# Special Issue

# Research on the Carbon Cycle in the Aquatic Environment

## Message from the Guest Editors

The aquatic environment plays a critical role in the global carbon cycle, acting as both a major reservoir and a dynamic processor of carbon. Processes such as carbon transport, transformation, sequestration, and the emission of greenhouse gases (e.g., $CO_2$ and $CH_4$) in rivers, lakes, estuaries, and coastal oceans are highly sensitive to climate change and anthropogenic activities. This Special Issue aims to consolidate cutting-edge research on the carbon cycle across diverse aquatic systems. We welcome original research articles, reviews, and case studies that enhance our mechanistic understanding of carbon dynamics. Topics of interest include, but are not limited to: carbon fluxes and budgets; biogeochemical processes governing carbon speciation; the effects of land-use change, pollution, and climate variability on aquatic carbon cycling; novel methodological approaches (e.g., isotopic, molecular, or modeling techniques); and the interplay between the carbon cycle and water quality. Contributions that address the implications for ecosystem health and climate feedback are particularly encouraged.

## Guest Editors

Dr. Yixuan Zhang
Dr. Ji Liu
Dr. Songjun Wu

## Deadline for manuscript submissions

29 September 2026

**Water**

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# About the Journal

## 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

Dr. Jean-Luc PROBST
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