Special Issue

Plant and Microbial Interactions in Soil Remediation

Message from the Guest Editors

Soil degradation, including erosion, acidification, salinization, and pollution, is a major concern in global agriculture and threatens the sustainability of agricultural production and food security. Plant and microbial interactions are now considered a powerful, economical, low-cost, and in situ biological soil remediation method. Plants and microbes both benefit by the exchange of nutrients and signaling molecules, which significantly improves the efficiency of soil remediation.

The aim of this Special Issue is to present a collection of articles that showcase current progress in the research of plant and microbial interactions. Research articles, review articles, and short communications that cover all aspects of research relating to plant and microbial interactions are welcome.

Some of its focal points include but are not limited to the following:

The application of plant and microbial interactions in the remediation of soil contaminated with heavy metals, salinity, and organic pollutants;

Physiological and molecular mechanisms underlying plant and microbial interactions;

New technologies and methods in this field.

Guest Editors

Dr. Xia Li

Biofuels Institute, School of the Environment and Safety Engineering, Jiangsu University, Zhenjiang 212013, China

Dr. Rongrong Xie

Biofuels Institute, School of the Environment and Safety Engineering, Jiangsu University, Zhenjiang 212013, China

Deadline for manuscript submissions

closed (31 May 2025)



Microorganisms

an Open Access Journal by MDPI

Impact Factor 4.2 CiteScore 7.7 Indexed in PubMed



mdpi.com/si/206599

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



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).

