Special Issue

Physiological Response and Molecular Mechanisms of Plants to Heavy Metal/Loid Toxicity

Message from the Guest Editors

Heavy metal/loid (HM) toxicity poses a significant threat to the growth and development of plants, affecting their ability to photosynthesize, take up nutrients, and maintain cellular homeostasis. Therefore, understanding the physiological and molecular responses to HM toxicity is crucial for developing strategies to mitigate HM pollution and promote sustainable agriculture. Currently, research in this field focuses on elucidating the complex mechanisms that plants employ to adapt to HM stress. This involves the investigation of physiological changes, such as alterations in the plant's metabolism, antioxidant systems, and gene expression patterns. However, despite the progress that has been made, there is still much to learn about the intricate interactions between plants and HM toxicity. Therefore, this Special Issue aims to publish original articles and reviews that consolidate recent advancements in the field of HM tolerance, as well as to identify potential new mitigation strategies at agronomical, physiological, eco-physiological, and molecular levels, which are involved in a plant's response to HM toxicity.

Guest Editors

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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

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