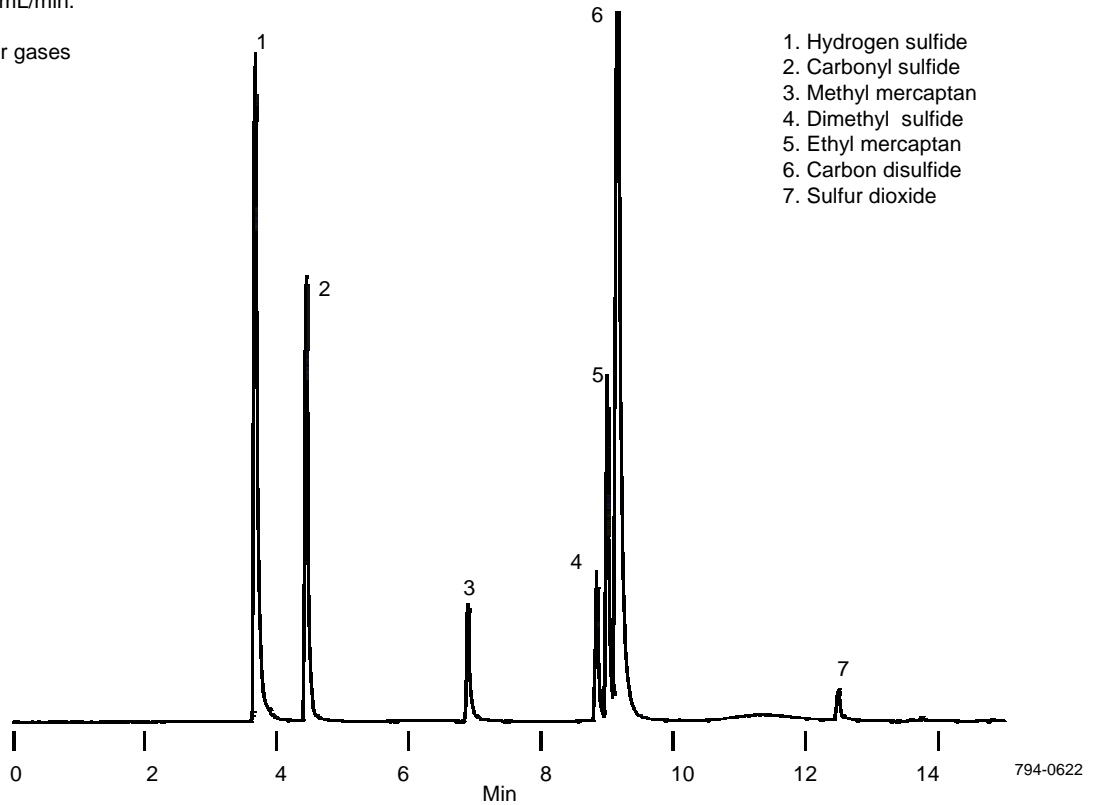


硫黄化合物

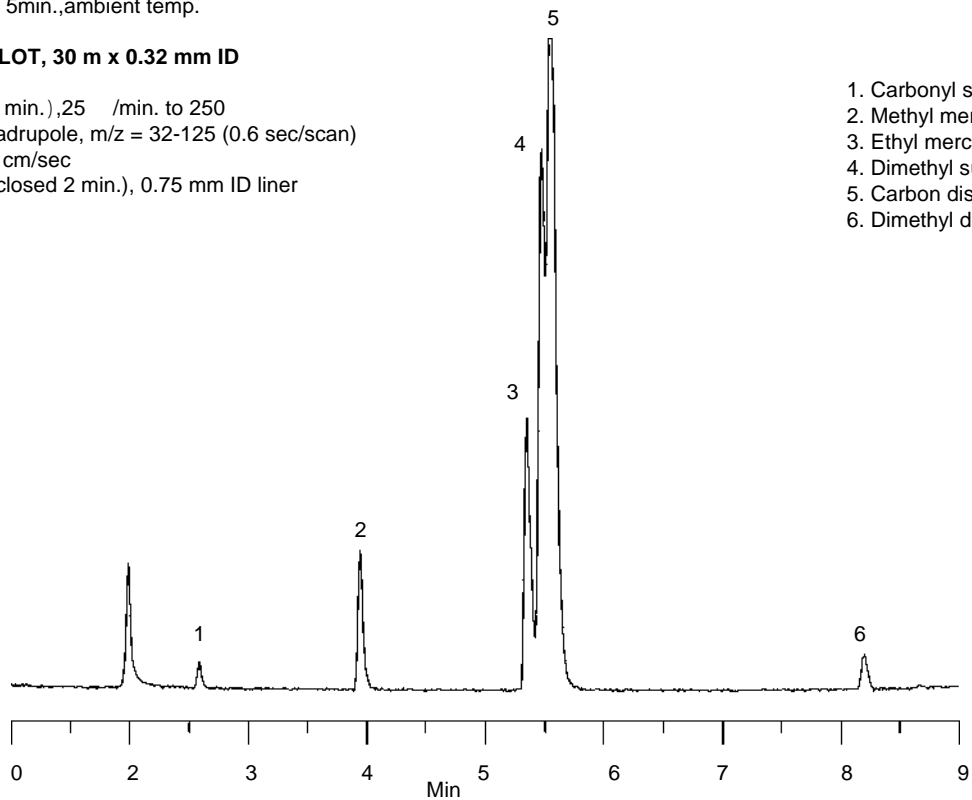
Column : Supel-Q PLOT, 30 m x 0.53 mm ID
Cat. No. : 25462
Oven : 50 (1 min.), 10 /min. to 250 (10 min.)
Inj. : 230
Det. : FPD, 260
Carrier gas : Helium, 3 mL/min.
Injection : 25 μ L direct
Sample : Light sulfur gases



1. Hydrogen sulfide
2. Carbonyl sulfide
3. Methyl mercaptan
4. Dimethyl sulfide
5. Ethyl mercaptan
6. Carbon disulfide
7. Sulfur dioxide

硫黄化合物 (SPME)

