-Structured Ceramic Membranes for High-Temperature Industrial Exhaust Filtration

Yuanhui GAO, Nanjing Tech, Nanjing, China, CHINA

**Co-authors:** Ze-Xian LOW <sup>(1)</sup>; Dong ZOU <sup>(2)</sup>; Zhaoxiang ZHONG <sup>(1,2,3)</sup>; Weihong XING <sup>(1,3,4)</sup> **Affiliations:** 1 : State Key Laboratory of Materials-Oriented Chemical Engineering, National Engineering Research Center for Special Separation Membrane, Nanjing Tech University, Nanjing, 211816, China, Nanjing, China, CHINA; 2 : School of Environmental Science and Engineering, Nanjing Tech University, Nanjing 211816, China, Nanjing, China, CHINA; 3 : Suzhou Laboratory, Suzhou, 215125, China, Suzhou, China, CHINA; 4 : Jiangsu University, Zhenjiang, 212013, China, Zhenjiang, China, CHINA

16:50 O-238 Auxetic highly stretchable all-ceramic nanofibrous membranes for hightemperature industrial emission filtration

### Wentai HE, Nanjing Tech University, Nanjing, CHINA

**Co-authors:** Yiqing ZENG <sup>(2)</sup> ; Yutang KANG <sup>(2)</sup> ; Shasha FENG <sup>(1)</sup> ; Ze-Xian LOW <sup>(1)</sup> ; Zhaoxiang ZHONG <sup>(1,2,3)</sup> ; Weihong XING <sup>(1,3,4)</sup>

**Affiliations:** 1 : State Key Laboratory of Materials-Oriented Chemical Engineering, National Engineering Research Center for Special Separation Membrane, Nanjing Tech University, Nanjing, CHINA ; 2 : School of Environmental Science and Engineering, Nanjing Tech University, Nanjing, CHINA ; 3 : Suzhou Laboratory, Suzhou, CHINA ; 4 : Jiangsu University, Zhenjiang, CHINA

17:10 O-239 Development and selective adsorption characteristics of molecular imprinted Chitosan composite membrane

### Ying FENG, Shen Yang University of Chemical Technology, Shen Yang, CHINA

**Co-authors:** Jianwei ZHANG <sup>(1)</sup>; zhuo WANG <sup>(1)</sup>; YUju XIE <sup>(1)</sup>; xin DONG <sup>(1)</sup> **Affiliations:** 1: Shenyang University of Chemical Technology, Shen Yang, CHINA

Liquid filtration Gas filtration Membrane Sustainable development

#### **ROOM E** Sustainable development / Session

### 16:30 - 17:30 BioPolymer

16:30 O-241 Enhanced treatment of olive mill wastewater using infiltration-percolation with lowcost adsorbents

### Soufiane BAKRI ALAOUI, École de biologie industrielle, Cergy

**Co-authors:** Mounia ACHAK <sup>(3,4)</sup>; Edvina LAMY <sup>(2)</sup>; Imane MAGDI <sup>(2)</sup>; Rabah AZOUANI <sup>(1)</sup> **Affiliations:** 1 : École de Biologie Industrielle, CERGY, FRANCE ; 2 : University of Technology of Compiègne, Compiègne, FRANCE ; 3 : National School of Applied Science , El Jadida, MOROCCO ; 4 : University Mohammed VI Polytechnic, Bengurire, MOROCCO

16:50 O-266bis Forward osmosis to concentrate blood platelets : optimising process conditions Aka DOCHE, Laboratoire de Génie Chimique, Toulouse

**Co-authors:** Christel CAUSSERAND <sup>(1)</sup>; Yannick HALLEZ <sup>(1)</sup>; Pierre ROBLIN <sup>(1)</sup>; Antoine VENAULT <sup>(2)</sup>; Chung-Jung CHOU <sup>(2)</sup>; Yung CHANG <sup>(2)</sup>; Patrice BACCHIN <sup>(1)</sup> **Affiliations:** 1 : Laboratoire de Génie Chimique, Université de Toulouse, CNRS, INPT, UPS, Toulouse, FRANCE; 2 : R&D Center for Membrane Technology and Department of Chemical Engineering, Chung Yuan Christian University, Taoyuan, TAIWAN

#### **ROOM F** Liquid filtration / Poster presentation

17:30 - 18:15

17:30 P-10 CFD-DEM simulation of micro-mechanisms between particles and filter medium by solid-liquid separation
 Nikolai BENZ, University of Kaiserslautern-Landau, Kaiserslautern, GERMANY
 Co-authors: Vanessa PUDERBACH <sup>(2)</sup>; Kilian SCHMIDT <sup>(2)</sup>; Sergiy ANTONYUK <sup>(1)</sup>
 Affiliations: 1: University of Kaiserslautern-Landau, Kaiserslautern, GERMANY ; 2: IT for Engineering GmbH, Kaiserslautern, GERMANY

- 17:40 P-06 Effect of Different Filter Materials on Filtration Process of Polymer Flooding Produced Water: A Numerical Simulation Study
   Lin LIU, Northeast Petroleum University, Daqing, CHINA
- 17:50 P-39bis Reverse osmosis membranes coated with silk-derived materials to enhance antiscaling and storage stability via a waste-to-resource approach
   Jaewoo LEE, Jeonbuk National University, Jeonju, REPUBLIC OF KOREA
   Co-authors: Yonghee JUNG (1)
   Affiliations: 1 : Jeonbuk National University, Jeonju, REPUBLIC OF KOREA

14<sup>TH</sup> WORLD FILTRATION CONGRESS



ROOM H	Membrane / Poster presentation		
17:30 - 18:15	17:30	P-27 Sandfilter Backwash Water Treatment - Piloting at a municipal German freshwater producer <b>Timo ROTHAUSEN, Boll &amp; Kirch Filterbau GmbH, Kerpen, GERMANY</b> <b>Co-authors:</b> Pranav SHARMA <sup>(1)</sup> ; Antonio VINCIGUERRA <sup>(2)</sup> <b>Affiliations:</b> 1: Boll & Kirch Filterbau GmbH, Kerpen, GERMANY ; 2 : APATEQ - PWT S.A., Luxembourg, LUXEMBOURG	
performances either for brackish or seawaters ? Youness KOUZI, University Hassan II of Casablanca, Casablanca Co-authors: Fatima Zohra CHARIK <sup>(1,2)</sup> ; Saad ALAMI YOUNSSI <sup>(2)</sup> ; Murielle Affiliations: 1 : Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques F-35000, Rennes, FRANCE ; 2 : Laboratory of Materials, Membranes and E		Youness KOUZI, University Hassan II of Casablanca, Casablanca, MOROCCO Co-authors: Fatima Zohra CHARIK <sup>(1,2)</sup> ; Saad ALAMI YOUNSSI <sup>(2)</sup> ; Murielle RABILLER-BAUDRY <sup>(1)</sup> Affiliations: 1 : Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes) - UMR 6226, F-35000, Rennes, FRANCE ; 2 : Laboratory of Materials, Membranes and Environment, Faculty of Sciences and Technologies of Mohammedia, University Hassan II of Casablanca, Casablanca,	
	17:50	P-29 Evaluation of chemical and mechanical resistance of FO and RO dense membranes for improved lifetime and recycling <b>Gaetan BLANDIN, University of Girona, Girona, SPAIN</b> <b>Co-authors:</b> Bianca ZAPPULLA SABIO <sup>(1)</sup> ; Anaëlle POUPLIN <sup>(1)</sup> <b>Affiliations:</b> 1 : University of Girona, Girona, SPAIN	
	18:00	P-41 High-purity water recovery from industrial effluents using membrane distillation Cejna Anna QUIST-JENSEN, Aalborg University, Aalborg East, DENMARK Co-authors: Hussein FAIROUSHA SULAIMAN <sup>(2)</sup> ; Cejna Anna QUIST-JENSEN <sup>(1)</sup> Affiliations: 1 : Department of Chemistry and Bioscience, Aalborg University, Aalborg, DENMARK ; 2 : AAU Energy, Aalborg University, Aalborg, DENMARK	
ΑΜΡΗΙ Α	Gas fi	iltration / Poster presentation	
17:30 - 18:15	17:30	P-11 A microwave sensor for droplet contents measurement in high-pressure natural gas	

Junxian CHEN, China University of Petroleum, Beijing, Beijing, CHINA Co-authors: Zhongli JI<sup>®</sup>; Ao LI<sup>®</sup>; Zhen LIU<sup>®</sup>; Tianyu ZHANG<sup>®</sup> Affiliations: 1: China University of Petroleum, Beijing, Beijing, CHINA
17:40 P-17 Approach for dimensioning a lab-scale wet scrubber for analysis of gas-particledroplet interactions God JEAN, IMT Atlantique, Nantes Co-authors: Ala BOUHANGUEL<sup>®</sup>; Elisabeth LYS<sup>®</sup>; Marc HENRY<sup>®</sup>; Aurelie JOUBERT<sup>®</sup> Affiliations: 1: IMT Atlantique, Nantes, FRANCE; 2: Séché Environnement, Saint-Vulbas, FRANCE
17:50 P-18 Integrated application of cyclone separation and deep filtration in natural gas defoaming Deli LIU, Shanghai Research Institute of Chemical Industry Co., LTD, Shanghai, CHINA Affiliations: 1: Shanghai Research Institute of Chemical Industry Co., LTD, shanghai, CHINA



Liquid filtration Gas filtration Membrane Sustainable development

ROOM D	Membrane / Poster presentation
17:30 - 18:15	<ul> <li>17:30 P-34 Reverse Osmosis and Scientific Issues for Seawater Desalination in West Africa - Osmose Inverse et Enjeux Scientifiques pour le Dessalement de l'Eau de Mer en Afrique de l'Ouest</li> <li>Courfia DIAWARA, université Assane Seck, Ziguinchor, SENEGAL</li> <li>Co-authors: Saidou Nourou DIOP <sup>(1)</sup>; Mouhamadou Abdoulaye DIALLO <sup>(2)</sup>; Vanessa Millan GABET <sup>(3)</sup>; Javier Acerete NAVARRO <sup>(3)</sup>; Baltasar Penate SUAREZ <sup>(3)</sup></li> <li>Affiliations: 1: Université Assane Seck, Ziguinchor, SENEGAL ; 2: Université Cheikh Anta Diop, Dakar, SENEGAL ; 3: Instituto Tecnologica De Canarias, Canarias, SPAIN</li> </ul>
	<ul> <li>17:40 P-40 Contribution to the Surface Water Quality Assessment: A Case Study of the Microfiltration and Reverse Osmosis Systems applied to the Kivu Lake Water In The Province Of South Kivu In DR Congo.</li> <li>Soumana GAGARA, United Nations Support Office in Somalia, Mogadishu, SOMALIA</li> </ul>
AMPHI B	Membrane / Poster presentation
17:30 - 18:15	<ul> <li>17:30 P-25 Next level optimization of your Dynamic Crossflow Filter (DCF) performance with digital twins</li> <li>Maximilian AMTHOR-STAHL, Andritz Separation GmbH, Vierkirchen, GERMANY</li> <li>Co-authors: Joel RAUHUT (1)</li> <li>Affiliations: 1 : Andritz Separation GmbH, Vierkirchen, GERMANY</li> </ul>
AMPHI C	Membrane / Poster presentation
17:30 - 18:15	<ul> <li>17:30 P-24 A study on the feasibility of hemodialysis application through lab-scale hemodialyzer made of ceramic hollow fiber membranes by removing uremic toxins</li> <li>Jae Yeon HWANG, Dongguk University, Seoul, REPUBLIC OF KOREA</li> <li>Co-authors: JUNGHOON PARK <sup>(1)</sup></li> <li>Affiliations: 1: Dongguk University, SEOUL, REPUBLIC OF KOREA</li> </ul>
	<ul> <li>17:40 P-41bis Dead-End Ultrafiltration of Sugar Beet Juice Extracted from Cold Electrically Pre- Treated Slices: Influence of Membrane Polymer on Fouling Mechanisms and Permeate Quality</li> <li>Houcine MHEMDI, ESCOM/UTC, Compiegne, Compiègne</li> <li>Co-authors: Zhu ZHENZHOU <sup>(2)</sup>; Eugène VOROBIEV <sup>(1)</sup></li> <li>Affiliations: 1 : EA 4297 TIMR (UTC/ESCOM), Université de Technologie de Compiègne, Centre de Recherche de Royallieu, B.P. 20529-60205 Compiègne Cedex, France, Compiègne, FRANCE ; 2 : School of Food Science and Engineering, Wuhan Polytechnic University,Wuhan?430023, China, Wuhan, CHINA</li> </ul>
	<ul> <li>17:50 P-42bis High-performance MoS2-based composite membrane for efficient dye removal: Experimental and theoretical analysis</li> <li>Zakarya CHAFIQ ELIDRISSI, University of Lorraine and University of Hassan II Casablanca, Nancy</li> <li>Co-authors: Brahim ACHIOU <sup>(2)</sup>; Sabine RODE <sup>(1)</sup>; Saad ALAMI YOUNSSI <sup>(2)</sup>; Bouchra BELAISSAOUI <sup>(1)</sup>; Mohamed OUAMMOU<sup>(2)</sup></li> <li>Affiliations: 1: University of Lorraine, Nancy, FRANCE ; 2: University of Hassan II Casablanca, Casablanca, MOROCCO</li> </ul>



