

Accurate determination of methyl ester content in biodiesel using correction factor

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A modified method for the determination of the content of fatty acid methyl esters (FAMES) in biodiesel based on EN 14103 was presented. Biodiesel is a mixture of fatty acid alkyl esters derived from biological materials such as vegetable oils or animal fats. In the case of analysis for the content of FAMES in biodiesel, the calibration result between internal standard and analyte can be changed according to fatty acid compositions of biodiesel. Results showed that the ester contents in biodiesel calculated by EN 14103 were different depending on the types of biodiesel. By using the correction factor, this modified method can not only correct for the loss of analyte during sample preparation or sample inlet, it can also be suitable to analyze accurately the ester content of biodiesel derived from various feedstock.