

Subject : Analysis of Fatty Acid Methyl Esters (FAMES)

There could be a peak tailing or column deterioration when you analyze fatty acid not in ester type using a gas chromatograph system. The pre-treatment is required that transforms in to ester type for analysis of fatty acids.

※ General Pre-treatment

: Sampling => Transforming in to esters by Methanol => Separate layers adding water and Hexane => Extract the layer of Hexane to use as a sample

► Analysis Condition

Acme6100 Series

Oven : 140°C (5 min)- 5 °C/min-240 °C(20 min)

Column : HP-INNOWAX(30m*0.53mm*1.0um)

Carrier gas : He, 5.0 ml/min (Split ratio 20:1)

Injector : Capillary 250°C

Detector : FID 250°C

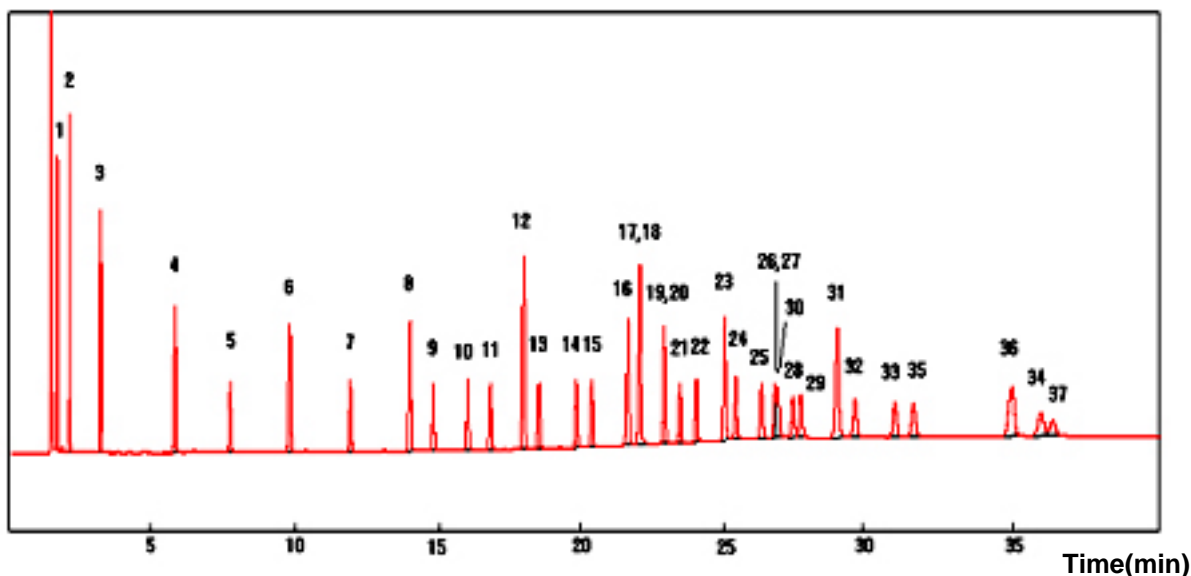
Sample : Fatty Acid Methyl Esters

Injection Volume : 1ul (Liquid)



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► Chromatogram



Component (Fatty Acid Methyl Esters)

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

