

Unleash the Power of Fast GC PAH Analysis

Zebron™
GC Columns

ZB-PAH-EU

- Up to 70% Faster PAH Analysis
- Elevated Temperature Stability (340/360 °C)

ZB-PAH-CT

- Enhanced Resolution for Chrysene and Triphenylene (PAH Interferences)
- Increased Benzo[b,k]fluoranthene Separation



phenomenex®
...breaking with tradition™



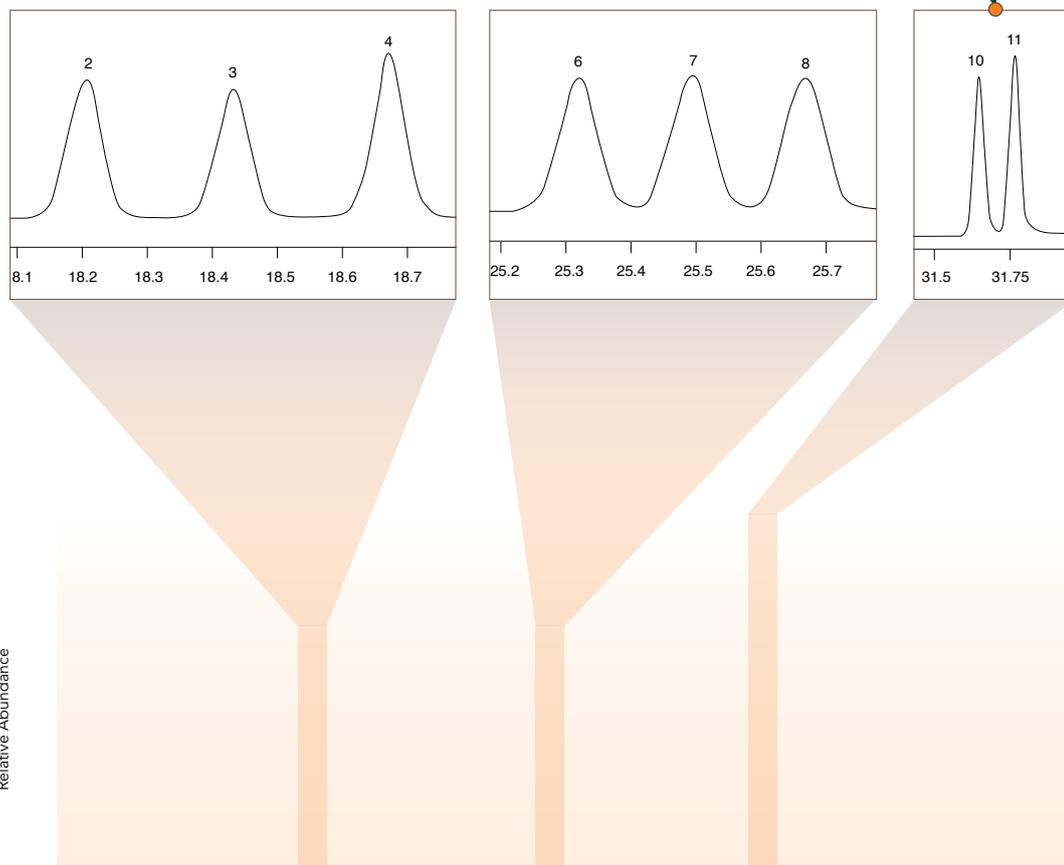
Complete Resolution of EU 15+1 and EPA 610 PAHs



Zebtron ZB-EU-PAH GC column demonstrates excellent resolution and accurate quantitation of European regulated EU 15+1 and EPA 610 PAHs.

Analysis of EU 15+1 PAHs

Excellent Resolution of EU PAH Critical Pairs

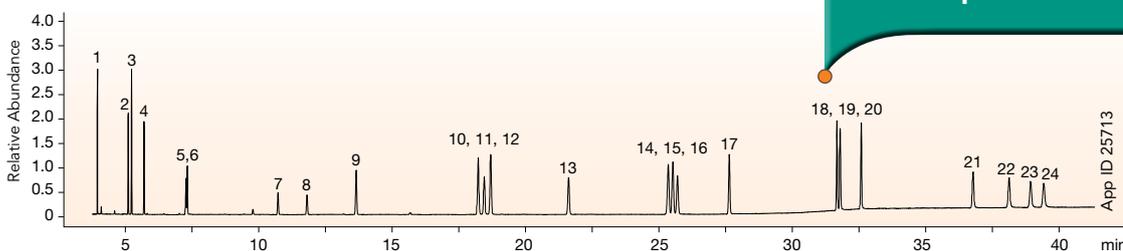


- Sample:**
1. Benzo[c]fluorene
 2. Benz[a]anthracene
 3. Cyclopenta[c,d]pyrene
 4. Chrysene
 5. 5-Methylchrysene
 6. Benzo[b]fluoranthene
 7. Benzo[k]fluoranthene
 8. Benzo[j]fluoranthene
 9. Benzo[a]pyrene
 10. Indeno[1,2,3-cd]pyrene
 11. Dibenzo[a,h]anthracene
 12. Benzo[g,h,i]perylene
 13. Dibenzo[a,i]pyrene
 14. Dibenzo[a,e]pyrene
 15. Dibenzo[a,j]pyrene
 16. Dibenzo[a,h]pyrene

