Special Issue

Optimizing Photosynthesis for Traits Improvement: Genetic Basis and Molecular Strategies

Message from the Guest Editors

Global crop yields are stagnating or slowing as global climate change and population growth put rising demands on agricultural productivity. Photosynthesis, which captures and stores sunlight as an energy source to sustain virtually all life forms, is one of the most important photochemical reactions on Earth. Increasing the photosynthetic efficiency and performance of plants represents a key strategy as well as one of the remaining routes to improve crop yield potential. Therefore, it is imperative to accelerate our understanding of the genetic basis of plant photosynthetic processes for targeted and precise improvements of the current crops and breeding of future crops. In this Special Issue, investigations or reviews of any of the strategies that identify and characterize genes/QTLs and novel/superior alleles, generate new germplasm resources or construct new technological systems to dissect mechanisms or improvements of any agronomic traits that impact photosynthesis in crops are preferred. In addition, studies on gene function and molecular mechanisms of photosynthetic regulation in model plants including *Arabidopsis* fall within this broad scope.

Guest Editors

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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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