

Aromatic hydrocarbons, $C_6 - C_{13}$

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography with an Agilent CP-Sil 8 CB column separates 16 C_6 to C_{13} aromatic hydrocarbons in 30 minutes.



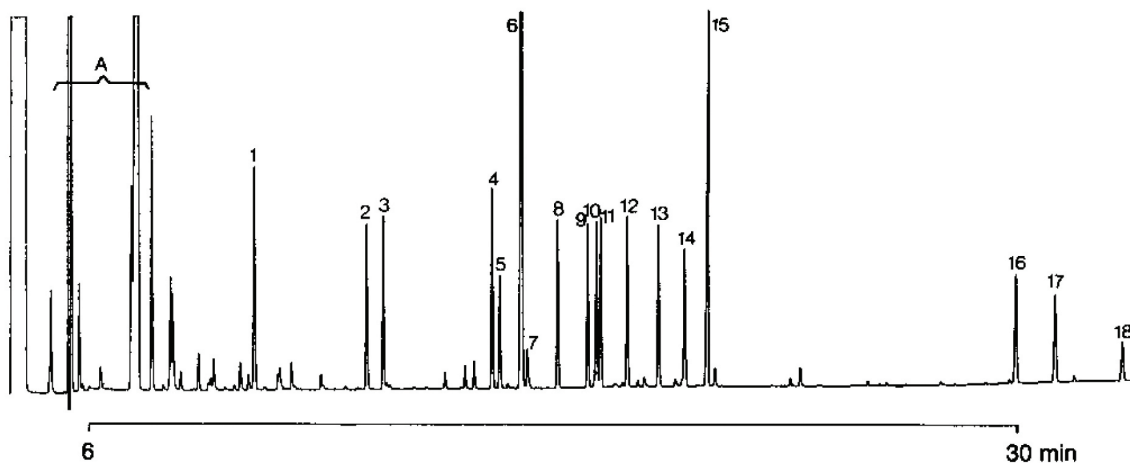
Agilent Technologies

Conditions

Technique : GC-capillary
Column : Agilent CP-Sil 8 CB, 0.32 mm x 50 m fused silica
WCOT CP-Sil 8 CB (1.2 µm) (Part no. CP7771)
Temperature : 40 °C (4 min) → 300 °C, 8.5 °C/min,
300 °C (1.5 min)
Carrier Gas : He, 88 kPa (0.88 bar, 12.8 psi)
Injector : Purge volume : 0.5 L
Concentration range : 400 ng/L
Temperature : 95 °C
Purge gas : N₂, 40 mL/min
Purge time : 45 min
Cooler temperature : 7 °C
Tenax trap temperature : 7 - 21 °C (ambient)
Desorption/Cold Trap : Cold trap material : 0.5 mm id fused silica
WCOT CP-Sil 5 CB
(0.5 µm), 1.5 cm filled
with Chromosorb 101
Precool time : 5 min
Desorb time : 15 min
Desorb flow : 7.5 mL/min
Desorption oven temp : 230 °C
Cold trap temperature : -85 °C
Injection temperature : 150 °C
Injection time : 5 min
GC-injection block temp : 250 °C
Detector : FID, 8 x 10⁻¹⁰
T = 300 °C

Peak identification

A. from solvent methanol
1. benzene
2. unknown
3. toluene
4. ethylbenzene
5. m-/p-xylene
6. D10-o-xylene
7. o-xylene
8. isopropylbenzene
9. n-propylbenzene
10. ethyltoluene
11. 1,3,5-trimethylbenzene
12. unknown
13. 1,2,4-trimethylbenzene
14. 1,2,3-trimethylbenzene
15. indene
16. dimethylnaphthalene
17. acenaphthene
18. fluorene



www.agilent.com/chem

This information is subject to change without notice.

© Agilent Technologies, Inc. 2011

Printed in the USA

31 October, 2011

First published prior to 11 May, 2010

A00252



Agilent Technologies