

Fast Analysis of 37 FAMES in 11 Minutes Using a Zebtron™ ZB-FAME GC Column

Marc Gregerson
Phenomenex, Inc., 411 Madrid Ave., Torrance, CA 90501 USA

Overview

This application note describes a fast GC FAME separation method using Zebtron ZB-FAME with a 37 FAME standard mix. Separation of specific cis/trans fatty acid isomers are essential to FAME testing. The ZB-FAME chemistry and method provides excellent separation of 37 FAMES in only 11 minutes.

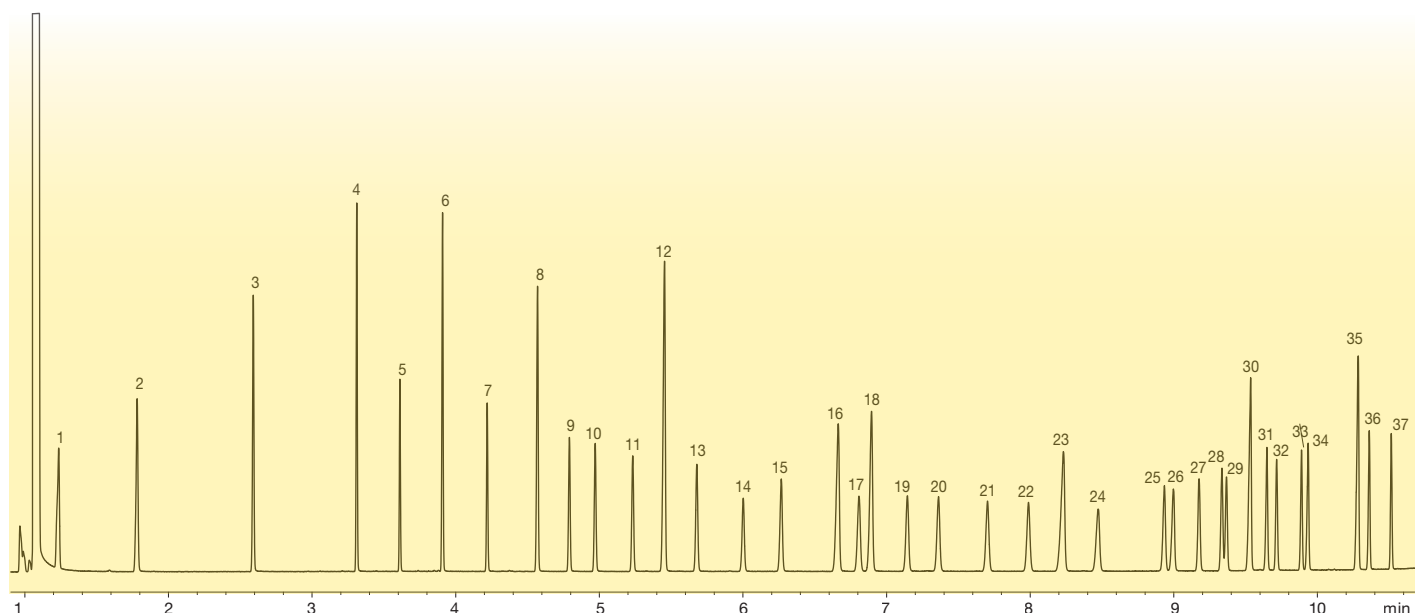
GC Conditions

Column: Zebtron ZB-FAME
Dimensions: 20 meter x 0.18 mm x 0.15 µm
Part No.: 7FD-G033-05
Injection: Split 100:1 @ 250 °C, 1 µL
Recommended Liner: Zebtron PLUS Single Taper Z-Liner™
Liner Part No.: AG2-OA13-05 (for Agilent® systems)
Carrier Gas: Helium @ 1.0 mL/min (constant flow)
Oven Program: 80 °C for 1.5 min to 160 °C @ 40 °C/min to 185 °C @ 5 °C/min to 260 °C @ 30 °C/min
Detector: FID @ 260 °C

