



Analysis of FAME in butter

Application Note

Food Testing & Agriculture

Authors

Agilent Technologies, Inc.

Introduction

FAME components can be separated on several stationary phases. Highest resolution for FAME will be obtained using polar phases, like the Agilent CP-Sil 88. The Agilent CP-Select CB for FAME is a 100% bonded polar phase with a selectivity comparable to the CP-Sil 88, but with a unique stability as it is 100% immobilized. As a result the CP-Select CB for FAME has a uniquely high stability and can be used repeatedly with splitless or on-column injection techniques without losing any efficiency. The bonded polar phase is also stable up to 290 °C, allowing a fast bake-out. Column bleed is very low providing excellent quantification for trace compounds, especially in combination with sensitive detectors like the different MS detection systems. Another characteristic of the CP-Select CB for FAME is the high loadability, which is at least a factor 3 higher allowing better separations for FAME isomers eluting close together.



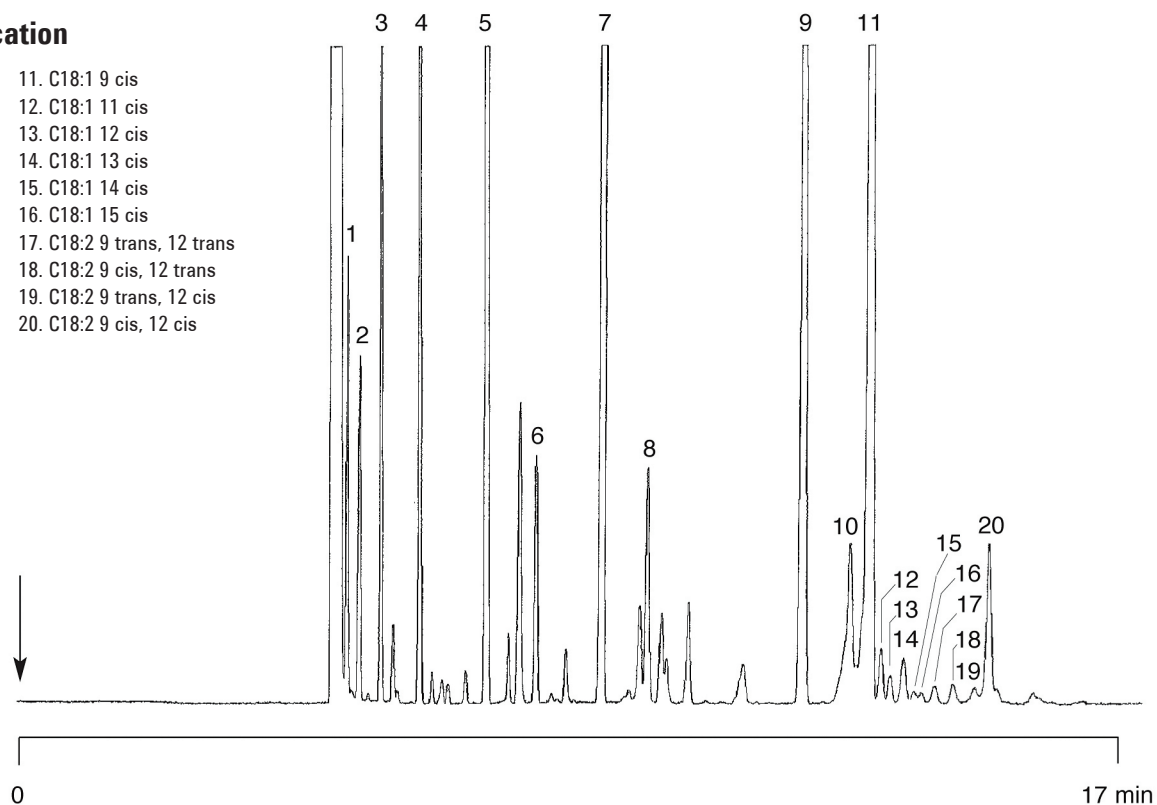
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Conditions

Technique : GC-capillary
Column : Agilent CP-Select CB for FAME, 0.25 mm x 50 m
fused silica WCOT (Part no. CP7419)
Temperature : 185 °C
Carrier Gas : He, 130 kPa (1.3 bar, 19 psi)
Injector : Split, 1:100
T = 250 °C
Detector : FID
T = 250 °C
Sample Size : 1 µL
Sample : butter (methylesters)

Peak identification

- | | |
|-----------------|-----------------------------|
| 1. C6:0 | 11. C18:1 9 cis |
| 2. C8:0 | 12. C18:1 11 cis |
| 3. C10:0 | 13. C18:1 12 cis |
| 4. C12:0 | 14. C18:1 13 cis |
| 5. C14:0 | 15. C18:1 14 cis |
| 6. C14:1 | 16. C18:1 15 cis |
| 7. C16:0 | 17. C18:2 9 trans, 12 trans |
| 8. C16:1 9 cis | 18. C18:2 9 cis, 12 trans |
| 9. C18:0 | 19. C18:2 9 trans, 12 cis |
| 10. C18:1 trans | 20. C18:2 9 cis, 12 cis |



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This information is subject to change without notice.

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