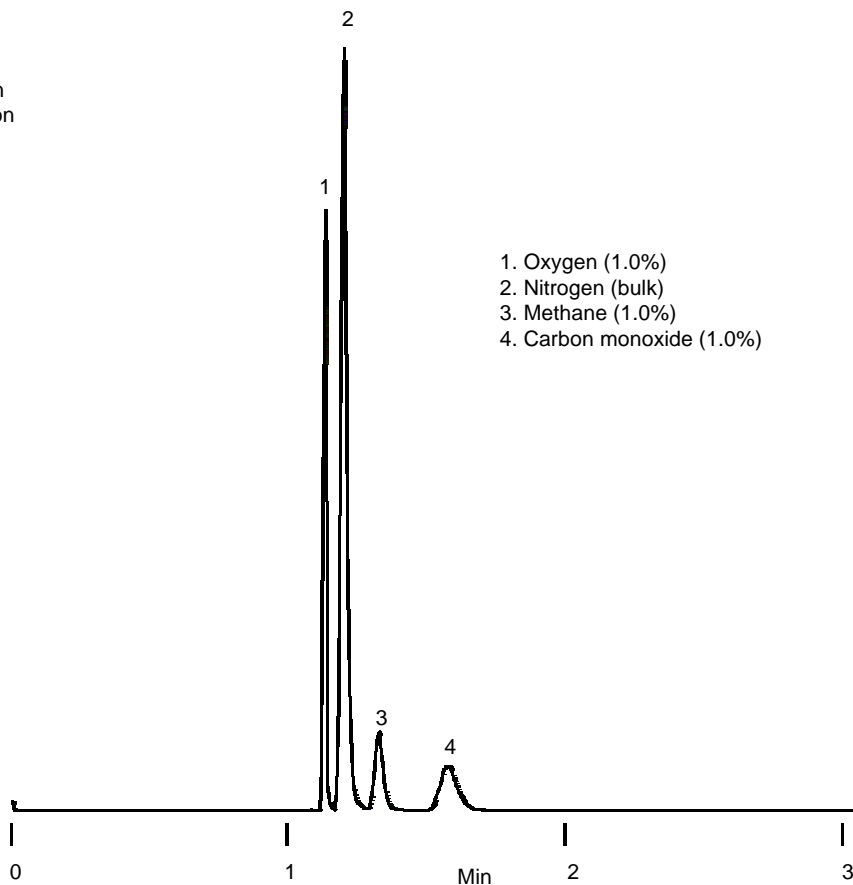
Sample : each Sulfur gases 1 ppm in 250 mL bulb
SPME Fiber : 75 μ m PDMS/Carboxen Field Sampler
Cat. No. : 504831
Extraction : headspace 5min., ambient temp.
Desorption : 2 min. 250
Column : Supel-Q PLOT, 30 m x 0.32 mm ID
Cat. No. : 24242
Oven : 45 (0.75 min.), 25 /min. to 250
Det. : GC/MS quadrupole, m/z = 32-125 (0.6 sec/scan)
Carrier Gas : Helium, 25 cm/sec
Injection : splitless (closed 2 min.), 0.75 mm ID liner