Sample: 1. C4:0	14. C17:0	27. C20:3 cis 8,11,14
2. C6:0	15. C17:1 cis 10	28. C20:4 cis 5,8,11,14
3. C8:0	16. C18:0	29. C20:3 cis 11,14,17
4. C10:0	17. C18:1 trans 9	30. C22:0
5. C11:0	18. C18:1 cis 9	31. C22:1 cis 13
6. C12:0	19. C18:2 trans 9,12	32. C20:5 cis 5,8,11,14,17
7. C13:0	20. C18:2 cis 9,12	33. C22:2 cis 13,16
8. C14:0	21. C18:3 cis 6,9,12	34. C23:0
9. C14:1 cis 9	22. C18:3 cis 9,12,15	35. C24:0
10. C15:0	23. C20:0	36. C24:1 cis 15
11. C15:1 cis 10	24. C20:1 cis 11	37. C22:6 cis 4,7,10,13,16,19
12. C16:0	25. C20:2 cis 11,14	
13. C16:1 cis 9	26. C21:0	



Representative Chromatogram of 37 FAME Standard Mix



App ID 23839




APPLICATION

Ordering Information

Zebron™ ZB-FAME GC Columns

Length (m)	ID (mm)	Film (µm)	Temp Limits (°C)	Part No.	5 m Guardian™ Part No.
20	0.18	0.15	-60 to 280	7FD-G033-05	—
30	0.25	0.20	-60 to 280	7HG-G033-10	7HG-G033-10-GGA
60	0.25	0.20	-60 to 280	7KG-G033-10	—

Zebron PLUS GC Inlet Liners

Description	Dimensions ID x L (mm)	Part No.	Unit.
For Agilent® or Thermo Scientific® GC Systems			
Single Taper Z-Liner™		4 x 78.5	AG2-0A13-05 AG2-0A13-25
			5/pk 25/pk

Find more Zebron GC columns and accessories at
www.phenomenex.com/GC

Australia
 t: +61 (0)2-9428-6444
 f: +61 (0)2-9428-6445
 auinfo@phenomenex.com

Austria
 t: +43 (0)1-319-1301
 f: +43 (0)1-319-1300
 anfrage@phenomenex.com

Belgium
 t: +32 (0)2 503 4015 (French)
 t: +32 (0)2 511 8666 (Dutch)
 f: +31 (0)30-2383749
 beinfo@phenomenex.com

Canada
 t: +1 (800) 543-3681
 f: +1 (310) 328-7768
 info@phenomenex.com

China
 t: +86 400-606-8099
 f: +86 (0)22 2532-1033
 phen@agela.com

Denmark
 t: +45 4824 8048
 f: +45 4810 6265
 nordicinfo@phenomenex.com

Finland
 t: +358 (0)9 4789 0063
 f: +45 4810 6265
 nordicinfo@phenomenex.com

France
 t: +33 (0)1 30 09 21 10
 f: +33 (0)1 30 09 21 11
 franceinfo@phenomenex.com

Germany
 t: +49 (0)6021-58830-0
 f: +49 (0)6021-58830-11
 anfrage@phenomenex.com

India
 t: +91 (0)40-3012 2400
 f: +91 (0)40-3012 2411
 indiainfo@phenomenex.com

Ireland
 t: +353 (0)1 247 5405
 f: +44 1625-501796
 eireinfo@phenomenex.com

Italy
 t: +39 051 6327511
 f: +39 051 6327555
 italiainfo@phenomenex.com

Luxembourg
 t: +31 (0)30-2418700
 f: +31 (0)30-2383749
 nlinfo@phenomenex.com

Mexico
 t: 01-800-844-5226
 f: 001-310-328-7768
 tecnicomx@phenomenex.com

The Netherlands
 t: +31 (0)30-2418700
 f: +31 (0)30-2383749
 nlinfo@phenomenex.com

New Zealand
 t: +64 (0)9-4780951
 f: +64 (0)9-4780952
 nzinfo@phenomenex.com

Norway
 t: +47 810 02 005
 f: +45 4810 6265
 nordicinfo@phenomenex.com

Puerto Rico
 t: +1 (800) 541-HPLC
 f: +1 (310) 328-7768
 info@phenomenex.com

Spain
 t: +34 91-413-8613
 f: +34 91-413-2290
 espinfo@phenomenex.com

Sweden
 t: +46 (0)8 611 6950
 f: +45 4810 6265
 nordicinfo@phenomenex.com

United Kingdom
 t: +44 (0)1625-501367
 f: +44 (0)1625-501796
 ukinfo@phenomenex.com

USA
 t: +1 (310) 212-0555
 f: +1 (310) 328-7768
 info@phenomenex.com

All other countries
Corporate Office USA 
 t: +1 (310) 212-0555
 f: +1 (310) 328-7768
 info@phenomenex.com

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