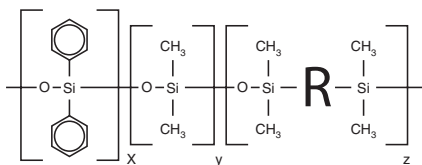




# Polycyclic Aromatic Hydrocarbon (PAH) Analysis

## Rxi®-17Sil MS Structure



### Rxi®-17Sil MS Columns (fused silica)

(midpolarity Crossbond® silarylene phase; equivalent to 50% phenyl/50% dimethyl aryene polysiloxane)

- 340/360 °C upper temperature limits.
- Excellent inertness for active compounds.
- Equivalent to USP phase G3.
- Low-bleed for use with sensitive detectors, such as MS.
- Excellent separation of EU-PAHs, including fluoranthenes.

ID	df	temp. limits*	15-Meter	30-Meter	60-Meter
0.25mm	0.25µm	40 to 340/360°C	14120	14123	14126
0.32mm	0.25µm	40 to 340/360°C	14121	14124	

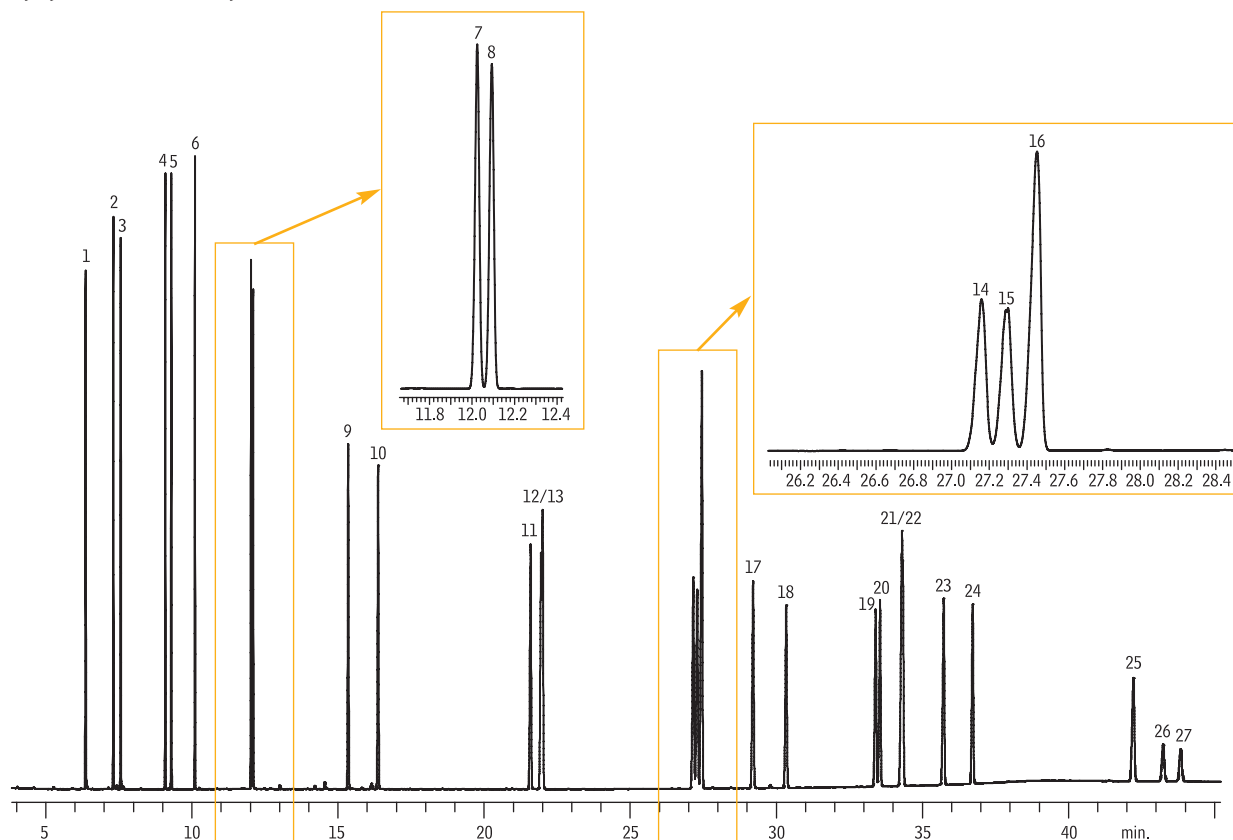
## similar phases

DB-17ms, VF-17ms, BPX-50, DB-EUPAH

ID	df	temp. limits	20-Meter
0.18mm	0.18µm	40 to 340/360°C	14102
	0.36µm	40 to 340/360°C	14111

\*Maximum temperatures listed are for 15- and 30-meter lengths. Longer lengths may have a slightly reduced maximum temperature.

## Polycyclic aromatic hydrocarbons on an Rxi®-17Sil MS column.



1. Naphthalene
2. 2-Methylnaphthalene
3. 1-Methylnaphthalene
4. Acenaphthylene
5. Acenaphthene
6. Fluorene
7. Phenanthrene
8. Anthracene
9. Fluoranthene
10. Pyrene
11. Benz[*a*]anthracene
12. Chrysene
13. Triphenylene
14. Benzo[*b*]fluoranthene

15. Benzo[*k*]fluoranthene
16. Benzo[*j*]fluoranthene
17. Benzo[*a*]pyrene
18. 3-Methylcholanthrene
19. Dibenz[*a,h*]acridine
20. Dibenz[*a,j*]acridine
21. Indeno[1,2,3-*cd*]pyrene
22. Dibenz[*a,h*]anthracene
23. Benzo[*ghi*]perylene
24. 7H-Dibenzo[*c,g*]carbazole
25. Dibenzo[*a,e*]pyrene
26. Dibenzo[*a,i*]pyrene
27. Dibenzo[*a,h*]pyrene

### Column Sample

Diluent:  
Conc.:  
**Injection**  
Inj. Vol.:  
Liner:  
Inj. Temp.:  
Purge Flow:  
**Oven**  
Oven Temp:  
**Carrier Gas**  
Flow Rate:  
**Detector Instrument**  
**Acknowledgement**

Rxi®-17Sil MS, 30 m, 0.25 mm ID, 0.25 µm (cat.# 14123)  
SV Calibration Mix #5 / 610 PAH Mix (cat.# 31011)  
EPA Method 8310 PAH Mixture (cat.# 31841)  
dichloromethane  
10 ppm

0.5 µL splitless (hold 1.75 min.)  
Auto SYS XL PSS Split/Splitless w/Wool (cat.# 21718)  
320 °C  
75 mL/min.

65 °C (hold 0.5 min.) to 220 °C at 15 °C/min. to 330 °C at 4 °C/min. (hold 15 min.)  
He, constant flow  
2.0 mL/min.  
FID @ 320 °C  
PE Clarus 600 GC  
Instrument provided by PerkinElmer