App ID 25708

Analysis of EU 15+1 and EPA 610 PAHs

Great Separation of All Key PAH Isomers



App ID 25713

GC-MS conditions for both applications:

- Column:** Zebtron ZB-PAH-EU
- Dimensions:** 30 meter x 0.25 mm x 0.20 μm
- Part No.:** [7HG-G043-10](#)
- Injection:** Split 5:1 @ 330 °C, 1 μL
- Recommended Liner:** Zebtron PLUS Single Taper Z- Liner™
- Liner Part No.:** [AG2-4B13-05](#) (for Shimadzu® 2010 GC)
- Carrier Gas:** Helium @ 24 psi (constant pressure)
- Oven Program:** 45 °C for 0.8 min to 200 °C @ 45 °C/min to 226 °C @ 3 °C/min for 0 min to 320 °C @ 10 °C/min for 20 min
- Detector:** MSD, 50-500 m/z
- Transfer line Temperature:** 300 °C
- Source Temperature:** 300 °C

Sample:

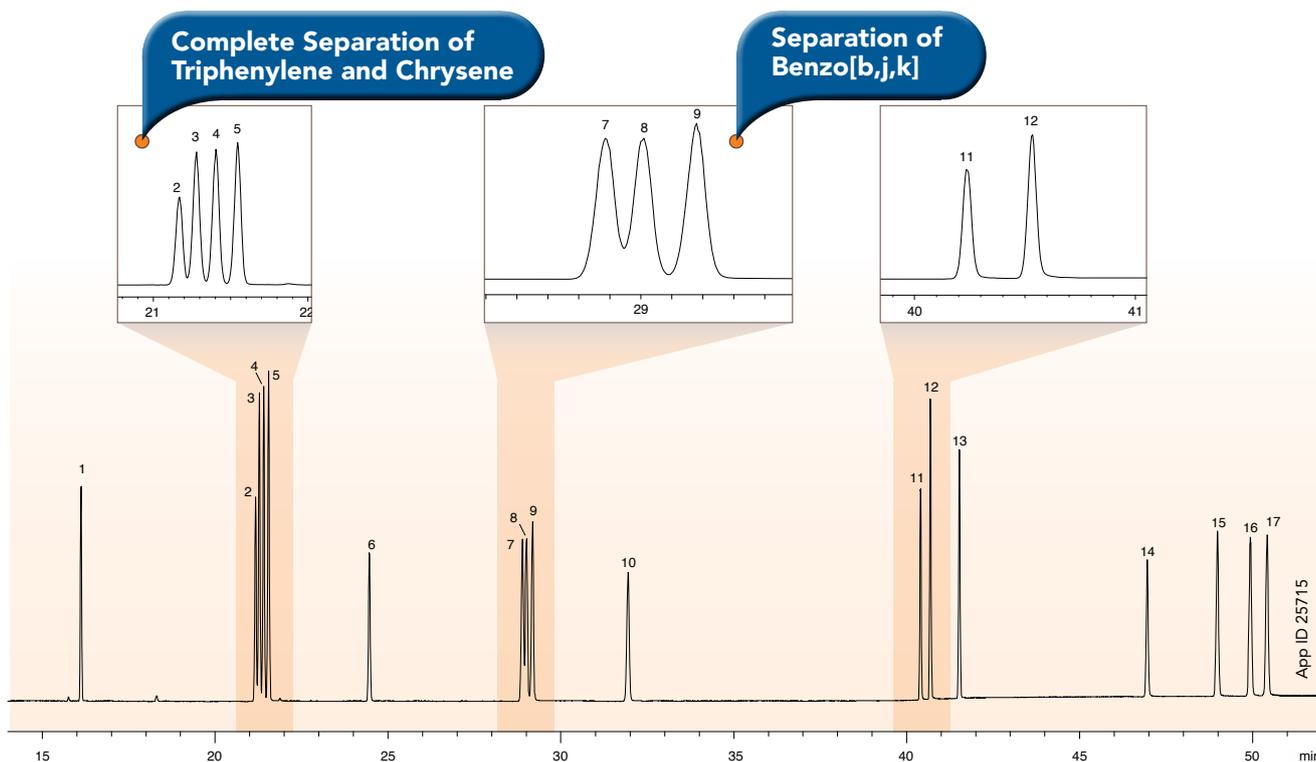
- | | | |
|---------------------|----------------------------|----------------------------|
| 1. Naphthalene | 10. Benz[a]anthracene | 19. Dibenzo[a,h]anthracene |
| 2. Acenaphthylene | 11. Cyclopenta[c,d]pyrene | 20. Benzo[g,h,i]perylene |
| 3. Acenaphthene | 12. Chrysene | 21. Dibenzo[a,i]pyrene |
| 4. Fluorene | 13. 5-Methylchrysene | 22. Dibenzo[a,e]pyrene |
| 5. Phenanthrene | 14. Benzo[b]fluoranthene | 23. Dibenzo[a,i]pyrene |
| 6. Anthracene | 15. Benzo[k]fluoranthene | 24. Dibenzo[a,h]pyrene |
| 7. Fluoranthene | 16. Benzo[j]fluoranthene | |
| 8. Pyrene | 17. Benzo[a]pyrene | |
| 9. Benzo[c]fluorene | 18. Indeno[1,2,3-cd]pyrene | |

