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Non-thermal Processing Technologies and Their Current and Future Applications in the Food Industry

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Message from the Guest Editors

Dear Colleagues,

Non-thermal processing technologies are emerging technologies that have in recent years been mainly used for the inactivation of enzymes and sterilization. People today pay more attention to a balanced diet and prefer to purchase products with high nutritional values for daily requirements. Ensuring safety is the primary requirement for food processing. On the basis of this, it is imperative to find novel processing technologies to preserve food nutrients. Non-thermal processing technologies, including high hydrostatic pressure, pulsed electric field, high-pressure carbon dioxide, irradiation, ultrasonic wave, etc., may help to avoid the loss of biological components. Compared with traditional thermal treatments, non-thermal processing technologies have lower processing temperature, which can help to better maintain the inherent ingredients, color, texture, and freshness in food. Moreover, non-thermal processing technology is environmentally friendly and can further be applied in sterilization, extraction, molecular modification, degradation of harmful ingredients, etc.



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Message from the Editor-in-Chief

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