

Special Issue

Proteomic and Metabolomic Investigations on the Response and Adaptation of Plants to Stresses

Message from the Guest Editors

Environmental conditions are the main restrictive factors to agricultural productivity worldwide by influencing the distribution, reproduction, and survival of plants. These conditions include abiotic stresses (such as drought, salinity, heavy metals, low or high temperatures, etc.) and biotic stresses (fungi, bacteria, viruses, insects, etc.). Understanding the acclimation and adaptation mechanisms that plants cope with these stresses and show tolerance, is very important for crop production. Currently, research using approaches including metabolomics, proteomics, genomics, and transcriptomics has facilitated our knowledge of response and adaptation to stress in plants. Several stress-related proteins (glutamine synthetase, pyruvate decarboxylase, ROS scavenging- and detoxification-related enzymes, etc.) and signaling agents (salicylic acid, jasmonic acid, brassinosteroids, etc.) have been found to be involved in the responses to environmental stress. This Special Issue invites contributions to the novel mechanisms of plants' response to environmental conditions.

Guest Editors

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Deadline for manuscript submissions

closed (31 March 2023)



Agronomy

an Open Access Journal
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Impact Factor 3.4
CiteScore 6.7



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Editor-in-Chief

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