Excellent Resolution of Chrysene and Triphenylene

We designed the Zebtron ZB-PAH-CT GC column to achieve complete resolution of Chrysene from Triphenylene along with other EU 15+1 PAH compounds. Its unique selectivity helps eliminate false positives while resolving PAH isomers, providing easy, fast, and accurate quantification of PAHs in environmental and food samples.



EU 15+1 PAH Analysis Using Zebtron ZB-PAH-CT GC column



Column: Zebtron ZB-PAH-CT
Dimensions: 40 meter x 0.18 mm x 0.14 µm
Part No.: [7PD-G044-47](#)
Injection: Split 30:1 @ 320°C, 1 µL
Liner Part No.: [AG2-4B13-05](#) (for Shimadzu® 2010 GC)
Recommended Liner: Zebtron PLUS Single Taper Z-Liner™
Carrier Gas: Helium @ 78 psi (constant pressure)
Oven Program: 45°C for 0.8 min to 200°C @ 45°C/min to 265°C @ 3°C/min for 5 min to 270°C @ 1°C/min to 320°C @ 10°C/min for 15 min
Detector: MSD (Shimadzu® GC-MS-QP2010 Ultra)
Mode: SIM
SIM Ions: 216, 226, 228, 242, 252, 276, 278, 302 m/z
Transfer line Temperature: 300°C
Source Temperature: 300°C

- Sample:**
1. Benzo[c]fluorene
 2. Cyclopenta[c,d]pyrene
 3. Benz[a]anthracene
 4. Triphenylene
 5. Chrysene
 6. 5-Methylchrysene
 7. Benzo[b]fluoranthene
 8. Benzo[j]fluoranthene
 9. Benzo[k]fluoranthene
 10. Benzo[a]pyrene
 11. Indeno[1,2,3-c,d]pyrene
 12. Dibenzo[a,h]anthracene
 13. Benzo[g,h,i]perylene
 14. Dibenzo[a,i]pyrene
 15. Dibenzo[a,e]pyrene
 16. Dibenzo[a,l]pyrene
 17. Dibenzo[a,h]pyrene

Zebtron ZB-PAH-EU GC Column

Length (meter)	ID (mm)	df (µm)	Temp. Limits (°C)	Part No.
10	0.10	0.08	40 to 340/360	7CB-G043-59
20	0.18	0.14	40 to 340/360	7FD-G043-47
30	0.25	0.20	40 to 340/360	7HG-G043-10
60	0.25	0.20	40 to 340/360	7KG-G043-10

Zebtron ZB-PAH-CT GC Column

Length (meter)	ID (mm)	df (µm)	Temp. Limits (°C)	Part No.
20	0.18	0.14	40 to 320/340	7FD-G044-47
30	0.25	0.20	40 to 320/340	7HG-G044-10
40	0.18	0.14	40 to 320/340	7PD-G044-47



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PAH

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GC Columns

Unleash the Power of Fast GC PAH Analysis with Zebron ZB-PAH-EU & ZB-PAH-CT!



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

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

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

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

China
t: +86 400-606-8099
cninfo@phenomenex.com

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

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

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

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

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

Ireland
t: +353 (0)1 247 5405
eireinfo@phenomenex.com

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

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

Mexico
t: 01-800-844-5226
tecnicomx@phenomenex.com

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

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

Norway
t: +47 810 02 005
nordicinfo@phenomenex.com

Poland
t: +48 22 104 21 72
pl-info@phenomenex.com

Portugal
t: +351 221 450 488
ptinfo@phenomenex.com

Singapore
t: +65 800-852-3944
sginfo@phenomenex.com

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

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

Switzerland
t: +41 (0)61 692 20 20
swissinfo@phenomenex.com

Taiwan
t: +886 (0) 0801-49-1246
twinfo@phenomenex.com

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

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

🌐 **All other countries/regions**
Corporate Office USA
t: +1 (310) 212-0555
info@phenomenex.com


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