Permanent gases and hydrocarbons, $C_1 - C_5$

Reaction products of n-butane formed by CH_3 radicals

Application Note

Energy & Fuels

Authors

Agilent Technologies, Inc.

Introduction

GC/MS using an Agilent PoraPLOT Q column separates 14 reaction products of n-butane formed by CH_3 radicals in 20 minutes.

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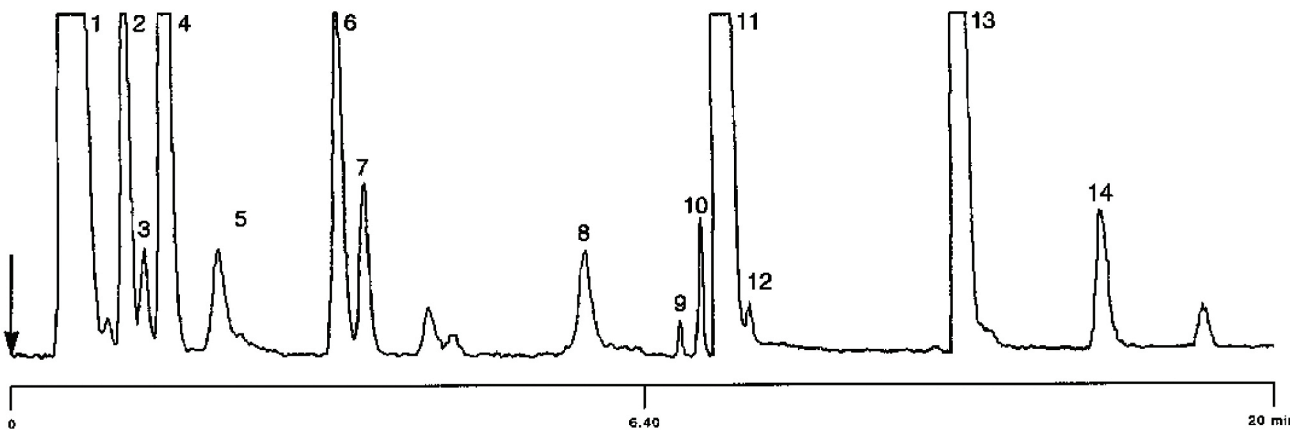
Conditions

Technique	: GC-capillary
Column	: Agilent PoraPLOT Q, 0.32 mm x 25 m fused silica PLOT PoraPLOT Q (df = 10 µm) (Part no. CP7551)
Temperature	: 140 °C
Carrier Gas	: He, 214 kPa (2.14 bar, 30 psi)
Injector	: Splitter T = 140 °C
Detector	: MSD T = 230 °C (interface oven)
Courtesy	: Bettina Jürges, Institute for Physical Chemistry, University of Göttingen, Göttingen, Germany

Peak identification

1. air, argon + methane
2. sulfur hexafluoride
3. ethylene
4. ethane
5. water
6. propylene
7. propane
8. acetaldehyde
9. isobutane
10. n-butene + cis-2-butene
11. trans-2-butene
12. acetone
13. isopentane
14. n-pentane



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