عنوان مقاله:

Characterization, Optimization, Physicochemical Properties, and Bioactive Components of Drum-Dried Apple Puree

محل انتشار:

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نویسندگان:

.F. Coskun Topuz - *Department of Food Engineering, Engineering Faculty, Yüzüncü Yıl University, ۶۵۰۸۰, Van, Turkey*

.F. Pazir - *Department of Food Engineering, Engineering Faculty, Ege University, ۳۵۰۰۰, İzmir, Turkey*

خلاصه مقاله:

The aim of this study was to detect the effect of drum-drying parameters on certain physical and chemical properties of apple puree powder. Optimum drying conditions were determined using the Response Surface Methodology (RSM). The qualities of apple puree powder products were investigated in terms of water activity, pH, color, phenolics, antioxidant activity and sensory properties. Apple puree (۱۳ Bx°) and maltodextrin (۱۰ DE) were used as the raw material and carrier agent, respectively. Steam pressure, rotational speed and the puree/maltodextrin ratio were chosen as variable parameters. The effects of three of the parameters mentioned were found to be statistically significant: water activity, pH, and the a* and b* parameters of the powders (P< ۰.۰۵). In this study, the results showed that the optimum drying parameters and the highest desirability could be obtained for a treatment using a ۶۰/۴۰ apple .puree/malodextrin ratio at ۳.۵ bar steam pressure and a ۱ rpm drum rotation speed

کلمات کلیدی:

.Apple powder, Drum drying, Drying, Maltodextrin, Response Surface Methodology