

PRAGMATIC APPROACH TO BIODIESEL PRODUCTION USING *Jatropha Curcas* OIL

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Abstract

The development of renewable energy source as an alternative to petroleum has become a global phenomenon which Researcher's around the globe have researched into and found viable for sustainable energy source. This is necessitated by the fact that the energy from fossil fuel is: exhaustible and unclean, and threatening issues of global warming and climate change. In a search for new energy sources, much attention is focused on biomass as a reliable and renewable source that is able to satisfy a significant part of the energy demands. Biodiesel is one of the most attractive biofuels because of its biodegradability, higher flash point, reduced production of most regulated exhaust emissions, miscibility in all ratios with petro-diesel, compatibility with the existing fuel distribution infrastructure and inherent lubricity. Among the renewable energy source is biodiesel an alternative to fossil diesel. The diesel fuel plays an essential function in the industrial economy of Nigeria. The fuel is used in heavy trucks, city transport buses, electric generators, farm equipment etc. Fast depletion of fossil fuels resulting in unpredictable increase of crude oil prices and growing worldwide concern for environmental degradation have necessitated that alternative energy sources must be expeditiously identified to replace traditional fossil fuels, hence the need for biodiesel. Due its importance in driving the economy, NARICT embarked on research on Biodiesel production using local bio-resources with *Jatropha curcas* been the best candidate. The need to meet the increasing global demand for energy while addressing climate change concerns has provided an impetus for research into the production of biodiesel from *Jatropha curcas*.
