



**Biodiesel properties of *Putranjiva roxburghii* and *Plumieria rubra* seed oils:
Evaluation based on fatty acid chemistry**

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ABSTRACT

*In this work new feedstock for biodiesel production has been screened. Non edible seed oil species like *Putranjiva roxburghii* (PRO) and *Plumieria rubra* (PR) plant species which yields 22% and 40% seed oil respectively. The molecular weight of oil is calculated based on the percentage component fatty acids of the seed oils. The prominent parameters of bio-diesel such as cetane number (CN), lower heating value (LHV) and higher heating value (HHV) of these Fatty Acid Methyl Esters (FAMES) are empirically determined. The bio-diesel property of Fatty Acid Methyl Esters (FAMES) of these seed oils is compared with existing bio-diesels which confirmed the suitability of these seed oils for the generation of biodiesel. The seed oils selected in this investigation convene the major specification of biodiesel standards organizations like American (ASTM), Germany (DIN) and European (EN). This work reports the suitability of these candidates for the bio-diesel productivity.*

Keywords: *Putranjiva roxburghii*, *Plumieria rubra*, unusual fatty acids, industrial utilization, biodiesel.
