Hydrocarbons, C_1 – C_6

Trace analysis of acetaldehyde in hydrocarbon: ‘symmetry of acetaldehyde peak’

Application Note

Materials Testing & Research

Authors

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Introduction

Gas chromatography using an Agilent PoraPLOT Q-HT column is used for the trace analysis of acetaldehyde in a hydrocarbon matrix, with separation in 12 minutes.

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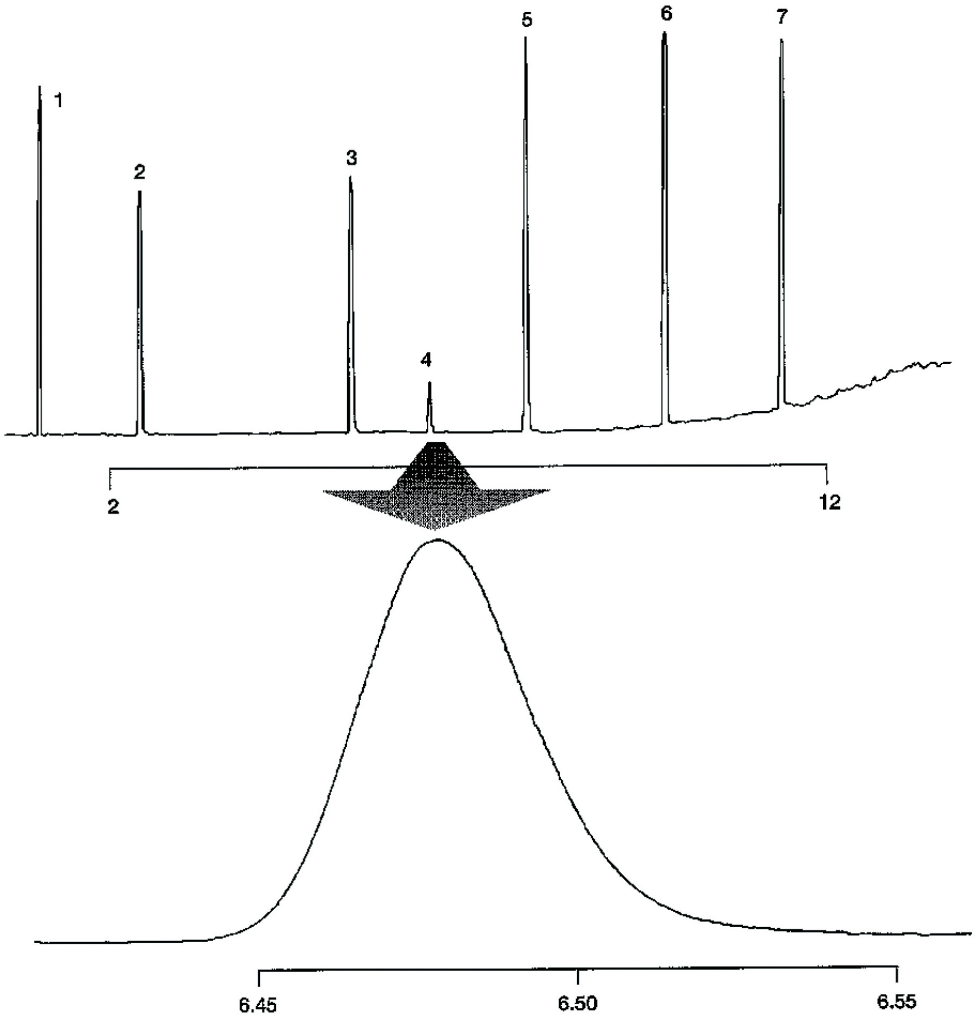
Conditions

Technique	:	GC-wide-bore
Column	:	Agilent PoraPLOT Q-HT, 0.53 mm x 25 m, used silica PLOT PoraPLOT Q-HT (df = 20 µm) (Part no. CP7559)
Temperature	:	40 °C → 260 °C, 10 °C/min
Carrier Gas	:	He, 60 kPa (0.6 bar, 8.7 psi)
Injector	:	Split
Detector	:	FID

PoraPLOT Q type porous polymers are known for their high inertness. Polar and non-polar compounds elute with good asymmetry, which makes trace analysis possible. Acetaldehyde elutes very well from a PoraPLOT Q-HT column without interference from hydrocarbons.

Peak identification

1. methane
2. ethane
3. propane
4. acetaldehyde
5. butane
6. pentane
7. hexane



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