1. Carbonyl sulfide
2. Methyl mercaptan
3. Ethyl mercaptan
4. Dimethyl sulfide
5. Carbon disulfide
6. Dimethyl disulfide

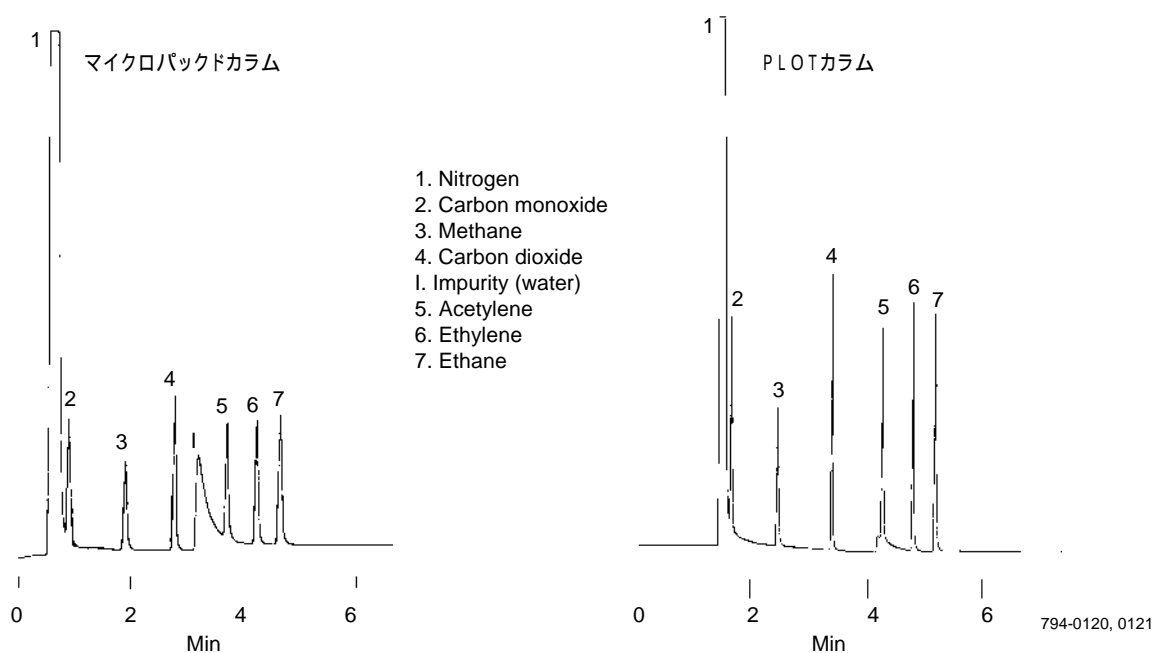
永久ガス - 酸素/窒素

Column : Mol Sieve 5A PLOT, 30m x 0.53mm ID
Cat. No. : 25463
Oven : 65 isothermal
Det. : TCD, 230
Carrier gas : Helium, 10 mL/min
Injection : 10 μ L valve injection
Sample : Permanent gases



