

Supplementary Data

This supplementary data is a part of a paper entitled “Discrimination of Biodiesel-Diesel of B7 and B10 by Infrared Spectroscopy with Dendrogram”.

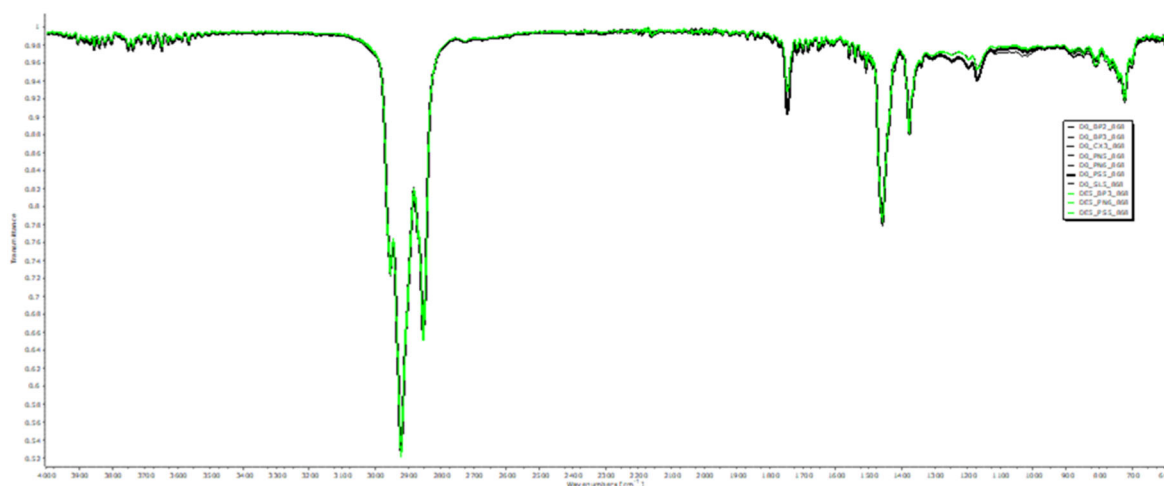


Fig S1. Raw FTIR spectra of B7 and B10 acquired between 600 and 4000 cm⁻¹ using a portable BRUKER spectrometer. The sample scan and resolution are 32 and 4 cm⁻¹, respectively. These biodiesel-diesel samples were obtained in Mersing, Malaysia

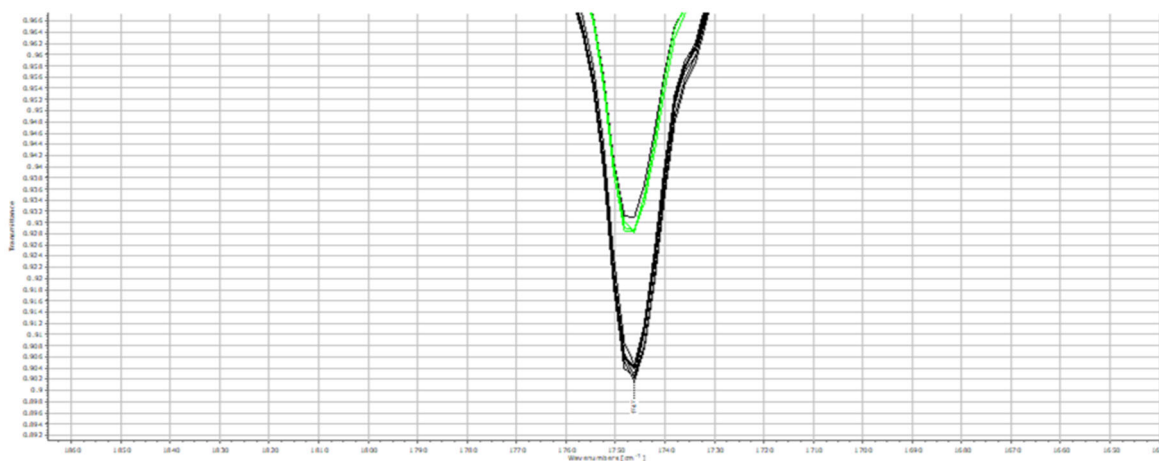


Fig S2. Raw FTIR spectra of B7 and B10 acquired between 1698 and 1777 cm⁻¹ using a portable BRUKER spectrometer. The sample scan and resolution are 32 and 4 cm⁻¹, respectively. The peak displayed here show C=O stretching peak at 1747cm⁻¹. These biodiesel-diesel samples were obtained in Mersing, Malaysia

