



Hydrocarbons, $C_1 - C_5$

Analysis of hydrocarbons and H_2S

Application Note

Energy & Fuels

Authors

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Introduction

Gas chromatography with an Agilent PoraPLOT Q column separates 15 C_1 to C_5 hydrocarbons and hydrogen sulfide in fuel gas in 16 minutes.



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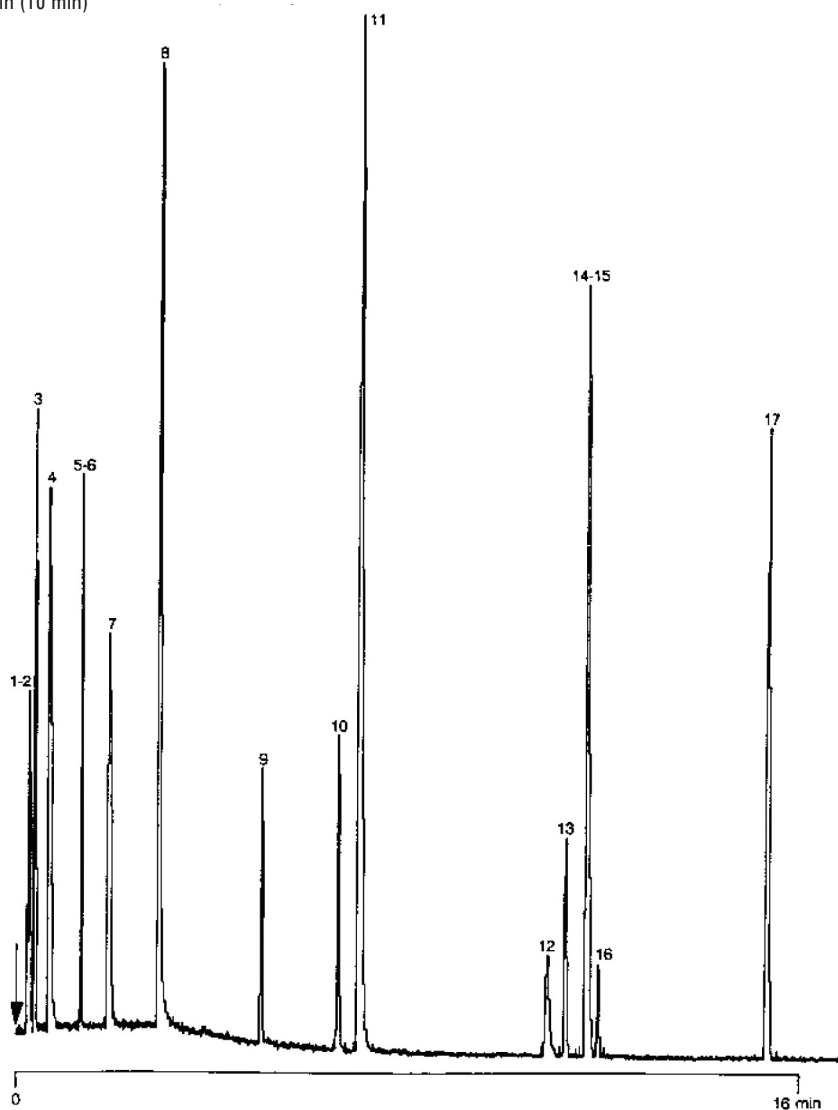
Conditions

Technique : GC-capillary
Column : Agilent PoraPLOT Q, 0.32 x 25 m fused silica PLOT
PoraPLOT Q (df = 10 µm) (Part no. CP7551)
Temperature : 30 °C (3 min) → 200 °C, 10 °C/min (10 min)
Carrier Gas : He, 140 kPa (1.4 bar, 20 psi)
Injector : Split, 1:100
T = 200 °C
Detector : MSD
Sample Size : 100 µL

Courtesy : Dow Chemical Canada,
Western Canada Division,
R & D Lab., Jim Luong

Peak identification

1. carbon monoxide	0.98%
2. air	
3. methane	3.33%
4. carbon dioxide	3.24%
5. ethylene	0.24%
6. acetylene	0.24%
7. ethane	0.95%
8. hydrogen sulfide	1.12%
9. carbonyl sulfide	
10. propylene	0.09%
11. propane	0.61%
12. isobutane	0.05%
13. 1-butene	0.05%
14. n-butane	0.21%
15. cis-2-butene	250ppm
16. trans-2-butene	250ppm
17. n-pentane	0.11%



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This information is subject to change without notice.

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