



Volatile alcohols, ketones, and ethers, C₁ – C₁₁

Application Note

Environmental

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography using an Agilent CP-Sil 5 CB column separates 18 C₁ to C₁₁ volatile alcohols, ketones, and ethers in 20 minutes.



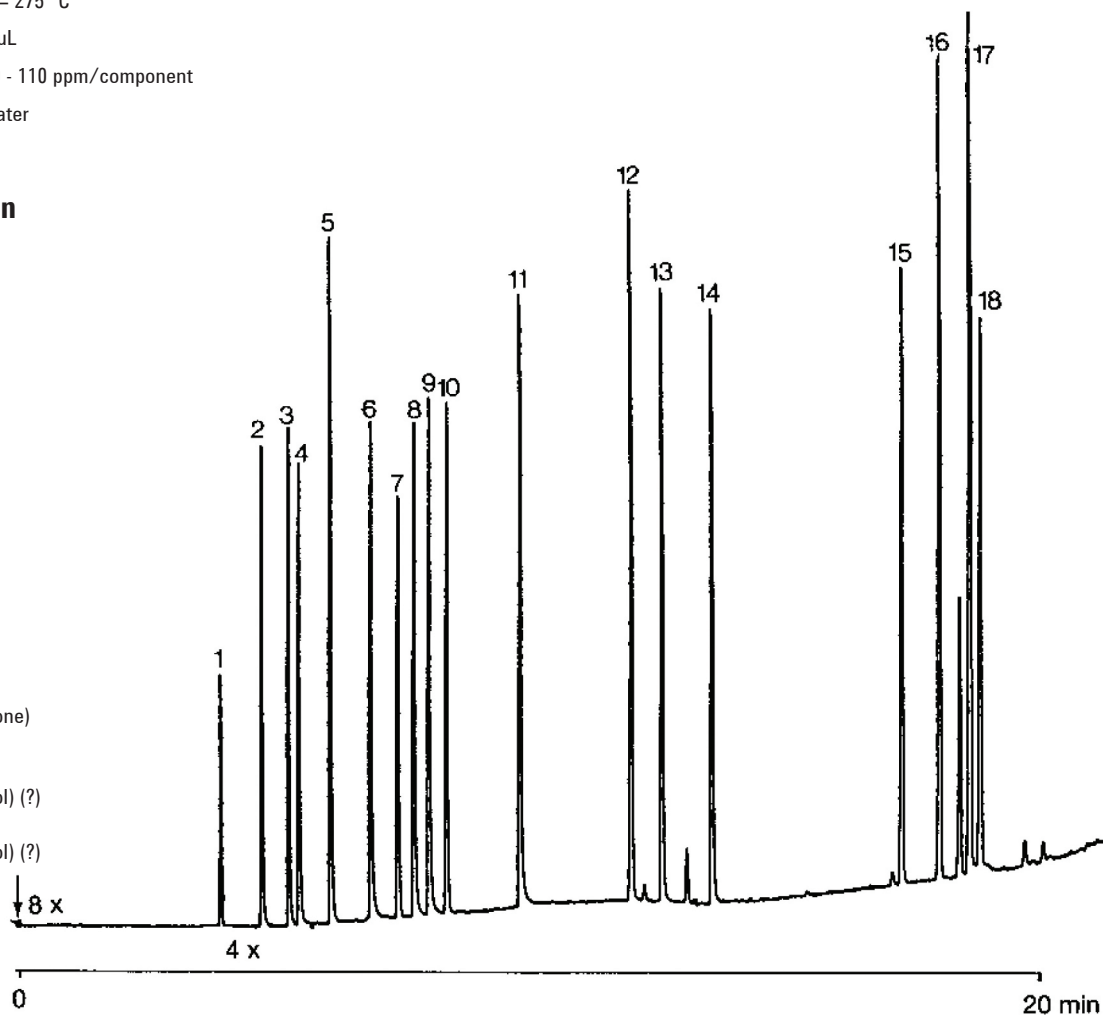
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Conditions

Technique : GC-capillary
Column : Agilent CP-Sil 5 CB, 0.32 mm x 50 m fused silica
WCOT CP-Sil 5 CB (1.2 μ m) (Part no. CP7770)
Temperature : 40 °C (3 min) \rightarrow 250 °C, 10 °C/min
Carrier Gas : H₂, 50 kPa (0.5 bar, 7.3 psi), 40 cm/s
Injector : Splitter, 50 mL/min
T = 250 °C
Detector : FID, 4 x 10⁻¹² Afs
T = 275 °C
Sample Size : 1 μ L
Concentration Range : 80 - 110 ppm/component
Solvent Sample : water

Peak identification

1. methanol
2. ethanol
3. acetone
4. 2-propanol
5. tert. butanol
6. 1-propanol
7. methyl tert. butylether
8. butanone
9. 2-butanol
10. diisopropylether
11. 1-butanol
12. methylisobutylketone
(4-methyl-2-pentanone)
13. methylisobutylcarbinol
(4-methyl-2-pentanol)
14. mesityloxiide
15. ethylamylketone
(2,6-dimethyl-4-heptanone)
16. diisobutylketone
17. diisobutylcarbinol
(2,6-dimethyl-4-heptanol) (?)
18. diisobutylcarbinol
(2,6-dimethyl-4-heptanol) (?)



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