

Application note # C-13090

Fast separation of PCBs using a 5 m Avantor® Hichrom HI-5 (EPA Method 8082)

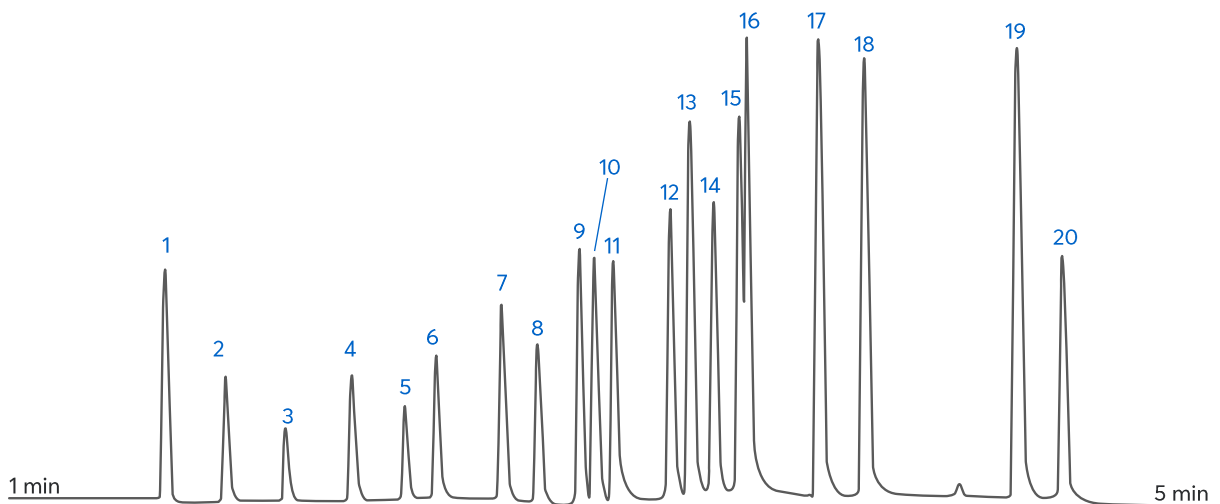


Figure 1: Fast separation of PCBs using a 5 m narrow-bore Avantor® Hichrom HI-5 column.

Method Details

CONDITIONS

Oven Program:	120 °C, 25 °C/min, 200 °C, 20 °C/min, 300 °C
Carrier Gas:	Helium, 0.5 mL/min
Injector:	PTV injector, 50 °C, 600 °C/min, 320 °C (2 min), 0.5 µL injection volume, split ratio 1:50
Detector:	ECD, 320 °C, 300 Hz acquisition rate

Always check the latest and official method information from the EPA prior to analysis.

The HI-5 is a versatile general-purpose column with a low-polarity stationary phase with a 5% phenyl, 95% methyl polysiloxane composition. It is well suited to a variety of applications including pesticides, essential oils, PCBs, semi-volatiles, solvent impurities, phenols and many more.

PEAK IDENTIFICATION

1. 2,4,5,6-tetrachloro-m-xylene	11. 2,2',3,5,5',6-hexachlorobiphenyl
2. 2,3-dichlorobiphenyl	12. 2,2',4,4',5,5'-hexachlorobiphenyl
3. 2,2',5'-trichlorobiphenyl	13. 2,2',3,4,5,5'-hexachlorobiphenyl
4. 2,4',5-trichlorobiphenyl	14. 2,2',3,4,4',5'-hexachlorobiphenyl
5. 2,2',5,5'-tetrachlorobiphenyl	15. 2,2',3,4',5,5',6-heptachlorobiphenyl
6. 2,2',3,5'-tetrachlorobiphenyl	16. 2,2',3,4,4',5',6-heptachlorobiphenyl
7. 2,3',4,4'-tetrachlorobiphenyl	17. 2,2',3,4,4',5,5'-heptachlorobiphenyl
8. 2,2',4,5,5'-pentachlorobiphenyl	18. 2,2',3,3',4,4',5-heptachlorobiphenyl
9. 2,2',3,4,5'-pentachlorobiphenyl	19. 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl
10. 2,3,3',4',6-pentachlorobiphenyl	20. decachlorobiphenyl (I.S.)

ORDERING TABLE

Product	Details	Dimensions	Part Number
Avantor® Hichrom HI-5	FAST GC Column	0.10 mm, 0.20 µm, 5 m	HI02-10-020-5