



Chlorofluorocarbons

Analysis of CFCs using valve injection

Application Note

Environmental

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography with an Agilent PoraPLOT Q column separates 11 chlorofluorocarbons using valve injection in 15 minutes.



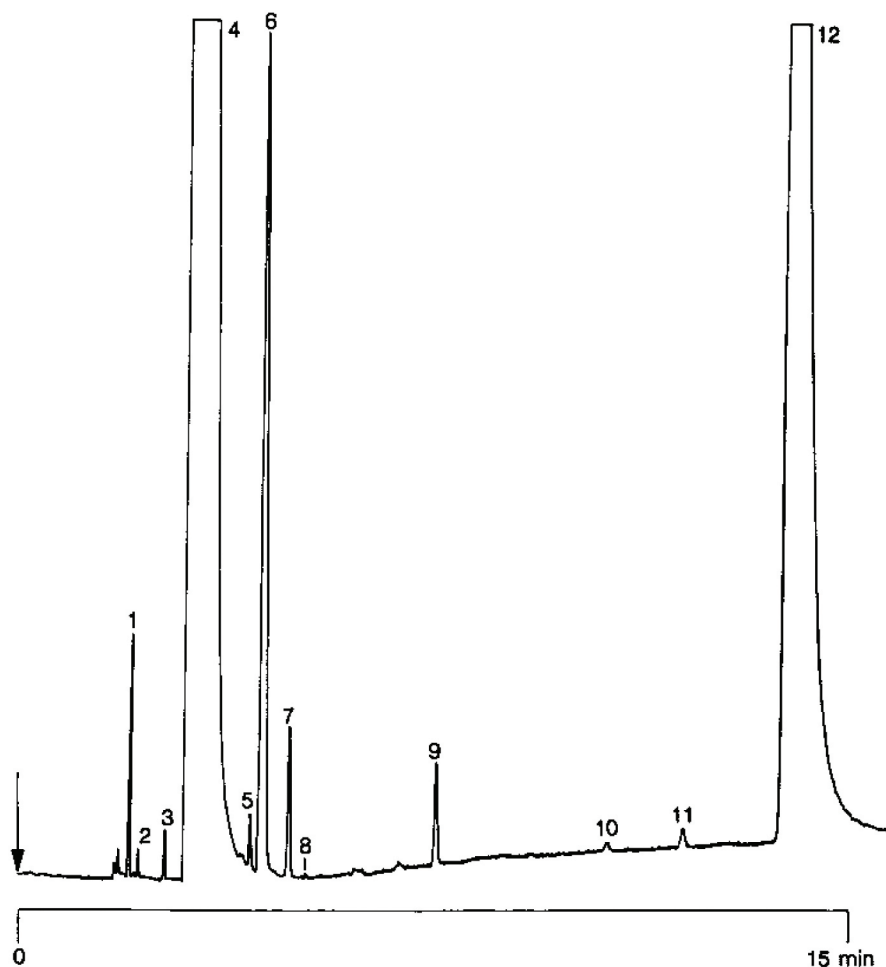
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Conditions

Technique : GC-capillary
Column : Agilent PoraPLOT Q, 0.32 mm x 25 m fused silica
PLOT PoraPLOT Q (df = 10 μ m) (Part no. CP7551)
Temperature : 100 °C (3 min) $\rightarrow$ 150 °C, 10 °C/min;
150 °C (15 min)
Carrier Gas : He, 45 kPa (0.45 bar, 6.4 psi), 27 cm/s
Injector : Direct, Valco 6 x 1/32" valve
T = 100 °C
Detector : FID, 4 x 10⁻¹² Afs
T = 250 °C
Sample Size : 25 μ L
Concentration Range : 2 - 1000 ppm, CFC 113 25%

Peak identification

- | | |
|------------------|--|
| 1. CFC 23 | (CHF ₃) |
| 2. CFC 32 | (CH ₂ F ₂) |
| 3. CFC 143a | (CF ₃ CH ₃) |
| 4. CFC 22 | (CHF ₂ Cl) |
| 5. chloromethane | |
| 6. CFC 12 | (CF ₂ Cl ₂) |
| 7. CFC 31? | (CH ₂ FCI) |
| 8. CFC 142b | (CH ₃ CF ₂ Cl) |
| 9. CFC 21 | (CHFCl ₂) |
| 10. CFC 11 | (CFCl ₃) |
| 11. CFC 113a | (CF ₃ CCl ₃) |
| 12. CFC 113 | (CF ₂ ClCFCl ₂) |



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This information is subject to change without notice.

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