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Current and Future Prospects for the Use of Pulsed Electric Field in the Food Industry

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Message from the Guest Editors

In recent years, the use of pulsed electric fields has been applied to the conservation of foods using low temperatures and short treatment time, allowing to obtain processed foods with the same nutritional value and organoleptic characteristics as the fresh products. It is important to know the kinetics of inactivation of microorganisms and enzymes present in food and, once the safety of the processed product is guaranteed, to estimate the degradation of nutrients and their characteristics. We must also extend these studies to determine these mechanisms and kinetics after food treatment. On the other hand, as a result of its ability to permeabilize cell membranes, the pulsed electric field technology allows the extraction of bioactive compounds or natural additives (such as dyes) from the waste generated in the food industry, reducing the use of solvents and the energy used during the process. To guarantee the application of this technique in the food industry, it is necessary to scale the processes at the industrial level.

The objective of this Special Issue is to collect the latest research based on this technology, emphasizing its possible applications in the food industry.



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Special Issue



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Message from the Editor-in-Chief

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