

Special Issue

Application of Environmental Microbiology in Water Treatment

Message from the Guest Editors

Addressing the scarcity of potable water and contamination of freshwater resources due to the salination of water bodies, eutrophication, harmful algal blooms, the biomagnification of toxic compounds and heavy metals is becoming an urgent necessity. Due to this increasing water scarcity, there is a need to revitalize sustainable/green technology as an effective part of the water treatment processes. For many years now, microorganisms have represented novel avenues for innovative trends and techniques in the removal of toxic pollutants and industrial effluents from rivers, surveillance through wastewater treatment plants, novel bioremediation methods, etc. This Issue will focus on topics such as water and wastewater treatment using microbes; the role of environmental microbiology in water purification; microalgal species in toxic metal removal; bioremediation processes in water treatment; sustainable water treatment methods; the role of aquatic microbes, machine learning, and artificial intelligence in elucidating the effects of climate change; and the effects of industrialization and other anthropogenic activities on water bodies.

Guest Editors

Dr. Swarna Kanchan

Department of Biomedical Sciences, Joan C. Edwards School of Medicine, Marshall University, Huntington, WV, USA

Dr. Minu Kesheri

Department of Biological Sciences, Boise State University, Boise, ID, USA

Deadline for manuscript submissions

closed (20 April 2026)



Water

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0



mdpi.com/si/235686

Water

Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
water@mdpi.com

[mdpi.com/journal/
water](https://mdpi.com/journal/water)





Water

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0



[mdpi.com/journal/
water](https://mdpi.com/journal/water)



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

Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, PubAg, AGRIS, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Water Resources) / CiteScore - Q1 (Aquatic Science)