KARAKTERISTIK MINYAK NILAM RAKYAT (*NON-FACTORY)* HASIL PENJERNIHAN MENGGUNAKAN BENTONIT, ZEOLIT, DAN CAMPURANNYA

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PADANG
2018

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ABSTRAK

Penelitian ini bertujuan untuk mengatahui karakteristik minyak nilam pada penjernihan yang meliputi kejernihan, kelarutan dalam alkohol 90%, kadar zat besi, dan kadar patchouli alkohol. Metode penelitian yang digunakan adalah penelitian eksploratif menggunakan 2 adsorben dengan 6 konsentrasi berbeda: tanpa adsorben, bentonit 2%, zeolit 2%, campuran bentonite-zeolit 4:6, 5:5, dan 6:4 dengan masing-masing campuran sebanyak 2% dari total adsorben. Adsorben tersebut diaktifkan menggunakan HCl 6N. Pengamatan yang dilakukan terhadap kejernihan minyak menggunakan spektrofotometer ultraviolet untuk persentase transmitansinya, kelarutan dalam alkohol 90%, kadar besi menggunakan Spektrofotometeri Serapan Atom (AAS), kadar patchouli alkohol menggunakan Kromatogafi Gas Spektrometri Massa (GCMS). Hasil penelitian menunjukkan bahwa minyak nilam yang diberikan perlakuan penjernihan menggunakan bentonit mimiliki persentase transmitan 60,30%, kadar besi 2,4962 mg/kg, larut dalam 7 ml alkohol 90%, dan kadar patchouli alkohol 27,16%.

Kata kunci – **bentonit, karakteristik, minyak nilam, penjernihan, zeolit**

The Characteristic of Patchouli Oil Purificated By Bentonite, Zeolite, and Bentonite-Zeolite Mixtures

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ABSTRACT

This research aims to determine the characteristics of patchouli oil on purification which includes clarity, solubility in alcohol 90%, iron content, and patchouli alcohol content. The research method used was an exploratory study using 2 adsorbents with 6 different concentrations: no adsorbent, 2% bentonite, 2% zeolite, a mixture of bentonite-zeolite 4: 6, 5: 5, and 6: 4 with 2% each mixture of total adsorbents. The adsorbent was activated using HCl 6N. Observations on oil clarity using ultraviolet spectrophotometer for the percentage of transmittance, solubility in alcohol 90%, iron content using Atomic Absorption Spectrophotometry (AAS), patchouli alcohol content using Chromatogafi Gas Mass Spectrometry (GCMS). The results showed that patchouly oil treated with bentonite had a transmittance percentage of 60.30%, iron content of 2.4962 mg/kg, soluble in 7 ml of alcohol 90%, and patchouli alcohol content of 27.16% .

Keywords – **bentonite, characteristics, patchouli oil, purification, zeolite**