

Special Issue

Physiological and Biochemical Responses of Plants to Heavy Metal Stress

Message from the Guest Editors

Soil pollution with heavy metals has become a serious problem worldwide. The mobilisation of heavy metals through extraction from ores with subsequent processing and broad applications has led to their release into the environment. Being essentially nonbiodegradable, heavy metals tend to accumulate in the environment and pose an increasing risk to ecosystems and human health. The exposure of a plant to heavy metal stress activates an array of molecular and physiological mechanisms to reduce the negative effect of the stressor. In this Special Issue, research articles and reviews that focus on plant reactions to heavy metals, including physiology, biochemistry, genes, hormones, regulatory and signalling compounds, primary and secondary metabolites, and nutrition and environment, comprising metabolome, transcriptome and proteome studies, plant microbiome, metals interactions with nutrients in controlled and greenhouse studies, as well as in-field and agronomic scale trials on model plants, crops, trees, grasses, native species, etc. are most welcome.

Guest Editors

Dr. Kinga Drzewiecka

Department of Chemistry, Faculty of Forestry and Wood Technology,
Poznań University of Life Sciences, Wojska Polskiego 75, 60-625
Poznań, Poland

Prof. Dr. Monika Gasecka

Department of Chemistry, Faculty of Forestry and Wood Science,
Poznań University of Life Sciences, 60-625 Poznań, Poland

Deadline for manuscript submissions

closed (30 June 2024)



Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/179391

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

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





Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Editor-in-Chief

Prof. Dr. Dilantha Fernando
Department of Plant Science, University of Manitoba, Winnipeg, MB
R3T 2N2, 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 (Web of Science), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)