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Applexion
beyond purification



Purification Technologies in Practice

22, 23 AND 24 SEPTEMBER 2026

BIOKET MASTER CLASSES | BIOECONOMY FOR CHANGE

MASTERCLASS | 3 DAYS | 2 PROGRAMS

ABOUT BIOKET MASTERCLASSES

Advanced expertise. Practical application. Industrial impact.

BIOKET Masterclasses are designed to deepen technical knowledge and accelerate the practical application of key enabling technologies across the bioeconomy. They connect science, industry and real operational environments through high-level learning experiences led by experts directly involved in industrial processes and technology development.

The in-person format provides an immersive learning experience, allowing participants to explore methodologies in depth, engage with specialists, discover pilot-scale facilities and connect theoretical knowledge with real industrial applications.

The BIOKET approach

Move beyond theory. Understand how technologies work in practice, how they are scaled, and how they can be implemented effectively in an industrial context.

What participants can expect

- Applied technical learning built around industrial challenges.
- Direct exchanges with specialists and technology providers.
- Industrial case studies, demonstrations and pilot-scale perspectives.
- Tools and knowledge to support process optimization and faster decision-making.
- A learning environment connecting innovation, scale-up and operational excellence.

BIOKET Masterclasses are part of BIOKET's broader international platform for advancing the bioeconomy through technology, collaboration and industrial deployment.

international.bioeconomyforchange.eu
BIOKET Bioeconomy Key Enabling Technologies platform
info@bioket.bio

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PROGRAM OVERVIEW

Three days dedicated to industrial purification technologies

This intensive Masterclass provides a practical, industry-driven understanding of purification technologies, combining scientific fundamentals with real-world industrial applications.

The program includes two days dedicated to Ion Exchange & Chromatography, followed by one day focused on Membrane Filtration. Across the three days, participants will explore theory, technology selection, process design, scale-up, industrial operation, troubleshooting and optimization.

DAY 1 - 22 September 2026 - ION EXCHANGE

Discover how ion exchange enables efficient, selective separations at industrial scale. Covers core principles, resin selection, system sizing, and best practices for operating, maintaining, and optimizing real production processes.

DAY 2 - 23 September 2026 - CHROMATOGRAPHY

Gain practical insight into industrial chromatography—from separation mechanisms and media selection to process design and scale-up. Includes system operation, troubleshooting, and digital tools to improve performance and operational efficiency.

DAY 3 - 24 September 2026 - MEMBRANE FILTRATION

Explore membrane filtration with a strong industrial focus. Learn how to select the right membranes, design and operate systems, and improve separation efficiency through real case studies and a live ceramic membrane filtration pilot demonstration.

Overall learning outcome

By the end of the three days, participants will have acquired a clear, applied understanding of purification technologies, empowering them to optimize existing processes, support scale-up projects and accelerate decision-making in industrial environments.

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Chromatography Technology & Applications



DETAILED PROGRAM - DAY 1 - SEPTEMBER 22

08:30 - 09:00 AM	**Registration and Welcome**
09:00 - 10:30 AM	• Introduction to Chromatography. • Deep journey into the theory: chemical & physical interactions, main equations & design implications.
10:30 - 10:45 AM	**Break**
10:45 AM - 12:00 PM	• Presentation of the Chromatography pilot unit. • Scale-Up: from lab to industrial scale (defining CAPEX and OPEX from trials). • Batch Chromatography to Continuous Chromatography
12:00 - 1:00 PM	**Lunch**
1:00 – 3:00 PM	• Industrial Design: Process design & industrial equipment. • System Operation: Separation zones, parameters setting, operation sequences, troubleshooting guidelines. • Case studies: Sugars & Sweeteners, Organic Acids.
3:00 – 3:15 PM	**Break**
3:15 – 4:45 PM	• Use of Run & Perform software solution platform to speed-up R&D, secure scale-up, ensure commissioning, and maintain Equipment at the right performance.
7:30 PM	**Dinner**

The AM session (9:00 AM to 12:00 PM) will focus on the basic theory behind the technology, including common terms and definitions, evolution of industrial chromatography, basic flow process, physico-chemical interactions, how separation occurs, modes of operation, resin selection, and how to size a system.

The PM session (1:00 PM to 4:45 PM) will focus on the implementation of this technology in industrial plants, including pilot testing, scaling-up, installation/commissioning/operation of a system, as well as typical maintenance and troubleshooting guidelines. It will also include new digital tools presentation for day-to-day operational optimization and digital platforms demonstration (dashboards, data management, etc.).

