Gases
Analysis of impurities in ethylene

Application Note

Energy & Fuels

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Introduction
Gas chromatography with an Agilent PoraPLOT Q UltiMetal column separates gaseous impurities in ethylene in less than three minutes.
Conditions

Technique: GC-wide-bore
Column: Agilent PoraPLOT Q Ultimetal, 0.53 mm x 25 m PLOT (df = 20 μm) (Part no. CP6954)
Temperature: 35 °C
Carrier Gas: He, 20 kPa (0.2 bar, 2.9 psi)
Injector: Valco valve, 250 μL
T = 50 °C
Detector: FID with a Ni-catalyst methanizer
T = 200 °C
Sample Size: 250 μL

Peak identification
1. carbon monoxide 3 ppm
2. methane 23 ppm
3. carbon dioxide 3 ppm
4. ethylene 99%