

Special Issue

Application of Advanced Oxidation Processes (AOPs) for Wastewater Treatment

Message from the Guest Editors

AOPs—such as photocatalysis, electrocatalysis, Fenton reactions, and ozonation—leverage highly reactive oxygen species (ROS) to break down emerging contaminants, including pharmaceuticals, pesticides, and industrial chemicals. The scope covers fundamental research on reaction mechanisms, the development of novel catalysts, the optimization of hybrid AOP technologies, and their scalability for industrial applications. We encourage submissions that address key challenges such as energy efficiency, cost reduction, and synergistic integration with conventional treatment methods. Positioned within the expanding literature on sustainable water purification, this Special Issue aims to bridge the gap between laboratory-scale innovations and practical implementation. Through a compilation of high-quality studies, we seek to advance the understanding of contaminant degradation pathways and provide insights into process intensification and real-world feasibility. Contributions may explore emerging trends, ranging from nanostructured catalysts to modeling and kinetic analysis of AOPs, as well as the environmental impacts of AOP byproducts.

Guest Editors

Dr. Pengxiang Qiu

Dr. Shuai Zhang

Prof. Dr. Zhihui Zhang

Deadline for manuscript submissions

20 November 2025



Water

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.0



mdpi.com/si/237054

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)