

Special Issue

Strategies for Microbial Bioprocess Optimization

Message from the Guest Editor

This Special Issue particularly welcomes reviews and original research papers that explore the use of metabolic engineering for the bioproduction of value-added compounds, biofuels, or bio-energy using renewable feedstocks and waste streams. Themes to be addressed may include but are not limited to the following areas: -Strain engineering for efficient utilization of diverse feedstocks, including C1 substrates, agro-industrial feedstocks, and waste streams. - Adaptive laboratory evolution. -Application of metabolic modeling approaches, such as kinetic modeling or genome-scale metabolic modeling, to optimize substrate utilization. -Machine-learning based methods to enhance carbon utilization and bioprocess optimization. -Synthetic and natural microbial communities. -Life cycle assessment and techno-economic analysis to evaluate the environmental and economic sustainability of engineered microbial systems.

Guest Editor

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Deadline for manuscript submissions

30 September 2025



Bioengineering

an Open Access Journal
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Impact Factor 3.7
CiteScore 5.3
Indexed in PubMed



mdpi.com/si/238704

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