Sulfur gases

Analysis of trace sulfur in propylene with SCD

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

COS and H_2S can be quantified down to ppb levels because these components are separated from the hydrocalbon matrix by the unique selectivity of the Agilent CP-SilicaPLOT column. With selective detection there is no quenching effect, which results in higher sensitivity and reproducibility.

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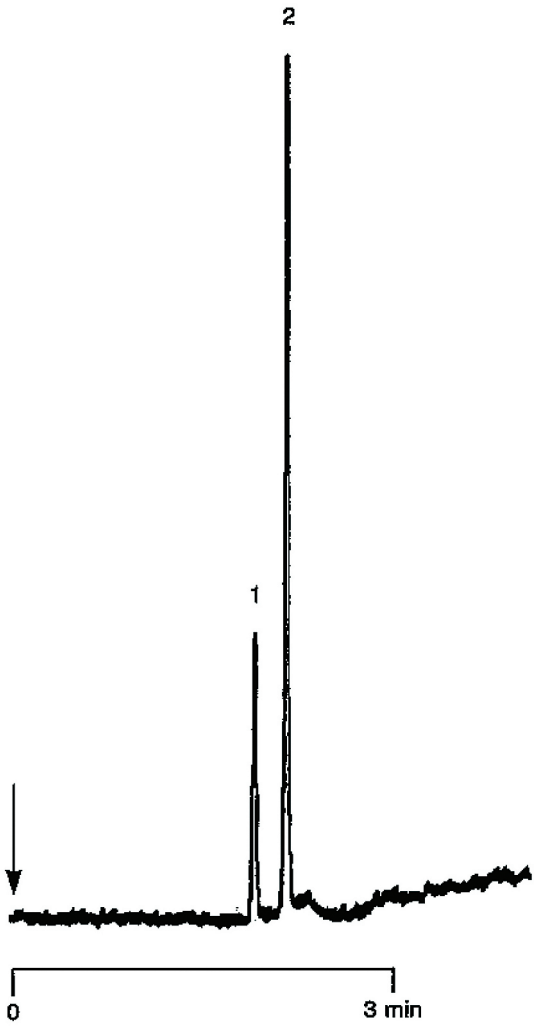
Conditions

Technique	:	GC-capillary
Column	:	Agilent CP-SilicaPLOT, 0.32 mm x 30 m, fused silica PLOT CP-SilicaPLOT (df = 4 µm) (Part no. CP8567)
Temperature	:	50 °C (1 min) ⟶ 120 °C, 10 °C/min
Carrier Gas	:	He, 50 kPa (0.5 bar, 7 psi)
Injector	:	Valve T = 100 °C
Detector	:	Sulfur selective GC detector, Antek
Sample Size	:	0.375 mL
Concentration Range	:	sulfur compounds: 1 ppb level
Courtesy	:	J.F. Borny, Antek Instruments Inc.

Peak identification

1. carbonyl sulfide (COS) 34 ppb
2. hydrogen sulfide (H_2S) 108 ppb



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