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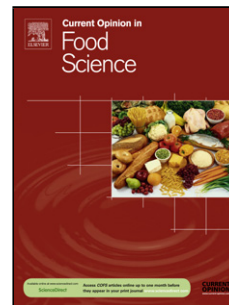
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Food Bioprocessing by Non-Thermal Plasma Technology

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Abstract

Food processing industries are increasing their productivity to grasp global demand, however there are few problems associated with quality and hygiene of the food, limit their progress. Non-thermal plasma technology creates plasmas by changing the state of material from solid to liquid to gas and as a result generates large numbers ions, free radical species and electrons which has great impact on food processing industries. The application of non-thermal atmospheric plasma has major application on surface sterilization in food processing industries, ingredients cleaning to packaging of foods, seed germination, altering the biochemical properties of grains and dough, destruction of pathogens, flavor and aroma enhancing, modification of packaging materials for enhancing self-life etc. In the present review we covered the applications of non-thermal plasma technologies in different ways for the food processing sectors with its advantages over conventional technologies and future applications.

Keywords: Nonthermal, plasma, sterilization, foods processing

Highlights

- Applications of NTM in food processing sector in context of hygiene and minimum loss of nutritional and sensory properties of foods
- Usefulness of NTM in control of microbial load in food industry and decontamination of packaging materials
- Future applications of NTM as green technology in waste management.

Introduction

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