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Approach to the study of the desalting process of green table olives

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Fermentation of green Spanish-style table olives requires relatively low concentrations of salt (5-6%). After fermentation, usually, the levels of salt are increased to preserve the product from spoilage, particularly for preventing the growth of propionibacteria who may lead to the alteration known as "zapateria". However, packaging requires lower salt levels and a desalting process is needed to prepare the olives for the new conditions. Furthermore, the operation is also used for the reduction of the combined acidity to levels convenient for a proper pH achievement in the final product. The operation has been practiced traditionally, but the information on the effects that it has on the physicochemical characteristics of the olives are scarce. Usually, it has been considered that the salt equilibrated with olive fresh juice. Therefore, the calculus is habitually performed considering that only the olive juice participates in such exchange but not the rest of solids. The contribution examines the time required for olive desalting, the modelling of the process and the influence on the diverse physicochemical characteristics of the product like pH, titratable acidity, combined acidity, surface colour or firmness. At the same time, simultaneously with the salt, other minerals leave also the olive flesh. Some of them are considered as valuable nutrients in the diverse legislations on nutritional labelling. The presentation also evaluates the nutritional losses that such leaching represents for the product.

Biography

Antonio López-López received his PhD in Chemistry at the University of Seville in 2006. Currently, he is a tenured scientist at the Instituto de la Grasa (CSIC) in Seville, specialized in the analysis of compounds related to nutritional value of vegetable products. His research has been focused on fat transformation during table olive processing and the bioavailability of mineral nutrients in table olives. Recently, he is involved in research on the influence of genetic, environmental and technological factors on the volatile and semivolatile compounds of table olives and their flavor. He has supervised two PhD Thesis and has published more than 66 scientific contributions in journals and book chapters in the field of Food Science and Technology, as well as three patents. He is also teacher in two Masters offered by the University Pablo de Olavide (UPO) at Seville and the University of Cordoba (UCO).

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