

SUMMARY

PEMBUATAN BIODIESEL DARI MINYAK GORENG BEKAS DENGAN METODE FOOLPROOF

THE MAKING OF BIODIESEL
FROM WASTE VEGETABLE OIL
BY FOOLPROOF METHOD

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Subject : Bahan bakar motor

Keyword : Biodiesel, Minyak Goreng Bekas, Metode Foolproof,
Transesterifikasi

Description :

Biodiesel merupakan bahan bakar alternatif yang terbuat dari minyak nabati Tujuan penelitian adalah menetapkan suhu dan waktu terbaik pada proses transesterifikasi dan pengaruhnya terhadap kualitas biodiesel yang dihasilkan. Pembuatan Biodiesel pada penelitian ini menggunakan Metode Foolproof, terdiri dari beberapa tahapan proses yaitu pemucatan minyak goreng bekas, tahap esterifikasi, tahap transesterifikasi dan tahap pemurnian, lalu Metil Ester dilakukan pengujian berupa uji Densitas pada 40oC, Flash Point, Pour

Point, Viskositas Kinematik pada 40oC, Korosi Lempeng Tembaga, Calculated Cetane Index, Heating Value. Dari penelitian diketahui bahwa semakin tinggi suhu (dibawah titik didih metanol) dan semakin lama waktu reaksi maka yield yang didapatkan semakin besar dan kualitasnya juga

semakin baik, yield Metil Ester terbaik dan terbesar yaitu 90% didapatkan pada suhu 60oC dengan waktu reaksi 120 menit.

Description Alt:

Biodiesel is an alternative fuel made from vegetable oil. The aim of this research were decided the best time and temperature of transesterification and its effect on quality of biodiesel. This research used Foolproof method, included a several process. There was Bleaching, Esterification Transesterification

and Purification. The last step was analyzing yield of methyl ester by Density at 40oC, Flash Point, Pour Point, Kinematic Viscosity at 40oC, Copper Strip Corrosion, Calculated Cetane Index, and Heating Value. The conclusion of this research were higher temperature and longer time gave bigger yield of methyl ester and better analyzing result. The best yield was 90% achieved at temperature 60oC and reaction time 120 minutes, at that point so gave the best analyzing result of biodiesel characteristic.

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Thank You,

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