

Special Issue

Ion Dynamics in Plants: Sensing, Signaling, and Transport

Message from the Guest Editors

Ion transporters are essential for ion uptake and distribution in whole plants. The molecular mechanisms by which transporters are regulated are central to understanding the ion distribution and transport between cells and organs. Many aspects of the uptake, transport, sensing and signalling of ions are still unknown: how they are interconnected, and are they evolutionary conserved? Does tolerance towards overaccumulation of micronutrients or non-essential elements in excluders, tolerant or hyperaccumulators involve mechanisms to acquire or regulate the transport of elements? Does the combination of changing availability of multiple elements evoke different responses from single ion availability? Are microorganisms able to regulate plant transporters? Can we improve ion acquisition, mobility in plants by symbiosis or arbuscular mycorrhizal fungi or other biotechnological approaches? In this Special Issue, we look for advances answering these and many such related questions.

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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.

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