Special Issue

Abiotic Stress Signaling and Responses in Plants

Message from the Guest Editors

Plant responses to environmental factors are extraordinarily complex. They can be observed at various levels of plant organization, ranging from changes in the intensity of basic biochemical processes such as DNA replication, respiration, and photosynthesis to morphological and anatomical changes in organs. However, mentioned biochemical changes are preceded by the activation of an efficient signaling system which endures environmental fluctuations. Metabolic regulations enable the maintenance of the plant's homeostasis, as they are crucial for maintaining the balance between simultaneously occurring processes of growth and development and stress defense. It is considered that sugars and respiratory metabolites, such as malic and oxaloacetic acids, as well as amino acids, and enzymes involved in photosynthesis, respiration, and photorespiration, participate in the mechanisms of generation, processing, and perception of metabolic signals. Original and review papers dealing with all of the above aspects of signaling under stresses (also operating simultaneously or sequentially) are welcomed contributions for this Special Issue of

Guest Editors

Dr. Małgorzata Nykiel

Dr. Mateusz Labudda

Dr. Beata Prabucka

Dr. Marta Gietler

Dr. Justyna Fidler

Deadline for manuscript submissions

closed (20 February 2023)



Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/76938

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

mdpi.com/journal/ plants





Plants

an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 7.6 Indexed in PubMed



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)

