

Application Report 51

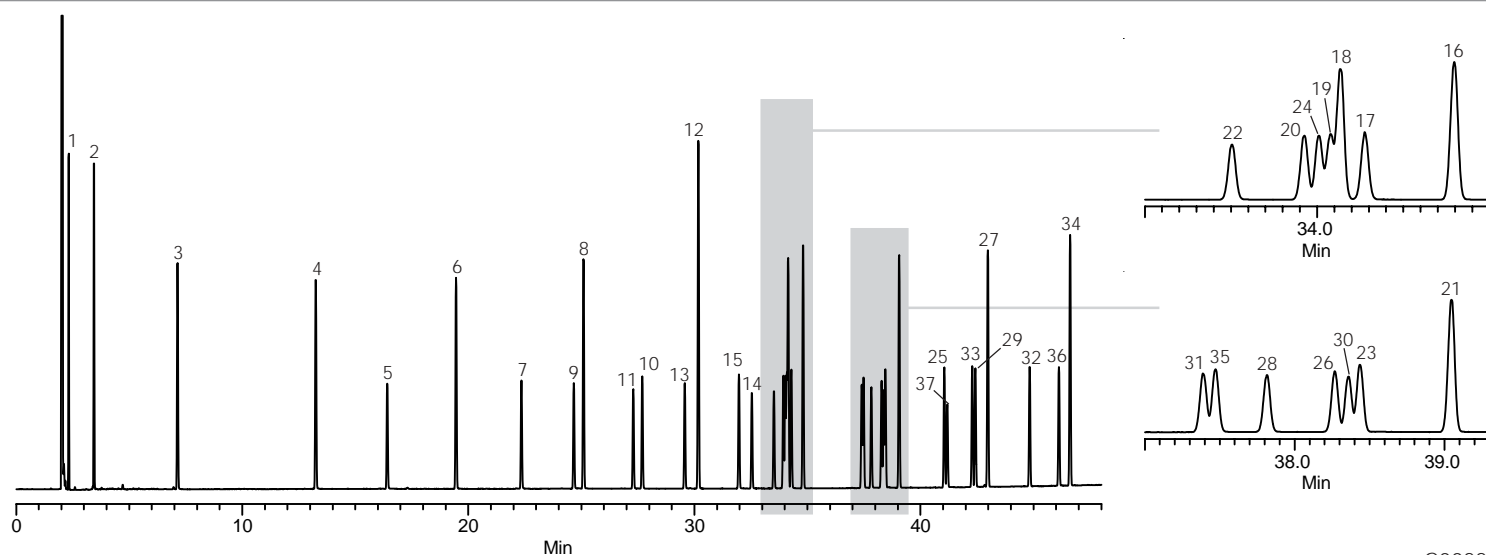
37-Component FAME Mix on the Equity™-1

This application demonstrates the separation of our 37-component fatty acid methyl ester (FAME) reference standard on the 30m x 0.25mm ID x 0.25µm Equity-1 capillary column. On nonpolar columns, FAMES elute by boiling point. For acids of each carbon chain length, unsaturated isomers elute prior to the saturates in order of decreasing unsaturation.

Key Words

fatty acids, methyl esters, Equity, 28046-U, 24056

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Acquisition System: GC9499
Notebook Reference: 1435-64



G002232

Conditions

Column: Equity-1, 30m x 0.25mm ID, 0.25µm
Cat. No.: 28046-U
Oven: 100°C (5 min), 4°C/min to 250°C (5 min)
Inj.: 250°C
Det.: FID, 300°C
Carrier: Helium, 1mL/min constant
Injection: 1µL, 100:1 split
Liner: 4mm ID, cup style
Sample: Supelco 37-component FAME mix (cat. no. 24056)

Peak IDs

1. Butyric (C4:0)
2. Caproic (C6:0)
3. Caprylic (C8:0)
4. Capric (C10:0)
5. Undecanoic (C11:0)
6. Lauric (C12:0)
7. Tridecanoic (C13:0)
8. Myristic (C14:0)
9. Myristoleic (C14:1)
10. Pentadecanoic (C15:0)
11. cis-10-Pentadecenoic (C15:1)
12. Palmitic (C16:0)
13. Palmitoleic (C16:1)
14. Heptadecanoic (C17:0)
15. cis-10-Heptadecenoic (C17:1)
16. Stearic (C18:0)
17. Elaidic (C18:1n9t)
18. Oleic (C18:1n9c)
19. Linolelaidic (C18:2n6t)
20. Linoleic (C18:2n6c)
21. Arachidic (C20:0)
22. γ-Linolenic (C18:3n6)
23. cis-11-Eicosenoic (C20:1)
24. Linolenic (C18:3n3)
25. Heneicosanoic (C21:0)
26. cis-11,14-Eicosadienoic (C20:2)
27. Behenic (C22:0)
28. cis-8,11,14-Eicosatrienoic (C20:3n6)
29. Erucic (C22:1n9)
30. cis-11,14,17-Eicosatrienoic (C20:3n3)
31. Arachidonic (C20:4n6)
32. Tricosanoic (C23:0)
33. cis-13,16-Docosadienoic (C22:2)
34. Lignoceric (C24:0)
35. cis-5,8,11,14,17-Eicosapentaenoic (C20:5n3)
36. Nervonic (C24:1)
37. cis-4,7,10,13,16,19-Docosahexaenoic (C22:6n3)

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