Special Issue

Advanced Electrochemical Oxidation Processes for Emerging Contaminant Treatment

Message from the Guest Editor

Conventional wastewater treatment plants (WWTPs) are ineffective in removing emerging contaminants, such as pharmaceuticals, pesticides, and surfactants, that are detected in wastewater at low concentrations and exhibit poor biodegradability. This problem is becoming increasingly critical due to its potential long-term adverse effects on the environment and human health. Advanced Electrochemical Oxidation Processes (AEOPs) are one of the most promising techniques for implementation as quaternary treatments in WWTPs. AEOPs are capable of degrading persistent organic compounds without the need for added chemicals, completely oxidizing them to CO2 or transforming them into biodegradable compounds. The current research focuses on the following topics:

- The development of new anode materials that offer a balance between efficiency and economic viability.
- The analysis of degradation pathways for emerging contaminants.
- The application of AEOPs to real-world waters with multiple emerging contaminants.
- The reduction in final effluent toxicity, as unwanted intermediate products may form.

Guest Editor

Prof. Dr. María Teresa Montañés Sanjuan
Institute for Industrial, Radiophysical and Environmental Safety (ISIRYM), Universitat Politècnica de València, València, Spain

Deadline for manuscript submissions

20 June 2026

Toxics

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 6.4
Indexed in PubMed

mdpi.com/si/263812

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

mdpi.com/journal/toxics

Toxics

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 6.4
Indexed in PubMed

mdpi.com/journal/toxics

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.

Editor-in-Chief

Dr. Demetrio Raldúa
Department Environmental Chemistry, IDAEA-CSIC, Jordi Girona 18, 08034 Barcelona, Spain

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, AGRIS, and other databases.

Journal Rank:

JCR - Q1 (Toxicology) / CiteScore - Q1 (Chemical Health and Safety)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the second half of 2025).