ROOM E	Susta	Sustainable development / Poster presentation			
17:30 - 18:15	17:30	P-28 Mamb'Eaux Project Assessment of the life span of membranes in an MBR for the treatment of urban and industrial wastewater <b>Christel CAUSSERAND, University of Toulouse FRANCE, Toulouse</b>			
		<b>Co-authors:</b> Sabrina GUERIN <sup>(2)</sup> ; Amar NAJI <sup>(2)</sup> ; Yannick FAYOLLE <sup>(3)</sup> ; Pascal GINISTY <sup>(4)</sup> <b>Affiliations:</b> 1 : Laboratoire de Génie Chimique, University of Toulouse, CNRS, INPT, UPS, TOULOUSE, FRANCE ; 2 : SIAAP Direction Innovation, Colombes, FRANCE ; 3 : Université Paris-Saclay, INRAE, PROSE, Anthony, FRANCE ; 4 : IFTS, Foulayronnes, FRANCE			
	17:40	P-30 Understanding the effect of organic load on aerobic ceramic membrane bioreactor: performance, fouling propensity and machine learning algorithm Mohamed TAKY, Laboratory of Advanced Materials and Process Engineering, Faculty of Sciences, Ibn Tofail University, Kenitra, MOROCCO			
		<b>Co-authors:</b> Hafida AYYOUB <sup>(1)</sup> <b>Affiliations:</b> 1 : Laboratory of Advanced Materials and Process Engineering, Faculty of Sciences, Ibn Tofail University, P.O. Box 1246, Kenitra, Morocco, kenitra, MOROCCO ; 2 : International Water Research Institute, Mohammed VI Polytechnic University, Lot 660, Hay Moulay Rachid Ben Guerir, 43150 - Morocco, Ben Guerir, MOROCCO			
	17:50	P-46 - Utilization of jenitri as a biosorbent for produced-water in oil fields <b>Muhammad Khairul AFDHOL, Universitas Islam Riau, Kampar, INDONESIA</b> <b>Co-Authors :</b> Rika Lala SAPUTRI <sup>(1)</sup> ; Nordin RAZIF MUHAMMED <sup>(2)</sup> ; Fiki HIDAYAT <sup>(1)</sup> ; Adiella Zakky JUNEID <sup>(3)</sup> <b>Affiliations :</b> 1 : Universitas Islam Riau, Pekanbaru, INDONESIA ; 2 : Universiti Teknologi MARA, Perlis, MALAYSIA ; 3 : Universitas Riau, Pekanbaru, INDONESIA			

### ROOM G

### 18:15 - 19:15 SF2P meeting (by invitation)

### PALAIS DE LA BOURSE

20:00 - 23:00 Gala dinner



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	ROOM F	ROOM H	ΑΜΡΗΙ Α
8:00 - 11:00			· · · · · · · · · · · · · · · · · · ·
9:00 - 10:00	- 10:00 AMPHI A		
10:00 - 10:30			
	FILTRATION/SEPARATION APPLICATIONS 2	MEMBRANE MATERIALS	NANOFIBERS
10:30 - 10:50	O-243 Avner ADIN Particle filtration long-term research experience in water reuse	KEYNOTE: Sang Yong NAM	O-253 Wallace LEUNG Filtering Sars-CoV-2 virus aerosols with electret nanofiber filter
10:50 - 11:10	O-244 J. MASCARADE. Methodology for the selection and qualification of a solid-liquid separation process for high-level radioactive sludge	Novel Preparation of Enhanced Organic Solvent Nanofiltration Membranes	0-254 Joan GA0 High Performance Nanofiber Media for HVAC and Clean Room Application
11:10 - 11:30	O-246 Abdoulaye DOUCOURE New trends in biopharmaceutical filtration technologies - What's in it for Africa?	O-250 Nándor NEMESTÓTHY Study of Membrane Gradostate Reactors	0-255 Joshua MANASCO Nanofiber composites for high efficiency air filtration
11:30 - 11:50		O-251 Hannah Faye AUSTRIA Advanced fouling prevention in self-cleaning piezoelectric PVDF-Graphene membranes for sustainable water purification and resource recovery	O-256 Alessia NICOSIA Electrospinning of cellulose acetate for the production of efficient air-filtering systems
11:50 - 12:10		O-249 Salaheddine ELMOUTEZ Enhanced Pollutant Removal and Antifouling in AeCMBR Using Bentonite for Pharmaceutical Wastewater	O-257 Mônica AGUIAR Development of High-Efficiency Air Filters from Recycled PET Nanofibers Embedded with Single-Walled Carbon Nanotubes for Nanoparticle Filtration
12:10 - 12:30	АМРНІ А		
14:00 - 18:00			



### FRIDAY, 4 JULY 2025

Liquid filtration Gas filtration M

1embrane 🔳	Sustainable development

ROOM D	AMPHI B	АМРНІ С	ROOM E	
Registration and Exhibition open				
Plenary Lecture: Kenneth WINSTON A look at the technology-drivers and projects today, including technologies for reducing and reusing Carbon Dioxide to Green and Renewable Fuels & Chemicals				
Coffee Break - Exhibition - Poster				
OIL MIST FILTRATION	CASE STUDY	MODULE / PROCESS DESIGN	MICROPOLLUTANT	
O-258 Robin MANDIC Influence of operating conditions on the internal and rear-side drainage behavior in oil mist filters	O-264 Mustapha TAHAIKT Electrodialysis for groundwater defluoridation: Insights into membrane selection and anion competition	0-268 S. Ranil WICKRAMASINGHE Tangential Flow Filtration Using Reverse Asymmetric Membranes for Virus Harvesting	0-273 Cang Ll Nano/Microplastics: Small Particles Big Problems	
0-259 Cheng CHANG Filtration performance of surface modified coalescence filters with asymmetric wettability	O-265 Mit Prohim YOU Mitigating membrane fouling in anaerobic membrane bioreactors through minimal-mixing: A sustainable approach for energy efficiency and performance stability	O-269 Murielle RABILLER-BAUDRY Cascades with internal recycling: a tool to enhance membrane separation performances in different industrial sectors	0-274 Mathieu DELAHAYE Optimization of GAC filtration to remove micropollutants in wastewater treatment	
O-260 Yihang DING Preparation and performance optimization of superoleophobic coalescence filter materials	O-266 Lebea NTHUNYA Membrane distillation crystallization towards recovery of fresh water and minerals from acid mine drainage	O-270 David BROKL «Greener» nanofiber membranes from electrospinning	0-275 Dominik HERPER Microplastics from tire wear - Filtration in the field	
O-261 Di WANG Double-gradient Janus filters with oil-guiding layer for enhanced oil aerosol filtration performance	O-267 Vincent BLAZY, Mathilde RAOUL Performance of Reverse Osmosis for the treatment of pretreated hazardous wastewater containing PFAS		O-276 Marc VALAT Cork as a new sustainable solution for micropollutants adsorption in water treatment	
			0-277 Daniel RATTINGER Multi-layer composite membranes for selective micropollutant removal	

Closing Ceremony

**TECHNICAL TOURS** 



### WELCOME AREA

08:00 - 14:00 Welcome attendees

### AMPHI A

### 09:00 - 10:00 Plenary session

A look at the technology-drivers and projects today, including technologies for reducing and reusing Carbon Dioxide to Green and Renewable Fuels & Chemicals **Kenneth WINSTON, Calgon Carbon Corporation, Pittsburgh, UNITED STATES** 

### ESPACE PLURIEL

### 10:00 - 10:30 Coffee break - Visit the exhibition and the poster area

#### **ROOM F** Liquid filtration / Session

### 10:30 - 12:10 Filtration/Separation Applications 2

- 10:30 O-243 Particle filtration long-term research experience in water reuse Avner ADIN, The Hebrew University of Jerusalem, Herzliya, ISRAEL
- 10:50 O-244 Methodology for the selection and qualification of a solid-liquid separation process for high-level radioactive sludge
   Jérémy MASCARADE, Commissariat à l'Énergie Atomique et aux Énergies Alternatives Centre de Marcoule, Bagnols Sur Cèze
   Co-authors: Lucas LIOTAUD <sup>(1)</sup>
   Affiliations: 1 : Commissariat à l'Énergie Atomique et aux Énergies Alternatives Centre de Marcoule, Bagnols sur Cèze, FRANCE
- 11:10 O-246 New trends in biopharmaceutical filtration technologies What's in it for Africa? Abdoulaye DOUCOURE, African Membrane Society, Roanoke, UNITED STATES Co-authors: Chimezie ANYAKORA <sup>(2)</sup> Affiliations: 1 : African Membrane Society, Roanoke, UNITED STATES ; 2 : Pan Atlantic University , Lagos, NIGERIA



### FRIDAY, 4 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

### ROOM H Membrane / Session

### 10:30 - 12:10 Membrane materials

10:30 Keynote lecture - Novel Preparation of Enhanced Organic Solvent Nanofiltration Membranes

Sang Yong NAM, Gyeongsang National University, Jinju-Si, REPUBLIC OF KOREA

- 11:10 O-250 Study of Membrane Gradostate Reactors
   Nándor NEMESTÓTHY, University of Pannonia, Veszprem, HUNGARY
   Co-authors: Piroska LAJTAI-SZABÓ<sup>(1)</sup>; Veronika KALAUZ-SIMON<sup>(1)</sup>; Péter BAKONYI<sup>(1)</sup>
   Affiliations: 1: University of Pannonia, Veszprem, HUNGARY
- 11:30 O-251 Advanced fouling prevention in self-cleaning piezoelectric PVDF-Graphene membranes for sustainable water purification and resource recovery Hannah Faye AUSTRIA, National Taiwan University of Science and Technology, Taipei City, TAIWAN

**Co-authors:** Rachelle SARDOME <sup>(2)</sup>; Owen SETIAWAN <sup>(1)</sup>; Tsung-Han HUANG <sup>(1)</sup>; Wen-Ching LEI <sup>(1)</sup>; Xin-Yuan TIAN <sup>(1)</sup>; Chien-Chieh HU <sup>(1)</sup>; Juin-Yih LAI <sup>(1,3)</sup>; Wei-Song HUNG <sup>(1)</sup> **Affiliations:** 1: National Taiwan University of Science and Technology, Taipei City, TAIWAN; 2: Mapúa

University, Manila, PHILIPPINES ; 3 : Chung Yuan Christian University, Taoyuan, TAIWAN

 11:50 O-249 Enhanced Pollutant Removal and Antifouling in AeCMBR Using Bentonite for Pharmaceutical Wastewater
 Salaheddine ELMOUTEZ, Mohamed VI polytechnic university, Benguerir, MOROCCO
 Co-authors: Hafida AYYOUB <sup>(2)</sup>; Mohamed CHAKER NECIBI <sup>(1)</sup>; Azzedine ELMIDAOUI <sup>(1)</sup>; Mohamed TAKY <sup>(1,2)</sup>
 Affiliations: 1: Mohamed VI polytechnic university, BengueriR, MOROCCO ; 2: faculté des sciences, Kenitra, MOROCCO

### AMPHIA Gas filtration / Session

### 10:30 - 12:10 Nanofibers

10:30 O-253 Filtering Sars-CoV-2 virus aerosols with electret nanofiber filter Wallace LEUNG, Hong Kong Polytechnic University, Duluth, UNITED STATES Co-authors: Qianggiang SUN (1)

Affiliations: 1 : Hong Kong Polytechnic University, Hong Kong, HONG KONG

10:50 O-254 High Performance Nanofiber Media for HVAC and Clean Room Application Joan GAO, NFT Purification Technology, Missouri City, UNITED STATES Co-authors: Turner YANG <sup>(1)</sup>

Affiliations: 1: NFT Purification Technology, Missouri City, UNITED STATES

- 11:10 O-255 Nanofiber composites for high efficiency air filtration Joshua MANASCO, Elmarco sro, Liberec, CZECH REPUBLIC Co-authors: Ivan PONOMAREV (1) Affiliations: 1 : Elmarco sro, Liberec, CZECH REPUBLIC
- 11:30 O-256 Electrospinning of cellulose acetate for the production of efficient air-filtering systems

Alessia NICOSIA, National Research Council of Italy (CNR), Bologna, ITALY

**Co-authors:** Fabrizio RAVEGNANI <sup>(1)</sup> ; Alicia ROMERO <sup>(2)</sup> ; Maria BLANES <sup>(2)</sup> ; Maria Jose GISBERT <sup>(2)</sup> ; Carlos PASCUAL <sup>(2)</sup> ; Bruno MARCO <sup>(2)</sup>

Affiliations: 1 : Institute of Atmospheric Sciences and Climate (ISAC) of the National Research Council (CNR) , Bologna, ITALY ; 2 : Centro de Investigación e Innovación / Research & Innovation Center (AITEX) , Alcoy (Alicante), SPAIN

11:50 O-257 Development of High-Efficiency Air Filters from Recycled PET Nanofibers Embedded with Single-Walled Carbon Nanotubes for Nanoparticle Filtration **Mônica AGUIAR, Federal University of São Carlos, São Carlos, BRAZIL Co-authors:** Gabriela B. MEDEIROS <sup>(1)</sup>; Daniela S. DE ALMEIDA <sup>(2)</sup>

69

Affiliations: 1 : Federal University of São Carlos, São Carlos, BRAZIL ; 2 : Federal University of Technology - Paraná, Londrina, BRAZIL

### ROOM D Gas filtration / Session

### 10:30 - 12:10 Oil mist filtration

- 10:30 O-258 Influence of operating conditions on the internal and rear-side drainage behavior in oil mist filters
  - Robin MANDIC, KIT, Karlsruhe, GERMANY
  - **Co-authors:** Jörg MEYER <sup>(1)</sup>; Achim DITTLER <sup>(1)</sup> **Affiliations:** 1: KIT, Karlsruhe, GERMANY
- 10:50 O-259 Filtration performance of surface modified coalescence filters with asymmetric wettability

### Cheng CHANG, China University of Petroleum-Beijing, Beijing, CHINA

**Co-authors:** Qianmei LYU <sup>(1)</sup> ; Yihang DING <sup>(1)</sup> ; Yunlan YANG <sup>(1)</sup> ; Xiaolin WU <sup>(1)</sup> ; Zhongli JI <sup>(1)</sup> **Affiliations:** 1 : China University of Petroleum-Beijing, Beijing, CHINA

11:10 O-260 Preparation and performance optimization of superoleophobic coalescence filter materials

