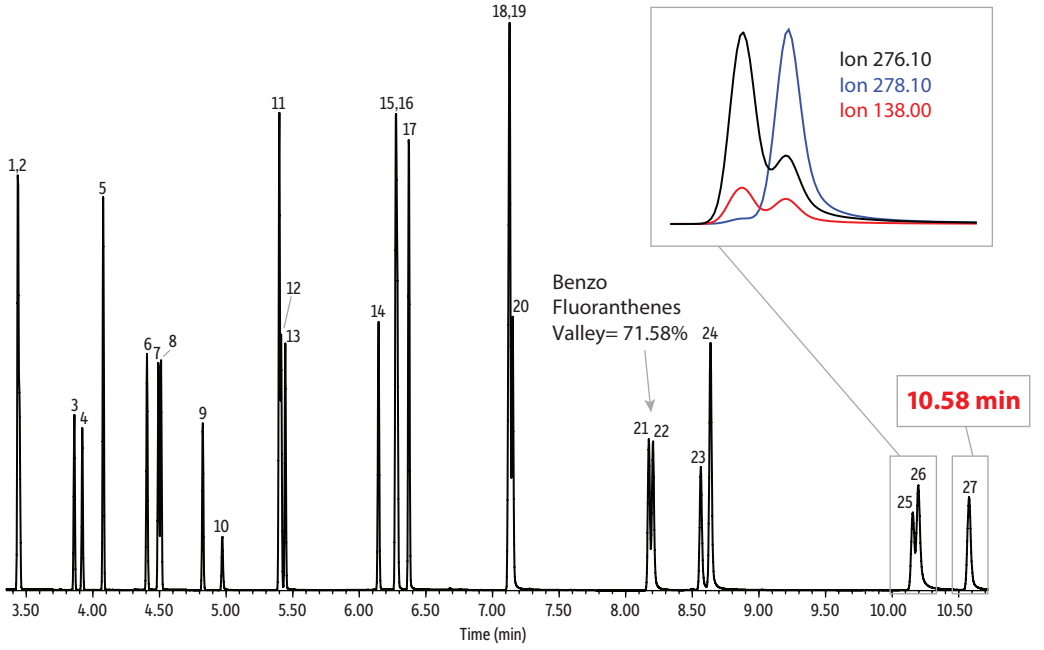
16 Priority PAHs and Methylnaphthalenes on Rxi-5Sil MS using the GC Accelerator Kit in a 120 V Oven



GC_EV1472

Peaks	tR (min)	Conc. (µg/mL)
1. Naphthalene-d8 (IS)	3.44	2.0
2. Naphthalene	3.45	1.0
3. 2-Methylnaphthalene	3.86	1.0
4. 1-Methylnaphthalene	3.92	1.0
5. 2-Fluorobiphenyl (SS)	4.08	2.0
6. Acenaphthylene	4.41	1.0
7. Acenaphthene-d10 (IS)	4.49	2.0
8. Acenaphthene	4.51	1.0
9. Fluorene	4.83	1.0
10. 2,4,6-Tribromophenol (SS)	4.97	2.0
11. Phenanthrene-d10 (IS)	5.40	2.0
12. Phenanthrene	5.41	1.0
13. Anthracene	5.45	1.0
14. Fluoranthene	6.15	1.0
15. Pyrene-d10 (SS)	6.28	2.0
16. Pyrene	6.29	1.0
17. *p*-Terphenyl-D14 (SS)	6.37	2.0
18. Benz[a]anthracene	7.12	1.0
19. Chrysene-d12 (IS)	7.13	2.0
20. Chrysene	7.15	1.0
21. Benzo[b]fluoranthene	8.17	1.0
22. Benzo[k]fluoranthene	8.21	1.0
23. Benzo[a]pyrene	8.56	1.0
24. Perylene-d12 (IS)	8.64	2.0
25. Indeno[1,2,3-cd]pyrene	10.16	1.0
26. Dibenz[a,h]anthracene	10.20	1.0
27. Benzo[ghi]perylene	10.58	1.0

Column Rxi-5Sil MS, 20 m, 0.15 mm ID, 0.15 µm (cat.# 43816)
Sample EPA Method 8310 PAH mixture (cat.# 31874)
Revised SV internal standard mix (cat.# 31886)
Revised B/N surrogate mix (cat.# 31888)
Acid surrogate mix (4/89 SOW) (cat.# 31063)
Diluent: Dichloromethane
Injection
Inj. Vol.: 1.0 µL split (split ratio 20:1)
Liner: Topaz 4 mm single taper w/wool (cat.# 23303)
Inj. Temp.: 275 °C
Oven
Oven Temp.: 60 °C (hold 0.7 min) to 285 °C at 39.8 °C/min to 305 °C at 4.3 °C/min to 320 °C at 28.5 °C/min (hold 3.5 min)
Carrier Gas He, constant flow
Flow Rate: 1.0 mL/min
Detector MS
Mode: SIM

Group	Start Time (min)	Ion(s) (m/z)	Dwell (ms)
1	3.29	102, 108, 128, 136	25
2	3.71	85, 115, 142.1, 172.1	20
3	4.28	76, 82, 152.1, 153.1, 164.1	20
4	4.71	82.40, 142.90, 166.1, 329.8	25
5	5.24	89, 94, 178.1, 188.1	15
6	5.88	101, 106.1, 122.1, 202.1, 212.1, 244.1	20
7	6.83	101, 120.1, 226.1, 228.1, 240.2	10
8	7.77	126, 252.1	25
9	8.44	126, 132.1, 252.1, 264.2	25
10	9.57	138, 139, 276.1, 278.1	25

Transfer Line Temp.: 280 °C
Analyzer Type: Quadrupole
Source Type: Extractor
Extractor Lens: 9 mm ID
Source Temp.: 330 °C
Quad Temp.: 180 °C
Solvent Delay Time: 1 min
Tune Type: DFTPP
Ionization Mode: EI
Instrument Agilent 7890B GC & 5977A MSD
Notes Fast SIM analysis of 16 priority PAHs plus the methylnaphthalenes in a 120 V oven equipped with the GC Accelerator kit (cat.# 23849) (injected 1 µg/mL = 0.05 ng on-column).

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