Special Issue

Acquisition, Transport, and Cellular Homeostasis of Soil-Immobile Mineral Nutrients

Message from the Guest Editor

As sessile organisms, plants are exposed to an amalgam of edaphic and biotic factors that dictate the mobility of mineral nutrients in soil, the availability of which is often several orders of magnitude below the requirement for optimal growth. Inadequate supply of minerals such as phosphorus, iron, copper, and zinc may lead to decreased fitness, reduced crop yield, and the exclusion of less well-adapted species from certain natural habitats. To circumvent unbalanced or insufficient supply of these nutrients, plants have evolved a plethora of mechanisms that govern their uptake and distribution in response to changes in demand and availability. Recalibration of cellular ion concentrations involves the perception and inter-organ communication of the nutrient status, re-programming of metabolic and developmental pathways, alterations in chromatin organization and, ultimately, induction of processes that tune cellular ion homeostasis. This Special Issue of *Plants* aims at providing a comprehensive update on the processes that adapt plants to conditions which limit the availability of essential mineral nutrients and the mechanisms underlying their regulation.

Guest Editor

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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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