Special Issue

Microbial Communities in Waste Treatment

Message from the Guest Editors

Microorganisms are vital not only in biogeochemistry and nutrient cycling, but also in biodegradation and biotransformation of natural and anthropogenic wastes. Nowadays, methodologies for biological treatment of high-concentration or toxic pollutants (such as heavy metals, antibiotics, and aromatics) need to be investigated and addressed urgently.

The Special Issue aims to gather up-to-date research on microbial physiology, ecology and biotechnology in waste treatment, and will cover, but is not limited to, the following topics: 1. Microbial community assembly processes in biological waste treatment biosystems; 2. Microbial symbioses and microbial interactions in waste treatment biosystems; 3. Microbial responses to stress factors; 4. Novel microbial biotechnology dealing with high-concentration or toxic pollutants; 5. Antimicrobial resistance mechanisms; 6. Discovering the microorganisms responsible for degradation of particular pollutants.

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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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JCR - Q2 (Microbiology) / CiteScore - Q1 (Microbiology (medical))

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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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