Solvents
Fast analysis of residual solvents via headspace analysis

Application Note
BioPharma

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

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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