Special Issue

Study on Biological Treatment Technology for Waste Management

Message from the Guest Editors

This Special Issue aims to explore the recent advancements and innovative applications of biological treatment technologies for waste management. The focus will be on enhancing the efficiency, sustainability, and economic viability of these technologies. The scope includes but is not limited to the following:

- Aerobic and Anaerobic Digestion—Studies on optimizing microbial processes for efficient organic waste degradation.
- Bioremediation—Investigations into the use of microorganisms for the remediation of contaminated soils and water.
- Bioaugmentation—Exploration of microbial consortia and their role in enhancing waste treatment efficiency.
- Omics Technologies—Application of genomics, proteomics, and metabolomics to understand microbial interactions and metabolic pathways.
- Resource Recovery—Strategies for converting waste into valuable products such as biogas, biofertilizers, and other useful materials.
- Integration with Other Waste Management Strategies
 —Examination of how biological treatment can be combined with physical and chemical treatments for holistic waste management solutions.

Guest Editors

Dr. Wangwang Yan

School of Ecology, Sun Yat-Sen University, Guangzhou, China

Dr. Xiaodong Xin

Research Center for Eco-Environmental Engineering, Dongguan University of Technology, Dongguan, China

Deadline for manuscript submissions

31 August 2025



Toxics

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/233296

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



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 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).

