

ABSTRAK

VARIASI ARANG AKTIF TEMPURUNG LONTAR (*Borassus flabellifer*L) DAN SABUT KELAPA SEBAGAI ADSORBEN MINYAK JELANTAH

Sana .S.T)*

Nitsae .M)**

Ledo,M.E.S)**

Minyak jelantah merupakan minyak yang tidak layak dipakai lagi dan akan berdampak pada kesehatan apabila tetap dikonsumsi. Penelitian ini bertujuan untuk mengetahui kualitas minyak hasil pemurnian dengan parameter uji pH, asam lemak bebas, dan bilangan asam menggunakan adsorben arang aktif tempurung lontar (*B. flabellifer* L) dan sabut kelapa. Metode yang digunakan yaitu eksperimen dan deskripsi kuantitatif. Hasil penelitian awal minyak jelantah sebelum dilakukan pemurnian yaitu pH sebesar 4, kadar asam lemak bebas (FFA) minyak jelantah sampel 1 (1,326%), minyak jelantah sampel 2 (0,519%) dan minyak jelantah sampel 3 (0,842%). Serta bilangan asam minyak jelantah sampel 1 (2,072), minyak jelantah sampel 2 (0,810), dan minyak jelantah sampel 3 (1,315). Sedangkan, Hasil penelitian minyak jelantah setelah dimurnikan yaitu nilai pH tertinggi menggunakan adsorben sabut kelapa pada minyak jelantah sampel 2 sebesar 14 dan pH terendah menggunakan adsorben arang aktif tempurung lontar pada minyak jelantah sampel 3 sebesar 5,9. Asam lemak bebas tertinggi menggunakan adsorben arang aktif tempurung lontar pada minyak jelantah sampel 1 sebesar 1,420% dan terendah menggunakan adsorben sabut kelapa minyak jelantah sampel 2 sebesar 0,402%, sedangkan bilangan asam terendah menggunakan adsorben sabut kelapa minyak jelantah sampel 2 sebesar 0,628 mgKOH/g. Hasil penelitian menunjukkan bahwa adsorben arang aktif tempurung lontar dan sabut kelapa mampu menurunkan kadar pH, asam lemak bebas, dan bilangan asam tetapi masih tidak sesuai dengan SNI sehingga belum layak untuk dikonsumsi.

Kata kunci : Minyak Jelantah, Variasi Adsorben, pH, FFA, Bilangan Asam .

Keterangan:

***) : Peneliti**

****) : Pembimbing**

ABSTRACT

VARIATIONS OF ACTIVATED CHARCOAL LONTAR SHELL (*Borassus flabellifer L*) AND COCONUT BELT AS ADSORBENT FOR WOSTING OIL

Sana .S.T)*

Nitsae .M)**

Ledo,M.E.S)**

Cooking oil is oil that is not suitable for use anymore and will have an impact on health if it is still consumed. This study aims to determine the quality of purification oil with pH test parameters, free fatty acids, and acid numbers using the active charcoal adsorbent of lontar shells (*B. flabellifer L*) and coconut fiber. The method used is quantitative experiments and descriptions. The results of the preliminary research of used cooking oil before purification are pH of 4, free fatty acid levels (FFA) of used cooking oil 1 (1,326%), used cooking oil 2 (0.519%) and Cooking Oil Sample 3 (0.842%). As well as the used used in used 1 (2,072) used cooking oil, used cooking oil 2 (0.810), and the Cooking Oil Sample 3 (1,315). Meanwhile, the results of used cooking oil studies after purified are the highest pH value using coconut fiber adsorbents in the Cooking Oil Sample 2 is 14 and the lowest pH uses adsorbent active charcoal shells in the lontar shell in the Cooking Oil Sample 3 is 5.9. The highest free fatty acid uses an adsorbent of active charcoal shells in the cooking oil sample 1 is 1.420% and the lowest uses coconut coir adsorbent Sample 2 Coconut Oil is 0.402%, while the lowest acid number uses adsorbent coconut fiber in the cooking oil sample 2 is 0.628 mg KOH /g. The results showed that the adsorbent of active charcoal shells and coconut coir can reduce pH levels, free fatty acids, and acid numbers but still not in accordance with SNI so that they are not suitable for consumption.

Keywords: used cooking oil, variations of adsorbents, pH, FFA, acid numbers.

Information:

***):** Researcher

****):** Supervisor