



Hydrocarbons, $C_1 - C_4$

Separation of 16 light hydrocarbons

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography using an Agilent CP- Al_2O_3/Na_2SO_4 column separates 16 C_1 to C_4 light hydrocarbons in 20 minutes



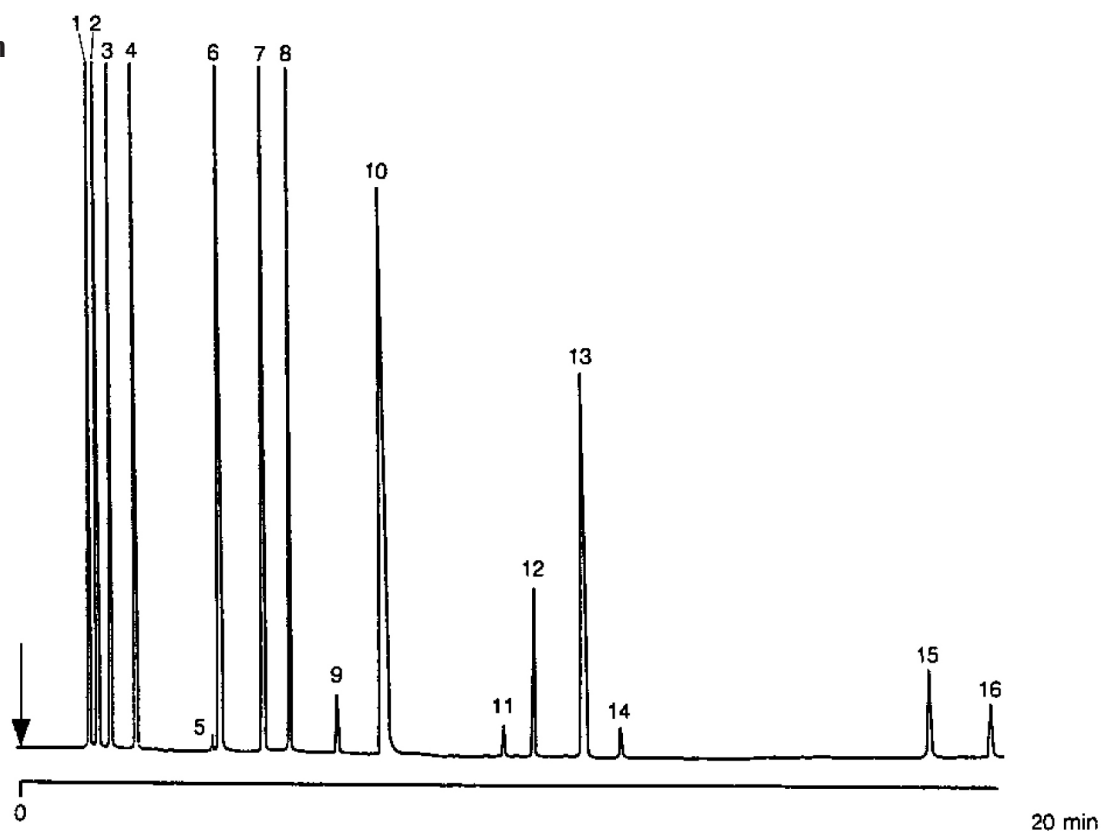
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Conditions

Technique : GC-capillary
Column : Agilent CP-Al₂O₃/Na₂SO₄, 0.32 mm x 50 m fused silica WCOT Al₂O₃/Na₂SO₄ (df = 5 μm)
(Part no. CP7565)
Temperature : 70 °C → 200 °C, 3 °C/min
Carrier Gas : H₂, 100 kPa (1.0 bar, 14 psi)
Injector : Splitter
T = 250 °C
Detector : FID
T = 200 °C

Peak identification

1. methane
2. ethane
3. ethane (ethylene)
4. propane
5. cyclopropane
6. propene (propylene)
7. iso-butane
8. butane
9. propadiene
10. ethyne (acetylene)
11. trans-2-butene
12. 1-butene
13. iso-butene
14. cis-2-butene
15. 1,3-butadiene
16. propyne (methylacetylene)



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