#### Yihang DING, China University of Petroleum-Beijing, Beijing, CHINA Co-authors: Cheng CHANG <sup>(1)</sup>; Xiaolin WU <sup>(1)</sup>; Zhongli JI <sup>(1)</sup> Affiliations: 1: China University of Petroleum-Beijing, Beijing, CHINA

11:30 O-261 Double-gradient Janus filters with oil-guiding layer for enhanced oil aerosol filtration performance
 Di WANG, South China University of Technology, Guangzhou, CHINA
 Co-authors: Zhigiang ZHOU <sup>(2)</sup>: Yun LIANG <sup>(1)</sup>: Min TANG <sup>(1)</sup>

Affiliations: 1 : South China University of Technology, Guangzhou, CHINA ; 2 : Zhejiang Sci-Tech University, Hangzhou, CHINA

### AMPHI B Membrane / Session

### 10:30 - 12:10 Case Study

10:30 O-264 Electrodialysis for groundwater defluoridation: Insights into membrane selection and anion competition

Mustapha TAHAIKT, université Ibn Tofail,faculté des sciences, Kénitra, MOROCCO Co-authors: fatima zahra ADDAR<sup>(I)</sup>; Idrisse MOHAMED<sup>(I)</sup>; mohamed TAKY<sup>(I,2)</sup> Affiliations: 1 : Laboratory of Advanced Materials and Process Engineering, Faculty of Sciences, Ibn Tofail University, P.O. Box: 1246, , Kénitra, MOROCCO; 2 : International Water Research Institute. Mohammed VI Polytechnic University, Lot 660, Hay Moulay , benguerir, MOROCCO

 10:50 O-265 Mitigating membrane fouling in anaerobic membrane bioreactors through minimal-mixing: A sustainable approach for energy efficiency and performance stability Mit Prohim YOU, Seoul National University of Science and Technology, Seoul, REPUBLIC OF KOREA

Co-authors: Roent Dune A. CAYETANO <sup>(1,2)</sup>; Hyun-Suk OH <sup>(1,2)</sup>

**Affiliations:** 1 : Department of Environmental Engineering, Seoul National University of Science and Technology, Seoul , REPUBLIC OF KOREA ; 2 : Institute of Environmental Technology, Seoul National University of Science & Technology, Seoul, REPUBLIC OF KOREA

11:10 O-266 Membrane distillation crystallization towards recovery of fresh water and minerals from acid mine drainage

### Lebea NTHUNYA, University of South Africa, Johannesburg, SOUTH AFRICA Co-authors: Bhekie MAMBA (1)

Affiliations: 1: University of South Africa, Johannesburg, SOUTH AFRICA

70

11:30 O-267 Performance of Reverse Osmosis for the treatment of pretreated hazardous wastewater containing PFAS

### Vincent BLAZY (Rennes, FRANCE), Mathilde RAOUL (Le Mans, FRANCE)

**Co-Authors :** Anne PREMEL  $^{(1)}$  ; Julien BLANVILLAIN  $^{(2)}$  ; Sébastien GEORGE  $^{(3)}$  ; Manon GRANGER-DELACROIX  $^{(4)}$ 

**Affiliations :** 1 : EMO, RENNES, FRANCE ; 2 : SEMEO, Bréal-sous-Vitré, FRANCE ; 3 : SARPI-VEOLIA, Le MANS, FRANCE ; 4 : SARPI-VEOLIA, Limay, FRANCE



### FRIDAY, 4 JULY 2025

Liquid filtration Gas filtration Membrane Sustainable development

AMPHI C	Membrane / Session			
10:30 - 12:10	<ul> <li>Module / process design</li> <li>10:30 O-268 Tangential Flow Filtration Using Reverse Asymmetric Membranes for Virus Harvesting</li> <li>S. Ranil WICKRAMASINGHE, University of Arkansas, Fayetteville, UNITED STATES Co-authors: Xiaolei HAO <sup>(1)</sup>; Xianghong QIAN <sup>(1)</sup> Affiliations: 1: University of Arkansas, Fayetteville, UNITED STATES</li> </ul>			
	<ul> <li>10:50 O-269 Cascades with internal recycling: a tool to enhance membrane separation performances in different industrial sectors         Murielle RABILLER-BAUDRY, Université de Rennes, Rennes         Co-authors: Fatima Zohra CHARIK <sup>(1,2)</sup>; Dawry Javier CAPELLAN BATISTA <sup>(1)</sup>; Youness KOUZI <sup>(1,2)</sup>; Saad ALAMI YOUNSSI <sup>(2)</sup>; Thierry RENOUARD <sup>(1)</sup>         Affiliations: 1: Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes) - UMR 6226, Rennes, FRANCE; 2: Laboratory of Materials, Membranes and Environment, Faculty of Sciences and Technologies of Mohammedia, University Hassan II of Casablanca, , Mohammedia, MOROCCO     </li> </ul>			
	<ul> <li>11:10 O-270 «Greener» nanofiber membranes from electrospinning David BROKL, Elmarco sro, Liberec, CZECH REPUBLIC</li> <li>Co-authors: Miloslav MASOPUST <sup>(1)</sup>; Ivan PONOMAREV <sup>(1)</sup>; Joshua MANASCO <sup>(1)</sup> Affiliations: 1 : Elmarco sro, Liberec, CZECH REPUBLIC</li> </ul>			
ROOM E	Sustainable development / Session			
10:30 - 12:10	Micropollutant			
	10:30 O-273 Nano/Microplastics: Small Particles Big Problems Cang LI, Kinetico, Incorporated, Suwanee, UNITED STATES			
	<ul> <li>10:50 O-274 Optimization of GAC filtration to remove micropollutants in wastewater treatment Mathieu DELAHAYE, Suez, Paris La Defense</li> <li>Co-authors: Romain MAILLER <sup>(1)</sup>; Olivier DANEL <sup>(2)</sup>; Mar ESPERANZA <sup>(2)</sup>; Jean BERNIER <sup>(1)</sup>; Sophie COURTOIS <sup>(2)</sup>; Adriana GONZALEZ-OSPINA <sup>(1)</sup> Affiliations: 1: Suez International, Paris La Defense, FRANCE; 2: SUEZ CIRSEE, Le Pecq, FRANCE</li> </ul>			
	<ul> <li>11:10 O-275 Microplastics from tire wear – Filtration in the field</li> <li>Dominik HERPER, GKD - Gebr. Kufferath AG, Düren, GERMANY</li> <li>Co-authors: Daniel VENGHAUS <sup>(1)</sup></li> <li>Affiliations: 1 : GKD - Gebr. Kufferath AG, Düren, GERMANY</li> </ul>			
	<ul> <li>O-276 Cork as a new sustainable solution for micropollutants adsorption in water treatment</li> <li>Marc VALAT, I2M, Bordeaux</li> </ul>			
	<b>Co-authors:</b> Clémence MARAIS <sup>(1)</sup> ; Pascal GINISTY <sup>(1)</sup> ; René PEINADOR <sup>(1)</sup> ; Tarik ELJADDI <sup>(1)</sup> ; Jean LACHAUD <sup>(2)</sup> ; Benoît TEYCHENE <sup>(3)</sup> <b>Affiliations:</b> 1 : IFTS, Foulayronnes, FRANCE ; 2 : I2M , Bordeaux, FRANCE ; 3 : IC2MP, Poitiers, FRANCE			
	<ul> <li>11:50 O-277 Multi-layer composite membranes for selective micropollutant removal Daniel RATTINGER, MCI The Entrepreneurial School, Innsbruck, AUSTRIA</li> <li>Co-authors: Jana MARX <sup>(1,2,3)</sup>; Jan BACK <sup>(1)</sup>; Tung PHAM <sup>(2)</sup>; Rania BAKRY <sup>(3)</sup>; Martin SPRUCK <sup>(1)</sup> Affiliations: 1: MCI The Entrepreneurial School, Innsbruck, AUSTRIA; 2: Research Institute of Textile</li> </ul>			

### ΑΜΡΗΙ Α

12:10 - 12:30 Closing ceremony

### WELCOME AREA

14:00 - 18:00 Technical tours

# POSTERS

### **TOPIC 1 SOLID/LIQUID**

**P-OI** Produce drinking water wherever you need it with the ANDRITZ mobile filtration unit (AMFU) Etienne FROGER, ANDRITZ Euroslot SAS, Scorbé Clairvaux

P-02 Enhancing Automotive Cabin Air Filtration Efficiency

Using Short Cellulose Acetate Nanofibers Mônica AGUIAR, Federal University of São Carlos, São Carlos, BRAZIL

Co-authors: Paulo Augusto MARQUES CHAGAS (1) ; Wanderley P. OLIVEIRA (2)

Affiliations: 1 : Department of Chemical Engineering/University Federal of São Carlos, São Carlos - SP, BRAZIL; 2 : Faculty of Pharmaceutical Sciences of Ribeirão Preto/University of São Paulo, Ribeirão Preto, BRAZIL

### **P-03** Recycling of polymeric substances from sewage via membrane technologies

Da-Qi CAO, Beijing University of Civil Engineering and Architecture, Beijing, CHINA

Co-authors: Zhen WANG (1) ; Xin SONG (1) ; Xiao-Min FANG (1) ; Jing-Yi JIN (1) ; Xiu-Zhen SUN (1) ; Jia-Lin HAN (1) ; Hui LIU (1) ; Yan JIN (1) ; Xiao-Di HAO (1)

Affiliations: 1 : Beijing University of Civil Engineering and Architecture, Beijing, CHINA

P-05 Influences and Characteristics of Back-washing for Double-layer Filter Materials in Filtration Treatment of Polymer Flooding Produced Water

Lin LIU, Northeast Petroleum University, Daqing, CHINA

**P-06** Effect of Different Filter Materials on Filtration Process of Polymer Flooding Produced Water: A Numerical Simulation Study

Lin LIU, Northeast Petroleum University, Daqing, CHINA

#### **P-08** Analysis on the development and Standardization System Construction of Separation Machinery Industry in the Context of Dual Carbon Goals

Cuilong CHEN, Sinomach General Machinery Science& Technology Co., Ltd., Hefei, CHINA

Co-authors: DEYOU ZHANG (1)

Affiliations: 1 : Secretariat of National Technical Committee for Standardization of Separation Machine, Hefei, CHINA

### P-10 CFD-DEM simulation of micro-mechanisms between

particles and filter medium by solid-liquid separation Nikolai BENZ, University of Kaiserslautern-Landau, Kaiserslautern, GERMANY

Co-authors: Vanessa PUDERBACH (2) ; Kilian SCHMIDT (2) ; Sergiy ANTONYUK (1)

Affiliations: 1: University of Kaiserslautern-Landau, Kaiserslautern, GERMANY ; 2: IT for Engineering GmbH, Kaiserslautern, GERMANY

### **TOPIC 2 GAS**

### **P-11** A microwave sensor for droplet contents measurement in high-pressure natural gas pipelines

Junxian CHEN, China University of Petroleum, Beijing, Beijing, CHINA

Co-authors: Zhongli JI (1) ; Ao LI (1) ; Zhen LIU (1) ; Tianyu ZHANG (1) Affiliations: 1 : China University of Petroleum, Beijing , Beijing, CHINA

### **P-12** Evaluation of the efficiency of bag filters with different filter media

Mônica AGUIAR, Federal University of São Carlos, São Carlos, BRAZIL

Co-authors: Ana Cristina Coelho VIEIRA (1) ; Rafael SARTIM (2,3) Affiliations: 1 : Federal University of São Carlos, São Carlos, SP, BRAZIL ; 2 : Federal University of Espírito Santo, Vitória, ES, BRAZIL ; 3 : ArcelorMittal, Serra, ES, BRAZIL

# **P-13** Production of triple-layer filter media from recycled polyethylene terephthalate (rPET) and polystyrene (rPS) using the electrospinning technique: Evaluation of air nanoparticle filtration and permeability

Mônica AGUIAR, Federal University of São Carlos, São Carlos, BRAZIL

Co-authors: Felipe de Aquino LIMA (1) ; Paulo Augusto Marques CHAGAS (1) ; Vádila Giovana GUERRA (1)

Affiliations: 1 : Federal University of São Carlos, São Carlos, BRAZIL

### **P-14** Application of graphene oxide on nonwoven microfibres as a promising air purification nanocomposite for removal of particulate matter

Simone POZZA, University of Campinas - UNICAMP, Limeira,  $\mathsf{BRAZIL}$ 

Co-authors: Manoel MEIRA (1) ; Marcos LOREVICE (2) ; Joyce CRISTALE (1) ; Diego MARTINEZ (2)

Affiliations: 1 : University of Campinas - UNICAMP, Limeira, BRAZIL ; 2 : Brazilian Center for Research in Energy and Materials (CNPEM), Campinas, BRAZIL

### **P-15** Study of the particle loading behavior and dendrite growth characteristics on a single fiber

Tianle YOU, South China University of Technology, Guangzhou, CHINA

Co-authors: Zhengyuan PAN (2) ; Min TANG (1) ; Yun LIANG (1) Affiliations: 1 : South China University of Technology, guangzhou, CHINA ; 2 : University of Minnesota Minneapolis, Minnesota, UNITED STATES

### P-16 Modeling nonwoven filters and application to airflow study and pressure drop prediction

Yongchun ZENG, Donghua University, Shanghai, CHINA Co-authors: Ying LI (1)

Affiliations: 1 : College of Textiles, Donghua University, Shanghai, CHINA

#### P-16bis A 5 nm to 10 micrometre Condensation Particle Counter suitable for testing all air filter grades

Yixin ZOU, Cambustion Ltd Cambridge, UNITED KINGDOM Co-Authors : Simon PAYNE (1) ; Jon SYMONDS (1) ; Martin TOFTS (1) Affiliations : 1 : Cambustion Ltd, Cambridge, UNITED KINGDOM

**P-17** Approach for dimensioning a lab-scale wet scrubber for analysis of gas-particle-droplet interactions God JEAN, IMT Atlantique, Nantes

Co-authors: Ala BOUHANGUEL (1) ; Elisabeth LYS (1) ; Marc HENRY (2) ; Aurelie JOUBERT (1)

