

Special Issue

Microbial Communities Responding to Emerging Contaminants in Wastewater Treatment

Message from the Guest Editors

At present, wastewater contains diverse emerging contaminants (e.g., plastics, antibiotics, flame retardants, and PFAS), and biological treatment still faces challenges in carbon and energy recovery. These make biological wastewater treatment pivot to a challenging position, that is, the biodegradation of emerging contaminants in a sustainable pathway. Microbial communities provide a micro-environment supporting microbial interactions for cooperation and/or competition to utilize these recalcitrant contaminants and accumulate carbon and energy resources (e.g., biomass and polymers).

In addition, environmental scenarios differing in global areas (e.g., fresh and high-saline wastewater in different temperatures) also shape microbial trajectories, complicating biological processes. The treatment processes may induce the bloom of virulent pathogens, disturbing the community stability for wastewater treatments.

Original articles and reviews elucidating and addressing degradation mechanisms of emerging contaminants, the microbial communities' responses in diverse environmental conditions, and the recovery of energy resources are welcome.

Guest Editors

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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.

Editor-in-Chief

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