

THE EFFECTS OF RADIOFREQUENCY TREATMENT ON MICROORGANISMS INVOLVED IN FOOD SPOILAGE

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Abstract

Food spoilage may be defined as a process or change which renders a product undesirable or unacceptable for consumption. Food stability may be hampered by the contamination of a large diversity of microbial spoilers, from prokaryotes (Gram negative and positive bacteria) to unicellular (yeasts) and multicellular eukaryotes (moulds). In some cases, spoilage is linked to a given strain, while in other cases an association and succession of microorganisms are observed, making a direct connection between observed food spoilage features and microbial metabolic trait hazardous. Effective preventive measures and intelligent preservation methods have been put into place to reduce food spoilage and to prolong food shelf life. The primary focus of food preservation has been on controlling microbial populations, with a specific emphasis on pathogenic microorganisms. Innovative non-thermal processes for preserving food have attracted the attention of many food manufacturers. The objective of this work is to make a short review in respect to radiofrequency treatment as an unconventional antimicrobial treatment of food. The paper presents an inventory of microorganisms involved in food spoilage inactivated by radiofrequency treatment.

Key words: food spoilage, preservation methods, radiofrequency and antimicrobial

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