

Separation of cis-trans FAME isomers

Application Note

Materials Testing & Research

Authors

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Introduction

Agilent CP-Select CB for FAME is a highly polar capillary column with comparable selectivity for FAME as the Agilent CP-Sil 88. The bonded phase can be efficiently coated on long capillaries. For separating individual FAME trans isomers, highest separation efficiency is required. A 200 meter column was used for this application and results look very good as many trans fatty acids can be individually quantified. The CP-Select CB for FAME is stable up to 290 °C.



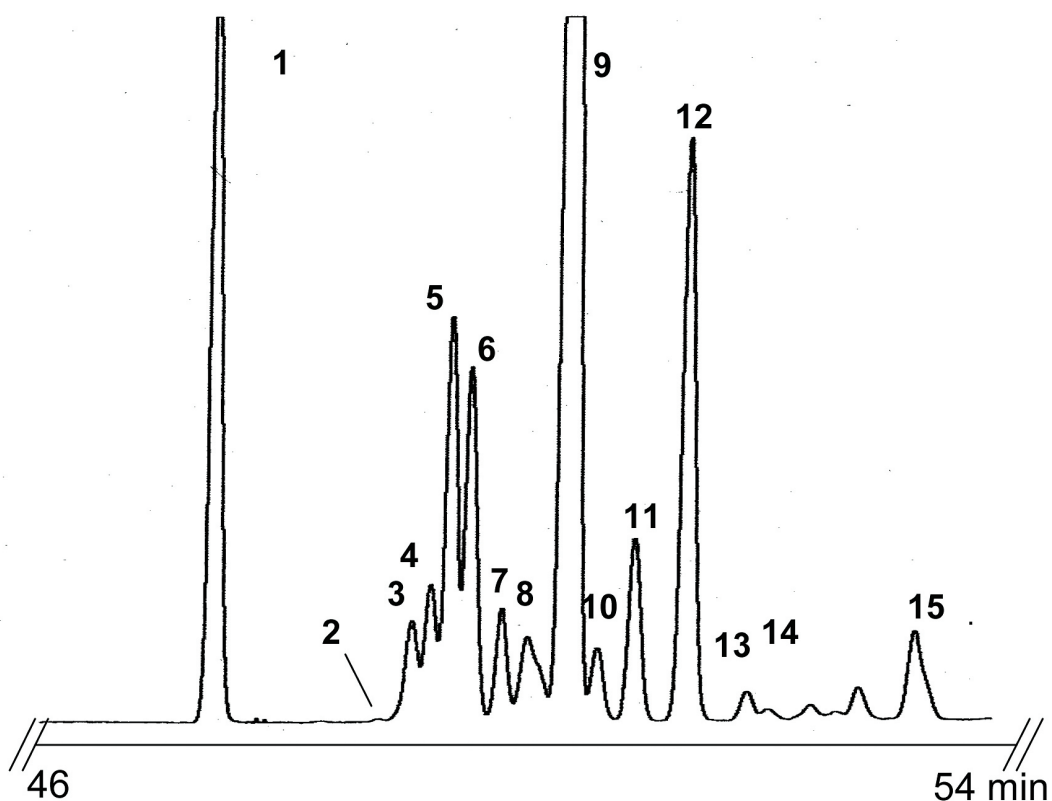
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Conditions

Technique : GC
Column : Agilent CP-Select CB for FAME, 0.25 mm x 200 m
fused silica (Filmthickness: optimized)
Part no. CP7421
Temperature : 185 °C
Carrier Gas : Helium, 520 kPa
Injector : Split, 1:20
T = 250 °C
Detector : FID
T = 250 °C
Sample Size : 0.5 µL
Concentration Range : ca. 5 nanograms per component on the column

Peak identification

1. C18:0
2. C18:1 7 trans
3. C18:1 8 trans
4. C18:1 9 trans
5. C18:1 10 trans
6. C18:1 11 trans
7. C18:1 12 trans
8. C18:1 13 trans+?
9. C18:1 9 cis
10. C18:1 10 cis
11. C18:1 11 cis
12. C18:1 12 cis
13. C18:1 13 cis
14. C18:1 14 cis
15. C18:1 15 cis



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This information is subject to change without notice.

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