Affiliations: 1 : IMT Atlantique, Nantes, FRANCE ; 2 : Séché Environnement, Saint-Vulbas, FRANCE



**P-18** Integrated application of cyclone separation and deep filtration in natural gas defoaming

Deli LIU, Shanghai Research Institute of Chemical Industry Co., LTD, Shanghai, CHINA

Co-authors: Yayun LU (1) ; Jia XIE (1)

Affiliations: 1 : Shanghai Research Institute of Chemical Industry Co., LTD, shanghai, CHINA

### **TOPIC 3 MEMBRANE**

### **P-19** Enhanced separation of C-phycocyanin and allophycocyanin using a coupled filtration and precipitation methods

Soobin JANG, Inha University, Incheon, REPUBLIC OF KOREA Co-authors: Youngbin BAEK (1)

Affiliations: 1 : Inha University, Incheon, REPUBLIC OF KOREA

### **P-20** Hybrid modeling approach for the prediction of potential fouling in filtration based on viscosity

Jimin KANG, Inha University, Incheon, REPUBLIC OF KOREA Co-authors: Youngbin BAEK (1)

Affiliations: 1 : Inha University, Incheon, REPUBLIC OF KOREA

#### P-23 Development of Antifouling gamma-Al2O3/alpha-Al2O3 Nanofiltration Membranes for Enhanced Wastewater Treatment Efficiency

Xuelong ZHUANG, Dongguk university, Seoul, CHINA Co-authors: Jung Hoon PARK (1)

Affiliations: 1 : Dongguk university, Seoul, REPUBLIC OF KOREA

### **P-24** A study on the feasibility of hemodialysis application through lab-scale hemodialyzer made of ceramic hollow fiber membranes by removing uremic toxins J

ae Yeon HWANG, Dongguk University, Seoul, REPUBLIC OF KOREA

Co-authors: JUNGHOON PARK (1)

Affiliations: 1 : Dongguk University, SEOUL, REPUBLIC OF KOREA

#### P-25 Next level optimization of your Dynamic Crossflow Filter (DCF) performance with digital twins

Maximilian AMTHOR-STAHL, Andritz Separation GmbH, Vierkirchen, GERMANY Co-authors: Joel RAUHUT (1)

Affiliations: 1 : Andritz Separation GmbH, Vierkirchen, GERMANY

### **P-27** Sandfilter Backwash Water Treatment - Piloting at a municipal German freshwater producer

Timo ROTHAUSEN, Boll & Kirch Filterbau GmbH, Kerpen, GERMANY

Co-authors: Pranav SHARMA (1) ; Antonio VINCIGUERRA (2) Affiliations: 1 : Boll & Kirch Filterbau GmbH, Kerpen, GERMANY ; 2 : APATEQ - PWT S.A., Luxembourg, LUXEMBOURG

#### P-28 Mamb'Eaux Project Assessment of the life span of membranes in an MBR for the treatment of urban and industrial wastewater

Christel CAUSSERAND, University of Toulouse FRANCE, Toulouse Co-authors: Sabrina GUERIN (2) ; Amar NAJI (2) ; Yannick FAYOLLE (3) ; Pascal GINISTY (4)

Affiliations: 1 : Laboratoire de Génie Chimique, University of Toulouse, CNRS, INPT, UPS, TOULOUSE, FRANCE ; 2 : SIAAP Direction Innovation, Colombes, FRANCE ; 3 : Université Paris-Saclay, INRAE, PROSE, Anthony, FRANCE ; 4 : IFTS, Foulayronnes, FRANCE **P-29** Evaluation of chemical and mechanical resistance of FO and RO dense membranes for improved lifetime and recycling Gaetan BLANDIN, University of Girona, Girona, SPAIN Co-authors: Bianca ZAPPULLA SABIO (1) ; Anaëlle POUPLIN (1) Affiliations: 1 : University of Girona, Girona, SPAIN

### **P-30** Understanding the effect of organic load on aerobic ceramic membrane bioreactor: performance, fouling propensity and machine learning algorithm

Mohamed TAKY, Laboratory of Advanced Materials and Process Engineering, Faculty of Sciences, Ibn Tofail University, Kenitra, MOROCCO

Co-authors: Hafida AYYOUB (1)

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#### **P-34** Reverse Osmosis and Scientific Issues for Seawater Desalination in West Africa - Osmose Inverse et Enjeux Scientifiques pour le Dessalement de l'Eau de Mer en Afrique de l'Ouest

Courfia DIAWARA, université Assane Seck, Ziguinchor, SENEGAL Co-authors: Saidou Nourou DIOP (1) ; Mouhamadou Abdoulaye DIALLO (2) ; Vanessa Millan GABET (3) ; Javier Acerete NAVARRO (3) ; Baltasar Penate SUAREZ (3)

Affiliations: 1 : Université Assane Seck, Ziguinchor, SENEGAL ; 2 : Université Cheikh Anta Diop, Dakar, SENEGAL ; 3 : Instituto Tecnologica De Canarias, Canarias, SPAIN

### P-37 Protein concentration from microalgae using stirred-cell ultrafiltration

Pierre-Yves PONTALIER, Laboratoire de Chimie Agro-industrielle (LCA), Université de Toulouse, INRAE, Toulouse INP, Toulouse Co-authors: Hussein RIDA (1,2) ; Sara OBEID (1,2) ; Nicolas BEAUFILS (1)

Affiliations: 1 : Laboratoire de Chimie Agro-industrielle (LCA), Université de Toulouse, INRAE, Toulouse INP, Toulouse, FRANCE ; 2 : Platforme de Recherche et d'Analyses en Sciences de l'Environnement (PRASE), Université Libanaise, Beirut, LEBANON

### **P-38** Are membrane cascades an efficient tool for the enhancement of RO desalination performances either for brackish or seawaters ?

Youness KOUZI, University Hassan II of Casablanca, Casablanca, MOROCCO

Co-authors: Fatima Zohra CHARIK (1,2) ; Saad ALAMI YOUNSSI (2) ; Murielle RABILLER-BAUDRY (1)

Affiliations: 1 : Univ Rennes, CNRS, ISCR (Institut des Sciences Chimiques de Rennes) - UMR 6226, F-35000, Rennes, FRANCE ; 2 : Laboratory of Materials, Membranes and Environment, Faculty of Sciences and Technologies of Mohammedia, University Hassan II of Casablanca, Casablanca, MOROCCO

#### **P-38bis** FLUORMIDABLE: A Fluorescence-Based Strategy for In Situ Detection and Mapping of Micro- and Nanoplastics in Coastal and Marine Environments

René PEINADOR DAVILA, Institut de la Filtration et des techniques séparatives (IFTS), Foulayronnes Co-authors: Amélie SURMONT (1) ; Vidal LAURENCE (1) ; Jérôme

LABILLE (1) Affiliations: 1 : Institut de la Filtration et des techniques

séparatives (IFTS), Foulayronnes, FRANCE



### POSTERS

**P-39bis** Reverse osmosis membranes coated with silk-derived materials to enhance anti-scaling and storage stability via a waste-to-resource approach

Jaewoo LEE, Jeonbuk National University, Jeonju, REPUBLIC OF KOREA

Co-authors: Yonghee JUNG (1)

Affiliations: 1 : Jeonbuk National University, Jeonju, REPUBLIC OF KOREA

**P-40** Contribution to the Surface Water Quality Assessment: A Case Study of the Microfiltration and Reverse Osmosis Systems applied to the Kivu Lake Water In The Province Of South Kivu In DR Congo.

Soumana GAGARA, United Nations Support Office in Somalia, Mogadishu, SOMALIA

### P-41 High-purity water recovery from industrial effluents using membrane distillation

Cejna Anna QUIST-JENSEN, Aalborg University, Aalborg East, DENMARK

Co-authors: Hussein FAIROUSHA SULAIMAN (2) ; Cejna Anna QUIST-JENSEN (1)

Affiliations: 1 : Department of Chemistry and Bioscience, Aalborg University, Aalborg, DENMARK ; 2 : AAU Energy, Aalborg University, Aalborg, DENMARK

P-41bis Dead-End Ultrafiltration of Sugar Beet Juice Extracted from Cold Electrically Pre-Treated Slices: Influence of Membrane Polymer on Fouling Mechanisms and Permeate Quality Houcine MHEMDI, ESCOM/UTC, Compiegne, Compiègne Co-authors: Zhu ZHENZHOU (2) ; Eugène VOROBIEV (1) Affiliations: 1 : EA 4297 TIMR (UTC/ESCOM), Université de Technologie de Compiègne, Centre de Recherche de Royallieu, B.P. 20529-60205 Compiègne Cedex, France, Compiègne, FRANCE ; 2 : School of Food Science and Engineering, Wuhan Polytechnic University,Wuhan?430023, China, Wuhan, CHINA

**P-42bis** High-performance MoS2-based composite membrane for efficient dye removal: Experimental and theoretical analysis Zakarya CHAFIQ ELIDRISSI, University of Lorraine and University of Hassan II Casablanca, Nancy

Co-authors: Brahim ACHIOU (2) ; Sabine RODE (1) ; Saad ALAMI YOUNSSI (2) ; Bouchra BELAISSAOUI (1) ; Mohamed OUAMMOU (2)

Affiliations: 1 : University of Lorraine , Nancy, FRANCE ; 2 : University of Hassan II Casablanca , Casablanca , MOROCCO

### **TOPIC 4 SUSTAINABLE**

### **P-43** Removal of active pharmaceuticals ingredients from water using modified halloysite particles

Michal STOR, Warsaw University of Technology, Warsaw, POLAND

Co-authors: Andrzej KRASINSKI (1)

Affiliations: 1 : Faculty of Chemical and Process Engineering, Warsaw University of Technology, Warsaw, POLAND

### **P-45** Modification of polypropylene filters with amphiphilic cyclodextrins by dip coating for PFAS removal

Kasper Skovbølling HEDEGAARD, Aalborg University, Aalborg, DENMARK

Co-authors: Thorbjørn Terndrup NIELSEN (1) ; Mads Koustrup JØRGENSEN (1)

Affiliations: 1 : Department of Chemistry and Bioscience, Aalborg University, Aalborg, DENMARK

#### **P-45bis** Enhancing Crystal Violet Removal through Glass-Based Phosphate: A Custom Design-Based Response Surface Methodology for Process Variable Optimization

Abdelillah SHAIM, Laboratory of Advanced Materials and Process Engineering, Faculty of Sciences, Ibn Tofail University, Kénitra, MOROCCO

Co-authors: Rida ELBARDAI (1); Omar DOUGHMI (1); Ennajih ZITOUNI (1); Karim TANJI (1); Abdelghani HSINI (1,2) Affiliations: 1 : Laboratory of Advanced Materials and Process Engineering, Faculty of Sciences, Ibn Tofail University, P.O. Box: 1246,, Kénitra, MOROCCO; 2 : National High school of chemistry, Ibn Tofail University, kenitra, MOROCCO

### P-46 Utilization of jenitri as a biosorbent for produced-water in oil fields

Muhammad Khairul AFDHOL, Universitas Islam Riau, Kampar, INDONESIA

Co-Authors : Rika Lala SAPUTRI (1) ; Nordin RAZIF MUHAMMED (2) ; Fiki HIDAYAT (1) ; Adiella Zakky JUNEID (3)

Affiliations : 1 : Universitas Islam Riau, Pekanbaru, INDONESIA ; 2 : Universiti Teknologi MARA, Perlis, MALAYSIA ; 3 : Universitas Riau, Pekanbaru, INDONESIA





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**Phone:** +34 936 85 51 11 - +34 667 17 23 94

Contact: Antonio ZHAO

E-Mail: antonio.zhao@ames.group

Website: https://amespore.com/en/ames-group/

**Company description:** AMES manufactures AmesPore® sintered metallic filters and porous components at its specialized AMES Solsona plant in Spain, which is certified according to the ISO 9001, ISO 14001 and ISO TS 16949 quality standards.

The AMES Solsona factory has a Technical Department specialized in filters and porous sintered parts, fully equipped to determine the filter properties of (porosity, pore size, bubble point, filtering efficiency, permeability, metallography, corrosion resistance, mechanical characteristics, etc.) and to simulate their behaviour in service and useful life.

AmesPore® metallic filters are sintered stainless steel or bronze parts with high porosity (between 25% and 60% by volume), produced by the powder metallurgy technology.



### ATECH INNOVATIONS GMBH

**Address:** Am Wiesenbusch 26 45966 Gladbeck - Germany

Phone: +49 172 415 6127

Contact: Erich KOBIN

E-Mail: kossin@atech-innovations.com

Website: https://www.atech-innovations.com

**Company description:** atech innovations gmbh has been active since 1989 in the distribution, and since 1992, also in the development and production of high-quality ceramic membranes for a wide variety of industrial applications in the chemical, biotechnological, food and beverages industries and in the waste water treatment / recycling industry. Our range of products includes tubular membranes in various geometries and channel diameters as well as associated pressure vessels made of s/s or plastic. The designs comply with international standards and also take into account hygiene requirements such as 3A- Sanitary Standard design.

Depending on the requirements, we offer a wide membrane range suitable for ultrafiltration (>=1 kD) and microfiltration <=1.2  $\mu$ m).

### **BEKAERT FIBER TECHNOLOGIES**

**Address:** Bekaertstraat 2 8550 Zwevegem - Belgium

**Phone:** +32 56 76 61 00 - +32 477 60 71 43

Contact: Aurélie GOUX

E-Mail: aurelie.goux@bekaert.com

Website: https://www.bekaert.com/filtration

**Company description:** Bekaert pioneers sustainable solutions and services with creativity beyond steel. Our products range from wire transformations to coating technology and everywhere in-between. And filtration is no exception. Their 40+ years of experience in filtration proves Bekaert knows fibers. In fact, Bekipor® metal fiber filter media stands as a true testament to their commitment.

