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Quality changes in condiment incorporated high pressure processed prawns during low temperature storage

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Peeled and undeveined fresh white prawns were marinated with condiments like chilli powder, salt and turmeric. The condiment incorporated prawns were then vacuum packed in multilayer pouches and subjected to high pressure treatment of 200, 250 and 300 MPa for 5 min at 25°C. The products were subsequently stored at 2±1°C for evaluating shelf life and were periodically analyzed for biochemical, microbiological and organoleptic parameters. Vacuum packed untreated marinated prawns were kept as control. pH values increased during the storage period. Total volatile base nitrogen values were less in pressure treated samples compared to control and showed an increasing trend during storage. Thiobarbituric acid values were within the limit during the storage period. Free fatty acid content increased during the storage period. Total viable count was higher for control samples and increased during the storage period. Control samples were microbiologically and sensorally rejected after 20 days of storage. Among the treatments prawns treated at 250 MPa were sensorally superior to other samples and had a shelf life of 35 days during chilled storage.

Biography

Kamalakanth C.K. has completed his M.Sc. in Food Science and Technology from University of Calicut. Presently working as Senior Research Fellow and pursuing Ph.D. in Extrusion Technology under the guidance of T.K. Srinivasa Gopal, Director, Central Institute of Fisheries Technology, Cochin 29.

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Production of enriched wine with enhanced nutrients from Banana, Papaya and Mango

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Traditionally wine is produced from grapes. Now it is well known that grape wine has many health beneficial effects and this is because various metabolites like reservetol, polyphenols, anthocyanidins can extracted in to it during fermentation process. In present study, fruits such as banana, mango and papaya were used to make wine as they possess highly nutritious component like Vitamin (B5, B6, C, A, E), minerals and polyphenols. These components are known to have many beneficial effects such as restoration of eye sights, absorption of Calcium and Iron, Synthesis of short chain fatty acids and collagen. To prepare wine, banana, papaya and mango pulp was made and yeast (Saccharomyces cerevisiae) were inoculated and was incubated for 10 days. Parameters like pH, CO_2 determination, alcohol percentage, reducing sugar, titrable acidity and protein stability were determined using specific biochemical assays. Papaya wine was prepared using air trapper which enhances the quality on comparison with other fruit wine. Fining material was evaluated by fining trials using bentanoite, casein and gelatin. In comparison bentanoite showed maximum efficacy. Antioxidant activity of the fruit wine were done and compared with standard wine. Taste and flavor was compared with standard wine using artificial intelligence. Results showed quality enhanced crystal clear wine was produced with antioxidant potential having low alcohol percentage.

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