

Special Issue

Heavy Metals Toxicity in Plants and Phytoremediation as Sustainable Approach

Message from the Guest Editors

In recent years, heavy metals (HMs) toxicity has emerged as one of the greatest threats to crop production, one which might become even more prevalent in the coming decades. Increased anthropogenic activities such as modern agriculture practicing, fertilizer application, and extensive use of groundwater for irrigation, sewage disposal, mining, and industrialization have disturbed the distribution of HMs, leading to their accumulation. Even a slight upsurge in the HM concentration beyond the permissible limit causes harmful effects to living entities. Several studies have reported that some plants showed the ability to hyperaccumulate HMs. The studies within this Special Issue are expected to address:

- The consequences of HMs on food security and the environment;
- HMs and sustainability of agricultural production;
- HMs toxicity in plants;
- HMs detoxification;
- HMs uptake and transport;
- Vacuoles sequestration of HMs;
- Role of defense mechanisms against HMs stress;
- Hyperaccumulators;
- Physio-biochemical mechanisms of HMs accumulation in hyperaccumulators;
- Phytoremediation.

Guest Editors

Dr. Naser Karimi

Dr. Zahra Souri

Dr. Muhammad Ansar Farooq

Deadline for manuscript submissions

closed (15 November 2022)



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 8.9



mdpi.com/si/109747

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

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





Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 8.9



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



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. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full 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. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,
Columbus, OH 43210, USA

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)