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Vacuum impregnation for the production of strawberry based semi-finished products

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Among consumers there is an increasing demand for processed food stuffs maintaining as much as possible the original characteristics such as flavor and color are a challenge for the food industry that is looking for technical solutions aimed to abate possible damages or changes induced by processing. At present high quality fruit ingredients are highly requested for the production of pastry, frozen desserts, yogurts and confectionery products with specific characteristics such as natural color and flavor, absence of preservatives and suitable rheological properties such as a pleasant texture. Among the processes available to the food industry, vacuum impregnation may represent a suitable solution for obtaining food ingredients with the requested characteristics. The process is based on the use of low pressures followed by reestablishment of the original atmospheric pressure as a mean for increasing the penetration of a solution into a solid having a given porosity. In this work vacuum impregnation has been investigated for the production of sliced strawberries to be utilized with cereals for breakfast. Three different pressures (400 mbar, 600 mbar e 800 mbar) were tested for checking the rate and the amount of a sucrose solution that could be absorbed by the fruits and the final product characteristics were assessed taking into account both the physical-chemical and sensorial characteristics of the obtained product.

Biography

Fernanda Galgano works as an Assistant Professor of Food Science and Technology at the University of Basilicata. Her research activity has been dedicated to food safety, extraction, purification and characterization of natural products, development of new extraction processes. Nowadays, she is focused on the study of the chemical and physical processes occurring during the preservation of food stuffs as well as on the packaging and shelf-life issues of several products such as vegetables, fruits, dairy and meat products. She has published over 70 scientific papers in international and national journals and in proceedings of international of national scientific meetings.

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