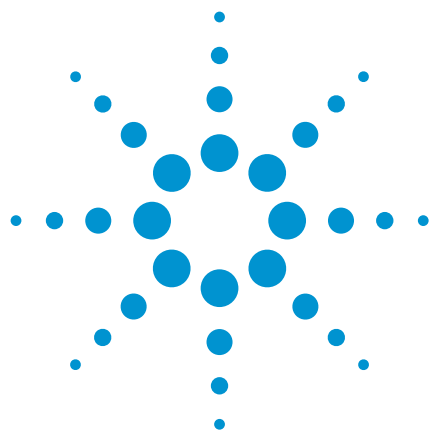




Light hydrocarbons $C_3 - C_4$ (alkanes, alkenes)

Separation of saturated and
unsaturated C_3 - C_4 hydrocarbons on a
capillary column

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography using an Agilent CP-Al₂O₃/KCl column separates nine saturated and unsaturated C_3 to C_4 hydrocarbons in four minutes.



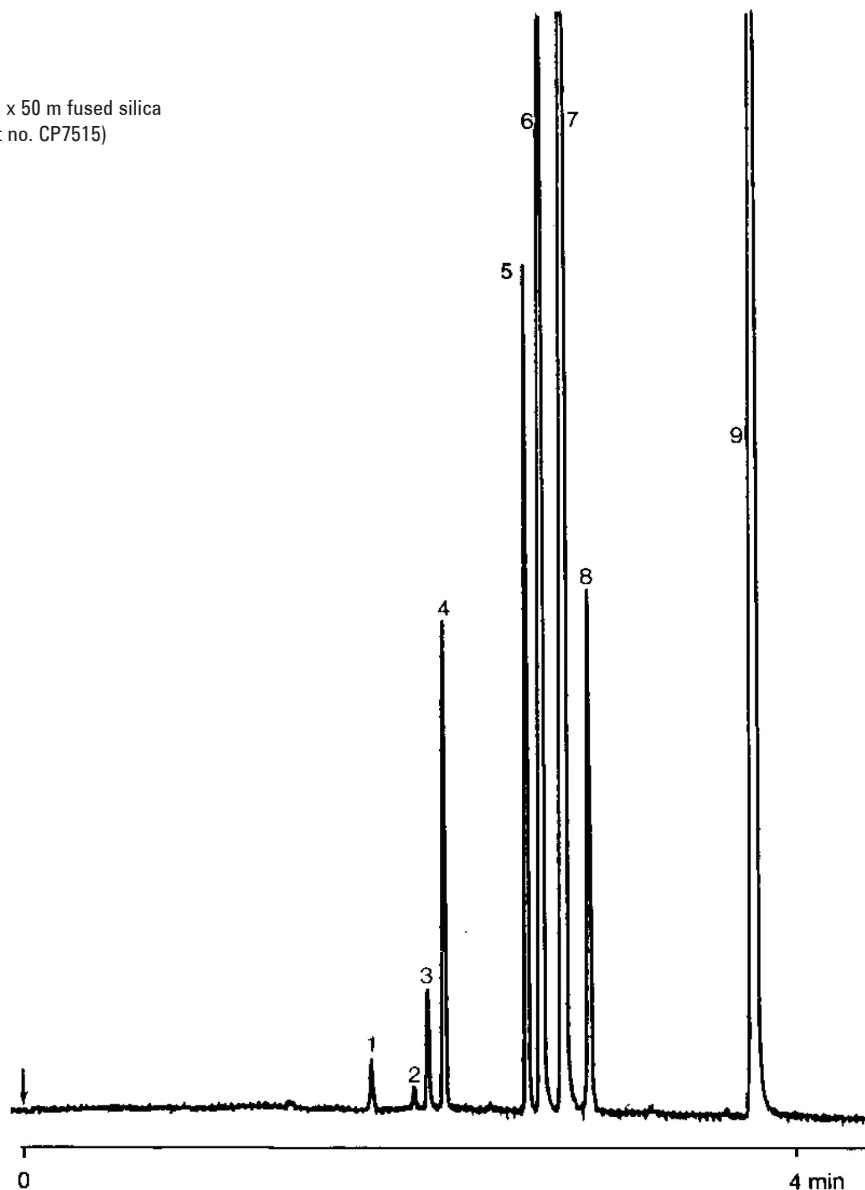
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Conditions

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 : 130 °C
Carrier Gas : H₂, 140 kPa (1.4 bar), 47 cm/s
Injector : Splitter, 100 mL/min
T = 150 °C
Detector : FID, 1 x 10⁻¹² Afs
T = 200 °C
Sample Size : 0.10 µL

Peak identification

1. propene
2. propadiene
3. isobutane
4. n-butane
5. trans-2-butene
6. 1-butene
7. isobutene
8. cis-2-butene
9. 1,3-butadiene



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