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Current Practice and Future Directions of Nanotechnology Application on Food Processing

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Message from the Guest Editors

The emergence and rise of nanoscience have led to significant developments in changing the properties of various foods. The novel physicochemical properties at nanoscale matter enhance the texture, color, physicochemical stability and sensory properties of food.

Moreover, nanoscience and nanotechnology have the potential to provide new solutions in the development of functional food, in particular the inclusion of bioactive compounds without affecting the sensory perception of the consumer and improving the uptake of certain components.

Various kinds of nanomaterials have been developed to create delivery systems to protect bioactive agents from harsh processing and storage conditions. Delivery systems have great potential for improving the effectiveness of bioactive compounds to improve human health and wellbeing.

In addition, the application of nanocomposites is expected to expand the use of edible and biodegradable films in active packaging to preserve fresh foods and to extend their shelf life.

Additionally, the detection of microorganisms and contaminants using nanosensors is a particularly important application of food nanotechnology.



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Special Issue



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Message from the Editor-in-Chief

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