

TRANSESTERIFICATION OF SOYBEAN OIL USING KI/ MESOPOROUS SILICA AS A CATALYST

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Resumo

The objective of this research was to observe the catalysis of soybean oil for the formation of the biodiesel. The catalyst studied was potassium iodide/ mesoporous silica. The reaction occurred between soybean oil and methanol. The variables addressed during the reaction were temperature, residence time and catalysis on conversion to methyl ester. The variation of the parameters was efficient, however among the studied variables the best result was the temperature 20°C, with reaction time of 8 hours, 15% WT of iodide as well as 5% of catalyst base in weight of oil. The maximum conversion obtained under the described conditions was 90,09%. The only problem addressed was the high viscosity of the final product.

Keywords: Biodiesel. KI/mesoporous silica. Soybean oil.

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