

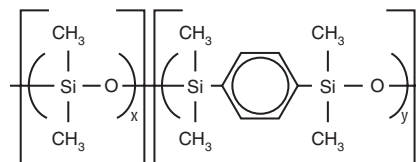
Polycyclic Aromatic Hydrocarbon (PAH) Analysis

Rxi®-5Sil MS Columns (fused silica)

(low polarity Crossbond® silarylene phase; selectivity close to 5% phenyl/95% dimethyl arylene polysiloxane)

- Engineered to be a low bleed GC/MS column.
- Excellent inertness for active compounds.
- General purpose columns—ideal for GC/MS analysis of polycyclic aromatic compounds, chlorinated hydrocarbons, phthalates, phenols, amines, organochlorine pesticides, organophosphorus pesticides, drugs, solvent impurities, and hydrocarbons.
- Temperature range: -60 °C to 350 °C.

Rxi®-5Sil MS Structure



similar phases

DB-5MS, VF-5ms, CP-Sil 8 Low-Bleed/MS

also available

Get the protection without the connection!

For Rxi®-5Sil MS columns with built-in Integra-Guard® guard columns, see **page 35**.

Other Dimensions!

See **page 42** for our complete listing of Rxi®-5Sil MS columns.

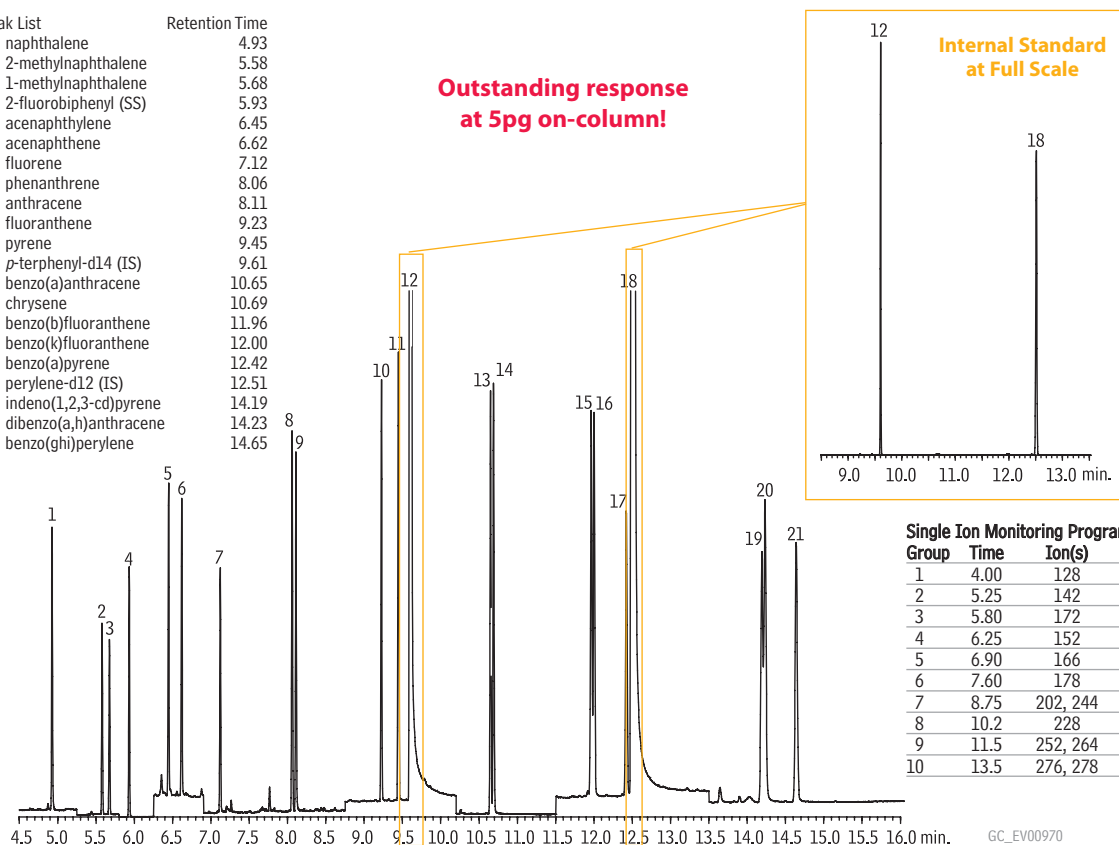
ID	df	temp. limits	15-Meter	30-Meter	60-Meter
0.25mm	0.10µm	-60 to 330/350°C	13605	13608	
	0.25µm	-60 to 330/350°C	13620	13623	13626
	0.50µm	-60 to 330/350°C	13635	13638	

ID	df	temp. limits	10-Meter	20-Meter
0.10mm	0.10µm	-60 to 330/350°C	43601	
0.18mm	0.18µm	-60 to 330/350°C		43602
	0.36µm	-60 to 330/350°C		43604

Polycyclic aromatic hydrocarbons on an Rxi®-5Sil MS column.

Peak List	Retention Time
1. naphthalene	4.93
2. 2-methylnaphthalene	5.58
3. 1-methylnaphthalene	5.68
4. 2-fluorobiphenyl (SS)	5.93
5. acenaphthylene	6.45
6. acenaphthene	6.62
7. fluorene	7.12
8. phenanthrene	8.06
9. anthracene	8.11
10. fluoranthene	9.23
11. pyrene	9.45
12. p-terphenyl-d14 (IS)	9.61
13. benzo(a)anthracene	10.65
14. chrysene	10.69
15. benzo(b)fluoranthene	11.96
16. benzo(k)fluoranthene	12.00
17. benzo(a)pyrene	12.42
18. perylene-d12 (IS)	12.51
19. indeno(1,2,3-cd)pyrene	14.19
20. dibenzo(a,h)anthracene	14.23
21. benzo(ghi)perylene	14.65

Outstanding response
at 5pg on-column!



Single Ion Monitoring Program

Group	Time	Ion(s)	Dwell (ms)
1	4.00	128	100
2	5.25	142	100
3	5.80	172	100
4	6.25	152	100
5	6.90	166	100
6	7.60	178	100
7	8.75	202, 244	100
8	10.2	228	100
9	11.5	252, 264	100
10	13.5	276, 278	100

Column: Rxi®-5Sil MS, 30m, 0.25mm ID, 0.25µm (cat.# 13623)

Sample: PAH mix, 1µL of 0.005µg/mL (IS 2µg/mL)

SV Calibration Mix #5 (cat.# 31011)

1-methylnaphthalene (cat.# 31283)

2-methylnaphthalene (cat.# 31285)

2-fluorobiphenyl (cat.# 31091)

Inj.: 1.0µL (5pg on-column concentration),

4mm Drilled Uniliner® (hole near top) inlet liner w/wool (cat.# 21055-200.5),

pulsed splitless: pulse 20psi @ 0.2 min., 60mL/min. @ 0.15 min.

Inj. temp.: 300°C

Carrier gas: helium, constant flow

Flow rate: 1.4mL/min.

Oven temp.: 50°C (hold 0.5 min.) to 290°C @ 25°C/min. to 320°C @ 5°C/min.

Det.: MS

Transfer line

temp: 290°C

Ionization: EI

Mode: SIM

GC_EV00970