Polycyclic aromatic hydrocarbons

Analysis of polycyclic aromatic hydrocarbons to EPA 8100

Application Note

Environmental

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography with an Agilent CP-Sil 8 CB column separates 20 polycyclic aromatic hydrocarbons according to EPA 8100 in 45 minutes.

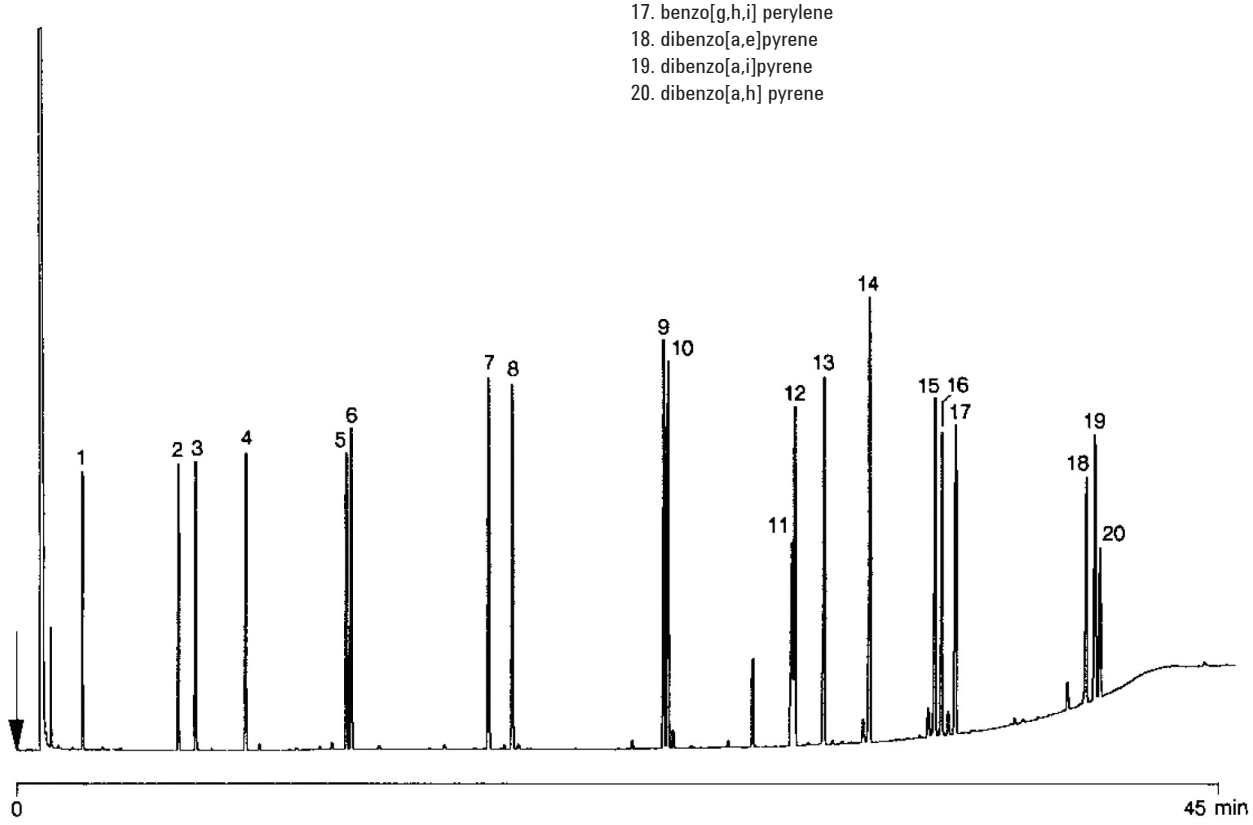
Agilent Technologies

Conditions

Technique	: GC-capillary
Column	: Agilent CP-Sil 8 CB, 0.32 mm x 25 m fused silica WCOT CP-Sil 8 CB (df = 0.12 µm) (Part no. CP7741)
Temperature	: 100 °C (2 min) ⟶ 300 °C, 5 °C/min
Carrier Gas	: H_2, 45 kPa (0.45 bar, 6.5 psi)
Injector	: Split, 100 mL/min T = 265 °C
Detector	: FID T = 325 °C

Peak identification

1. naphthalene
2. acenaphthylene
3. acenaphthene
4. fluorene
5. phenanthrene
6. anthracene
7. fluoranthene
8. pyrene
9. benz[a]anthracene
10. chrysene
11. benzo[b]fluoranthene
12. benzo[k]fluoranthene
13. benzo[a]pyrene
14. 3-methylcholanthrene
15. indeno[1,2,3-cd]pyrene
16. dibenz[a,h]anthracene
17. benzo[g,h,i] perylene
18. dibenzo[a,e]pyrene
19. dibenzo[a,i]pyrene
20. dibenzo[a,h] pyrene



www.agilent.com/chem

Printed in the USA
31 October, 2011
First published prior to 11 May, 2010
A00801

Agilent Technologies