Special Issue

Microbial Community Structure and Function of Activated Sludge from Wastewater Treatment

Message from the Guest Editor

Activated sludge plays a crucial role in the biological treatment of wastewater, relying on complex microbial communities that drive the degradation of organic pollutants. Understanding the structure and function of these microbial communities is essential for improving wastewater treatment processes, optimizing microbial performance, and addressing emerging environmental challenges. This Special Issue aims to explore the diverse microbial populations involved in activated sludge systems and their roles in pollutant removal, nutrient cycling, and system stability. Contributions are invited on a broad range of topics, including, but not limited to, the characterization and analysis of microbial community structures using metagenomics, transcriptomics, and other molecular techniques. We also welcome studies on microbial functional diversity, including the identification of key microorganisms responsible for the removal of nitrogen, phosphorus, and organic contaminants. This special issue will provide valuable insights into the functioning of activated sludge systems and offer new perspectives for improving the efficiency and sustainability of wastewater treatment technologies.

Guest Editor

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Deadline for manuscript submissions

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In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

Editor-in-Chief

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