A REVIEW ON CONVENTIONAL TECHNIQUES TO ULTRASONIC TECHNIQUE FOR INACTIVATION OF FUNGI

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ABSTRACT

The demand for higher-quality food items globally has led to an increase in novel methods for food pasteurization. The current paper aims to emphasize the efficacy of ultrasonic technique and to provide an overview of the most recent research in ultrasonic application for the decontamination of fungi in food items. Thus, the relevant article about using ultrasound to inactivate mycotoxins and fungi. For food items, ultrasound (US) is regarded as a non-thermal disinfection technique. In the ultrasonic, pathogens are destroyed by the energy released as a result of the sonic phenomena. The affordability, environmental friendliness, and lack of detrimental effects on the food structure and organoleptic qualities of food products make this method useful. In general, ultrasonic techniques have been used in the food industry to reduce the microbial level of food items during processing.

Keywords: Ultrasound, Microbial inactivation, Decontamination, Mycotoxin, Food contaminant, Food analysis.

1. INTRODUCTION

To guarantee food safety and stop spoiling, fungus in food must be controlled and eliminated. Fungi in food can be decontaminated and made inactive using a number of conventional methods[1,2] as follows:

- Thermal Processing:
  1. Pasteurization [3]is the process of using a little heat to kill or stop the growth of fungus without seriously compromising the food's quality.[1]
  2. Boiling is a straightforward technique for eliminating fungus from some food items, however it might not be appropriate for all food kinds.
- Drying: