ABSTRACT

(ARTICLE RESUME)

THE EFFECT OF ACTIVE CHARCOAL MASS ON THE REDUCTION OF PEROXIDE NUMBER IN USED COOKING OIL

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The use of used cooking oil is very dangerous for the health of the body, because it can cause various diseases including obesity, cholesterol, hypertension, heart disease and even stroke. One alternative so that used cooking oil can be used again is by processing waste which is processed as an active adsorbent to purify used cooking oil. This adsorption method has a simpler concept, does not cause toxic side effects, can be regenerated, and is inexpensive. In a related article resume, the utilization of waste can be used as an active adsorbent, including empty fruit bunches of oil palm, durian skin, egg shells using the effect of adsorbent mass which can reduce acid numbers. The adsorption process is carried out by converting the obtained waste into a fine powder, dried in an oven. Then the activated carbon in the oven and the waste powder are ready to be used as adsorbents. From the results of calculations and graphs from the articles in the resume, it shows that the adsorbent from the waste is able to adsorb used cooking oil and shows that there is an effect of the mass of the adsorbent on the decrease in the peroxide number. The purification results meet the requirements of SNI 3741:2013, namely with the requirements for normal color and odor, where the quality requirements for the peroxide number are max 2 meq/kg.

Keywords : Adsorption, adsorben, peroxide number, used cooking oil