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Shelf Life Assessment of Sliced Bread by Sorbic Acid Based Active Film

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Food waste and food spoilage is a leading issue facing the world recently. Researchers and industries have made continuous attempts to find out ways to minimize the spoilage by making use of active packaging technologies. The development of active food packaging with antimicrobial functionality enables inhibition of microorganism that caused food spoilage and thus, extends food's shelf life. Radiation-induced grafting has been used in this study to develop sorbic acid (SA) grafted active film. The SA active film was then used to investigate the performance of sorbic acid (SA) based active film on shelf-life extension of sliced bread. The effectiveness of active film against micro-flora formation on bread, moisture content, weight loss, texture and color change was elucidated and discussed. The bread packed with SA active film showed lower in moisture content, weight loss, hardness and color change compared to control. Visual observation of bread packed with SA active film was performed against control film. The SA active film was observed to extend shelf life of bread up to 7 days when compared with the control group, indicating significant reduction of microbial count.

Country/Organization invited to participate

Malaysia

Primary author: Ms SHUKRI, Nor Azwin (Malaysian Nuclear Agency, Malaysia)

Co-authors: Mr WAHIT, Mat Uzir (Universiti Teknologi, Malaysia); Dr GHAZALI, Zulkafli (Malaysian Nuclear Agency, Malaysia)

Presenter: Ms SHUKRI, Nor Azwin (Malaysian Nuclear Agency, Malaysia)

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