

Special Issue

Advances in Nanotechnology for Monitoring and Enhancing Plant Physiological Responses Under Environmental Stress

Message from the Guest Editors

The aim of this Special Issue is to advance current understanding and applications of nanotechnology to address the challenges posed by environmental stresses in plants. This issue seeks to bring together innovative research that explores nanoscale tools and technologies to monitor plant health, decode stress signaling pathways, and enhance plant resilience under abiotic and biotic stress conditions. The scope of this Special Issue encompasses the following topics:

- The development and application of nanosensors for detecting plant physiological changes under stress.
- Innovative nanomaterials for the targeted delivery of agrochemicals, nutrients, and growth stimulants.
- The exploration of plant–nanoparticle interactions and their implications for stress adaptation.
- Strategies for integrating nanotechnology into precision agriculture to mitigate environmental challenges.
- Studies on the environmental, ecological, and safety aspects of nanotechnology in agricultural systems.

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, and 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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