ABSTRACT
(ARTICLE RESUME)

EFFECT OF ADSORBENT MASS ON ACID NUMBER REDUCTION IN USED COOKING OIL USING ACTIVE CHARCOAL ADSORBENT

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The use of used cooking oil or used cooking oil repeatedly 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 use of waste can be used as an active adsorbent, including durian skin, bagasse, egg shells using the mass effect of the adsorbent which can reduce acid numbers. This 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. The results of calculations and graphs from the articles in the resume show that the adsorbent from the waste is able to adsorb used cooking oil and shows that there is an effect of adsorbent mass on the decrease in acid number. The purification results meet the requirements of SNI 3741:2013, namely with normal color and odor requirements, the maximum acid number value is 0.6 mg/g KOH.

Keyword : adsorption, adsorbent, used cooking oil,durian shell, baggasse, egg shells