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Ion Exchange Technology & Applications



DETAILED PROGRAM - DAY 2 - SEPTEMBER 23

08:30 - 09:00 AM	**Welcome**
09:00 - 10:30 AM	• Introduction to Ion Exchange. • Deep journey into the theory: chemical & physical interactions, design implications
10:30 - 10:45 AM	**Break**
10:45 AM - 12:00 PM	• Scale-Up: from lab to industrial scale (defining CAPEX and OPEX from trials). • Ion Exchange Resin Types & Applications.
12:00 - 1:00 PM	**Lunch**
1:00 – 3:00 PM	• Industrial Design: Process design & industrial equipment. • System Operation: Pressure vessels improvements, recycling, troubleshooting guidelines.
3:00 – 3:15 PM	**Break**
3:15 – 4:45 PM	• Use of Run 4.0 software to turn your live process data into fast, reliable, and industrially actionable decisions. • Case studies: Sugars & Sweeteners, Amino Acids, Proteins.
7:30 PM	**Dinner**

The AM session (9:00 AM to 12:00 PM) will focus on the basic theory behind the technology, including common terms and definitions, evolution of industrial ion exchange, basic flow process, physico-chemical interactions, how purification occurs, modes of operation, resin selection, and how to size a system.

The PM session (1:00 PM to 4:45 PM) will focus on the implementation of this technology in industrial plants, including pilot testing, scaling-up, installation/commissioning/operation of a system, as well as typical maintenance and troubleshooting guidelines. It will also include typical case studies review.

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Membrane Filtration Technology & Applications



DETAILED PROGRAM - DAY 3 - SEPTEMBER 24

08:30 - 09:00 AM	**Welcome**
09:00 - 10:30 AM	• Membrane Terms and Definitions. • Ceramic Membranes: Manufacturing, properties, strengths & weaknesses, geometries, pore sizes & configurations. • Membrane Filtration Process & System: Terms & definitions (Recovery, VCF, diafiltration, etc.), assembly, configurations, batch, fed-batch, etc
10:30 - 10:45 AM	**Break**
10:45 AM - 12:00 PM	• Ceramic Membrane Selection: Pore size & geometry. • Polymeric membrane (UF, NF) • Case Study: Scaling-Up from pilot testing to the industrial plant.
12:00 - 1:00 PM	**Lunch**
1:00 – 3:00 PM	• Equipment & Control: Process control, CIP, backpulse, utility recovery, etc. • Troubleshooting guidelines. • Presentation of Micro-Kerasep and K01 ceramic membrane filtration pilot units. • Hands-on activity around the K01 pilot.
3:00 – 3:15 PM	**Break**
3:15 – 4:45 PM	• Industrial Applications • Scale-up case study • Use of Run 4.0 software to turn your live process data into fast, reliable, and industrially actionable decisions.
7:30 PM	**Dinner**

The AM session (9:00 AM to 12:00 PM) will focus on the basic theory behind the technology, including common terms and definitions, evolution of industrial ion exchange, basic flow process, physico-chemical interactions, how purification occurs, modes of operation, resin selection, and how to size a system.

The PM session (1:00 PM to 4:45 PM) will focus on the implementation of this technology in industrial plants, including pilot testing, scaling-up, installation/commissioning/operation of a system, as well as typical maintenance and troubleshooting guidelines. It will also include typical case studies review.

PRACTICAL INFORMATION

Training Venue
Applexion
5 chemin du Pilon
01700 Saint-Maurice-de-Beynost, France

Participants are free to choose the hotel that best suits their preferences and convenience. However, we have listed below a selection of recommended hotels:

Recommended Hotels Near the Applexion Site

- Hôtel Lyon Est Saint-Maurice-de-Beynost

A42, Exit No. 5, 01700 Saint-Maurice-de-Beynost
Tel.: +33 (0)4 78 55 90 90
www.hotel-lyon-est.com

- Ibis Budget Lyon Est Beynost

Allée Pré Caillat, 01700 Beynost
www.all.accor.com

Recommended Hotels in Lyon City Centre

- OKKO Hotels Lyon Pont Lafayette

14 bis quai du Général Sarrail, 69006 Lyon

- Globe & Cecil Lyon

21 rue Gasparin, 69002 Lyon

Important Information
Accommodation and any related expenses are not included in the Masterclass registration fee. Participants are responsible for arranging and paying for their own accommodation.

Training language: English

The detailed program may be adjusted by the training team to optimize the learning experience.

CONTACT

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