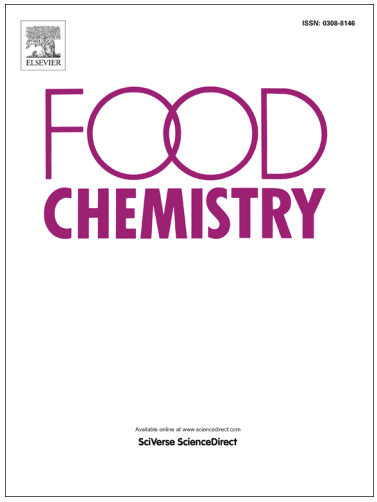

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Influence of Spray Drying Conditions on the Properties of Avocado Powder Drink

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Abstract

Consumers are increasingly looking for foods with attractive taste, easy preparation, quick consumption and nutritious. Avocado is a nutritional fruit that presents a preservation challenge to food industry. The development of powder blends using spray drying of avocado as a powdered drink is an attractive option that generates products with high nutritional value and stable. Two avocado formulations were spray dried using a design of experiments to assess the influence of drying conditions on powder blends. Results showed higher drying temperatures in combination with smaller droplets resulted in higher yields, lower residual moisture, lower water activity, and in smaller, less dense particles with color green. The inclusion of maltodextrin proved to be vital in preserving high contents of protein, ascorbic acid, and phenolic compounds at any drying conditions possibly due to hydrogen bonding stabilization of those compounds. Using a scalable and efficient drying process, avocado high nutritional value was maintained.

Keywords: Encapsulation; Avocado; Spray Drying;

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