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TAL 797 – Seminário

23-11-2022

effect of ozone gas treatment on food

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Ozone is a potent reactive oxidizing gas used in the food industry for microbial and fungal inactivation. Widely used in aqueous form and mainly in its gaseous form, disinfection and antimicrobial action are its most important features. Treatment with ozone linked to storage corresponds to one of the most encouraging techniques for combating microorganisms found in food and in the air, in addition to being a gas that quickly decomposes into oxygen, without causing harmful damage to the environment and human beings. Considered a triatomic gas, ozone advances to become an increasingly effective agent in combating the disinfection of pathogens. Although its application in food is considered recent, ozone is mainly used to disinfect poultry, meat, fruit, flour, vegetables and grains in post-harvest, storage and food processing. Obstacles such as safety, nutritional and sensory quality and added value are points that the food industry needs to face to ensure consumer safety. In this sense, the demand for in natura, minimally processed, healthier foods, with less chemical treatments and free from environmental damage, is becoming more and more pronounced. Thus, with characteristics such as low energy consumption and free of by-products that are harmful to consumer health and the environment, ozone is the method that responds to market demands.

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