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Nitrogen Cycles and Non-CO₂ Greenhouse Gases in Aquatic Ecosystem: Microbial Process, Mechanisms, and Effects

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Message from the Guest Editors

Dear Colleagues,

Over the past century, carbon dioxide [CO₂] levels have steadily increased and global temperatures have risen accordingly. The climate is predicted to continually change with weather patterns becoming more erratic and extreme.

In this Research Topic, we would like to explore the critical roles of microorganisms in the Aquatic ecosystems, especially for those researches provide new insights into the relations between microbes and N₂O and CH₄, and researches provide new ways in mitigating non-CO₂ greenhouse gases.

We hope those researches would contribute to the future control and regulation of non-CO₂ gases in different ecosystems. We invite researchers to submit Original Research articles, Reviews, Methods, Perspectives, Mini-Reviews, and Opinions on microbial communities involved in Nitrogen cycles and Non-CO₂ greenhouse gases in Aquatic Ecosystem. Subtopics include, but are not limited to:

- Microbial processes and dominant species in the production and consumption of non-CO₂ greenhouse gases;
- New strategies and biotechnologies in mitigating the non-CO₂ greenhouse gases;
- Microbial and ecological responses to the climate



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Message from the Editor-in-Chief

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.

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