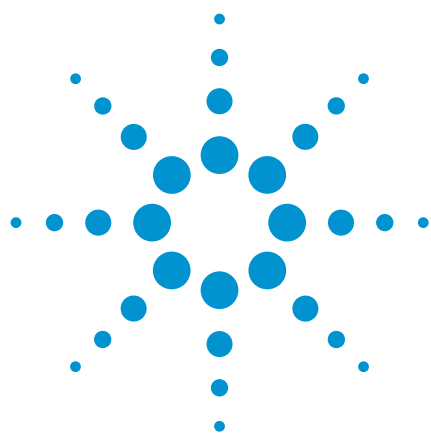




Hydrocarbons, $C_4 - C_{10}$ Analysis of C_5 monomers

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography using an Agilent CP-Sil 5 CB column separates 28 C_5 monomers in 25 minutes.



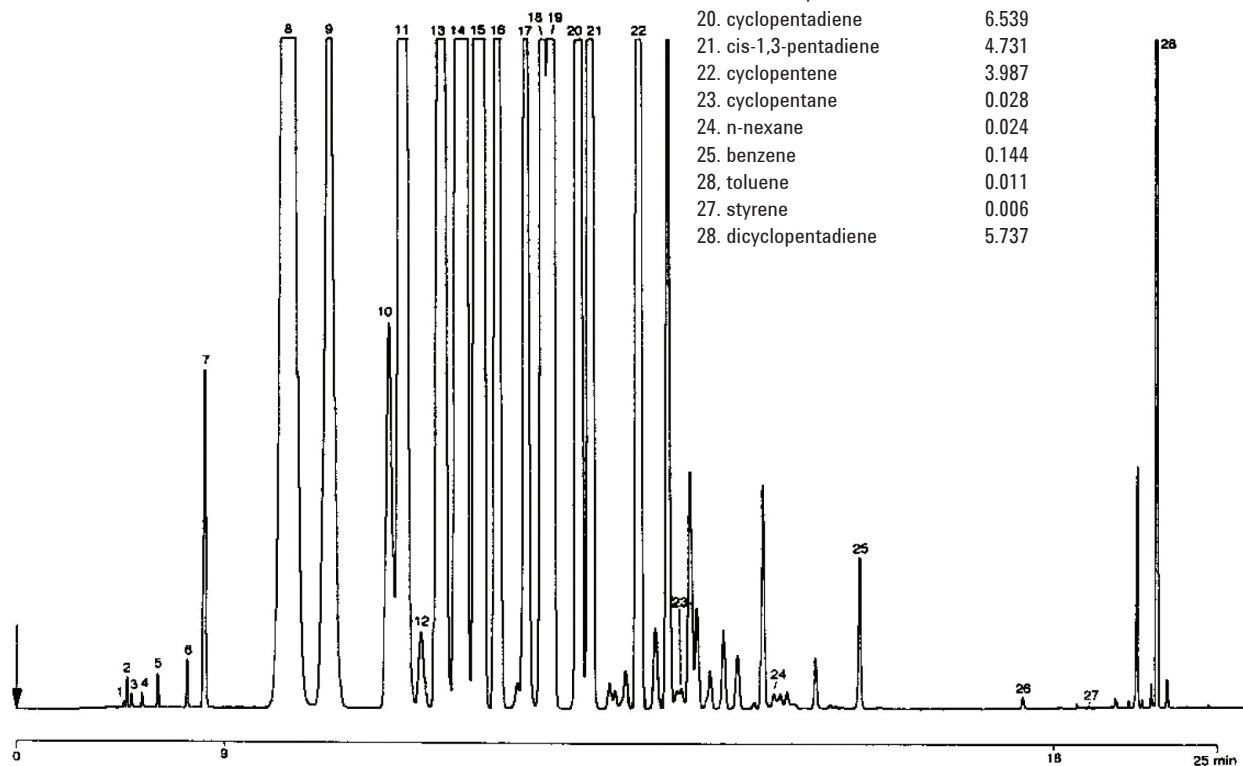
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Conditions

Technique : GC-capillary
Column : Agilent CP-Sil 5 CB, 0.32 mm x 50 m fused silica
WCOT CP-Sil 5 CB (df = 1.2 μ m) (Part no. CP7770)
Temperature : -10 °C (10 min) $\rightarrow$ 150 °C, 25 °C/min;
150 °C (10 min) $\rightarrow$ 200 °C, 25 °C/min
Carrier Gas : N₂, 102.5 kPa (1.03 bar, 14.6 psi), 36 cm/s
Injector : Splitter, 190 mL/min
T = 175 °C
Detector : FID 2⁵ Afs;
T = 300 °C
Sample Size : 1.0 μ L
Solvent Sample : pure
Courtesy : W. Kruik, Shell Pernis, The Netherlands

Peak identification

	Concentration (%):
1. 1-butene	0.017
2. 1-3-butadiene	0.047
3. n-butane	0.029
4. trans-2-butene	0.034
5. cis-2-butene	0.079
6. 1,2-butadiene	0.117
7. 3 methyl-1-butene	1.140
8. iso-pentane	6.647
9. 1,4 pentadiene	2.422
10. 2-butyne	0.789
11. 1-pentene	5.351
12. 2 methyl-1,3 butadiyn	0.157
13. 2 methyl-1-butene	5.739
14. n-pentane	18.569
15. isoprene	18.192
16. trans-2-pentene	3.108
17. cis-2-pentene	1.991
18. 2 methyl-2-butene	2.380
19. trans-1,3-pentadiene	8.899
20. cyclopentadiene	6.539
21. cis-1,3-pentadiene	4.731
22. cyclopentene	3.987
23. cyclopentane	0.028
24. n-hexane	0.024
25. benzene	0.144
26. toluene	0.011
27. styrene	0.006
28. dicyclopentadiene	5.737



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This information is subject to change without notice.

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