# Special Issue

# ANAMMOX Based Technology for Nitrogen Removal from Wastewater

**Message from the Guest Editor**

In recent years, the Anaerobic Ammonium Oxidation (ANAMMOX) process has emerged as a promising and sustainable alternative for nitrogen removal from wastewater. ANAMMOX bacteria can convert ammonium directly into nitrogen gas using nitrite as an electron acceptor, bypassing the need for aeration and external carbon sources. This innovative biotechnology offers substantial benefits in terms of energy savings, reduced greenhouse gas emissions, and lower operational costs compared to conventional nitrification–denitrification processes.

This Special Issue focuses on the latest advancements in ANAMMOX biotechnology for nitrogen removal from wastewater. It aims to explore both the fundamental science and engineering applications of the ANAMMOX process, covering key topics such as partial nitrification, greenhouse gas emissions, quorum sensing, and bacterial community dynamics. This Special Issue will delve into how these factors influence the performance and stability of ANAMMOX systems and how to optimize the process for improved nitrogen removal efficiency. For more details, please find at: https://www.mdpi.com/journal/water/special_issues/12HS398H0Y

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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.

## Editor-in-Chief

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