

Special Issue

Photosynthesis under Abiotic Stress

Message from the Guest Editors

As a result of abiotic stress, plants consistently suffer from several adverse effects, resulting in severe yield losses. In photosynthetic machinery, photosystem II (PSII) bears the brunt of abiotic stress. The reactive oxygen species (ROS) generated by abiotic stresses can damage plants at various cellular levels as well as hinder the PSII damage–repair cycle. By altering photosynthetic redox signaling pathways and inhibiting PSII repair, ROS can damage the photosynthetic apparatus, resulting in photoinhibition. By understanding how plants adapt to protect their photosynthetic apparatus, it might be possible to develop plants with improved photosynthetic efficiency and higher yields. It is crucial to understand how protein kinases, transcription factors, and phytohormones regulate photosynthetic machinery responses to abiotic stress. The purpose of this Special Issue is to showcase studies focused on the regulation of photosynthesis under abiotic stress in plants and to provide new information on this important topic.

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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.

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