



Photosynthesis under Climatic Extremes

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Message from the Guest Editors

Dear Colleagues,

Photosynthesis is the major process leading to primary production on Earth. The process of photosynthesis is very dependent on environmental variables such as photoactive radiation, water availability, temperature, CO₂, salinity, etc. For most crop plants, change in the temperature and CO₂ extremes leads to considerable changes in leaf morphology and structure, dry matter of roots, stems, leaves, and whole plant, as well as the photosynthetic rate, transpiration, and stomatal conductance. Under climatic extremes such as temperature, drought, and CO₂, there is a need for thorough improvement in photosynthetic key limiting factors such as stomatal conductance, mesophyll conductance, biochemical capacity combined with RuBisCo, Calvin–Benson cycle, thylakoid membrane electron transport, non-photochemical quenching, and carbon metabolism or fixation pathways. This Special Issue deals with different approaches to detecting, understanding, and improving the photosynthetic activity of different crops under extreme environmental conditions.





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Message from the Editor-in-Chief

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