

**PERBANDINGAN PERSENTASE HASIL SINTESIS ISOBUTIL
PROPIONAT (*FLAVOR RUM*) DENGAN JUMLAH KATALIS H₂SO₄
PEKAT YANG BERBEDA**

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ABSTRAK

Sintesis isobutil propionat dilakukan melalui esterifikasi Fischer. Isobutil propionat disintesis dari asam propionat (14,93 ml; 200 mmol) dan isobutanol (4,62 ml; 50 mmol) dengan penambahan 1 mL; 2 mL; 3 mL dan 4 mL asam sulfat pekat sebagai katalis. Hasil sintesis yang diperoleh berturut-turut adalah 65,99%; 73,25%; 68,41%; 66,72%. Karakterisasi isobutil propionat hasil sintesis dengan pengukuran indeks bias n_D^{20} 1,3973; bobot jenis d_{30}^{30} 0,921^g/ml; suhu didih 136°-138°C; Spektroskopi Infra Merah (C=O ester = 1741,88 cm⁻¹; C-O ulur = 1192,12 cm⁻¹; C-H ulur = 2968,71 cm⁻¹); Spektroskopi Resonansi Magnetik Inti ¹H-RMI.

Kata Kunci : Esterifikasi, isobutil propionat, katalis, rum.

ABSTRACT

Synthesis of isobutyl propionate is done by Fischer Esterification. Isobutyl propionate synthesized from propionic acid (14,93 ml; 200 mmol) and isobutanol (4,62 ml; 50 mmol) with the addition 1 mL; 2 mL; 3 mL; and 4 mL of sulfuric acid as catalyst. The product resulted respectively were 65,99%; 73,25%; 68,41%; 66,72%. Characterisation of isobutyl propionate were measured by refractive index n_D^{20} 1,3973; density d_{30}^{30} 0,921^g/ml; boiling temperature 136°-138°C; Infrared Spectroscopy (C=O ester = 1741,88 cm⁻¹; C-O stretch = 1192,12 cm⁻¹; C-H stretch = 2968,71 cm⁻¹); ¹H-NMR Spectroscopy.

Keywords : Esterification, isobutyl propionate, catalyst, rum.