

## Synthesis of biodiesel and determination of fuel characteristics

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Various type of alternative fuel have been developed due to exhaustion of fossil fuel reserves and high oil price. Biodiesel is produced from the reaction of triglyceride, which is main component of animal fat and vegetable oil, and methanol by methanolysis as it is known for eco- friendly fuel for alternative petrodiesel. In this work, it was analyzed for the characteristics of the blended biodiesel with domestic petrodiesel according to blending ratio. Density, kinematic viscosity and flash point were increased with increasing the content of biodiesel. But the characteristic of blended biodiesel fuel were changed to aggravate in low temperature. Also, the derived cetane number (DCN) from IQT was increased by added biodiesel. Especially, the DCN of biodiesel from palm oil showed 71.26.