



FAME, C18 cis/trans isomers

Separation of C18:1 cis/trans FAME isomers in milk fat

Application Note

Food Testing & Agriculture

Authors

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Introduction

Gas chromatography with an Agilent CP-Select CB for FAME column separates 14 C18:1 cis/trans FAME isomers in milk fat in 52 minutes.



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Conditions

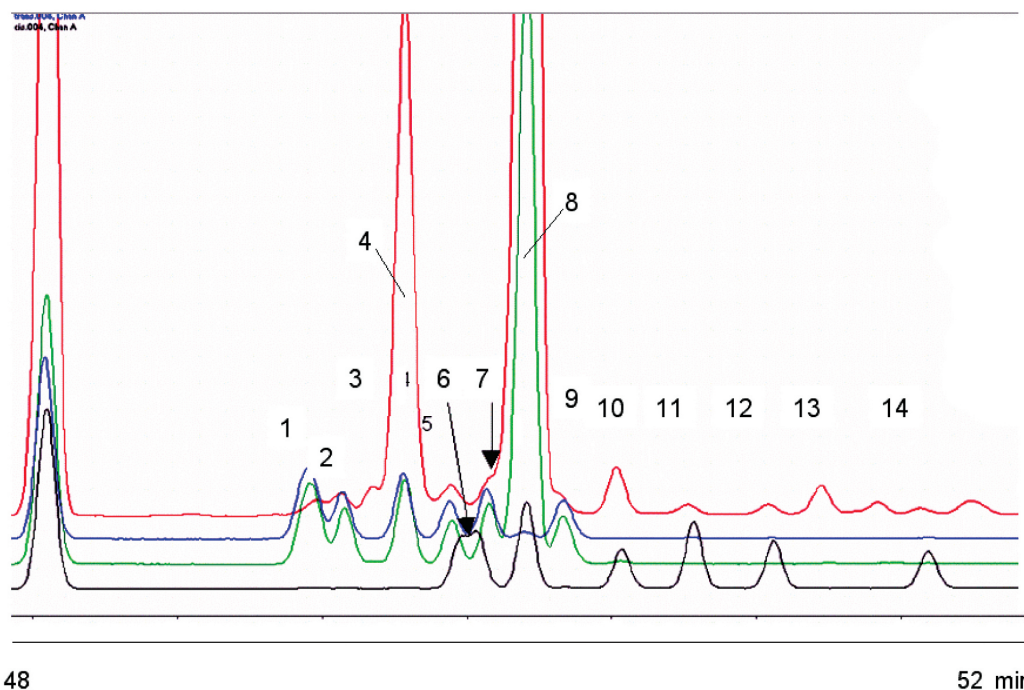
Technique : GC
Column : Agilent CP-Select CB for FAME, 0.25 mm x 200 m
fused silica (optimized filmthickness)
Part no. CP7421
Temperature : 172 °C
Carrier Gas : Hydrogen, 27 cm/s
Injector : Split, 1:50
T = 260 °C
Detector : FID
T = 270 °C
Sample Size : 1 µL
Concentration Range : 0.04 - 0.07 mg/mL
Solvent Sample : hexane
Derivatization : with TMSH

Red line : FAME Milk fat
Green line : FAME C18:1 trans isomers (standard)
Blue line : FAME C18:1 trans & cis isomers (standard)
Black line : FAME C18:1 cis isomers (standard)

Courtesy : P. Möckel, Institute für Ernährungswissenschaften,
Jena, Germany

Peak identification

1. C18:1 trans 6/7
2. C18:1 trans 9
3. C18:1 trans 10
4. C18:1 trans 11
5. C18:1 trans 12
6. C18:1 cis 6
7. C18:1 trans 13
8. C18:1 cis 9
9. C18:1 trans 15
10. C18:1 cis 11
11. C18:1 cis 12
12. C18:1 cis 13
13. C18:1 trans 16?
14. C18:1 cis 15



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This information is subject to change without notice.

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