

39th EMS Summer School 2024

Membrane technology through the lens of sustainable development goals

Louvain-la-Neuve, BELGIUM

10 – 14th June 2024



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Belgium

Monday June 10, 2024

9:00 – 9 :15	Welcome to the Summer course
9:15-10:15	Role of membrane technology to achieve the SDGs by Patricia Luis (UCLouvain)
10:15-10:30	<i>Coffee break</i>
10:30 – 11:45	SDG12 (RESPONSIBLE CONSUMPTION AND PRODUCTION) - PART 1 Sustainable membrane fabrication by Hannah Roth (UT-TNW)
12:00 – 13:30	<i>Lunch</i>
13:30 – 18:00	SDG12 (RESPONSIBLE CONSUMPTION AND PRODUCTION) - PART 1 Introduction to Life Cycle Assessment and its application to membrane technology by Patricia Luis (UCLouvain)
18:30	<i>Walking tour in LLN and dinner</i>

Tuesday June 11, 2024

9:00 – 9 :15	<i>Coffee & fruits</i>
9:15-10:15	SDG12 (RESPONSIBLE CONSUMPTION AND PRODUCTION) - PART 2 Green solvents and green polymers in membrane synthesis by Alberto Figoli (ITM, Italy)
10:15-10:30	<i>Coffee break</i>
10:30 – 11:45	SDG6 (CLEAN WATER AND SANITATION) Membranes and water: past, present and future by Bart Van der Bruggen (KULeuven, Belgium)
12:00 – 13:30	<i>Lunch</i>
13:30 – 18:00	SDG12 (RESPONSIBLE CONSUMPTION AND PRODUCTION) - PART 2 Practical sessions using LCA: case of study by Patricia Luis (UCLouvain)
18:30 – 20:00	POSTER SESSION and PHOTO EXHIBITION at the conference room <i>+ walking dinner</i>

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Wednesday June 12, 2024

9:00 – 9 :15	<i>Coffee & fruits</i>
9:15-10:15	SDG13 (CLIMATE ACTION) Membranes & carbon capture by Eric Favre (LRGP – ENSIC, France)
10:15-10:30	<i>Coffee break</i>
10:30 – 11:45	INTRO TO SDG6 & 13 Nexus energy – water: membrane engineering towards a sustainable development by Alessandra Criscuoli (ITM, Italy)
12:00 – 13:30	<i>Lunch</i>
13:30 – 18:00	SDG12 (RESPONSIBLE CONSUMPTION AND PRODUCTION) - PART 3 Practical sessions using LCA: variation of parameters, discussion, presentations by students, final remarks by Patricia Luis (UCLouvain)
18:30	<i>Gala dinner in LLN</i> BEST POSTER AWARD (sponsored by MDPI) BEST PHOTO AWARD

Thursday June 13, 2024: Excursion to Bruges

8:00 – 10 :00	<i>Coach journey to Bruges</i>
10:00 – 11:30	Walk in Bruges passing by Notre-Dame church
11:30 – 12:00	Guided boat trip on the canals
12:00 – 13:30	<i>Lunch at the Sint Joris restaurant</i>
13:30 – 14:00	Walk to the Halvemaan brewery
14:15 -16:00	Visit of the Halvemaan brewery and tasting session
16:00 -17:00	Walk to the Béguinage and the bus parking
17:00 – 19:00	<i>Coach journey to Louvain-la-Neuve</i>

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Friday June 14, 2024

9:00 – 9 :15	<i>Coffee & fruits</i>
9:15-10:15	SDG9 (INDUSTRY, INNOVATION AND INFRASTRUCTURE) <i>Membrane Science and membrane Engineering for a sustainable industrial development</i> by Elena Tocci (ITM, Italy)
10:15-10:30	<i>Coffee break</i>
10:30 – 11:45	<i>Industrial applications of pervaporation: lessons to learn</i> by Wojciech Kujawski (Torun University, Poland)
12:00 – 12:45	<i>Lunch</i>
12:45 – 13:45	<i>Pervatech: examples of industrial applications</i> By Rob de Lange (Pervatech)
13:45 -16:30	14:00 : trip to Rosières 14:30 – 16:00 : Visit to a wastewater treatment plant in Wavre using membrane technology 16:00 : trip to Louvain-la-Neuve
16:30 – 18:00	Visit to the laboratories at UCLouvain (membrane synthesis, CO ₂ capture and conversion plants, pressure-driven filtration, pervaporation)
18:00 – 18:30	CONCLUDING REMARKS