

**“PRODUCTION OF BIODIESEL (MAHUA OIL METHYL ESTER) USING
HETEROGENEOUS BASE CATALYSED TRANSESTERIFICATION”**

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ABSTRACT

The increasing industrialization and motorization of the world has led to a steep rise for the demand of petroleum-based fuels. Petroleum-based fuels are obtained from limited reserves. These finite reserves are highly concentrated in certain regions of the world. Therefore, those countries not having these resources are facing energy/foreign exchange crisis, mainly due to the import of crude petroleum. Hence, it is necessary to look for alternative fuels which can be produced from resources available locally within the country such as alcohol, biodiesel, vegetable oils etc.

Biodiesel is a fatty acid alkyl ester which is renewable, biodegradable and non toxic fuel which can be derived from any edible & non edible oil by transesterification process. In the present investigation, Mauha oil methyl ester (MOME- biodiesel) is produced by using calcinated calcium oxide, a heterogeneous base catalyst by transesterification process. Measuring properties of various blends of MOME are measured and compared the properties with ASTM biodiesel standards.

KEY WORDS: Biodiesel, Mahua oil, Heterogeneous Base Catalyst, Transesterification.