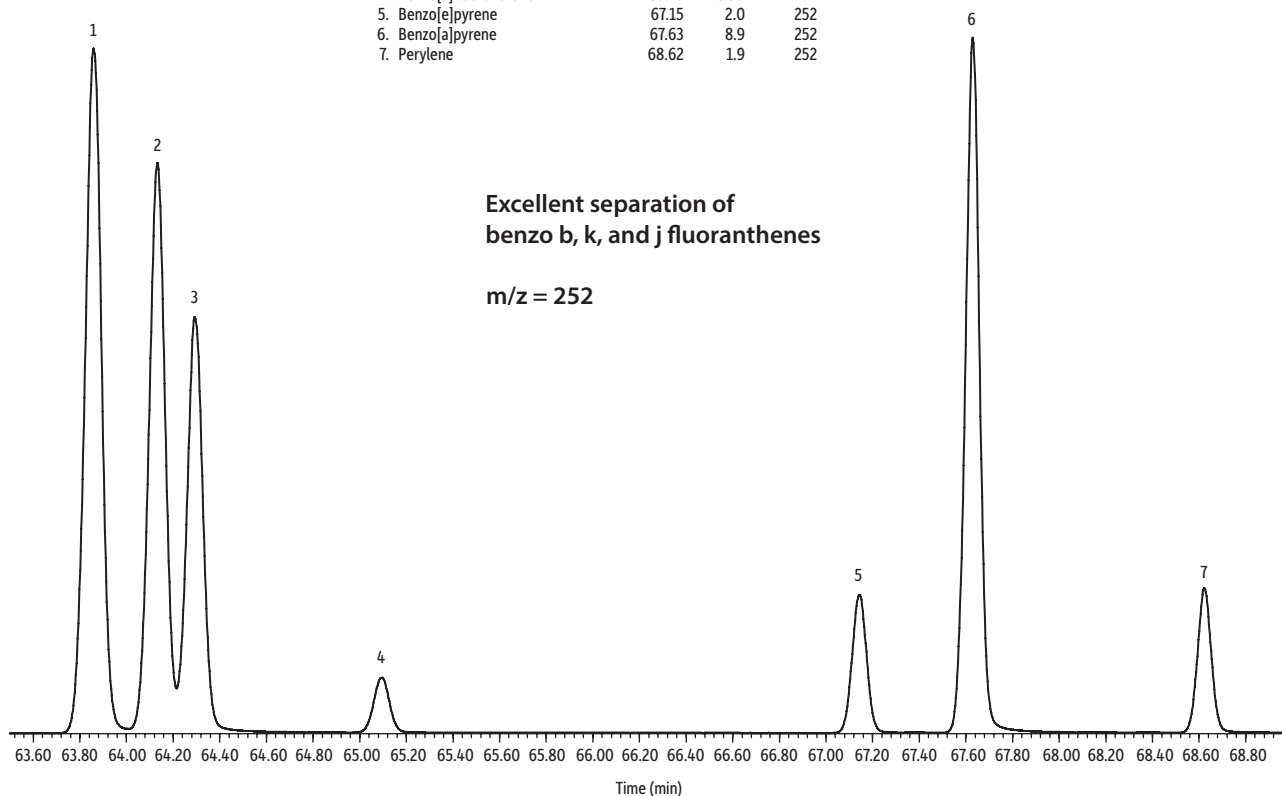


Resolution of Benzo Fluoranthene and Benzo Pyrene Isomers on Rxi-PAH (60 m x 0.25 mm x 0.10 µm)

Peaks	tr (min)	Conc. (µg/mL)	Quant Ion
1. Benzo[b]fluoranthene	63.86	10	252
2. Benzo[k]fluoranthene	64.13	8.3	252
3. Benzo[j]fluoranthene	64.29	6.1	252
4. Benzo[a]fluoranthene	65.10	0.99	252
5. Benzo[e]pyrene	67.15	2.0	252
6. Benzo[a]pyrene	67.63	8.9	252
7. Perylene	68.62	1.9	252



