Special Issue

The Notion of Microorganisms-Based Bio-Refinery: Transitioning from Wastewater Treatment to By-Products Recovery

Message from the Guest Editor

This Research Topic invites contributions that explore and advance the current state of microalgae biorefinery systems. We welcome submissions in various formats including Original Research Articles, Review Articles, Perspective and Opinion Articles, and Short Communications. Some of the topics of interest include:

- Cultivation of heterotrophic and mixotrophic microalgae for wastewater degradation.
- Emerging technologies utilizing microalgae and cyanobacteria.
- Mechanisms underlying microalgae-bacteria interactions in wastewater-based cultivation.
- Extraction of value-added products from microalgal-cyanobacterial biomass.
- Resource recovery through microalgal wastewater remediation.
- Pre-treatment technologies for high concentration and high turbidity wastewater suitable for subsequent microalgae-based degradation.
- Circular bio-economy models based on microalgae-based waste biorefineries.
- Utilization of by-products from microalgal waste streams for phycoremediation of wastewater and carbon sequestration.

Guest Editor

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Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.2 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).

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