Hydrocarbons, C_1 – C_3

Analysis of hydrocarbons C_1-C_2 and vinyl chloride in air

Application Note

Environmental

Authors

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Introduction

Gas chromatography using an Agilent CP-Al_2O_3/Na_2SO_4 column separates five C_1 to C_3 hydrocarbons and vinyl chloride in air in 14 minutes.

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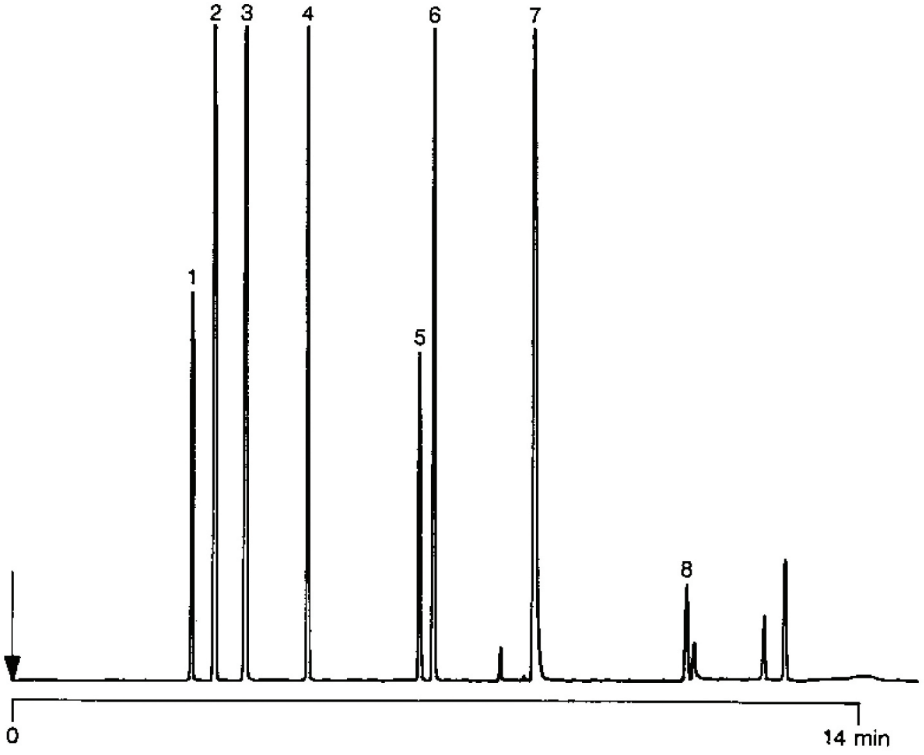
Conditions

Technique	:	GC-capillary
Column	:	Agilent CP-Al_2O_3/Na_2SO_4, 0.53 mm x 50 m fused silica PLOT Al_2O_3/Na_2SO_4 (df = 10 µm) (Part no. CP7568)
Temperature	:	70 °C (2 min) ⟶ 200 °C, 10 °C/min
Carrier Gas	:	He, 100 kPa (1.0 bar, 14 psi), 30 cm/s
Injector	:	Splitter, 1:35 T = 240 °C
Detector	:	FID T = 300 °C
Sample Size	:	1 mL
Concentration Range	:	100 ppm; except cyclopropane 50 ppm and vinyl chloride 15 ppm
Courtesy	:	Dow Chemical Canada, Western Canada Division, R & D Lab, Jim Luong and Steve Craik

Peak identification

1. methane
2. ethane
3. ethylene
4. propane
5. cyclopropane
6. propylene
7. acetylene
8. vinyl chloride



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