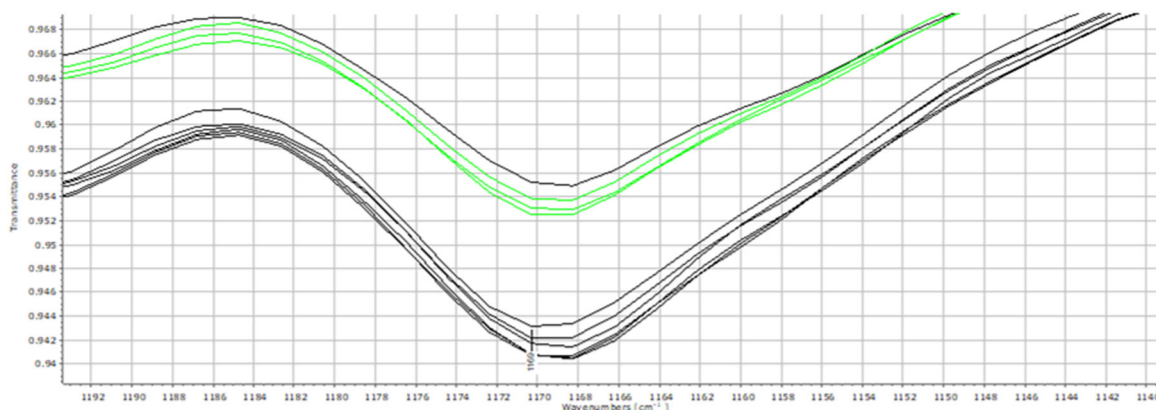


Fig S3. Raw FTIR spectra of B7 and B10 acquired between 1129 and 1186 cm^{-1} using a portable BRUKER spectrometer. The peak displayed here show C–O stretching peak at 1169 cm^{-1} . These biodiesel-diesel samples were obtained in Mersing, Malaysia

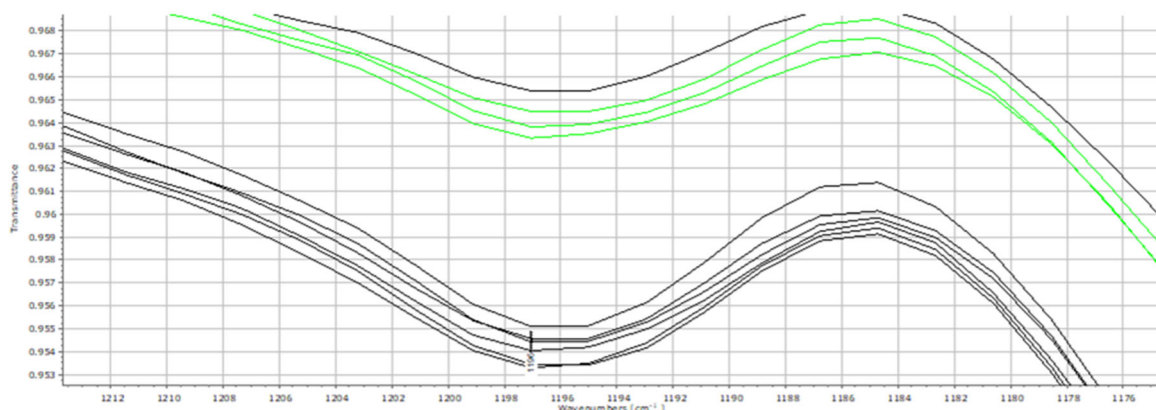


Fig S4. Raw FTIR spectra of B7 and B10 acquired between 1184 and 1223 cm^{-1} using a portable BRUKER spectrometer. The peak displayed here show C–O stretching peak at 1196 cm^{-1} . These biodiesel-diesel samples were obtained in Mersing, Malaysia

