Abstrak

UJI KUALITAS BIODIESEL DENGAN PEMBANDING BIODIESEL STANDAR PRODUKSI BPPT BERDASAR PARAMETER KANDUNGAN SENYAWA, TURBIDITAS, DAN VISKOSITAS KINEMATIK

Pada penelitian ini telah dibuat biodiesel dari jelantah dan metanol dengan variasi konsentrasi NaOH dalam metanol berturut-turut 3 g/60 ml, 3 g/70 ml, 3 g/80 ml, 3 g/90 ml, dan 3 g/100 ml. Untuk mengetahui senyawa yang terkandung pada biodiesel digunakan *UV /Vis Spektrofotometer SP8-400* dan *Gas Chromatography (GC)*. Selain itu dilakukan pula pengukuran turbiditas dan viskositas kinematik. Hasil yang diperoleh dibandingkan terhadap senyawa yang terkandung, turbiditas, dan viskositas kinematik biodiesel standar produksi Badan Pengkajian dan Penerapan Teknologi (BPPT). Dari hasil pengukuran sampel biodiesel diketahui bahwa senyawa penyusun pada sampel biodiesel mirip dengan senyawa biodiesel standar. Nilai turbiditas sampel biodiesel antara 0,69-1,72 NTU dan nilai viskositas kinematik sampel biodiesel 4,19 - 6,49 mm^2/s.

Abstract

BIODIESEL QUALITY TEST BY COMPARING ITS COMPOUNDS CONTAIN, TURBIDITY, AND KINEMATIC VISCOSITY TO THE BPPT STANDARD BIODIESEL PRODUCT

In this research, biodiesel is made from jelantah and methanol using NaOH as catalyst. The mount of jelantah is 500 ml with variation of NaOH concentration in metanol are 3 g/60 ml, 3 g/70 ml, 3 g/80 ml, 3 g/90 ml, and 3 g/100 ml respectively. The UV/Vis Spectrophotometer SP8-400 and Gas Chromatography (GC) are used to analize the compounds contain in biodiesel. Inspite of UV/Vis Spectrophotometer SP8-400 and GC analysis, the measurement of turbidity and kinematic viscosity are also perfomed. The obtained results compare to the compounds contain, turbidity, and kinematic viscosity of Agency for the Assessment and Application of Technology (BPPT) standard biodiesel. From the biodiesel samples results, it is known that the compound of biodiesel samples similar with the standard biodiesel. The biodiesel samples turbidity values are in the range 0.69-1.72 NTU and kinematic viscosity in the range 4.19-6.49 mm^2/s.