Aromatics and phenols, C_6 – C_{10}

Determination of substituted aromatic compounds

Application Note

Environmental

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography with an Agilent CP-Sil 19 CB column separates 23 C_6 to C_{10} substituted aromatics and phenols in 19 minutes.

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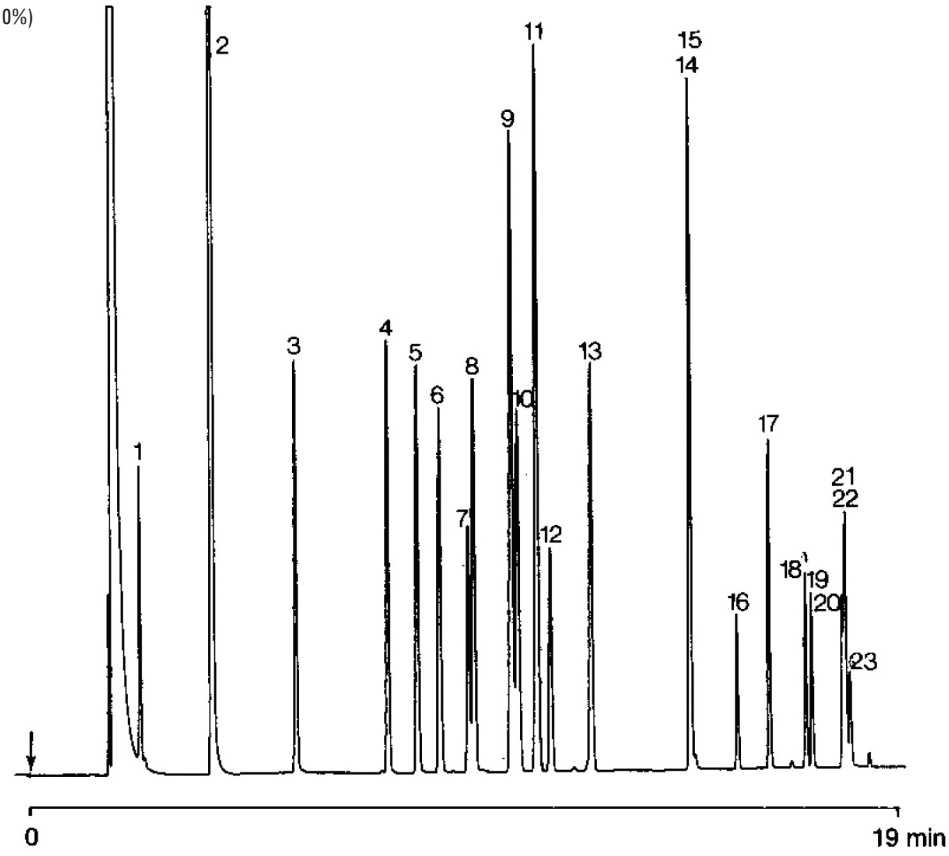
Conditions

Technique	:	GC-capillary
Column	:	Agilent CP-Sil 19 CB, 0.53 mm x 50 m fused silica WCOT CP-Sil 19 CB (2.0 µm) (Part no. CP7667)
Temperature	:	50 °C → 130 °C, 2 min, 10 °C/min → 225 °C, 10 °C/min
Carrier Gas	:	H_2, 70 kPa (0.70 bar, 10 psi), 70 cm/s
Injector	:	Direct T = 280 °C
Detector	:	FID, 8192/4096 x 10^{-12} T = 280 °C
Sample Size	:	0.10 µL
Concentration Range	:	0.1 - 1.0% (benzene 10%)
Solvent Sample	:	n-pentane

Peak identification

1. acetone
2. benzene
3. toluene
4. m-xylene
5. o-xylene
6. cumene (isopropylbenzene)
7. anisole
8. n-propylbenzene
9. 2-ethyltoluene
10. tert. butylbenzene
11. sec. butylbenzene
12. 4-isopropyltoluene
13. n-butylbenzene
14. phenol
15. benzylalcohol
16. o-cresol
17. p-cresol
18. o-ethylphenol
19. 2,5-xylenol
20. 3,5-xylenol
21. p-ethylphenol
22. 2,3-xylenol
23. 2-isopropylphenol



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