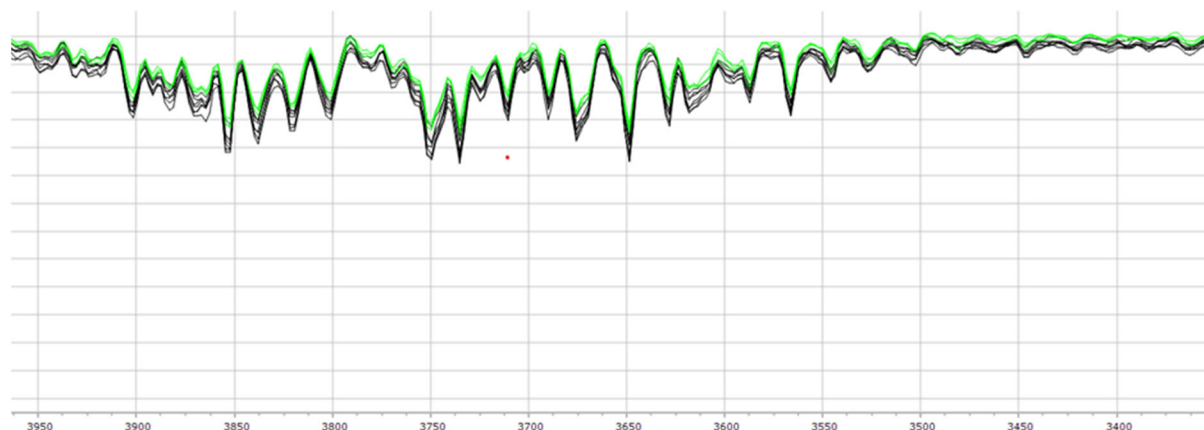


Fig S5. Raw FTIR spectra of B7 and B10 acquired between 3400 and 4000 cm^{-1} using a portable BRUKER spectrometer. The peaks displayed here are very likely showing stretching region of the hydrocarbon. These biodiesel-diesel samples were obtained in Mersing, Malaysia

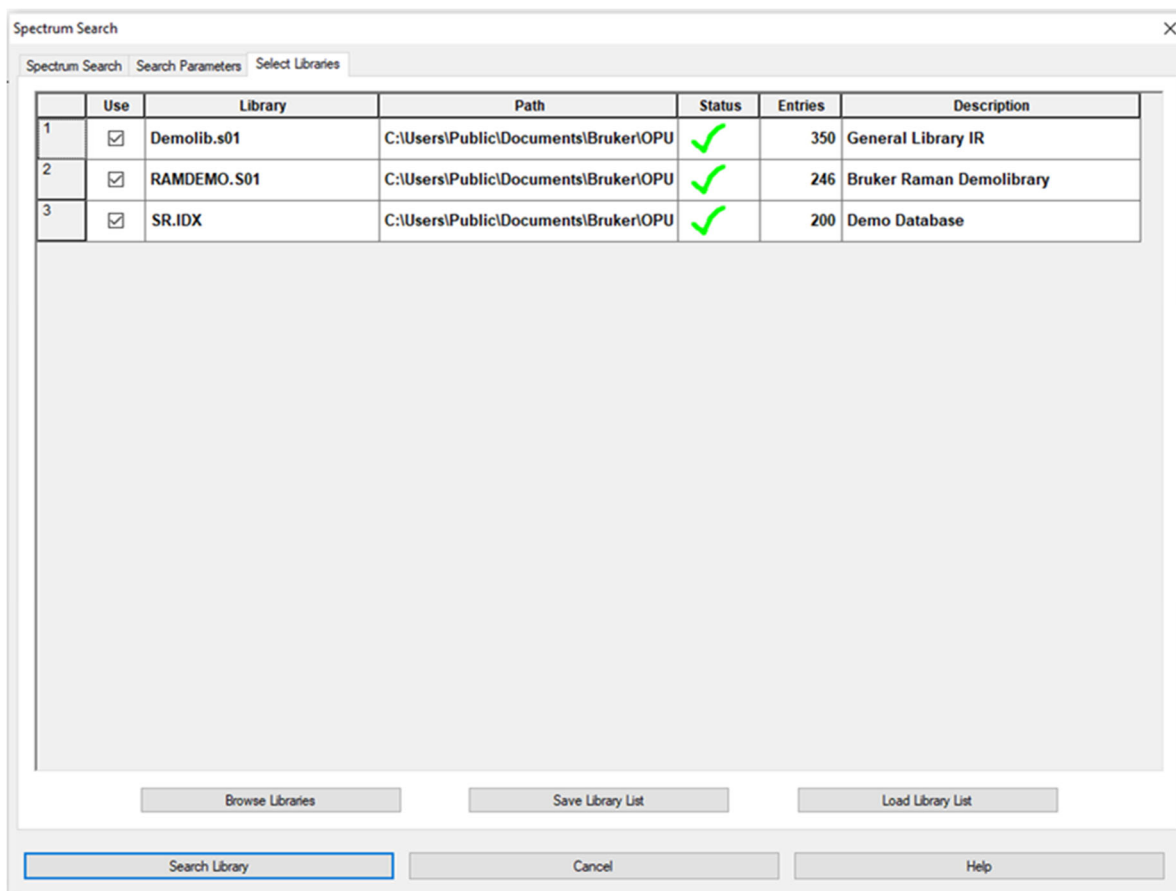


Fig S6. Two different algorithms included in the Opus software was evaluated for analysis of petrol biodiesel samples. Three reference libraries containing respectively 350 (General Library IR), 246 (Bruker Raman Demo library) and 200 (Demo Database) commercialized spectra were used to identify unknown B7 and B10 spectra (n = 10)