



Oxygenates

Analysis of low level formaldehyde in hydrocarbons

Application Note

Energy & Fuels

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Introduction

Formaldehyde can be analyzed directly by gas chromatography in C₁-C₄ hydrocarbons using an Agilent CP-Sil 5 CB capillary column and PID detection. The PID has a very low sensitivity for C₁-C₄ hydrocarbons. A detection limit of 200 ppb is feasible.

Note that the life time of the 11.7 eV lamp is shortened if high water levels are present.

Standards of formaldehyde are difficult to prepare; best results are obtained by using a permeation tube.



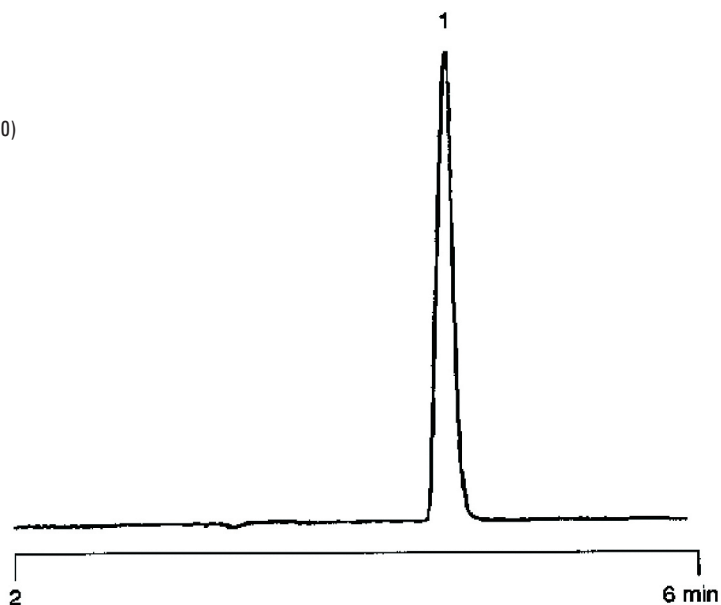
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Conditions

Technique : GC-capillary
Column : Agilent CP-Sil 5 CB, 0.32 mm x 50 m, fused silica
WCOT CP-Sil 5 CB (df = 5.0 μm) (Part no. CP7690)
Temperature : 30 $^{\circ}\text{C}$
Carrier Gas : He, 90 kPa (0.9 bar, 14 psi)
Injector : Split,
T = 200 $^{\circ}\text{C}$
Detector : PID, 11.7 eV lamp
Sample Size : 100 μL
Concentration Range : 180 ppm in methane

Peak identification

1. formaldehyde



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This information is subject to change without notice.

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