

Special Issue

High-Voltage Plasma Applications in Agriculture

Message from the Guest Editors

Innovative technologies in modern food supply chains are a crucial issue for upholding sustainable societies, such as regenerative agricultures. The food supply chain in the agricultural sector consists of two phases: preharvest (production in agriculture) and postharvest (preserving the quality of the product during storage and transport). High electric fields and plasmas can affect biological components through various processes—such as causing an increase in electrical charge in living organisms and chemical reactions between active species and biological components—and have been actively studied worldwide. To accelerate the progress of novel academic fields, sharing information of state-of-the-art research is critical. Thus, this Special Issue covers high-voltage and plasma applications for (1) the promotion of plant seed germination and seedling growth; (2) nitrogen fixation as a fertilizer; (3) the inactivation of pathogenic bacteria; (4) improving harvest yield; (5) maintaining the quality and safety of products; (6) the food processes of agricultural products; and (7) compact high-voltage devices and plasma generators.

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