Special Issue

Impacts of Contaminants on Aquatic Ecosystems and Strategies for Water Quality Improvement

Message from the Guest Editors

Freshwater ecosystems are essential for supporting human well-being and biodiversity, yet they are increasingly threatened by contamination from anthropogenic and natural sources. Contaminants such as heavy metals, excess nutrients, pesticides, pharmaceuticals, microplastics, and pathogens degrade water quality, disrupt aquatic ecosystems, and reduce the availability of safe water for drinking, agriculture, and industry. Understanding the dynamics of these pollutants, as well as their ecological and socio-economic impacts, is crucial for developing effective strategies to protect and restore water quality.

This Special Issue aims to provide a platform for cutting-edge research that explores the interactions between contaminants, aquatic ecosystems, and water quality improvement strategies. We focus on investigating the mechanisms of pollutant transport, transformation, and bioaccumulation in freshwater systems, as well as their widespread impacts on aquatic organisms, ecosystem functions, and biodiversity.

Guest Editors

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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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