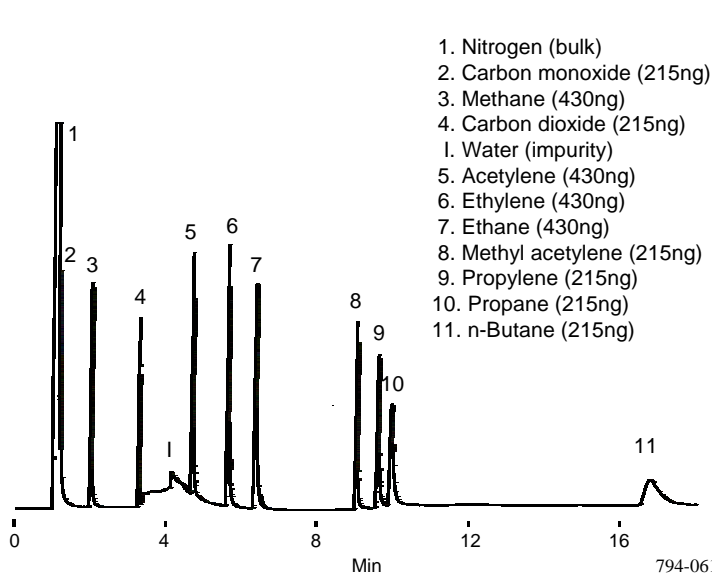
永久ガスと低級炭化水素 - マイクロバックドカラムとの比較

Column : Carboxen 1004 micropacked, 2 m x 1/16" in stainless steel
Cat. No. : 12846
Column : Carboxen 1006 PLOT, 30 m x 0.53 mm ID
Cat. No. : 25461
Oven : 35 (5min.) , 24 /min. to 225
Inj. : 230 Det. : TCD, 230 Carrier Gas : Helium, 22 cm/sec
Injection : 50 μ L (micropacked column) or 35 μ L (PLOT column), direct
Sample : 1% each analyte in nitrogen



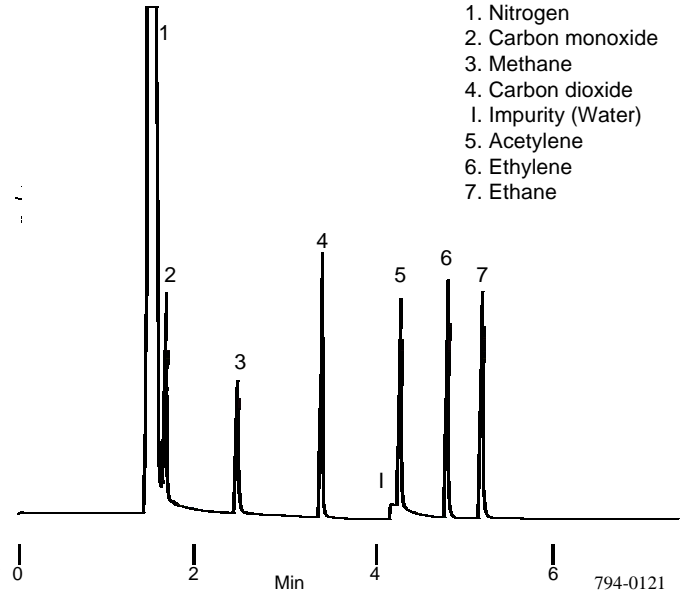
永久ガスと低級炭化水素

Column: Carboxen-1006 PLOT, 30m x 0.53mm ID
 Cat. No.: 25461
 Oven: 35 (1 min), 24 /min to 250
 Inj.: 200
 Det.: TCD, 230
 Carrier gas: Helium, 10mL/min
 Valve: 150
 Injection: 10 µL, valve injection
 Sample: Permanent gases and C2 to C4 hydrocarbon mix



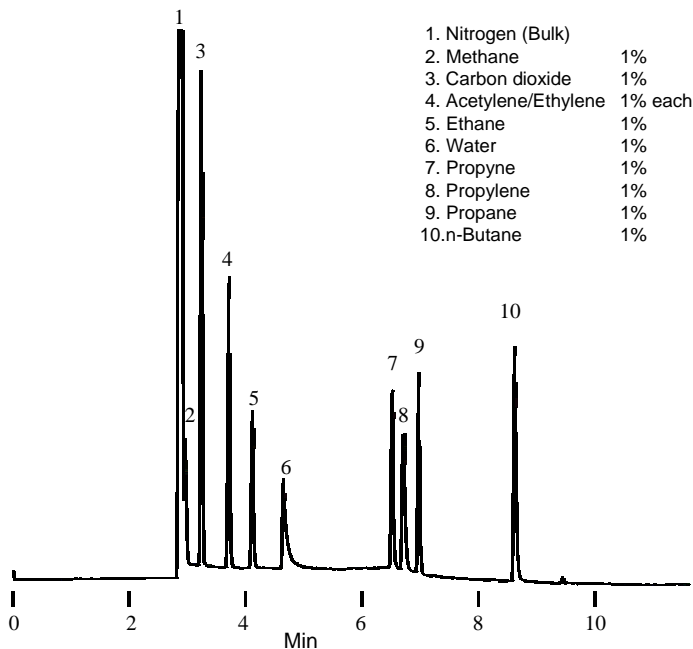
永久ガスおよび低級炭化水素

Column: Carboxen-1006 PLOT, 30m x 0.53mm ID
 Cat. No.: 25461
 Oven: 35 (3 min), 24 /min to 225
 Inj.: 230
 Det.: TCD, 230
 Carrier gas: Helium, 22cm/sec
 Injection: 35 µL, direct
 Sample: 1% each analyte in nitrogen (Cat.No.23437)



