



Oxygenates

Analysis of trace methanol in propylene

Application Note

Energy & Fuels

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Introduction

The Agilent Lowox adsorbent provides very high retention for oxygenated compounds. The methanol elutes after $n\text{-C}_{14}$ allowing this component to be measured at low levels in a range of hydrocarbon streams, see Application note 1363.

A typical application of trace methanol in propylene is shown here. Methanol has to be measured usually as low as 5 ppm. With the Lowox column, methanol can be quantified down to sub-ppm levels. The reproducibility of this method is within 5%.

As well as propylene, the measurement of methanol in ethylene and butadiene is possible. The high maximum temperature of 350 °C with virtually no bleed makes the Lowox column widely applicable. Other $\text{C}_1 - \text{C}_5$ oxygenated compounds can also be separated as the selectivity of the Lowox column is also very high, see Application note 1362.



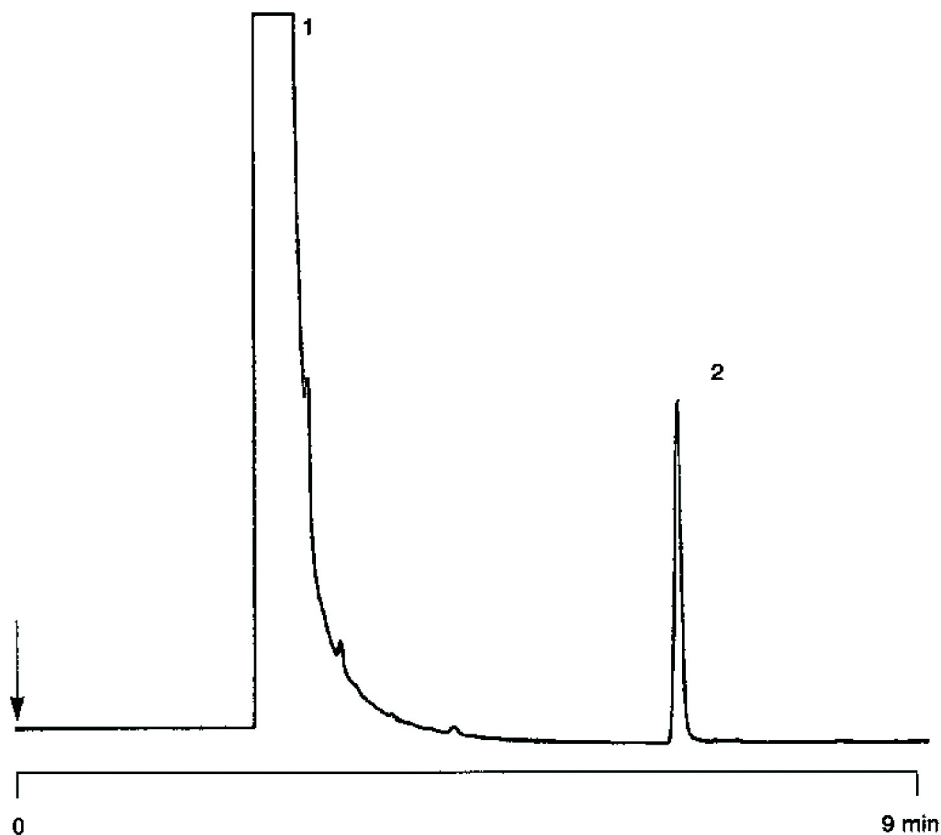
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Conditions

Technique : GC-wide-bore
Column : Agilent Lowox, 0.53 mm fused silica PLOT
(Part no. CP8587)
Temperature : 150 °C (2 min) → 200 °C, 10 °C/min
Carrier Gas : He, 10 kPa (0.1 bar, 1.4 psi)
Injector : Direct
Detector : FID
T = 200 °C
Sample Size : 50 µL
Concentration Range : ca. 20 ppm

Peak identification

1. propylene
2. methanol



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This information is subject to change without notice.

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