

ABSTRACT

EFFECT OF ADDING 30 GRAMS OF TURMERIC POWDER IN WOSTED COOKED OIL ON VARIATIONS IN ADSORPTION TIME

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Cooking oil is a basic need that is needed in the processing of foodstuffs. However, cooking oil that is used continuously or better known as used cooking oil can be bad for health because there are carcinogenic compounds, such as free fatty acids that are high in used cooking oil. Therefore, it is necessary to conduct research to reduce the number of acids contained in used cooking oil using the adsorption method. The adsorbent used is turmeric. The length of adsorption time is one of the influential factors in the adsorption process so the purpose of this study is to determine the effect of the length of turmeric adsorbent contact time on reducing the acid number of used cooking oil. The variations in contact time used in this study were 35, 45, 50, 55 and 60 minutes. The method used for the analysis of free fatty acids in used cooking oil is alkalimetric titration. The results obtained in this study were a decrease in acid number with a mass of 30 grams, a temperature of 70 ° C and a variation in the length of time of 35, 45, 50, 55 and 60 minutes was 2.0256 mgKOH / g; 1.9825 mgKOH/g ; 1.8126 mgKOH/g ; 1.5778 mgKOH/g ; 1.5197 mgKOH/g and 1.3421 mgKOH/g. Based on the results of research that has been carried out, it can be concluded that variations in the length of contact time with turmeric have an effect on reducing the acid number in used cooking oil. The greater the mass of the adsorbent and the longer the time, the lower the acid number.

Keywords: Turmeric, Used Cooking Oil, Acid Number, Adsorption.