

Special Issue

Microbe-Driven Migration and Transformation of Elements through the Earth's Critical Zone

Message from the Guest Editors

From the top of vegetation canopies to the topmost zones of groundwater, the Critical Zone (CZ) is the Earth's outer shell where all fundamental physical, chemical, and biological processes that are critical for sustaining life occur and interact. Processes such as secondary ore precipitation, sediment formation, rock weathering, soil bleaching, streamflow generation, and supragenetic biogeochemical cycling within the critical zone support many ecosystem processes and, consequently. Element transportation and transformation in the CZ is a series of essential processes, and microorganisms are deemed one of the drivers for these interactions.

The Special Issue aims to provide an adequate multidisciplinary platform for the interchange of constructive information that aids in the understanding of microbe-driven migration and transformation of elements in the surface and subsurface environments. The collection of information can also be used to establish links and integrate element cycles to the composition and functions of autochthonous geology, environmental chemistry, and the indigenous microbiota.

Guest Editors

Dr. Tsing Bohu

1. CSIRO Mineral Resources, Australian Resources and Research Centre, Kensington, WA 6151, Australia
2. State Key Laboratory of Lunar and Planetary Sciences, Macau University of Science and Technology, Taipa, Macau

Prof. Dr. Xuliang Zhuang

Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China

Dr. Ignacio Gonzalez-Alvarez

CSIRO, 26 Dick Perry Ave., Kensington, WA 6151, Australia

Deadline for manuscript submissions



Microorganisms

an Open Access Journal
by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed



mdpi.com/si/69856

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

[mdpi.com/journal/
microorganisms](https://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](https://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).