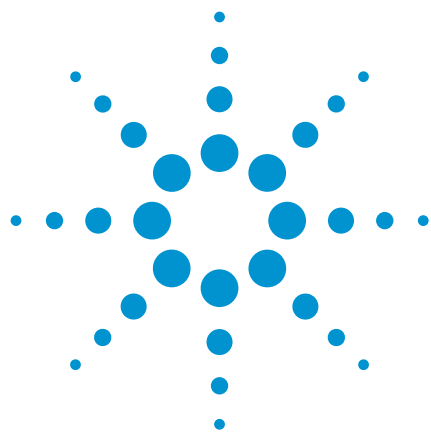




Light hydrocarbons (alkanes, alkynes, alkenes) $C_1 - C_4$

Analysis of 1,3-butadiene on a capillary column

Application Note

Materials Testing & Research

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography using an Agilent CP-Al₂O₃/KCl column separates 12 C_1 to C_4 alkanes, alkynes and alkenes in just over 20 minutes.



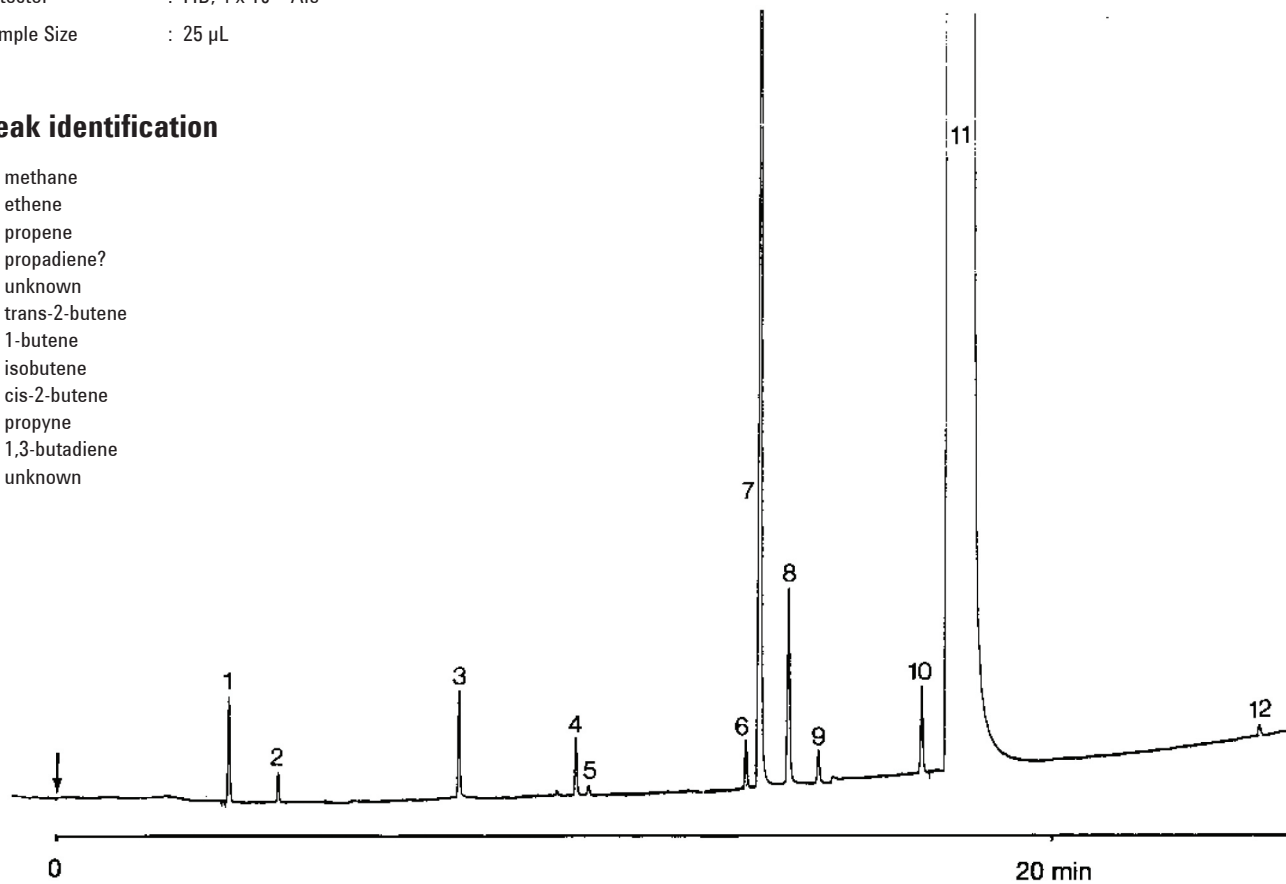
Agilent Technologies

Conditions

Technique : GC-capillary
Column : Agilent CP-Al₂O₃/KCl, 0.32 mm x 50 m fused silica
PLOT Al₂O₃/KCl (5.0 µm) (Part no. CP7515)
Temperature : 60 °C → 180 °C, 5 °C/min
Carrier Gas : N₂, 85 kPa (0.85 bar), 24 cm/s
Injector : Splitter, 25 mL/min
Detector : FID, 4 x 10⁻¹² Afs
Sample Size : 25 µL

Peak identification

1. methane
2. ethene
3. propene
4. propadiene?
5. unknown
6. trans-2-butene
7. 1-butene
8. isobutene
9. cis-2-butene
10. propyne
11. 1,3-butadiene
12. unknown



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