Special Issue

Photosynthesis and Carbon Metabolism in Higher Plants and Algae

Message from the Guest Editors

This Special Issue aims to collate research papers on all aspects of photosynthesis in higher plants and algae, carbon metabolism, inorganic carbon transport into plants cells and organoids, the physiological sensing of carbon dioxide and bicarbonate, the participation of higher plants and algae enzymes in these processes. We also welcome papers concerning the locations, functions, participation in metabolic processes, isolation, structure of dark metabolism enzymes. bicarbonate transporters from algae and higher plants with C3 and C4 types of CO2 fixation, new aspects of HCO3⁻ interaction with the components of Photosystem II, the effect of inorganic carbon on the functioning of electron-transport chain, the expression of bicarbonatetransporter-encoding genes, and the practical use of bicarbonate transporter mutants (i.e., their medical relevance, gene manipulation for developing improved agricultural crops, and their application for reducing atmospheric carbon dioxide levels).

Guest Editors

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Deadline for manuscript submissions

closed (31 March 2025)



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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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