Excellent separation of
benzo b, k, and j fluoranthenes

m/z = 252

GC_EV1423

Column	Rxi-PAH, 60 m, 0.25 mm ID, 0.10 µm (cat.# 49317)	Group	Start Time (min)	Ion(s) (m/z)	Dwell (ms)
Sample	SV internal standard mix (cat.# 31206)	1	5.09	102.1, 108.1, 128.1, 136.2	20
	Coronene-D12 (CIL) (cat.# DLM-2715)	2	6.68	115.1, 142.1	20
	Benzo[a]pyrene-D12 (CIL) (cat.# DLM-258-0)	3	7.55	76.1, 141.1, 154.1, 156.2	20
	Aromatics in toluene (NIST) (cat.# 2260a)	4	8.77	75.6, 152.1	20
	Native PAH stock (Wellington Labs) (cat.# PAH-STK-A)	5	9.56	76.1, 153.1, 162.2, 164.2	20
	EU 15+1 PAH standard (cat.# 32470)	6	10.26	155.1, 170.2	20
	Custom PAH SIM standard (cat.# 557484)	7	11.12	82.4, 165.1	20
Diluent:	Toluene	8	14.27	139.1, 184.1	20
Conc.:	0.71 to 10 µg/mL	9	17.26	152.1, 160.2, 178.1, 188.2	20
Injection		10	20.58	94.6, 165.1, 190.1, 192.1	20
Inj. Vol.:	1 µL split (split ratio 10:1)	11	26.32	101.1, 202.1	20
Liner:	Premium 4 mm Precision liner w/wool (cat.# 23305)	12	34.97	92.1, 184.1	20
Inj. Temp.:	275 °C	13	37.36	108.0, 216.0	20
Oven		14	41.78	196.1, 212.2	20
Oven Temp.:	110 °C (hold 1.6 min) to 175 °C at 30 °C/min to 265 °C at 1.6 °C/min to 350 °C at 4 °C/min (hold 15 min)	15	45.86	113.1, 226.1, 228.1	20
Carrier Gas	He, constant flow	16	47.86	114.0, 228.1	20
Flow Rate:	1.0 mL/min	17	49.49	113.1, 120.1, 226.1, 228.1, 240.1	20
Detector	MS	18	51.24	154.1, 252.1	20
Mode:	SIM	19	54.16	119.8, 242.2	20
Transfer Line		20	60.13	125.1, 126.1, 252.1	20
Temp.:	320 °C	21	64.77	126.1, 252.1	20
Analyzer Type:	Quadrupole	22	66.15	125.1, 126.1, 132.1, 252.1, 264.1	20
Source Type:	Extractor	23	68.07	125.0, 132.2, 252.1, 264.1	20
Extractor Lens:	9 mm ID	24	69.10	252.1, 268.1	20
Source Temp.:	350 °C	25	71.92	139.1, 139.5, 278.1, 279.1	20
Quad Temp.:	200 °C	26	74.87	138.1, 139.1, 276.1, 278.1	20
Solvent Delay		27	75.81	138.1, 139.1, 278.1	20
Time:	3 min	28	76.82	138.1, 276.1	20
Ionization Mode:	El	29	77.53	132.6, 138.1, 267.1, 276.1	20
Instrument	Agilent 7890B GC & 5977A MSD	30	80.20	151.0, 302.1	20
Notes	Conditions optimized using EZGC software produce good separation of dibenzo[a,c]anthracene and dibenzo[a,h]anthracene from indeno[1,2,3-cd]pyrene, triphenylene from chrysene, as well as the benzo[a]fluoranthene isomers.	31	83.40	150.0, 151.0, 156.1, 300.1, 302.1, 312.1	20
		32	84.88	151.0, 302.1	20