

Special Issue

Effects of Non-thermal Plasma Treatment on Plant Physiological and Biochemical Processes

Message from the Guest Editors

The potential of cold plasma-based applications in sustainable agriculture is supported by numerous studies which have gathered experimental evidence that plasma treatment of seeds, water or plants can be used to improve yields, increase the size and the robustness of plants, and to reduce the need of antifungal agents, as well as other chemicals. However, the development of reliable and manageable agro biotechnologies is ultimately based on the understanding of the molecular mechanisms underlying such effects. Short plasma treatments of plant materials can induce various changes in plant development and metabolism that persist for a long time. It is likely that investigations of plasma-induced changes in plant physiological and biochemical processes may reveal new facts of both fundamental and applied importance. This Special Issue of *Plants* aims to present the most recent findings on changes in plant signal transduction, metabolism, development, and physiological processes induced by exposure of seeds or plants to cold plasma or plasma-activated water and leading to increased plant productivity.

Guest Editors

Prof. Dr. Vida Mildažienė

Department of Biochemistry, Faculty of Natural Sciences, Vytautas Magnus University, K. Donelaičio Str. 58, 44248 Kaunas, Lithuania

Dr. Božena Šerá

Faculty of Natural Sciences, Comenius University Bratislava, Ilkovičova 6, 842 15 Bratislava, Slovakia

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
plants@mdpi.com

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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

Prof. Dr. Dilantha Fernando
Department of Plant Science, University of Manitoba, Winnipeg, MB
R3T 2N2, Canada

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