

Special Issue

Advancements in Photocatalytic Oxidation for the Effective Removal of Toxic Contaminants in Water and Wastewater

Message from the Guest Editors

Water and wastewater contamination by toxic substances poses significant threats to human health and the environment. Photocatalytic oxidation has emerged as a promising technology to effectively remove these contaminants due to its ability to generate reactive oxygen species that can degrade a wide range of pollutants. This Special Issue aims to present the latest advancements in photocatalytic oxidation processes, including novel materials, mechanisms, and applications. We invite researchers to submit original research articles, reviews, and perspectives that explore innovative approaches to enhance photocatalytic efficiency, elucidate reaction mechanisms through experimental, characterization, and computational methods, and address real-world challenges in water treatment. By sharing cutting-edge research, we hope to advance the field and contribute to sustainable water management strategies.

- photocatalytic oxidation
- toxic contaminants
- water treatment
- advanced oxidation processes
- environmental remediation
- reactive oxygen species
- degradation mechanisms

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Toxics (ISSN 2305-6304) is an international, peer-reviewed, open access journal which provides an advanced forum for studies related to all aspects of toxic chemicals and materials. We aim to publish high quality work that furthers our understanding of the exposure, effects, and risks of chemicals and materials in humans and the natural environment as well as approaches to assess and/or manage the toxicological and ecotoxicological risks of chemicals and materials. Please consider publishing in *Toxics* when preparing your next paper.

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.1 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).