

Special Issue

Plant Metal and Metalloid Homeostasis

Message from the Guest Editors

Plants' ionome includes metals and metalloids, some of which are essential for plants growth and development, while others are trace elements which may (or may not) be harmful. Understanding how plants uptake, distribute, accumulate, and regulate the levels of such elements in each organ, tissue, cell, and organelle is a challenge, and to date, little is known about this. Metals and metalloids can also be toxic when accumulated in excess, and some plants can be tolerant. However, our understanding of tolerance is also scarce. Moreover, there are several interactions in which accumulation of one metal can affect the concentration of others, demonstrating that homeostasis of different metals and metalloids in an integrative way is key. In this Special Issue, we are interested in receiving manuscripts focused on metal/metalloid toxicity/deficiency; transport, regulation and distribution; physiological, biochemical, and molecular responses to metals/metalloids; plant biofortification strategies; interactions of metals/metalloids with each other, both in the soil and in the plant; discoveries in model and non-model species; and methods.

Guest Editors

Prof. Dr. Felipe Klein Ricachenevsky

Dr. Raul Antonio Sperotto

Dr. Gustavo Brunetto

Deadline for manuscript submissions

closed (20 March 2023)



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

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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

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