### Beot (Shijiazhuang) Inorganic Membrane Separation Equipment Co., Ltd.

BOOTH N° 87

BOOTH N° 61

**Address:** H2-16, Poly International Plaza, No.95, Shifang Road 50000 Shijiazhuang - China

Phone: +86 311 8511 9058

Contact: Jenny HAN

E-Mail: sales01@beot-filters.com

Website: https://www.beot-filters.com

**Company description:** For more than 25 years, BEOT has been a leader in the development, production and innovation of Sintered Porous Powder Metal filters, Wedge Wire Filters, Gas Diffusers, Components, and Engineered Assemblies.

Sintered Powder Metal Filters

BEOT manufactures a wide variety of sintered powder porous metal media and components that include: Tubes, Discs, Sheets, and Engineered Components. We can produce seamless tubes up to 2000mm long with filtration efficiencies from 0.1µm to 200µm.

Wedge Wire Filters

BEOT-SLOT products have perfect roundness, superior mechanical strength, and the highest gap accuracy in the world. The gap accuracy of our wedge wire filters achieves an industry best 10 microns.





### **BEVERLIN SPECIALTY TUBE**

Address: 3515 Raleigh Dr. SE 49512 Grand Rapids - United States Phone: +1 616 949 5990 - (616) 401-0938 Contact: Jim PYTLIK

E-Mail: jim.pytlik@beverlinmfg.com

Website: www.beverlin.com

**Company description:** Perforated metal element cores, tubing and fabricated metal assemblies used across the global filtration and oil and gas industry applications.

### Cambustion

**Address:** J6 The Paddocks, 347 Cherry Hinton Road CB1 8DH Cambridge - United Kingdom

**Phone:** +44 1223 210 250

**Contact:** Simon PAYNE

E-Mail: support@cambustion.com

Website: https://www.cambustion.com/applications/hvac-and-ppe-filter-testing

**Company description:** Cambustion develops high-grade instrumentation for a range of gas and particle applications, including filtration and indoor air quality.

Visit booth 62 to learn about our solutions for filter testing:

- The AAC (Aerodynamic Aerosol Classifier) to select particle size with high transmission efficiency and truly monodisperse output
- Our new fast-response 5210 CPC for particle detection from 5 nanometers to 10 microns

Our new AD60 aerosol diluter for precise control of test particle concentration

Together, these 3 instruments provide the highest accuracy for resolving filtration efficiency vs particle size of air filter media and face mask samples – to find out more, please attend our presentation at 2.50pm on 03/07 in Room D!

### **CEREX Advanced Fabrics, Inc.**

Address: 610 Chemstrand Road

32533 Cantonment - United States

**Phone:** +1 850 937 3300 - +1 850 776 0989

Contact: Jim JAMES T WALKER

E-Mail: jtwalker@cerex.com

Website: https://www.cerex.com

**Company description:** Clobal leader in the production of innovative polyamide 66 spunbond non-woven fabrics.



BOOTH N° 34

BOOTH N° 62

BOOTH N° 57

BOOTH N° 76

### **CHOQUENET SAS**

**Address:** 19 rue Charles Brunette 02300 Chauny - France

**Phone:** +33 3 23 40 36 00 - +33 6 19 52 17 67

Contact: Steve BORNE

E-Mail: borne@choquenet.com

Website: https://www.choquenet.com

**Company description:** Choquenet is a renowned filter-press manufacturer active since its creation in 1925.

Our range goes from pilot units (with 250 x 250 plates) up to industrial installations with 2600 x 2500 mm plates.

In-house design and manufacture in our workshop in France with the following competitive edges: quick cake release, 100 % automatic, scraping...

Customer satisfaction and support are one of our main concerns, Choquenet has a number of branches and sales agencies located around the globe.

Our goal: to be as close as possible to our customers.

With more than 5000 filter- presses in operation all over the world, Choquenet is currently a world key player when you are looking for a partner offering reliability and high productivity.

### CHUNG AH FILTER CO., LTD.

BOOTH N° 113

Address: 101-16, Sandan 3-ro, Jeonggwan-eup, Gijang-gun,

46027 Busan - South Korea

Phone: +82 51-622-1517 - +82 10-8511-4267

Contact: Sunny SIM

E-Mail: sunny@chungahfilter.com

Website: http://www.chungahfilter.com

**Company description:** CHUNG AH FILTER CO., LTD. is the 1ST and ONLY Manufacturer of PES/PS membrane flat sheet in Korea. PES Membrane manufactured since Jan. 2008.

With the perfect technology recognized in the precision electronic material market that has enabled our expanded operation in the (food and beverage, pharmaceutical) markets.

PS/PES membrane media(GPN/GPS/MPS grade), Pleated Membrane Cartridge Filters

- Pleated Filter (PSG, PSGD, PSA, PSU, MP, MC, MV, PT, PF series)

- Capsule Filter (AW, XW, SC series)



### Daegu, KOREA

Address: 10 EXCO-ro, Buk-gu 41515 Daegu - South Korea

Phone: +82 536 015 094 - +82 106 775 0610

Contact: Dalli LEE

E-Mail: dalli@exco.co.kr

Website: https://www.daegu.go.kr/english/index.do

Company description: Daegu, KOREA is the ideal host city for WFC 2028.

As Korea's hub for water and filtration industries, Daegu is home to the Korea Water Cluster and the Water Technology Certification Center, driving innovation and excellence.

Located near 14 UNESCO World Heritage Sites, including the historic cities of Gyeongju and Andong, Daegu offers rich cultural and historical experiences.

From vibrant K-culture—K-pop, K-food, and K-beauty—to timeless traditions, Daegu is where science meets culture.

We look forward to welcoming the global filtration community to Daegu for WFC 2028.

### Dalian HuaYang Bicoweb Technology Co.,Ltd

**BOOTH N° 100** 

**BOOTH N° 110** 

**Address:** No. 95-2, Xingfa Road, Lushunkou District, Dalian City, Liaoning Province, China 116045 Dalian - China

Phone: +86 411 65853585

**Contact:** Feifei HUANG

E-Mail: kiara\_huang@dlhyltd.com

Website: www.dlhyltd.com

**Company description:** Dalian HuaYang Bicoweb Technology Co.,Ltd is a global supplier of nonwovens, the company is mainly engaged in the R&D, production and sales of Bi-component spunbond air-through bonding filament nonwovens. BICOWEB series nonwoven is a kind of special material with high performance, wide application, high technology content, it can be used as filtration material, geotextiles, construction&waterproofing material, carpet lining backing, automotive forming, decoration & packaging material, reinforcement materials, etc.

#### **Demcon convergence**

#### BOOTH N° 27

Address: Institutenweg 21 7521 PH Enschede - Netherlands

Phone: +31 881 152 000

Contact: Marijke VAN DUUREN

E-Mail: marijke.van.duuren@demcon.com

Website: https://convergence.demcon.com

**Company description:** Demcon convergence is a leading supplier of sophisticated membrane characterization systems. We provide a wide range of pre-engineered yet customizable systems designed to evaluate membrane performance effectively. Our membrane inspectors are equipped with high-quality components sourced from leading manufacturers in flow control and tailored to meet the specific requirements of your project needs.

80



#### BOOTH N° 52

BOOTH N° 41

**BOOTH N° 103** 

### DrM, Dr. Mueller AG

Address: Alte Landstrasse 415 CH-8708 Maennedorf - Switzerland Phone: +41 44 921 21 21 - +33 7 66 68 40 39

**Contact:** Corentin BOULLAND

E-Mail: corentin.boulland@drmgroup.com

Website: https://drmgroup.com/

**Company description:** We are an industrial machinery manufacturer that specializes in solid/liquid separation, vibratory mixing and single-use solutions. Our flagship products, the FUNDABAC® and CONTIBAC® candle filters, count over 3,500 units in operation worldwide, with around 150 new systems installed annually. These technologies serve diverse sectors including Chemicals, Oil & Gas, Pharmaceuticals, Food, and Electronics. Our FUNDAMIX® vibromixers are widely used in pharmaceutical and biotech applications. The latest in our portfolio, FUNDALOOP®, is tailored for the biopharma industry. With its multi-cycle functionality, it extends the lifespan of high-performance filter bags while lowering operating costs.

### **DuPont de Nemours**

**Address:** DuPont de Nemours (Luxembourg) S.à.r.l. L-2984 Luxembourg - Luxembourg

Phone: +352 36 66 10 00

**Contact:** Niklas CARLSTRÖM

#### E-Mail:

Website: https://www.dupont.com/brands/xavan.html

**Company description:** DuPont<sup>™</sup> Xavan<sup>®</sup> is a strong, easy-to-use media carrier for multi-layer filter structures. It combines optimal stiffness with excellent air and liquid permeability, without compromising the performance of the effective filter media, even under most demanding conditions.

### **ECM COMPONENTS**

**Address:** Voie des collines 38800 Le Pont-de-Claix - France

Phone: +33 4 76 99 04 41 - +33 7 56 00 51 70

Contact: Morgane GRAND

E-Mail: morgane.grand@poral.fr

Website: https://www.poral.fr/

**Company description:** ECM COMPONENTS produces gas components. The brand PORAL produces and sales sintered metallic filters, which can be used in different filed such as medical, aeronautic, agrifood and many others. We can offer you standard shapes but we also can provide with personalised filters that meets your needs better.



#### Elmarco

Address: Svarovska 621 46001 Liberec - Czechia Phone: +42 048 920 9114 - +42 073 176 9749

Contact: Karolína VYMETALOVA

E-Mail: karolina.vymetalova@elmarco.com

Website: https://www.elmarco.com/

**Company description:** Elmarco is a global leader in industrial-scale nanofiber production equipment. Our Nanospider<sup>™</sup> machines support the full spectrum of applications, from lab-scale research to high-volume manufacturing. Since entering the market in 2004 with patented free-surface electrospinning technology, we've continually advanced nanofiber innovation. Our portfolio includes the LINEA line for air filtration and functional textiles, the INFINITY line for HEPA/ULPA and liquid filtration, and the NS LAB, a versatile R&D tool for experimental work and product development. Elmarco delivers complete technology solutions, enabling customers to scale seamlessly.

### Fibertex Nonwovens A/S

Address: Svendborgvej 16 9220 Aalborg - Denmark Phone: +45 86 35 35 35

Contact: Per Holst RASMUSSEN

E-Mail: phr@fibertex.com

Website: www.fibertex.com

**Company description:** Fibertex Nonwovens, a global leader in nonwovens manufacturing, offers a range of HVAC and cabin air media plus nanofibre membranes. Company introduces a new range of Pleatex® - an innovative 100% synthetic, inherently pleatable filter media that sets new standards in filtration. Designed for both air and liquid filtration, Pleatex® offers a customizable platform for filter manufacturers including sustainable solutions using recycled fibres and natural fibres as well.

### FILTECH

**Address:** Hölderlinstr. 9 40667 Meerbusch - Germany

Phone: +49 171 208 2402

Contact: Sophie GRZANNA

E-Mail: sophie@filtech.de

Website: https://filtech.de/

**Company description:** FILTECH is a global event and platform that focuses on the filtration industry and adjacent sectors. It is the largest and most significant event of its kind worldwide, showcasing the latest technological advancements and innovations in the field of filtration and separation. FILTECH brings together experts, industry professionals and researchers from various sectors to address pressing issues such as environmental pollution, water and wastewater treatment, desalination, clean air, health hazards, energy transition, and the optimization of solid and liquid separation tasks/tagets in industrial processes.

82



**BOOTH N° 106** 

BOOTH N° 79

### Filtration + Separation

**Address:** MA Business, Hawley Mill, Hawley Road, Sutton-at-Hone DA2 7SY Dartford - United Kingdom

**Phone:** +44 1322 221 144 - +44 7967 169 154

**Contact:** David BINGE

E-Mail: david.binge@markallengroup.com

Website: https://www.filtsep.com

**Company description:** Filtration + Separation has long been established as the leading publication and information tool for filtration users worldwide.

Filtration + Separation is at the forefront of technological advances, market movements, trends and breaking industry news in filtration and separation. As the only major international publication in the industry, Filtration + Separation addresses key developments globally in major industries including transportation, bulk & fine chemicals, food & beverage, HVAC, oil & gas, water & wastewater, pharmaceuticals, and industrial air filtration.

Visit us at Stand 2 to pick up your free copy of our latest issue.

### **Filtration Group SAS**

**Address:** Le Mas d'Auriac 84100 Orange - France

**Phone:** +33 4 32 85 95 40 - +33 6 33 79 80 73

Contact: Magalie NOEL

E-Mail: magalie.noel@filtrationgroup.com

Website: https://www.globalfilter.com/en-eu/

**Company description:** Filtration Group SAS is a leading European manufacturer in industrial filtration. Subsidiary of Filtration Group Corp (USA), we have been active since the 1930s with the Eurofiltec, amafilter® and now Global Filter brands. Filtration Group is committed to making the

world a safer, healthier and more productive place, and we provide efficient and innovative industrial filtration solutions to the most challenging problems. Specialized in solid-liquid filtration, we offer filter cartridges, bags and filter vessels adapted to a large number of applications (chemical, food & beverage, cosmetic, energy, ...). We are experts in several applications including the nuclear, active pharmaceutical ingredients and beverage industries.

### G. BOPP + Co. AG

BOOTH N° 36

**BOOTH N° 44** 

BOOTH N° 28

Address: Bachmannweg 21 8046 Zurich - Switzerland Phone: +41 44 377 66 66 - +41 44 377 66 09 Contact: Patrick VÖGELI E-Mail: pvoegeli@bopp.ch

Website: https://www.bopp.com

**Company description:** For decades, the BOPP Group has been a world leader in the production of steel mesh for challenging and diverse applications. Our meshes are often vital components in highly complex processes, both in industry and chemicals, pharmaceuticals, glass, ceramics, plastics, mechanical engineering, environmental technology and even space travel. With it's headquarters in Switzerland, we operate subsidiraries in Germany, England, Italy, Sweden, USA, Korea and China and have a worldwide network of representatives.



