Solvents

Fast analysis of residual solvents via headspace analysis

Application Note

BioPharma

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography with a 0.15 mm id Agilent CP-Sil 5 CB column separates residual solvents in less than seven minutes.

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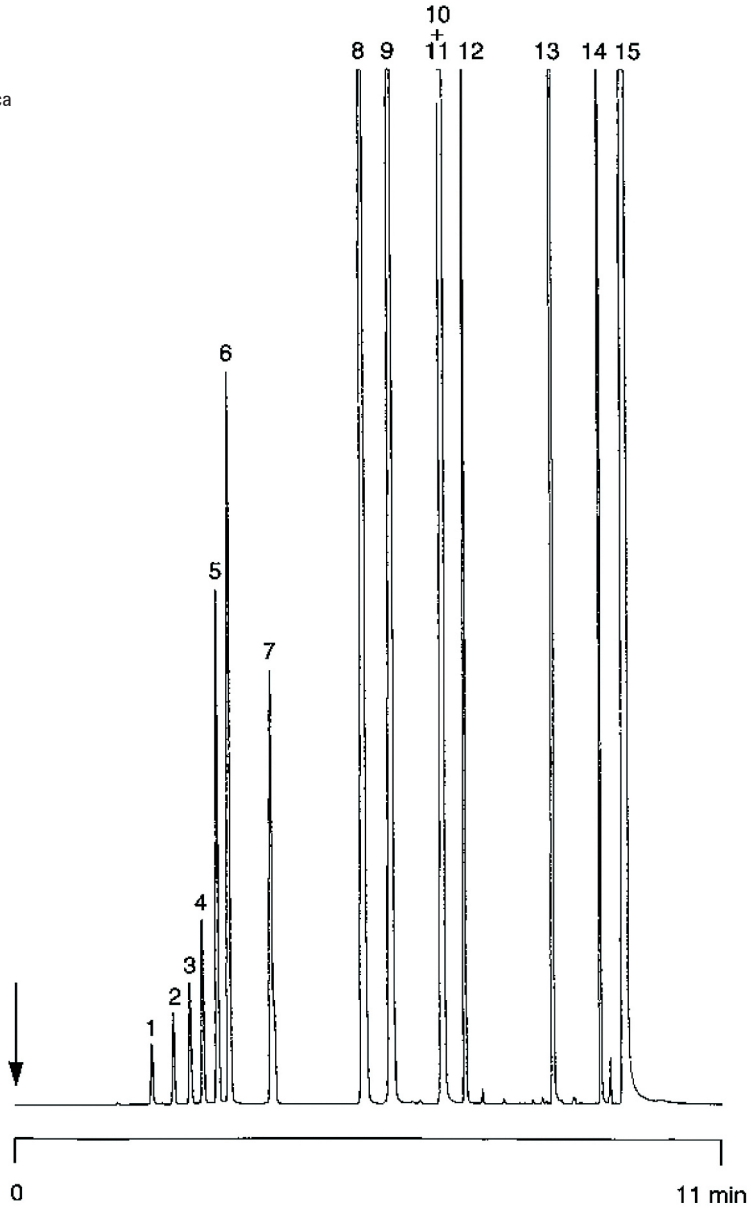
Conditions

Technique	:	GC-capillary
Column	:	Agilent CP-Sil 5 CB, 0.15 mm x 25 m fused silica WCOT (df = 1.2 µm) (Part no. CP7693)
Temperature	:	40 °C (6 min) ⟶ 160 °C, 50 °C/min
Carrier Gas	:	He, 330 kPa (3.3 bar, 46 psi)
Injector	:	Split, T = 250 °C
Detector	:	FID T = 250 °C
Sample Size	:	1 mL headspace
Concentration Range	:	0.01 -1%
Courtesy	:	I. Dijkstra, Solvay Pharmaceutials, Weesp, The Netherlands

Peak identification

1. methanol
2. methyl formiate
3. ethanol
4. acetonitrile
5. acetone
6. isopropanol
7. dichloromethane + methylacetate
8. MTBE
9. methyl ethyl ketone
10. ethylacetate
11. hexane
12. tetrahydrofuran
13. heptane
14. toluene
15. DMSO



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