Special Issue

Microbial Applications for Sustainable Resource and Energy Recovery

Message from the Guest Editor

The growing concerns about the depletion of fossil hydrocarbon resources, global warming and energy security have led to a resurgence of scientific interest in developing a greener approach for the production of biofuels, bioenergy, biopharmaceuticals and other value-added bioproducts from renewable bioresources, such as solid waste and wastewater, using microbial biotechnology. Such production processes are considered sustainable as they promote sustainable waste management, reduce dependency on fossil fuels, reduce greenhouse gas emissions and support the transition to a circular economy. However, it is important to ensure that microbial applications are being continuously developed to increase efficiency. This Special Issue aims to collate research on the innovative applications utilizing natural or synthetic microbial communities to produce bioelectricity, gaseous and liquid biofuels, biopharmaceuticals and biomaterials, or on the other numerous bioprocesses for sustainable resource and energy recovery from various waste and waste streams. We look forward to receiving your contributions.

Guest Editor

Dr. Yuriy Litti

Federal Research Center “Fundamentals of Biotechnology” of the Russian Academy of Sciences, Leninsky Prospekt, 33, 2, Moscow 119071, Russia

Deadline for manuscript submissions

closed (30 April 2025)

Microorganisms

an Open Access Journal by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed

mdpi.com/si/184733

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

mdpi.com/journal/microorganisms

Microorganisms

an Open Access Journal by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed

mdpi.com/journal/microorganisms

About the Journal

Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

Editor-in-Chief

Dr. Nico Jehmlich
Department of Molecular Toxicology, UFZ-Helmholtz Centre for Environmental Research, 04318 Leipzig, Germany

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Microbiology) / CiteScore - Q1 (Microbiology (medical))

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.2 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).

MDPI