Impurities in ethylene oxide
Fast analysis of impurities in ethylene oxide

Application Note

Materials Testing & Research

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Introduction
Gas chromatography with an Agilent CP-Sil 5 CB column and Agilent 490 Micro GC separates carbon dioxide and water impurities in ethylene oxide in 26 seconds.
**Conditions**

Technique : Micro-GC  
GC-Channel : Agilent CP-Sil 5 CB  
Temperature : 40 °C  
Carrier Gas : Helium, 26 psig  
Injector : 50 ms, 110 °C  
BackFlush : after 7 s  
Detector : chip TCD  

Courtesy : Jim Luong, Dow Chemical Canada

**Peak identification**

1. 11.5 s  air  (balance)  
2. 12.1 s  CO₂  (0.03% v/v)  
3. 14.7 s  water  (0.07% v/v)  
4. 24.0 s  ethylene oxide  (20% v/v)