### **GACHES CHIMIE**

**Address:** 8 rue Labouche, ZI Thibaud 31084 TOULOUSE - France

Phone: +33 5 61 44 67 67 - +33 6 62 28 24 41

Contact: Carinne MANGERUCA

E-Mail: cmangeruca@gaches.com

Website: https://www.gaches.com/

**Company description:** GACHES CHIMIE offers chemicals and related services in several fields, and more particularly for water treatment : drinking water, process water, irrigation and swimming pool.

The company produces GARO®Filtre, glass granules for filtration.

### GESSNER

BOOTH N° 54

BOOTH N° 56

Address: Weidacher Str. 30 83620 Feldkirchen-Westerham - Germany

**Phone:** +49 8062 703 0

**Contact:** Christina SUTTER

E-Mail: gessner@mativ.com

Website: https://www.gessner-filtration.com/

**Company description:** GESSNER is a global leader in the filtration industry. We're protecting people, machineries & the environment with our filtration solutions to ensure a better, cleaner, and healthier world.

Our highly engineered papers, films, nets, nonwovens, cores, tubes, and machined parts are designed and manufactured using natural fibers and polymers for a variety of industries and applications, such as Transportation Filtration, Water Filtration, Air Filtration, Industrial Processes, and Life Science.

### **GUANGZHOU HUILONG FILTER CO., LTD**

BOOTH N° 68

**Address:** Rm.4013, No.660, Middle of Huangpu Avenue, Tianhe District, Guangzhou, China (510655) 510655 Guangzhou - China

Phone: +020 8258 0895

Contact: Fen LIU

E-Mail: filter3@hlfilter.com

Website: www.hlfilter.com

**Company description:** We are one of the leading manufacturer of the liquid filtration and air filtration since 1985 with 3 factories produce dust filtration products and liquid filtration products, located in Guangde city, Anhui province, Guangzhou city, Guangdong province and Suzhou city, Jiangsu provice.

60000M2 and 6 offices, totally around 320 staff most of staff working more then 10 years, serving more than 40 countries customer. welcome OEM & ODM cooperation.



14TH WORLD FILTRATION CONGRESS

### Guangzhou Sun Holy Wind Air Cleaning Products Co., Ltd

**Address:** No. 1 Fengxi Industrial Zone, Fenghe V., Renhe Town, Baiyun District, Guangzhou, China 510470 Guangzhou - China

**Phone:** +20 864 59 939

Contact: Peili YIN

E-Mail: market.helen@shwfilter.com

Website: www.shwfilter.com

**Company description:** Guangzhou Sun Holy Wind Air Cleaning Products Co., Ltd. is one professional manufacturer of air filter media in Guangzhou China since 2003. Our main products are pre-filter, ceiling filter, paint stop, high temperature resistance filter, HEPA filter, overspray filter, pocket filter, panel filter, pleated filter, nylon mesh filter, metal mesh filter and so on. We have exported to Korea, Japan, Indonesia, Turkey, Lebanon, Saudi Arabia, Germany, France, Italy, Spain, Netherlands, Belgium, Australia, New Zealand, South Africa and so, more than 60 countries and regions.

### Haver & Boecker OHG

**Address:** Ennigerloher Straße 64 59302 Oelde - Germany

Phone: +49 2522 304 33

**Contact:** Sven LOHMANN

E-Mail: s.lohmann@haverboecker.com

Website: https://www.haverboecker.com

**Company description:** Haver & Boecker is a leading manufacturer of woven wire cloth and filtration solutions for industrial applications. With over 135 years of experience, we develop high-precision wire mesh for water purification in wastewater treatment plants and automatic filters. Our filter elements ensure efficient separation of solids, long service life and optimised operational management. We offer customised solutions that combine performance and sustainability.

### HIFYBER

**Address:** Sumer Mahallesi Cal Caddesi No:78 20020 Denizli - Turkey

**Phone:** +90 258 251 50 57 - +90 533 814 33 54

Contact: Kagan ERDEM

E-Mail: kagan.erdem@hifyber.com

Website: https://www.hifyber.com/

**Company description:** HIFYBER is a leading manufacturer specializing in polymeric nanofiber-based filter media. With a global presence, we are a trusted supplier in the industry. Thanks to our well-equipped facilities, we can serve a wide range of filtration demands with confidence.

What sets us apart is our commitment to delivering top quality, reliability, and performance. We meet high-volume demands with short lead times, ensuring fast delivery without compromising standards.

Our nanofiber technology supports cleaner air across HVAC, Power Generation Systems, Industrial Air Quality, and Mobility—empowering partners to achieve superior filtration with confidence.

**BOOTH N° 109** 

BOOTH N° 63

**BOOTH N° 88** 

- 85 -

### Hollingsworth & Vose GmbH

Address: Friedbergerstr. 191 61118 Bad Vilbel - Germany Phone: +49 1511 4624 215 Contact: Sonja ZINKE E-Mail: Sonja.zinke@hovo.de

Website: https://www.hollingsworth-vose.com

**Company description:** At Hollingsworth & Vose (H&V), we are a manufacturer of advanced materials for filtration, energy and industrial applications. Over our more than 100 years in business, our company has undergone numerous expansion efforts that have ultimately led to us being a trusted source for materials in various markets across the world. Today, we maintain 13 facilities in strategic locations across three continents, North America, Europe and Asia – a footprint that lets us serve the unique requirements of global and regional customers efficiently, accurately and cost effectively.

### **IFTEX 2025 TURKIYE**

Address: CAGLAYAN MAH. ZENGIN SK. 34000 Istanbul - Turkey

Phone: +90 542 429 22 82

Contact: Baris SALUR

E-Mail: baris@b2b-fairs.com

Website: https://www.iftexhibition.com/

**Company description:** The Istanbul Filter Technology Exhibition-IFTEX, taking place from August 28-30, 2025 in Istanbul, Turkiye, is a premier event dedicated to the filtration and separation industry.

This exhibition will bring together global leaders, innovators, and experts to showcase the latest technological advancements, products, and services in air and liquid filtration. Attendees will have the opportunity to explore cutting-edge solutions, engage in insightful discussions, and build valuable connections with industry professionals.

### IFTS

**Address:** Rue Marcel Pagnol 47510 FOULAYRONNES France

Phone: +33 6 84 01 35 25

Contact: Eric LEMOINE

E-Mail: eric.lemoine@ifts-sls.com

Website: https://www.ifts-sls.com

**Company description:** A Technology Transfer Centre at the service of innovation, our know-how at the heart of your competitiveness.

Our international Research and Test centre, with headquarters and main labs in France serves both manufacturers and users of fluid-particles separation equipment. The knowledge developed at IFTS applies to all industries: aerospace, food-processing, automotive, chemical, environmental, mechanical, nuclear, pharmaceutical, etc. Our labs offer standard testing, R&D and tailor-made test solutions and industrial-scale performance assessment facilities. IFTS is a key partner with all companies that need to develop their testing facilities : we design and manufacture test benches and lab equipment to perform standard tests

86



BOOTH N° 5

BOOTH N° 55

**INDA MEDIA** 

Address: 1100 Crescent Green Dr 27518 Cary - United States Phone: +1 919 459 3715

Contact: Vickie SMEAD

E-Mail: vsmead@inda.org

Website: https://www.filtnews.com

**Company description:** INDA Media is the b2b publishing arm of INDA, Association of the Nonwoven Fabrics Industry. Our brands reach a vast network of professionals who employ fibers, filaments, and filtration systems to optimize their application environments.

#### **INTERMAS**

BOOTH N° 26

BOOTH N° 38

BOOTH N° 2

**Address:** Ronda Collsabadell, 11 8450 Llinars del Vallés - Spain

**Phone:** +34 656 85 94 23

**Contact:** Baptiste GINDRE

E-Mail: industry@intermas.com

Website: https://www.intermas.com

**Company description:** European leader in the manufacturing of high-performance, recyclable netting solutions for industrial applications: filtration, composites, protection & separation, and customized projects. INTERMAS combines innovation, technical expertise, and sustainability to meet the most demanding industrial needs.

### J. Rettenmaier & Söhne GmbH + Co KG

**Address:** Holzmühle 1 73494 Rosenberg - Germany

**Phone:** +49 7967 1520 **Contact:** Riera ALISA

E-Mail: info@jrs.de

Website: https://www.jrs.de/de/filtration/index.php

**Company description:** JRS is the leading manufacturer of environmentally friendly filter aids and process additives that are more economical than diatomaceous earth, perlite or bleaching earth and are made from natural, renewable raw materials.

Filter aids from JRS are used in many industries as an efficient, environmentally friendly and economical alternative to mineral products such as diatomaceous earth or perlite. They offer a number of technical and economic advantages, are environmentally friendly, harmless and non-abrasive and, depending on the application, can be utilized instead of having to be disposed of.



### **Jowat SE**

Address: Ernst-Hilker-Straße 10-14 32758 Detmold - Germany Phone: +49 523 174 90 Contact: Michael DRESSLER E-Mail: michael.dressler@jowat.de Website: https://www.jowat.com Company description: Adhesives

### **KJ Filtration Technologies Ltd**

BOOTH N° 40

BOOTH N° 83

BOOTH N° 84

Address: No.149 Haishan Rd, Sec 2, Luchu Dist 33856 Taoyuan City - Taiwan Phone: +88 633 547 040 - +88 698 822 9506 Contact: Lee FU E-Mail: leefu@kjfiltration.com Website: https://www.kjfiltration.com.tw/

**Company description:** KJ Filtration Technologies was founded in 1998, with a vision to develop and utilize sustainable technology to bring the world cleaner air. We focused our energies on 5 important sectors: triboelectric media, activated carbon media, pocket filter media, high loft polyester media and self-pleatable media. Research and development has been the cornerstone of KJ Filtration from the beginning. Today, KJ Filtration Technologies is a leading air filter media manufacturer, managing programs for the world's most prominent filter manufacturers with accuracy and precision.

### **Lenzing Filtration**

**Address:** Werkstrasse 2 4860 Lenzing - Austria

Phone: +43 7672 701 3479 - +43 664 853 2308

Contact: Wolfgang WATZINGER

E-Mail: w.watzinger@lenzing.com

Website: https://www.lenzing-filtration.com/

Company description: Lenzing Filtration is specialized in the development and manufacturing of high-quality filtration devices for solid-liquid separation. Our wide product range offers PREMIUM self-cleaning patented filtration systems by our three umbrella brands OptiFil, ViscoFil and Cake-Fil, and also a wide disposable filtration portfolio with our CoreLine. The product range AutoLine accomplishes our business lines by conventional automatic filtration systems.

Having our own laboratory and technical center at place, we are able to analyze many kinds of low to highly viscous fluids and thus are able to offer the perfect filtration system for our customers. Besides pilot-installations, our wide repertoire also ranges up to turnkey large-scale plants.



### LUM GmbH

**Address:** Justus-von-Liebig-Str. 3 12489 Berlin - Germany **Phone:** +49 30 678 06 030 - +49 30 678 060 404

Contact: Jessica FRÖHLICH

E-Mail: event@lum-gmbh.de

Website: https://www.lum-gmbh.com/

**Company description:** LUM GmbH, founded in 1994 by Prof. Dr. Dr. Dietmar Lerche in Berlin, is a global leader in particle characterization, dispersion analysis, and materials testing. With subsidiaries in the USA, China, and Japan, and a lab in France, LUM provides cutting-edge solutions for industry and research. Our STEP-Technology enables rapid, precise filtration and membrane testing via analytical photocentrifugal filtration (ACF) in LUMiSizer, while SPLS-Technology in LU-MiSpoc ensures accurate particle concentration and size analysis. We empower customers to optimize processes and innovate, staying true to our motto: «The Next STEP in Dispersion Analysis and Materials Testing.»

### **Magnera Corporation**

**Address:** 9335 Harris Corners Parkway, Suite 300 28269 Charlotte - United States

Phone: +1 866 744 7380

Contact: Sandra GARCIA

E-Mail: sandragarcia@magnera.com

Website: https://magnera.com/

**Company description:** Magnera Corporation (NYSE: MAGN) serves 1,000+ customers worldwide, offering a wide range of material solutions, including components for absorbent hygiene products, protective apparel, wipes, specialty building and construction products, and products serving the food and beverage industry. Operating across 46 global facilities, Magnera is supported by over 9,000 employees.

Magnera's purpose is to better the world with new possibilities made real. For more than 160 years, the company has delivered the material solutions their partners need to thrive.

### MAISHI MFG.

Address: SINOCHEM BUILDING, NO.707 LIANMENG 50071 Shijiazhuang - China Phone: +86 159 311 286 91

Contact: Simon SU

E-Mail: sales@maishimfg.com

Website: https://www.maishimfg.com

Company description: MAISHI is a leading manufacturer of high-tech wire mesh products.

Through our dedication to customer-centric innovation and over 30 years development, MAISHI products have been exported to over 95 countries, serving more than 30 of the top 500 enterprises. MAISHI`s vision is to support every customer achieving better development.

By leveraging our experience and expertise in production, MAISHI produce top quality products and creates green solutions that enable the customers to win market.

89



BOOTH N° 50



### Math2Market GmbH

BOOTH N° 74

Address: Richard-Wagner-Strasse 1 67655 Kaiserslautern - Germany Phone: +49 631 205 60 50 - +49 176 2335 5440 Contact: Philipp EICHHEIMER

E-Mail: filtration@math2market.de

Website: https://www.math2market.com

**Company description:** MATH2MARKET is a worldwide leader in software and consulting for designing advanced filter media, cartridges, full systems, and room-scale filtration. Our GeoDict software creates detailed 3D digital microstructures from user input, CT/FIB/SEM scans, or CAD models, simulating materials like nonwovens, meshes, foams, ceramics, and membranes. GeoDict predicts pore size, pressure drop, fluid flow, particle capture, MPPS, clogging, coalescence, adsorption and more—factoring in real-world physics like Brownian motion, adhesion, and electrostatics. It enables fast, non-destructive digital testing, reducing R&D costs and time to market, helping clients innovate and stay competitive in filtration technology.

