



Permanent gases

Analysis of permanent gases in propylene

Application Note

Energy & Fuels

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Introduction

Gas chromatography with an Agilent PoraPLOT Q UltiMetal column separates permanent gases in propylene in less than five minutes.



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Conditions

Technique	: GC-wide-bore
Column 1	: Agilent PoraPLOT Q UltiMetal, 0.53 mm x 25 m PLOT (df = 20 μ m) (Part no. CP6954)
Column 2	: Agilent CP-Molsieve 5Å UltiMetal, 0.53 mm x 25 m PLOT (df = 50 μ m) (Part no. CP6938)
Temperature	: 120 °C
Carrier Gas	: Ar, 30 kPa (0.3 bar, 4.3 psi)
Injector	: Valco C6WV, 250 μ L, T = 50 °C
Detector	: TCD T = 150 °C
Sample Size	: 250 μ L

The first fraction that elutes from the PoraPLOT Q column is switched over to the Molsieve 5Å column.

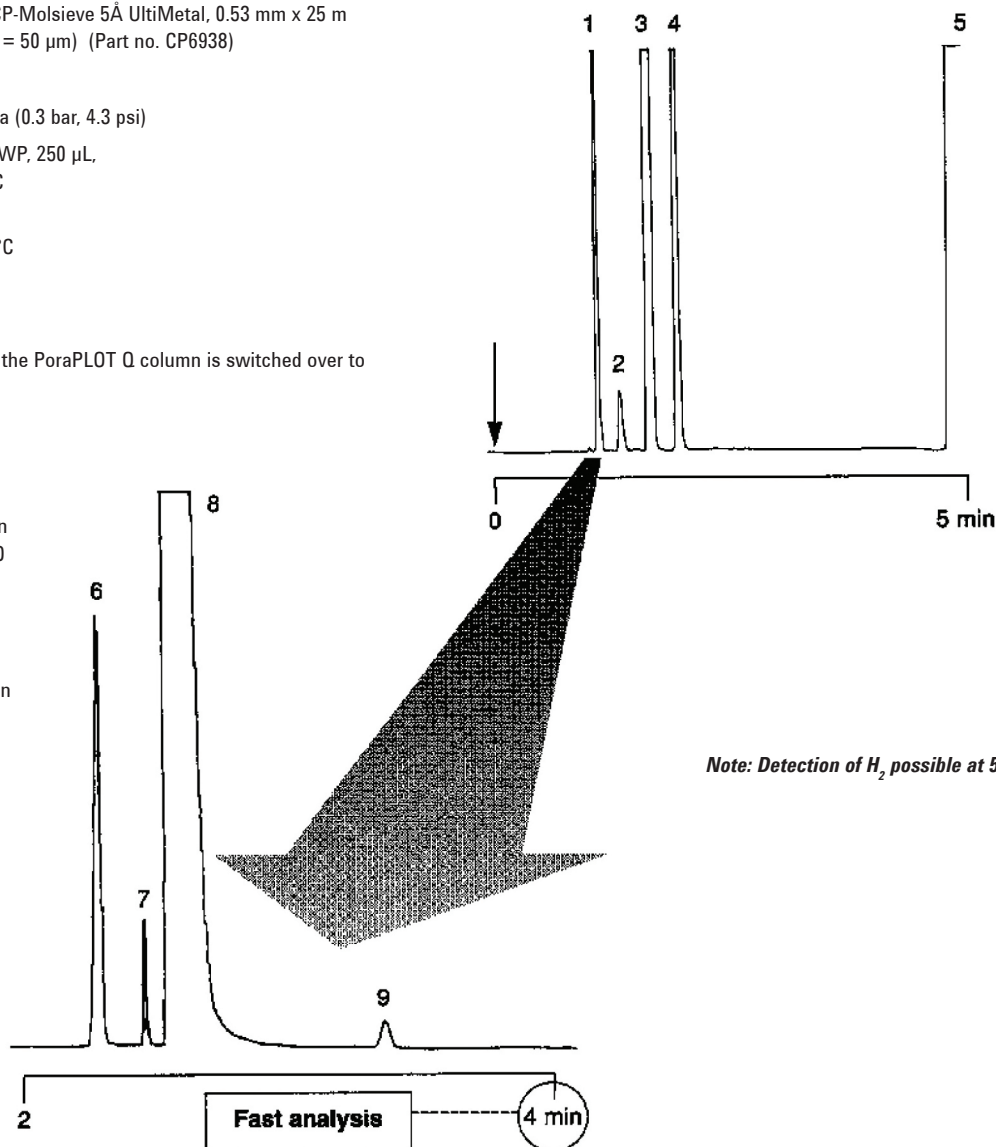
Peak identification

Elution profile PoraPLOT Q column

1. composite of H₂, N₂, O₂ and CO
2. carbon dioxide
3. ethylene and acetylene
4. ethane
5. propylene

Elution profile Molsieve 5Å column

6. hydrogen
7. oxygen
8. nitrogen
9. carbon monoxide



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This information is subject to change without notice.

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