



Luxembourg, 15-18 September 2024

Biopartitioning and Purification Conference

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Topics

Advances in Biopartitioning

Aqueous two-phase partitioning systems (ATPS) are utilized for separating biomolecules, nanoplexes, viral particles, and cells/organelles. Comprising immiscible aqueous solutions of polymers and salts, ATPS offer gentle extraction and purification methods. Extensive research highlights their effectiveness in fractionating complex biological mixtures and partitioning various compounds like antibiotics and amino acids. This Conference emphasizes ATPS applications in scientific and industrial fields, underscoring their significance. Additionally, the existence of other bi-phasic systems expands methodological options for practitioners and scientists, showcasing the versatility of such techniques in chemical fractionation and their valuable role in diverse applications.

Downstream Bioprocessing

Downstream Bioprocessing (DSBP) is crucial for efficiently producing and purifying biologically derived products, particularly in industrial biomanufacturing of therapeutic recombinant proteins. Industries are increasingly adopting continuous approaches to intensify bioprocessing and enhance sustainability. DSBP significantly influences production costs and product efficacy, emphasizing its importance for sophisticated bioproducts. This Conference advocates for DSBP development as integral to biotechnological processes for sustainable and cost-effective operations. Advanced formulation options are also highlighted for ensuring bioproduct quality, consistency, and deliverability, reflecting the multifaceted strategies needed to optimize downstream processes in bioproduction.

High-Resolution Purification

Purification methodologies like aqueous two-phase partitioning, tangential flow filtration, and chromatography are widely used in academic and industrial settings to improve downstream processing. Continuous purification is increasingly important, especially for high-value biological products such as monoclonal antibodies. These techniques are integral in life science research, enzyme technology, and precision fermentation. Ongoing research is exploring continuous separation processes with high resolution. Affinity-based purification is favoured for its selectivity, aiding in efficient recovery and purification of biological compounds. This Conference emphasizes high-resolution purification strategies essential for achieving desired purity and yield of biomolecules in bioprocessing, reflecting the critical role of purification in various fields.

Case Studies and Industrial Applications

The BPP 2024 Conference places particular emphasis on case studies derived from research laboratories and industrial practices, offering valuable insights and lessons learned. Academic participants benefit from gaining an industrial perspective on current trends in industrial settings, providing a bridge between theoretical knowledge and practical application. Conversely, industrialists can explore current developments that may forecast future options in separation science and technology, enhancing their understanding of emerging trends and potential advancements. This exchange of experiences and insights fosters collaboration and innovation, enriching the collective knowledge base and contributing to the continuous evolution of bioprocessing and purification practices.

Call for Papers

Prospective participants are invited to submit an abstract of their original work.

Abstract submission closes on 15 April 2024 at midnight GMT.

More information on
www.bpp2024.lu



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