### NANTONG GATHER EXCELLENCE-CLEANING MEDICAL MATERIALS CO., LTD

**BOOTH N° 102** 

**BOOTH N° 115** 

Address: NO.100-1,KAIYUAN ROAD,HAIAN TOWN,HAIAN COUNTY,JIANGSU 226600 Jiangsu - China

Phone: +513 6887 9088

Contact: MENG YU

E-Mail: 421918214@qq.com

Website: http://www.nthyj.cn/

**Company description:** Nantong Gather Excellence-Cleaning Medical Materials Co., Ltd. own two lines with 160cm and 320cm width, which is produce ss, sms, smms, smmms nonwoven fabric. Annual capacity is13,000 tons. We own three laminating lines with 280cm width, which is produce film and laminating. Annual capacity is 4,500 tons. We own two composite lines with 240cm and 320cm, which is produce bonding breathable film. Annual capacity is 10,000 tons. We own 9 meltblown lines, which is produce electric and water electric melt-blown, quality of products meet the standard of Europe and the US, such as BFE 99%,VFE 99% and PFE 99%, FFP2, FFP3 filtration efficiency. Annual capacity is 6,000 tons.

### PACO Group | Paul GmbH & Co. KG

**Address:** Auf der Hohle - Industriegebiet West 36396 Steinau an der Straße - Germany

**Phone:** +49 6663 9780 - +49 6663 978 196

Contact: Marie HEINGLE-SUIGNARD

E-Mail: Marie.Heinle-Suignard@paco-online.com

Website: https://www.pacogruppe.de

**Company description:** Founded in 1953, the PACO Group has evolved into a leading supplier of metal filter media and finished products – all «Made in Germany». With over 70 years of experience, PACO develops high-performance, resource-efficient filter technologies. Together with HETA Verfahrenstechnik, a member of the PACO Group and a globally operating engineering specialist and manufacturer of complete, highly specialized systems for demanding filtration and separation solutions, the PACO Group has grown to the only manufacturer in Germany that offers weaving, filtration and process technology from a single source.



**BOOTH N° 104** 

### Palas GmbH

**Address:** Siemensallee 84 | Building 7330 76187 Karlsruhe - Germany

Phone: +49 7219 62 130

Contact: Martin SCHMIDT

E-Mail: martin.schmidt@palas.de

Website: https://www.palas.de/en/

**Company description:** Since its foundation in 1983, Palas GmbH has been a leading manufacturer and developer in aerosol technology. It covers the entire spectrum: from generation and measurement to characterization of airborne particles. Fine dust and nanoparticle measuring instruments, aerosol spectrometers, generators and sensors, filter test stands, and associated systems, as well as software solutions, are all Made in Germany. From the beginning, the company has been committed to innovation and has continuously developed high-precision instruments for various applications. The company holds more than 30 active patents worldwide.

Palas GmbH located in Karlsruhe, Germany operates internationally with offices in Asia and numerous distributors worldwide.

### Poretech Instrument Inc.

BOOTH N° 65

Address: 2F., No. 12, Sec.1, Zhongxing Rd., Wugu Dist., Taipei, Taiwan 24872 Taipei - Taiwan Phone: +886 2 8976 9566

Contact: Hazel CHIN

E-Mail: hazel\_chin@porettechinst.com

Website: https://poretechinst.com/

**Company description:** Poretech Instrument Inc., (PTI) founded in 2021 by Kevin Ku, former head of the Asia-Pacific region at PMI (US), along with his technical team with over 20 years of experience in pore structure analysis, offers comprehensive consulting services. Our expertise spans quality assurance (QA) for incoming materials, quality control (QC) of finished products, and research and development (R&D) in industrial applications. We provide clients with advanced testing technology, professional skills, and data analysis consulting. PTI's high-precision pore analysis instruments support critical stages of product development, enhancing performance and ensuring production stability across the industry.



### Porometer / Aptco Technologies

BOOTH N° 60

**Address:** NIEUWE STEENWEG 20A 9810 Nazareth - Belgium

**Phone:** +32 9 252 25 35 - +32 499 64 53 27

Contact: Eline PATTYN

E-Mail: eline.pattyn@porometer.com

Website: https://www.porometer.com/

**Company description:** Porometer (brand of Aptco Technologies), is a Belgium-based company founded in 2007 to revolutionize porometry. Since then, we have been transforming the field by delivering the most advanced and reliable porometers.

Our commitments:

1. Provide the highest quality porometers on the market.

2. Support our customers in designing and producing superior filter media.

Unique is that our PoreSmart software and instruments are designed and engineered in-house. Additionally, we measure all types of samples daily in our labs, enabling us to assist our customers in measuring and analysing their samples in the most optimal way.

AT is also home to LUXOR, SEM sputter coaters, and MemSystems, offering advanced membrane laboratory solutions

#### **Purenat**

BOOTH N° 58

**Address:** 9 rue Pierre Georges Latecoere 64100 Bayonne - France **Phone:** +33 5 59 01 11 64 - +33 6 34 42 85 12 **Contact:** Camille TEIXEIRA

E-Mail: cteixeira@pure-nat.com

Website: https://www.pure-nat.com

**Company description:** Purenat révolutionne la dépollution de l'air grâce à un média filtrant biomimétique qui ne se contente pas de piéger les polluants et les odeurs mais les transforme en molécules de base. Résultat ? Un air plus pur, des coûts réduits, une consommation d'énergie moindre, une perte de charge plus faible, moins de déchets et un impact environnemental accru. Véritable alternative au charbon actif, ce média est polyvalent, facile d'entretien et efficace contre une large gamme de polluants. Purenat propose une solution clé en main : un projet pilote déjà adopté en France et en Europe.

Résultats : jusqu'à 100 % de réduction de certains COV, baisse des coûts, conformité facilitée, environnement plus sain. Prenons rendez-vous dès maintenant !



### PUYANG HUITONG NEW MATERIALS CO., LTD

**Address:** pucheng area,henan 457000 Pyang - China

Phone: +86 1663 936 9903

Contact: Robin WU

E-Mail: robin.wu@pyhuitong.com

Website: https://htfiberglass.com

**Company description:** Micro-fiberglass and micro-fiberglass filter paper manufacturer;our main products:

- Micro-fiberglass Air filter media HEPA ULPA filter media : F6-F9, H10-14,U15.
- hydraulic oil filter media/paper : Used for filter in Hydraulic station, hydraulic engineering machinery
- oil-gas separation media/paper : Used for filter element in air compressors, centrifuges, industrial freezers
- Customized Micro-fiberglass paper
- High water resistance paper
- High temperature resistant fiberglass paper

### **Revue TSM**

BOOTH N° 21

**BOOTH N° 107** 

**Address:** ASTEE, 12 rue de l'industrie- CS 30152 92416 Courbevoie Cedex - France

Phone: + 33 6 70 39 99 31

**Contact:** Pascale MEESCHAERT

E-Mail: pascale.meeschaert@astee.org

Website: https://astee-tsm.fr/

**Company description:** TSM, lère revue francophone à comité de lecture faite par et pour une communauté déchet-eau-environnement

- Repose sur une communauté d'auteurs engagés aux expertises complémentaires dans 6 domaines : Milieux, Eau potable, Eaux urbaines, Déchets, Air et Sol, Infrastructures et territoires.
- S'appuie sur un Comité de lecture qui offre un haut niveau d'expertise et de bienveillance pour évaluer l'approche rigoureuse et originale, et la réplicabilité des résultats.
- Une revue de référence pour les publications scientifiques
- · Avec vos études en libre accès
- Grâce à l'attribution des DOI, un référencement dans les bases de données reconnues et internationales



### **Roth Composite Machinery GmbH**

BOOTH N° 8

Address: Forststrasse 3 35099 Burgwald - Germany Phone: +49 6451 719 180 - +49 6451 7191 841

**Contact:** Winfried SCHÄFER

E-Mail: winfried.schaefer@roth-industries.com

Website: https://www.roth-composite-machinery.com

**Company description:** Roth Composite Machinery is a worldwide acting company having experience in the special machinery design of more than 100 years. We develop, design and manufacture machines and production lines for the filter industry. Our extensive product range includes mechanically and servo-motor controlled knife pleating machines as well as rotary pleating machines and minipleat systems.

We are known for first-class product quality and powerful engineering, as well as fast and excellent service, ensured by a global network of representatives. Our pleating machines are available for all standard working widths and pleat heights. One of our key strengths is the application-specific design and customization of machines to meet customer requirements.

### Ruian Jundingda Machinery Co., Ltd

BOOTH N° 29

**Address:** Building 2,Hongchuangyuan, Dongshan Street, Rui'an City, Wenzhou, Zhejiang Province 325200 Ruian - China

Phone: +577 6580 9762

Contact: Liu CHEN

E-Mail: chancy@jddmachinery.com

Website: www.jddmachinery.com

**Company description:** Established in 2011 and located in Ruian City, Wenzhou City, Zhejiang Province, China, Ruian Jundingda Machinery Co., Ltd. is a modernized machinery manufacturing enterprise integrating research and development, design, manufacturing, sales and service. Since its inception, the company has always focused on hot melt adhesive equipment and related automation machinery technology innovation, is committed to providing customers with efficient, environmentally friendly, intelligent production solutions.

The main products of Jundingda include hot melt adhesive machine, foaming hot melt adhesive machine, filter production equipment, spray adhesive laminating machine, carbon cloth laminating machine, automated dispensing system, etc., which are widely used in many industries such as filtration materials, medical protection, packaging materials, non-woven laminating, sanitary products, automobile manufacturing, automobile filters, household appliances and home textiles. The company pays special attention to the automation and intelligence of the equipment, and has formed a complete product system, which can meet the individual needs of different customers.

The company has a professional technology research and development team, equipped with advanced processing and testing equipment, strict implementation of the ISO quality management system, from design to assembly every link in the pursuit of excellence. Through continuous technology upgrading and service improvement, Jundingda's products have won a good reputation in the domestic and international markets, and are exported to Southeast Asia, the Middle East, Russia, Europe and other countries and regions.

In addition, the company has always been adhering to the "quality first, customer first, continuous innovation" business philosophy, focusing on long-term cooperation with customers and common development. We not only provide high-quality equipment, but also provide perfect after-sales service and technical support to help customers improve production efficiency and reduce operating costs.

In the future, Ruian Jundingda Machinery Co., Ltd. will continue to increase investment in research and development, constantly optimize the product structure, promote industrial upgrading, and is committed to becoming the world's leading manufacturer of hot melt adhesive and laminating machinery and equipment.

94

### SF2P

**Address:** 1 rue Grandville, BP 20 451 54001 Nancy - France

Phone: +33 6 30 65 36 55

**Contact:** Pierre-Yves PONTALIER

E-Mail: pierreyves.pontalier@ensiacet.fr

Website: http://sf2p.separation.free.fr/base.html

**Company description:** SF2P, Société Française Séparation Fluide Particule (French Filtration Society), is composed of scientists, researchers, lecturer and industrial partners. Its aim is to develop scientific and technical knowledge of the fundamental principles, processes, equipment and products used to separate a fluid (liquid or gaseous) from the solid or liquid particles it contains, and to disseminate this knowledge by all appropriate means. It encourages partnerships and projects between scientists, and between scientists and industry.

### SHANGHAI GERMAN TYPICAL FILTECH CO.,LTD

BOOTH N° 73

**BOOTH N° 4** 

**Address:** Building 12, Weiqi Road, Yongqiao District, Suzhou, Anhui, China 234000 Suzhou - China

Phone: +18 72 1660 554

Contact: Peter WANG

E-Mail: peter@gtfiltra.com

Website: www.gtfiltra.com

**Company description:** Shanghai German Typical Filtech Co., Ltd is the most specialized filter bag making machine manufacturer integrating development, manufacturer and sales in China.

Through several years of hard pioneering, we have formed a Shanghai based, nationally distributed and internationally expanding strategic structure.

By cooperation with internationally famous filter bag manufacturers, we have made our quality administration perfect.

We are a truly powerful filter bag machines manufacturer

### Stockmeier Urethanes GmbH & Co. KG

BOOTH N° 64

Address: Im Hengstfeld 8 32657 Lemgo - Germany

Phone: +49 5261 660680 - +49 151 544 591 81

**Contact:** Frank STEEGMANNS

E-Mail: f.steegmanns@stockmeier.com

Website: https://www.stockmeier.com/de/stockmeier-urethanes/

**Company description:** With over 30 years of experience, STOCKMEIER Urethanes is a family-owned, globally active manufacturer of high-performance polyurethane systems tailored to customer needs. With a wide range of solutions, we serve various industries like filtration, automotive, construction, electronics, sports, and leisure.

With Stobicoll® F, we provide a trusted sealing, bonding, and casting system developed for advanced filter applications. Our mission is to deliver innovative and high-quality PU systems that meet the highest technical demands. We believe in strong partnerships, flexibility, and continuous development.

95

Let's connect and discuss how we can support your next challenge.



### TAIWAN TEXTILE RESEARCH INSTITUTE

BOOTH N° 67

Address: No.6, Chengtian Rd., Tucheng Dist. 236 New Taipei City Taiwan

Phone: + 886-2-22670321

Contact: Vincent HU

E-Mail: mchu.0814@ttri.org.tw

Website: https://www.ttri.org.tw

**Company description:** Create Taiwan Textile Research Institute (TTRI) as the integrator of technology and leadership of industry. We supply a variety of textile businesses with customized service, the multi-integrated and transform service. The major developments in filtration include the R&D of nanofiber and melt-blown and filter testing.

Testing Service

Testing Products

- HVAC Filter (ISO 16890; EN 779; ASHRAE 52.2)
- Medical Face Mask (ASTM F2100; EN 14683)
- Disposable Dust Respirators (42 CFR 84)
- HEPA/ULPA Filter (EN 1822; IEST)
- Automotive Air Filter (ISO 11155-1; ISO 5011)
- Oil Filter (ISO 16889; ISO 19438; ISO 4548-12...)
- Filter Media (EN 1822; TSI 8130...)

