Special Issue

Algae-Based Technology for Wastewater Treatment

Message from the Guest Editors

Due to the rapid development of emerging industries, such as new energy batteries, semiconductors and silicon chips, the volume of waste and contaminants related to the production of polymer materials, mining and mineral processing has increased. As a result. wastewater containing refractory organics and unbalanced metal ions and nutrient elements (N, P and S) has caused new environmental issues, thus challenging the conventional biological treatment process. Fortunately, algae offers hope for unconventional wastewater treatment, overcoming unbalanced nutrient conditions and enabling carbon reduction and nutrient recovery. In recent years, algaebased technology has attracted increasing attention in the field of unconventional wastewater treatment. The scope of this Special Issue includes, but is not limited to, treatment techniques for refractory organics, metal ions and nutrient elements, and the recovery of valuable biomass, metals and nutrients. Offering low contamination and consumption, algae-based technology could contribute to a more efficient circular economy and a healthier water industry.

Guest Editors

Dr. Binghan Xie

School of Marine Science and Technology, Harbin Institute of Technology at Weihai, Weihai 264209, China

Dr. Mengqi Zheng

Department of Municipal Engineering, School of Civil Engineering, Hefei University of Technology, Hefei 230009, China

Deadline for manuscript submissions

20 September 2025



an Open Access Journal by MDPI

Impact Factor 3.0 CiteScore 6.0



mdpi.com/si/231791

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

mdpi.com/journal/

water





Water

an Open Access Journal by MDPI

Impact Factor 3.0 CiteScore 6.0



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)