



Innovations in Waste Treatment through Bioprocess Technology: From Sustainable Remediation to Resource Recovery

Guest Editors:

Dr. Husnul Azan Tajarudin

Bioprocess Engineering
Technology Division, School of
Industrial Technology, Universiti
Sains Malaysia, Gelugor 11800,
Penang, Malaysia

Prof. Dr. Salim Hiziroglu

Department of Natural Resource
Ecology & Management,
Oklahoma State University,
Stillwater, OK 74078, USA

Dr. Siti Baizura Mahat

Biomass Transportation Cluster,
School Of Industrial Technology,
Universiti Sains Malaysia, Gelugor
11800, Penang, Malaysia

Deadline for manuscript
submissions:

30 April 2025

Message from the Guest Editors

Topics of interest for this Special Issue include, but are not limited to, the following:

1. Sustainable remediation: innovations in utilizing bioprocess technology for the sustainable remediation of contaminated sites, including the application of microbial processes, biodegradation, and bioremediation techniques;
2. Resource recovery: advances in the recovery of valuable resources from waste through bioprocess technology, such as the extraction of energy, chemicals, nutrients, or other useful products;
3. Biodegradation and bioremediation: research on the use of microbial processes and bioprocess technology to degrade and remove pollutants, contaminants, and hazardous substances from various waste streams;
4. Microbial communities in waste treatment: studies investigating the role of microbial communities and their dynamics in waste treatment processes, including their interaction with pollutants and their impact on overall system performance;
5. Environmental sustainability: approaches and strategies to enhance the environmental sustainability of waste treatment through bioprocess technology, considering factors such as energy efficiency, carbon footprint, and waste minimization.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giancarlo Cravotto

Department of Drug Science and
Technology, University of Turin,
Via P. Giuria 9, 10125 Turin, Italy

Message from the Editor-in-Chief

Processes (ISSN 2227-9717) provides an advanced forum for process/system-related research in chemistry, biology, material, energy, environment, food, pharmaceutical, manufacturing and allied engineering fields. The journal publishes regular research papers, communications, letters, short notes and reviews. Our aim is to encourage researchers to publish their experimental, theoretical and computational results in as much detail as necessary. There is no restriction on paper length or number of figures and tables.

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, Inspec, AGRIS, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Chemical*) / CiteScore - Q2 (*Chemical Engineering (miscellaneous)*)

Contact Us

Processes Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/processes
processes@mdpi.com
[X@Processes_MDPI](https://twitter.com/Processes_MDPI)