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Effects of Nonthermal Food Processing Technologies on Food Allergens: A Review of Recent Research Advances

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Abstract

Background: The increasing prevalence of food allergy cases is an issue of global concern. As a result, scientific innovations have been taking place to induce chemical modifications for achieving attenuation of allergenic responses in sensitive individuals or for manufacturing hypoallergenic foods using food processing technologies. Conventional processing techniques involving heat treatment are usually exploited, but may be accompanied by undesirable changes in food quality attributes due to high temperature. Therefore, alternative nonthermal technologies may be a new direction for attaining hypoallergenicity.

Scope and Approach: This review presents the current knowledge and recent findings on the possibility of engaging nonthermal technologies including pulsed light, high pressure processing, irradiation, cold

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