

Comparison of cetane index with biodiesel cetane index for fatty acid methyl esters present in six seed oils

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Abstract

Abstract This letter compares cetane index (CI) with biodiesel cetane index (BCI) of total fatty acid methyl esters (FAME) present in six seed oils. BCI of these FAME compositions estimated from its predicted and experimental densities is within the range of measured derived cetane numbers (DCN) in comparison to CI. Predicted and experimental densities of FAME compositions have a linear relationship with BCI compared to the reported plot of a single FAME density with cetane numbers. In conclusion, BCI estimated from FAME compositions of several lipid sources is a credible method to select fewer samples for measuring derived cetane numbers.

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