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Light and Plant Response: Adaptation to Extremes, Phenotypic Plasticity and Plant Competition

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Deadline for manuscript submissions:
closed (20 March 2023)

Message from the Guest Editors

Dear Colleagues,

Light is one of the most important environmental factors that influence physiological processes, such as photosynthesis, photomorphogenesis, photoperiodism, phototropism and secondary metabolism (Gelderen et al., 2018). Plants have acquired a sophisticated network of photoreceptors that enable them to perceive and respond to environmental change. This is of particular importance under dense planting conditions, such as in most agricultural fields, where aboveground competition for light occurs. Competition for light among plants often induces asymetric competition, which can be successfully corrected by phenotypic plasticity ability. The effect of light intensity on plants has been studied experimentally for over 100 years now. However, there are still substantial gaps in the knowledge concerning the effects of daily light integral to plant reproduction, respiration, chemical composition, belowground organ adaptations, and plant interrelations.

We welcome original research papers from leaf phenology to the ecosystem scale, based on experimental, theoretical, and modeling approaches, as well as review articles.

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Message from the Editor-in-Chief

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We also encourage timely reviews and commentaries on topics of interest to the plant research community.

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