Special Issue

Extremophilic Plants and Microorganisms in Environmental Sustainability

Message from the Guest Editors

We are thrilled to introduce this Special Issue of Sustainability, spotlighting pioneering research on the symbiotic relationship between plants, microbes, and the environment. In an epoch marked by swiftly shifting climates, both flora and microorganisms face unprecedented environmental pressures, profoundly impacting critical aspects such as biomass production. Leveraging these tools enables us, as a race, to address critical challenges for our continuity on our planet, such as combatting climate change. This Special Issue specifically emphasizes the pivotal roles of halophytes, metallophytes, xerophytes, and extremophilic bacteria in shaping sustainable ecosystems. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Phytoremediation;
- Metallophytes;
- Soil desalinization;
- Halophytes;
- Bioactive compounds from extremophiles;
- Carbon sequestration by extremophiles;
- Bioremediation;
- Microbes in metal recovery;
- Extremophiles as a bioinoculants;
- Biofuels and bioenergy.

Guest Editors

Dr. Aleksandra Koźmińska

Department of Botany, Physiology and Plant Protection, Faculty of Biotechnology and Horticulture, University of Agriculture in Krakow, Al. Mickiewicza 21, 31-120 Cracow, Poland

Dr. Mohamad Al Hassan

Department of Plant Sciences, Aeres University of Applied Sciences, 8251 JZ Dronten, The Netherlands

Deadline for manuscript submissions

31 January 2026

Sustainability

an Open Access Journal by MDPI

Impact Factor 3.3
CiteScore 7.7

mdpi.com/si/205458

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

mdpi.com/journal/sustainability

Sustainability

an Open Access Journal by MDPI

Impact Factor 3.3
CiteScore 7.7

mdpi.com/journal/sustainability

MDPI

About the Journal

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Marc A. Rosen
Faculty of Engineering and Applied Science, University of Ontario Institute of Technology, Oshawa, ON L1G 0C5, Canada

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1 (Geography, Planning and Development)