**Abstract**

Biodiesel production has received considerable attention in the past as a biodegradable and non-polluting fuel. The production of biodiesel by transesterification process employing alkali catalyst has been widely accepted for its high conversion and reaction rates. In India, non edible oils like jatropha oil, rubber seed oil, madhuca oil etc., are available in abundance, which can be converted to biodiesel. In the present study, biodiesel has been prepared from pongamia seed oil. As the acid value of this oil is high, it is reduced by esterification followed by transesterification process. The experimental work revealed the suitability of Sodium hydroxide / Potassium hydroxide and methanol as solvent for maximum methanolysis at 60-70oC in 45 minutes. Properties of biodiesel are in concordance with international standards.