C_2 hydrocarbons

Analysis of light hydrocarbons

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

Agilent PoraBOND U porous polymer is a bonded porous polymer manufactured in-house. This results in a very stable and inert column that can be operated at high column flow rates and valve switching. PoraBOND U separates C_2 isomers to baseline. The highly pure PoraBOND U porous polymer has a stability up to 300 °C with very low bleed . Moisture has no influence on retention, which means that this column can be used isothermally at temperatures below 100 °C for analyzing samples that contain water.

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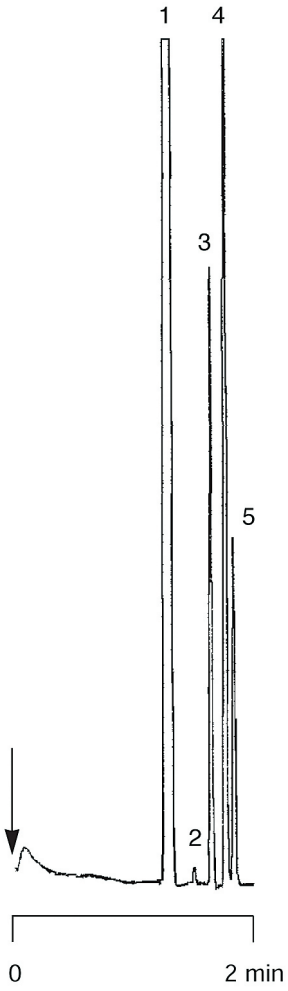
Conditions

Technique	:	GC-capillary
Column	:	Agilent PoraBOND U, 0.32 mm x 25 m fused silica PLOT (df = 7 µm) (Part no. CP7381)
Temperature	:	30 °C
Carrier Gas	:	He, 50 kPa (0.5 bar, 7 psi)
Injector	:	Split, T = 250 °C
Detector	:	PDD HeID mode D-4-1 (Valco), T = 250 °C
Sample Size	:	5 µL (gas)
Concentration Range	:	% level
Courtesy	:	C. Duvekot, Agilent application laboratory, Middelburg, The Netherlands

Peak identification

1. air
2. carbon dioxide
3. ethylene
4. ethane
5. acetylene



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Printed in the USA
31 October, 2011
First publlished prior to 11 May, 2010
A01587

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