

Special Issue

Technical Advances in Plasma Agriculture

Message from the Guest Editor

Considering the recent necessary trend for green agriculture technologies, plasma, especially non-thermal discharges, has been shown to be an excellent candidate in several such applications. Direct non-thermal plasma treatments or those using water or other plasma-activated liquids have been proven to stimulate the development of plants and the production of nutraceutical compounds, fight pests, or help plants deal with abiotic stress. Post-harvesting treatments might also reduce the microbial load of vegetables and fruits through user-friendly and environmentally friendly techniques without making use of any dangerous chemicals. Despite being a little more than a decade old, the field of plasma agriculture still has much to discover. This Special Issue focuses on recent advances that apply technology out of the lab for field implementation and work on determining the mechanisms of interaction between plasma and the targeted biological medium, the mechanism responsible for the promising results obtained in the field.

Guest Editor

Dr. Iuliana Motrescu

Department of Exact Sciences, Faculty of Horticulture, "Ion Ionescu de la Brad" Iasi University of Life Sciences, 3 Sadoveanu Alley, 700490 Iasi, Romania

Deadline for manuscript submissions

20 October 2025



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/233344

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
appls-ci@mdpi.com

[mdpi.com/journal/
appls-ci](https://mdpi.com/journal/appls-ci)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)