

Academy

Membrane processes for food and biotech industry:
Principles, membranes, applications and design



19. – 20. November 2022

Hilton Sorrento Palace hotel & Conference Center, Sorrento, Italy

Organised by



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA



Lectures

Cristiana Boi, Università di Bologna, Italy

Alfredo Cassano, Institute on Membrane Technology (CNR-ITM), Italy

Enrico Drioli, Institute on Membrane Technology (CNR-ITM), Italy

Alberto Figoli, Institute on Membrane Technology (CNR-ITM), Italy

Lidietta Giorno Institute on Membrane Technology (CNR-ITM), Italy

Tomas Kotala, Membrain, Czech Republic

Wojciech Kujawski Nicolaus Copernicus University in Torun, Poland

Frank Lipnizki Lund University, Sweden

Day 1

08:30 Registration and Welcome

Frank Lipnizki, *Lund University, Sweden* & Alberto Figoli, *Institute on Membrane Technology, ITM-CNR, Italy* & Cristiana Boi, *University of Bologna, Italy*

8:45 Introduction to membrane processes with focus on pressure-driven processes

Frank Lipnizki, Lund University, Sweden

9:45 Membranes

Alberto Figoli, Institute on Membrane Technology, National Research Council, ITM-CNR, Italy

10:45 Coffee

11.00 Membrane applications: Dairy industry including fouling and cleaning aspects

Frank Lipnizki, Lund University, Sweden

12:00 Membranes and membrane operations in agrofood Industry to implement circular economy and ecological transition

Lidietta Giorno, Institute on Membrane Technology, National Research Council, ITM-CNR, Italy

13:00 Lunch

14:15 Membrane applications: Biotechnology

Cristiana Boi, University of Bologna, Italy

15:15 Membrane applications: Fruit juice and Beverages

Alfredo Cassano, Institute on Membrane Technology, National Research Council, ITM-CNR, Italy

16:15 Coffee

16:30 Processes design and membrane modules including a spiral autopsy

Frank Lipnizki, Lund University, Sweden

18:00 End of first day

20:00 Dinner

Day 2

8:30 Plant economics and how to design a membrane plant including an exercise

Frank Lipnizki, Lund University, Sweden

9:30: Electro-driven membrane processes

Tomas Kotala, Membrain, Czech Republic

10:30 Coffee Break

11:00 Emerging membrane processes including forward osmosis, membrane contactors and pervaporation

Wojciech Kujawski, Nicolaus Copernicus University Torun, Poland

12:00 Advanced innovative membrane systems in the agrofood industry

Enrico Drioli, Institute on Membrane Technology, National Research Council, ITM-CNR, Italy

13:00 Concluding remarks

13:30 Lunch