Hydrocarbons, $C_3 - C_{11}$

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography with an Agilent CP-Sil PONA CB column separates 31 components in unleaded gasoline according to ASTM D5769 in 58 minutes.

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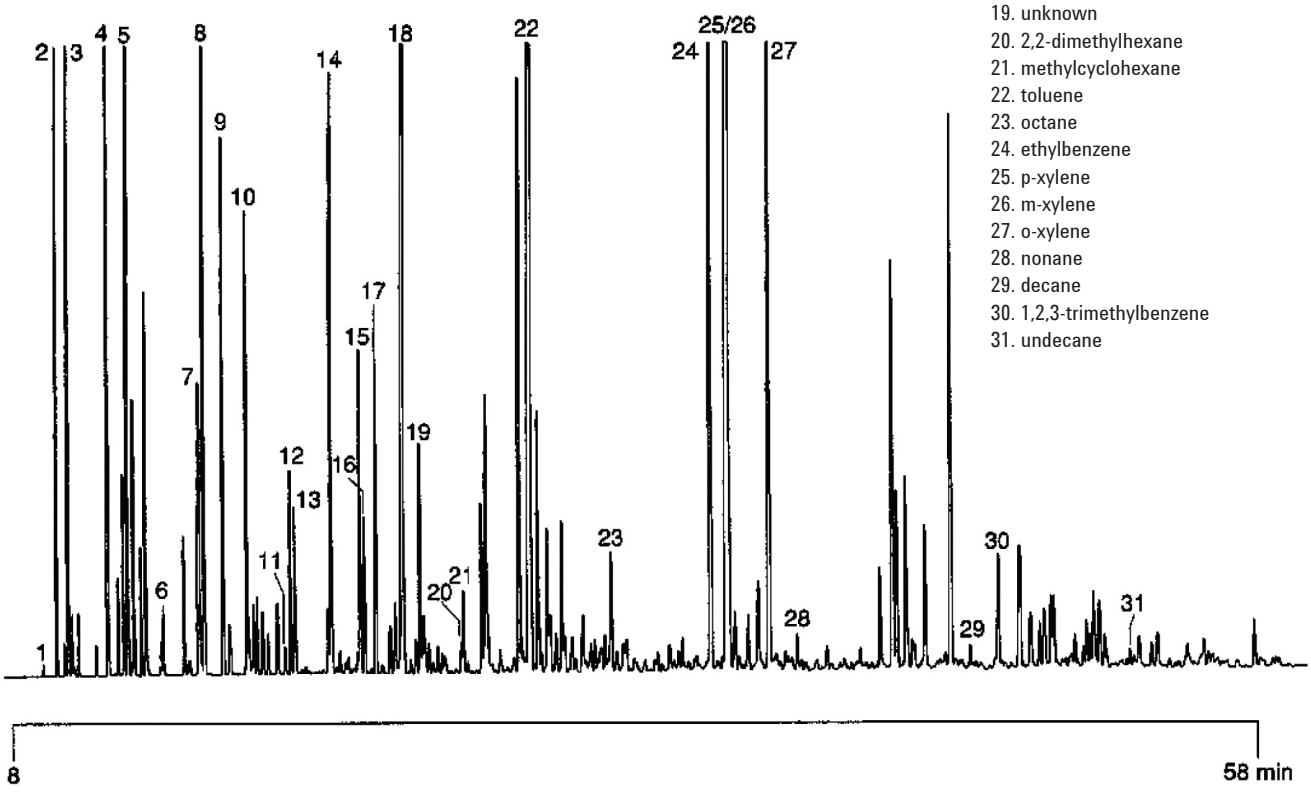
Conditions

Technique	: GC-capillary
Column	: Agilent CP-Sil PONA CB, 0.25 mm x 100 m fused silica WCOT (df = 0.5 µm) (Part no. CP7530)
Temperature	: 35 °C (7 min) ⟶ 250 °C, 3 °C/min
Carrier Gas	: He, 240 kPa (2.4 bar, 34 psi)
Injector	: Split, 80 mL/min T = 275 °C
Detector	: FID T = 275 °C
Sample Size	: 0.1 µL

Peak identification

1. propane
2. isobutane
3. butane
4. 2-methylbutane (isopentane)
5. pentane
6. 2,2-dimethylbutane
7. 2,3-dimethylbutane
8. 2-methylpentane
9. 3-methylpentane
10. hexane
11. 2,2-dimethylpentane
12. methylcyclopentane
13. 2,4-dimethylpentane
14. benzene
15. 2-methylhexane
16. 2,3-dimethylpentane
17. 3-methylhexane
18. tert. amyl methyl ether (TAME)
19. unknown
20. 2,2-dimethylhexane
21. methylcyclohexane
22. toluene
23. octane
24. ethylbenzene
25. p-xylene
26. m-xylene
27. o-xylene
28. nonane
29. decane
30. 1,2,3-trimethylbenzene
31. undecane



Printed in the USA
31 October, 2011
First published prior to 11 May, 2010
A01274

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