



Innovative Bioreactor Design and Advanced Optimization Strategies for Biorefineries and Bioprocessing

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Deadline for manuscript
submissions:

30 September 2024

Message from the Guest Editors

Dear Colleagues,

Bioreactors are increasingly essential for various industries such as pharmaceuticals, food and beverages, agriculture, environmental remediation, and bioenergy.

In biorefineries, where multiple products are derived from biomass and wastes, integrated bioreactor systems are indispensable. Furthermore, the integration of downstream processing units enhances product purification and recovery. Beyond technical advancements in bioreactors, ensuring their economic and environmental sustainability is of paramount importance.

In this context, the aim of this Special Issue is to attract high-quality original research contributions and review articles in the field of “Innovative Bioreactor Design and Advanced Optimization Strategies for Biorefineries and Bioprocessing”.

- bioreactor
- photobioreactor
- fermentation
- biorefinery
- bioprocessing
- microbial production
- monitoring and control
- mathematical modeling and simulation
- techno-economic assessment
- life cycle analysis





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Message from the Editor-in-Chief

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Journal Rank: JCR - Q2 (*Engineering, Chemical*) / CiteScore - Q2 (*Chemical Engineering (miscellaneous)*)

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