



Hydrocarbons, $C_5 - C_{12}$

Analysis of $C_5 - C_{12}$ PONA hydrocarbons to ASTM D 5134

Application Note

Energy & Fuels

Authors

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Introduction

Gas chromatography with an Agilent CP-Sil PONA CB column separates 36 C_5 to C_{12} PONA hydrocarbons according to ASTM D5134 in 90 minutes.



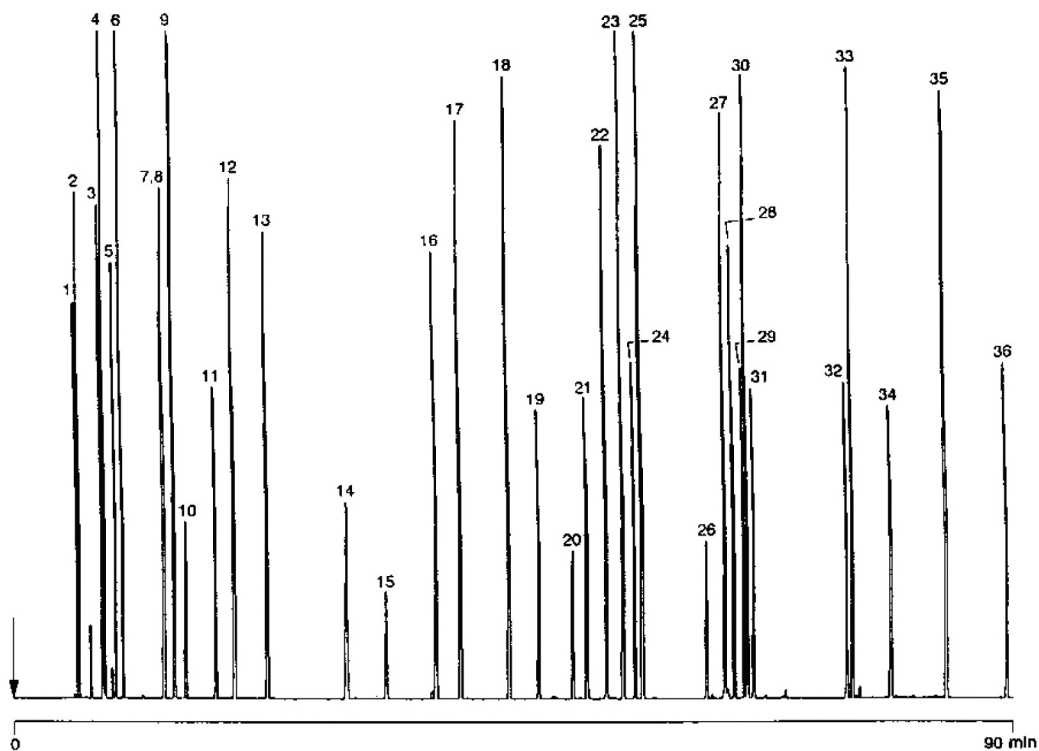
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Conditions

Technique : GC-capillary
Column : Agilent CP-Sil PONA CB, 0.21 mm x 50 m CP-Sil
PONA CB according to ASTM 0 5134 (df = 0.5 µm)
(Part no. CP7531)
Temperature : 35 °C (30 min) → 200 °C, 2 °C/min; 200 °C (10 min)
Carrier Gas : He, 215 kPa (2.15 bar, 30.5 psi)
Injector : Split, 200 mL/min;
T = 200 °C
Detector : FID
T = 250 °C
Sample Size : 0.1 µL
Solvet Sample : hexane

Peak identification

1. pentene
2. pentane
3. cyclopentane
4. 2-methylpentane
5. hexene
6. hexane
7. benzene
8. methyl-cyclopentene
9. cyclohexane
10. 2-methylhexane
11. heptene
12. heptane
13. methylcyclohexane
14. toluene
15. 2-methylheptane
16. octene
17. n-octane
18. ethylcyclohexane
19. ethylbenzene
20. 2-methyloctane
21. o-xylene
22. nonene
23. n-nonane
24. isopropylbenzene
25. isopropylcyclohexane
26. 2-methylnonane
27. tert.-butylcyclohexane
28. n-decane
29. sec-butylbenzene
30. n-decane
31. 1,2,3-trimethylbenzene
32. cis-decalene
33. undecane
34. 1,2,3,4-tetramethylbenzene
35. dodecane
36. 1,2,3,4,5-pentamethylbenzene



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Printed in the USA

31 October, 2011

First published prior to 11 May, 2010

A00751



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