Setup of Testing Equipment

- EN 1822-4 Automated Filter Scanning Test System
- Test Rig per ASHRAE 52.2 and EN 779
- Engine Filter Testing Rig per ISO 11155-1
- Filtration Media and Face Mask Test Rig

Research & Development

Meltblowing Technology

- Profits: 400mmPilot Trial Line
- Spinneret: Nozzle Size 0.2~0.5mm
- Max. Temperature: 460
- Capabilities: Low and High MFR
- Electrospinning Technology
- Profits: Lab. Equipment 40cm Pilot Production 1.6m Mass Production
- Capabilities: Functional Membranes of polymeric materials, chemical modification»

### **TECOLITE EUROPE SL**

#### BOOTH N° 13

**Address:** C/ SALVADOR DE BAHIA, N.º 5 Planta 3, Puerta 2 04740 Roquetas de Mar, Almería - Spain

Phone: +34 6 63 71 24 44

Contact: Ziya TELLIOGLU

E-Mail: ziya@tecolite.eu

Website: https://www.tecolite.eu

**Company description:** «Tecolite Europe S.L.» is specialized in industrial filtration, delivering high-performance and top-quality filter perlite manufactured using advanced technology.

### The Vita Group

**Address:** Oldham Rd, Middleton, Manchester M24 2DB, UK M24 2DB Manchester - United Kingdom

Phone: +44 161 643 1133 - +31 6 203 340 59

Contact: Gabriele NOTTEN

E-Mail: gabriele.notten@thevitagroup.com

Website: https://www.thevitagroup.com

**Company description:** The Vita Group is a leading innovator in advanced material solutions with over 75 years of expertise. We offer a wide range of products that serve diverse industries, driving excellence through innovation and sustainability. With 37 facilities across Europe and 4 state-of-the-art innovation centres, we serve global customers. Vita partners with filter manufacturers to deliver customizable polyurethane reticulated foam and chemical functionalities that enhance product performance. By focusing on innovation, energy efficiency, and cost-efficiency, we empower our partners to deliver superior filtration solutions.

Our filtration capabilities include: Reticulation Impregnation Functionalized filtration Lamination Precision cutting

### **Thermo-Clean**

Address: Route de Ravel 3039 69440 Saint-Laurent d'Agny - France Phone: +33 4 78 19 36 36 - +32 472 72 77 91

**Contact:** Senne GEERAERTS

E-Mail: sales@thermoclean.com

Website: https://www.thermoclean.com/fr

**Company description:** Le Groupe Thermo-Clean est devenu l'une des références mondiales sur le marché du décapage thermique ou chimique de métal et d'autres matériaux. Par ailleurs, nous nous spécialisons également dans le nettoyage thermique d'échangeurs thermiques, l'enlèvement de plastique de pièces techniques et dans le nettoyage de filtres.

### Topas GmbH

BOOTH N° 35

BOOTH N° 9

**Address:** Gasanstaltstraße 47 1237 Dresden - Germany

Phone: +49 351 216 6430

Contact: Dinah JONAS

E-Mail: marketing@topas-gmbh.de

Website: https://www.topas-gmbh.de

**Company description:** Since more than 30 years, technology-oriented particle, analysis and sensor systems have been developed, designed and manufactured under the name Topas. They can be used to generate, condition and analyze test and reference aerosols. Also, more than 60 series devices and 20 test systems of the medium-sized Saxon company have been widely used and proven for the classification and testing of filters and filter media in worldwide industry and basic research for decades. We are currently focusing on the further development of many areas of application: These include standardized testing systems for molecular filters, testing in ongoing production and testing EPA, HEPA and ULPA filters, to name just a few. Let's find a solution for your tasks!



### **TSI France**

Address: Hotel Technologique, BP 100,Technopôle de Château-Gombert 13382 Marseille - France Phone: +33 1 41 19 21 99 - +33 6 78 72 33 11 Contact: Eric FILIMUNDI E-Mail: eric.filimundi@tsi.com Website: https://tsi.com/research-and-development/applications/filter-testing

**Company description:** TSI is a global leader in filter testing solutions, providing trusted equipment for quality control, compliance, and R&D. Our advanced filter testers are trusted by manufacturers and certification agencies worldwide and help ensure optimal filter performance across industries like air quality, pharmaceuticals, and manufacturing. From HEPA and ULPA filters to respiratory protection and HVAC applications, TSI solutions meet rigorous international standards. Visit us at booth # 80 to learn how our automated filter testers enhance efficiency, accuracy, and reliability in filter performance validation.

### **ULPATEK AIR FILTERS**

Address: Akpınar Sanayi Bölgesi, Yassıören, Hadımköy Cd. No:158, Arnavutkoy 34277 Istanbul - Turkey

Phone: + 90 5385 962 525 - +90 2126 230 300

Contact: Ferhat GURER

E-Mail: ferhatgurer@ulpatek.com

Website: https://www.ulpatek.com/

**Company description:** Ulpatek is a leading manufacturer of Air Filters in Turkey. Produces HVAC (Coarse, Medium, Fine) Filters, HEPA Filters and cleanroom equipment (Laminar Flow Units, Bag in Bag Out Systems, Fan Filter Units etc.). Ulpatek exports more than 80 countries in the world and increases this capacity incrementally, has a dedicated export department in service for all countries and industries.

### WANNER Pumps

**Address:** Wanner International Limited, Units 8-10 Fleet Business Park, Sandy Lane GU52 8BF Church Crookham - United Kingdom

**Phone:** +44 1252 816 847 - +44 7860 352 505

Contact: Antoine MICHOT

E-Mail: antoine@wannerint.com

Website: https://wannerpumps.com

**Company description:** For over 50 years, WANNER<sup>™</sup> has manufactured HYDRA-CELL® packing-free, seal-less, industrial process pumps. Our next generation HYDRA-CELL PRO® has been designed to achieve a higher standard of pump performance and energy efficiency with 20+ years of expected service life.

By understanding customers' processes and recognising their needs and goals, WANNER and our global partners have built an extensive knowledge base of many different applications.

Let us use our knowledge and experience to help you with your specific challenges from industrial wastewater reverse osmosis (IWRO) to pharmaceutical filtration processes.

BOOTH N° 80

BOOTH N° 59

**BOOTH N° 129** 

### **World Filtration Institute**

**Address:** 105 Shenandoah Street 37043 Clarksville - United States

Phone: +1 931 647 3531 - +1 865 384 0154

Contact: Christine SUN

E-Mail: sun@wfius.org

Website: https://www.wfius.org/

**Company description:** The World Filtration Institute (WFI) is a global non-profit organization dedicated to propelling the filtration and separation industry and advance the sciences and technologies of filtration and separation processes towards a cleaner, healthier, and more sustainable future.

### Xiamen Zhongchuang Environmental Technology Co., Ltd

BOOTH N° 30

BOOTH N° 6

Address: 1178-1188 Chunguang Road,XianganIndustrial Zone,Xiamen 361101 Xiamen - China Phone: +592 607 9973

Contact: Wendy Ll

E-Mail: filter@savings.com.cn

Website: www.savings.com.cn

**Company description:** Xiamen Zhongchuang Environmental Technology Co., Ltd is the first high temperature bag-type dust removal listed company in China. Our main products including PPS, P84, PTFE, ARAMID, POLYESTER, HOMO-ACRYLIC filter fabric and filter bags, which are widely used in Power Plant, Cement, Waste Incineration, Steel and Chemical industries.

### Zhejiang Heading Environment Technology Co воотн № 99

**Address:** #8 Yuannan Road Pingqiao Tiantai County Zhejiang Province China 317203 Zhejiang - China

Phone: +86 576 8367 0886

Contact: Yulu ZHANG

E-Mail: filter@headingfilter.com

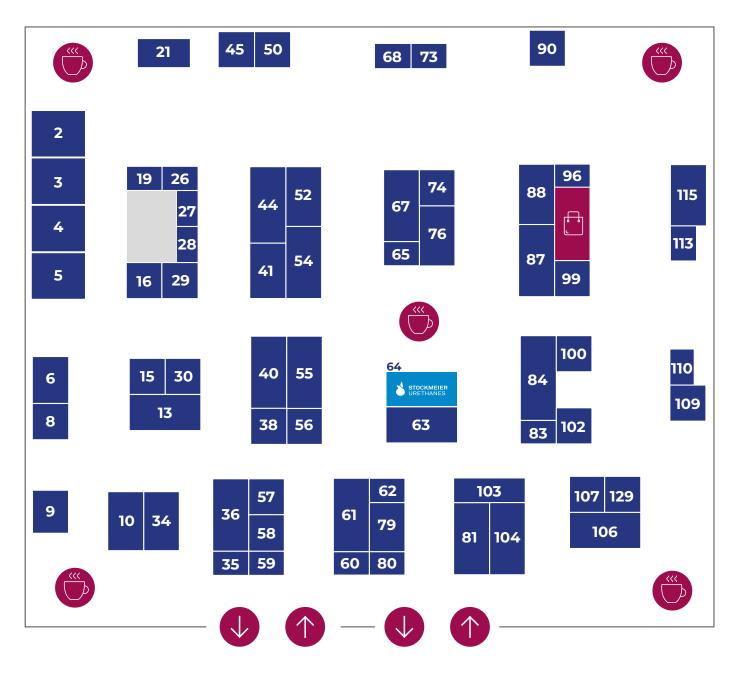
Website: www.headingfilter.com

**Company description:** Zhejiang Heading Environment Technology Co. Ltd.is a national high-tech enterprise, a national «specialized, refined, unique and new» little giant enterprise, and a China PTFE filter material research and development center, which specializes in the research, development, production, sales and technical services of industrial textile filter materials, atmospheric flue gas treatment and other environmental protection equipment.



### **EXHIBITION AREA**

### ESPACE PLURIEL



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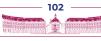
bag pick-up

ACS INDUSTRIES, INC	15
AHLSTROM	81
AMES	19
ATECH INNOVATIONS GMBH	96
BEKAERT FIBER TECHNOLOGIES	61
BEOT (SHIJIAZHUANG) INORGANIC MEMBRA SEPARATION EQUIPMENT CO., LTD.	
BEVERLIN SPECIALTY TUBE	34
CAMBUSTION	62
CEREX ADVANCED FABRICS, INC	57
CHOQUENET SAS	76
CHUNG AH FILTER CO., LTD	113
DAEGU, KOREA	_110
DALIAN HUAYANG BICOWEB TECHNOLOGY CO.,LTD	
DEMCON CONVERGENCE	_ 27
DRM, DR. MUELLER AG	52
DUPONT DE NEMOURS	41
ECM COMPONENTS	_ 103
ELMARCO	79
FIBERTEX NONWOVENS A/S	_ 106
FILTECH	3
FILTRATION + SEPARATION	28
FILTRATION GROUP SAS	44
G. BOPP + CO. AG	36
GACHES CHIMIE	56
GESSNER	54
GUANGZHOU HUILONG FILTER CO.,LTD	68
GUANGZHOU SUN HOLY WIND AIR CLEANING PRODUCT CO., LTD	_ 109
HAVER & BOECKER OHG	88
HIFYBER	63
HOLLINGSWORTH & VOSE GMBH	
IFTEX 2025 TURKIYE	_ 45
IFTS	5
INDA MEDIA	2

INTERMAS	_ 26
J. RETTENMAIER & SÖHNE GMBH + CO KG	_ 38
JOWAT SE	_ 84
KJ FILTRATION TECHNOLOGIES LTD	_40
LENZING FILTRATION	_ 83
LUM GMBH	_ 50
MAGNERA CORPORATION	10
MAISHI MFG	_ 90
MATH2MARKET GMBH	_ 74
NANTONG GATHER EXCELLENCE -CLEANING MEDICAL MATERIALS CO., LTD	102
PACO GROUP   PAUL GMBH & CO. KG	
PALAS GMBH	104
PORETECH INSTRUMENT INC.	_ 65
POROMETER / APTCO TECHNOLOGIES	_ 60
PURENAT	_ 58
PUYANG HUITONG NEW MATERIAL CO., LTD.	107
REVUE TSM	21
ROTH COMPOSITE MACHINERY GMBH	8
RUIAN JUNDINGDA MACHINERY CO., LTD	_ 29
SF2P	_ 4
SHANGHAI GERMAN TYPICAL FILTECH CO.,LTD	_ 73
STOCKMEIER URETHANES GMBH & CO. KG	
TAIWAN TEXTILE RESEARCH INSTITUTE	_ 67
TECOLITE EUROPE SL	13
THE VITA GROUP	_16
THERMO-CLEAN	_ 9
ТОРАЅ СМВН	_ 35
TSI FRANCE	_ 80
ULPATEK AIR FILTERS	_ 59
WANNER PUMPS	_129
WORLD FILTRATION INSTITUTE	6
XIAMEN ZHONGCHUANG ENVIRONMENTAL TECHNOLOGY CO., LTD	_ 30
ZHEJIANG HEADING ENVIRONMENT TECHNOLOGY CO	_ 99

- 101

### NOTES

### WFC's committees thank the following partners for their support







# **STRONGER TOGETHER**

### Customer-driven. Family-owned.

Beverlin Specialty Tube is proud to announce the acquisition of Perforated Tubes. This exciting partnership brings together over 100 years of combined expertise in perforated cores, filter elements and welded assemblies, forming a unified powerhouse poised to set new industry standards around the world. By joining forces, we are now able to offer an even broader range of exceptional products and services, while continuing to deliver the unparalleled experience our customers expect. Together, we're expanding our reach across sectors and regions, increasing our impact on the global filtration industry.

To learn more, visit beverlin.com and perftubes.com or call us at 616.949.5990.

616.949.5990

- sales@beverlinmfg.com
- 3515 Raleigh Dr SE Grand Rapids, MI 49512