ABSTRACT BOOK

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Synthesis of Bifungsional Catalyst (CaO-MgO/SiO2) for Transesterification Rubber Seed Oil

Kamisah D. Pandiangan1, Wasinton Simanjuntak1, Mita Rilyanto1, Nono sar Jamarun1, and Syukri Arief1
1Department of Chemistry, University of Lampung, Bandar Lampung, Indonesia.
2Department of Chemistry, University of Andalas University, Padang, Indonesia.

E-mail: kamisahdelilawati@yahoo.com

Abstract. Synthesized bifungsional catalyst (CaO-MgO/SiO2) was carried out by sol-gel method with different relative amounts of dopant (CaO-MgO) to supporting matrix (SiO2) to produce two types of catalyst i.e. with the compositions of 1: 1: 3 and 1: 1: 5. Each catalyst was calcined at 500, 600, 700, 800, 900 °C, and tested for activity in the transesterification reaction of rubber seed oil. The results showed that CaO-MgO/SiO2 1: 1: 5 calcined at 800 °C was the best catalyst. The optimum transesterification conditions are the use of 5% catalyst, 50 mL methanol, 10% co-reactant, carried out for six hours at 70 °C with 90% conversion.

Keyword:-

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