

4th International Conference and Exhibition on

Food Processing & Technology

August 10-12, 2015 London, UK

Microbiological, chemical and organoleptical evaluation for irradiated white shrimp

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The present study was carried out to evaluate the microbiological, chemical and organoleptical aspects of irradiated white shrimp to extend its shelf-life. In this investigation, the shrimps were irradiated at five doses (1.5,3.0,4.5,6.0 and 9.0) , used for preservation,to study the effect of these doses on the microbiological aspects,fatty acids ,amino acids and organoleptical properties of shrimp post-irradiation or after 20 days of storage in comparison with the commercial ones . The results of radiation treatment white shrimp led to reduce the microbial count, *Staphylococcus aureus*, microorganism very much, as microbes destroyed the completely *Salmonella*. The fatty acids composition of irradiated and non – irradiated shrimps were qualitatively similar, since no new fatty acids or other artifacts due to irradiation were observed. The relative percentage of total unsaturated fatty acids of all shrimp lipids was slightly decreased with increasing the irradiation dose, which indicated the possibility of unsaturation to be oxidized by irradiation. The present results indicated that shrimp, which rich source for proteins, is adequate to fulfill a major part of the requirements for human foods. As the results indicated that the shrimp proteins under investigation contained most of the known amino acids particularly the essential amino acid valine, which was found in the amount of 7.74% and other amino acid were found in considerable quantities. Considering the organoleptic evaluation, it could be concluded that the optimum irradiation doses for shrimp should not exceed 3.0 and 4.5 KGy without adverse effect on their chemical and organoleptical properties.

Biography

AL-kuraieef Amal N has completed his PhD from Princess Norah Bint Abdulrahman University, Riyadh, KSA and Postdoctoral studies from the same University. She is Associate Professor, Department of Nutrition and Food Sciences. She has published more than 7 papers in reputed journals and has been serving as Mandatory of Community Services and Environment Development, Faculty of Home Economics.

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