

عنوان مقاله:

Performance and Emission Characteristic of Distilled Technical Cashew Nut Shell Liquid Stabilized Triglyceride Biofuel

محل انتشار:

فصلنامه انرژی و محیط زیست ایران، دوره 6، شماره 4 (سال: 1394)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

Crops such as Jatropha and Pongamia are being grown exclusively for biofuel production. An alternative approach is to grow a food crop and use the waste material for biofuel. Distilled technical cashew nut shell liquid (DT-CNSL) can be used as a non-transesterified biofuel and can also act as an additive to enable vegetable oil triglycerides to be used directly with diesel. In this study we evaluate the emission and performance characteristics of blends of vegetable and tallow oils stabilized in diesel with DT-CNSL. It was found, DT-CNSL can be used as an excellent biofuel additive. Triglycerides is directly blended with diesel in the presence of DT-CNSL and then used in conventional diesel engines. DT-CNSL blends of diesel obey emission and performance parameters of diesel. DT-CNSL offers stability to blends of tallow oil in diesel and the saturated nature of triglycerides seems to be not an issue and there is no formation of precipitates or solidification at -10oC. This publication demonstrates the use of both tallow .oil and plant oils as direct blends of diesel without transesterification in the presence of DT-CNSL

کلمات کلیدی:

Biodiesel, Cashew nut shell oil, Diesel fuel additive, Jatropha, Diesel engine, Tallow oil, Triglycerides

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