

Emissions Of Transesterification Jatropha-Palm Blended Biodiesel

Syarifah Yunus, Amirul Abd Rashid, Nik Rosli Abdullah, Rizalman Mamat,
Syazuan Abdul Latip

^aFaculty of Mechanical Engineering, Universiti Teknologi Mara, 40450 Shah Alam, Selangor, Malaysia

^bFaculty of Mechanical Engineering, Universiti Malaysia Pahang, 26600 Pekan, Pahang, Malaysia

Abstract

This paper deals with emissions of transesterification Jatropha-Palm blended biodiesel as fuel for 4-stroke single vertical cylinder diesel engine. The engine emissions of Carbon Monoxide (CO), Carbon Dioxide (CO₂) and Nitrogen Oxides (NO_x) were analyzed and discussed. All tests were carried out at varied load conditions which were 0.13, 0.15, 0.17, 0.19 and 0.21 kW. The results revealed that higher CO, CO₂ and NO_x produced from all biodiesel blended as compared to Diesel Fuel (DF). This might be due to the higher oxygen content in the biodiesel structure and also higher exhaust temperature during combustion which promotes the formation of more hazardous gases.

Keywords : Jatropha-palm; blended; biodiesel; emission

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