

Application Report 400

37 Component Mix on the 75 m x 0.18 mm I.D., 0.14 µm SP-2560

This application demonstrates the separation of our 37-component fatty acid methyl ester (FAME) reference standard on the 75 m x 0.18 mm I.D., 0.14 µm SP-2560 capillary column. Using hydrogen carrier gas, a 30% reduction in analysis time over the traditional 100 m x 0.25 mm I.D., 0.20 µm SP-2560 was realized.

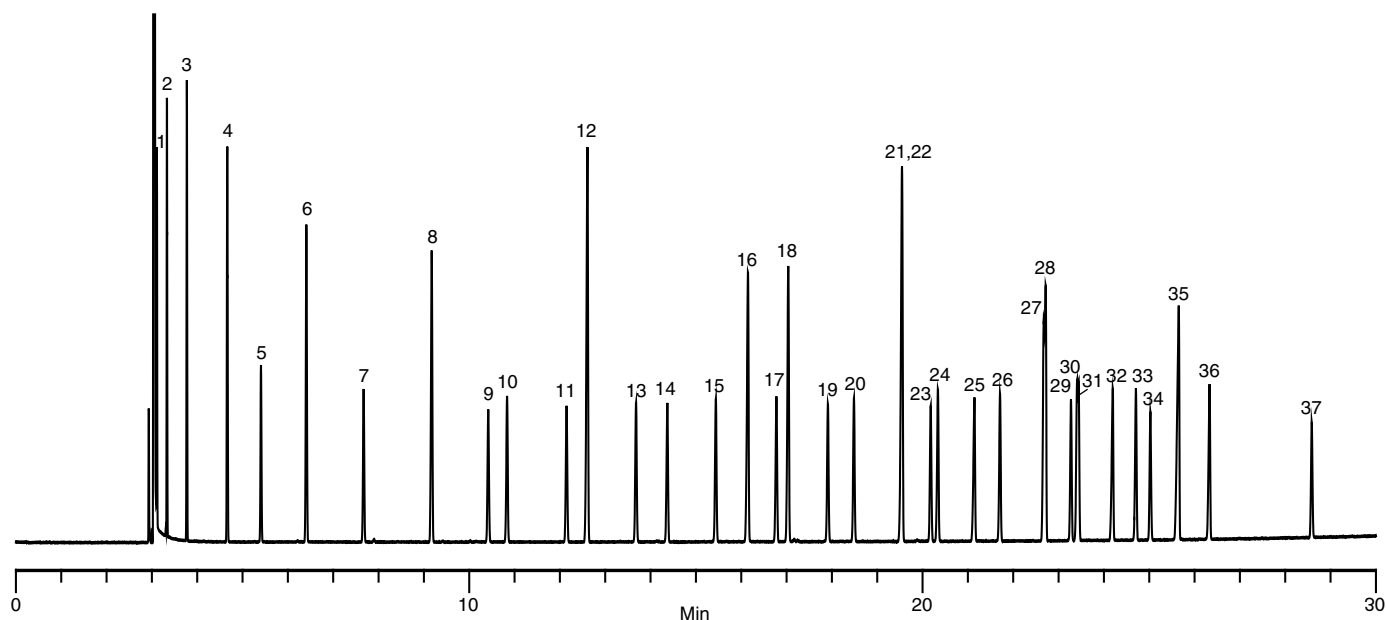
Key Words

FAMES, fatty acids, SP-2560, 23348-U, 47885-U

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Acquisition System: GC 6248

Notebook Reference: 1569-02



G003461

Conditions

column: SP-2560, 75 m x 0.18 mm I.D., 0.14 µm (23348-U)
oven: 140 °C (5 min.), 4 °C/min. to 240 °C (2 min.)
inj.: 250 °C
det.: FID, 250 °C
carrier gas: hydrogen, 40 cm/sec. @ 175 °C
injection: 1 µL, split 100:1
liner: 4 mm I.D split, cup design
sample: 37 component FAME mix at concentrations listed
in methylene chloride (47885-U)

Peak IDs

(as acid methyl esters)

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