Application of Systems Engineering Principles to Bioprocessing

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Message from the Guest Editors

Dear Colleagues,

This special issue on "Application of Systems Engineering Principles to Bioprocessing" aims to curate novel advances in the development and application of computational modeling and model-based applications to address longstanding challenges in Bioprocessing. Topics include, but are not limited to:
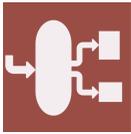
- Modelling (mechanistic and data-driven) and optimisation of upstream and downstream unit operations;
- Implementation of online control strategies;
- Model-driven process design;
- Whole process simulation and analysis, including flowsheeting of novel manufacturing processes for new modalities or modular production;
- Model-based approaches to enhance the understanding and performance of cellular behaviour under industrial bioprocessing conditions, such as design of genetic and metabolic engineering strategies, and/or enable the analysis of large datasets, such as systems biology, machine learning and artificial intelligence appraoches.

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Special Issue

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Message from the Editor-in-Chief

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