Analysis of Robusta coffee oil

Introduction

Gas chromatography with an Agilent CP-TAP CB for Glycerides column separates six $C_{50}$ to $C_{56}$ triglycerides in Robusta coffee oil in 18 minutes.

Authors

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Conditions

Technique: GC-capillary

Column: Agilent CP-TAP CB, 0.25 mm x 25 m WCOT fused silica coated with TAP (0.10 µm) (Part no. CP7483)

Temperature: 340 °C (1 min) → 355 °C (1 °C/min)

Carrier Gas: H₂, 100 kPa (1 bar, 15 psi)

Injector: On-column

Injection: 0.2 µL of 0.05% coffee oil Robusta in hexane

Detector: FID

Peak identification

1. PPP M: myristics acid, tetradecanoic acid C14:0
2. MLP P: palmitic acid, hexadecanoic acid C16:0
3. PLS S: stearic acid, octadecanoic acid C18:0
4. PLO O: oleic acid, cis-9-octadecanoic acid C18:1
5. PLL L: linoleic acid, cis,cis-9,12-octadecadienoic acid C18:2
6. SLS

* In this nomenclature the fatty acids of the glycerol side chain are mentioned.