

عنوان مقاله:

Investigating the Mechanism of a Linen Filter for Sesame Oil Filtration at Different Pressures and Temperatures

محل انتشار:

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تعداد صفحات اصل مقاله: 5

نویسندگان:

Behrooz Jahangiri - *Department of Mechanics of Biosystem Engineering, Shahid Bahonar University of Kerman, Kerman, Iran*

Maryam Lotfalian - *Department of Mechanics of Biosystem Engineering, Shahid Bahonar University of Kerman, Kerman, Iran*

Mohammad Hossein Aghkhani - *Department of Mechanics of Biosystem Engineering, Faculty of Agriculture, Ferdowsi University of Mashhad, Iran*

خلاصه مقاله:

Pressing is a common method to extract oil from oilseeds. In this method, no additives are added to the oil. The oil obtained using this method has impurities that make the color cloudy and reduce its shelf life. So, it is necessary to separate these impurities to increase the quality. In order to separate impurities from oil, a set including: pump, filter, flow control valve, pressure control valve and tank was designed and built. In this research, sesame oil was purified using a linen filter, and the compressibility of the cake and the effect of temperature and pressure on the efficiency of the filter were investigated. The compressibility coefficient for the cake in the linen filter was equal to ۰.۱۳, which shows that the porosity of the cake is relatively low. Variance analysis of linen filter efficiency data showed that temperature and pressure have no significant effect on the separation efficiency of this filter and the average separation efficiency of this filter was ۷۶%, also temperature and pressure in the selected ranges did not affect the filter separation efficiency.

کلمات کلیدی:

sesame oil, filtration, cake, compressibility

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