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ABSTRACT BOOK

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

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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 oC 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 oC with 90% conversion.

Keyword:-