



Hydrocarbons, $C_2 - C_4$

Analysis of butenes in butane on an Agilent UltiMetal PLOT column

Application Note

Energy & Fuels

Authors

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Introduction

Gas chromatography with an Agilent CP-Al₂O₃/Na₂O₃ column separates butenes in a butane stream in 22 minutes. Complete separation is possible at column temperatures far above ambient.



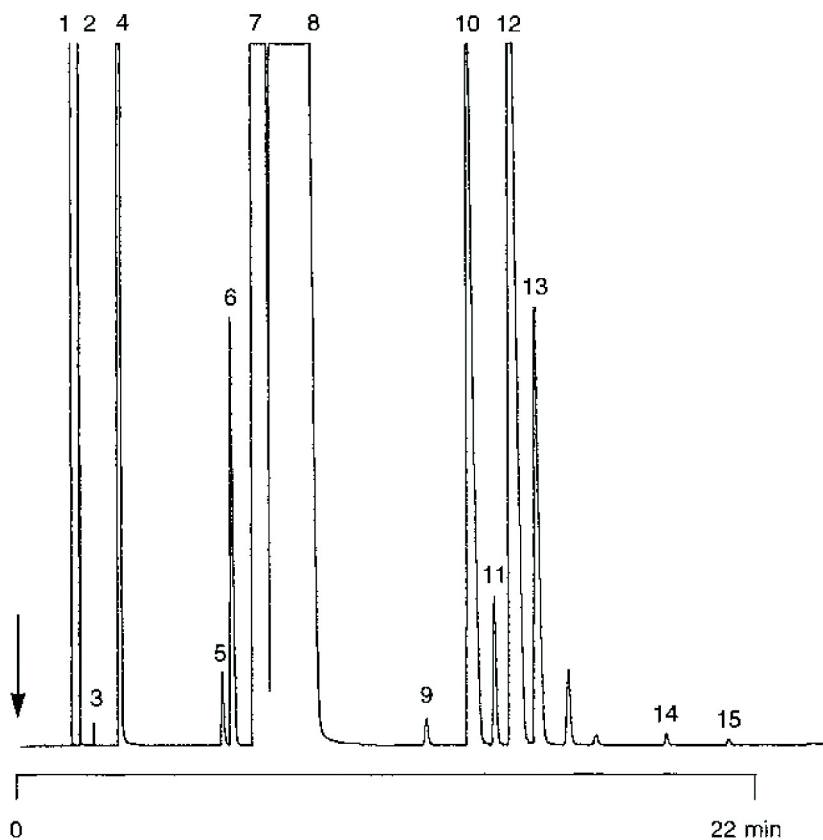
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Conditions

Technique : GC-wide-bore
Column : Agilent CP-Al₂O₃/Na₂SO₄ PLOT UltiMetal,
0.53 mm x 50 m (df = 10 μm) (Part no. CP6968)
Temperature : 70 °C (5 min) → 170 °C, 10 °C/min
Carrier Gas : N₂, 5 mL/min, 10 kPa (0.1 bar, 1.4 psi)
Injector : Split,
T = 150 °C
Detector : FID
T = 250 °C
Sample Size : 100 μL
Concentration Range : 50 ppm - 95%
Solvent Sample : gas
Courtesy : A. Katzir, Carmel Olefins Ltd.,
Haifa, Israel

Peak identification

1. methane
2. ethane
3. ethylene
4. propane
5. cyclopropane
6. propene
7. isobutane
8. n-butane
9. 2,2-dimethylcyclopropane
10. trans-2-butene
11. 1-butene
12. isobutene
13. cis-2-butene
14. 1,3-butadiene
15. propyne



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This information is subject to change without notice.

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