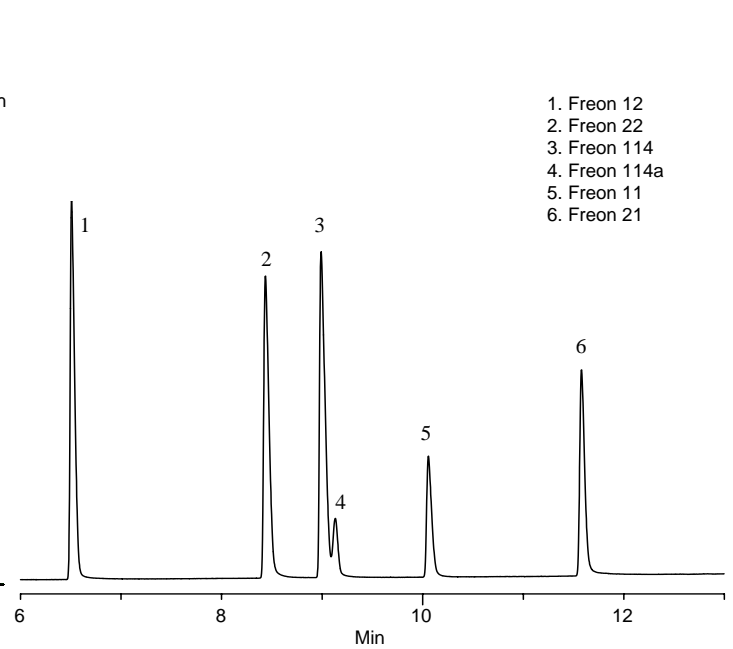
永久ガスおよび低級炭化水素

Column: Supel-Q PLOT, 30m x 0.53mm ID
 Cat. No.: 25462
 Oven: 35 (3 min), 16 /min to 250
 Det.: TCD, 250
 Carrier gas: Helium, 3mL/min (set at 35)
 Injection: 35 µL direct, 230
 Sample: Permanent gases and C2 to C4 hydrocarbon mix



フロン類

Column: Alumina chloride PLOT, 50m x 0.53mm ID
 Cat. No.: 28329-U
 Oven: 35 (1 min), 12 /min to 180
 Det.: FID, 230
 Carrier gas: Helium, 3mL/min (set at 35)
 Injection: 1 µL, direct, 200
 Sample: Freons 20% each (Custom standard)

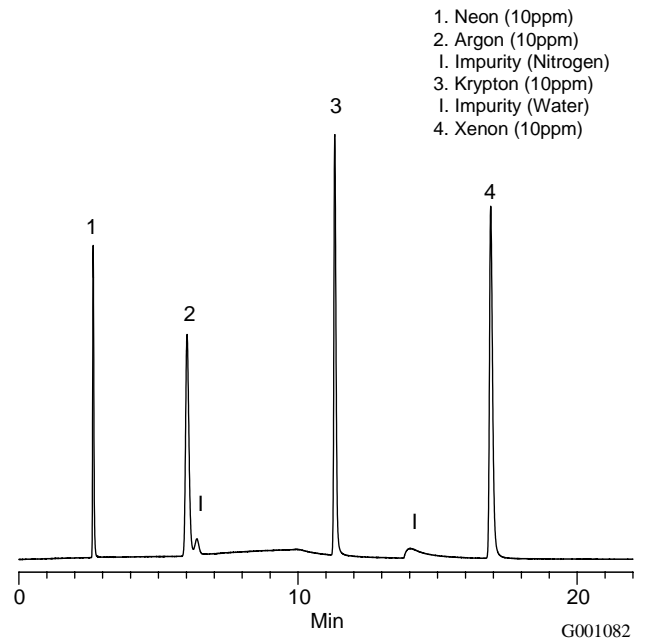
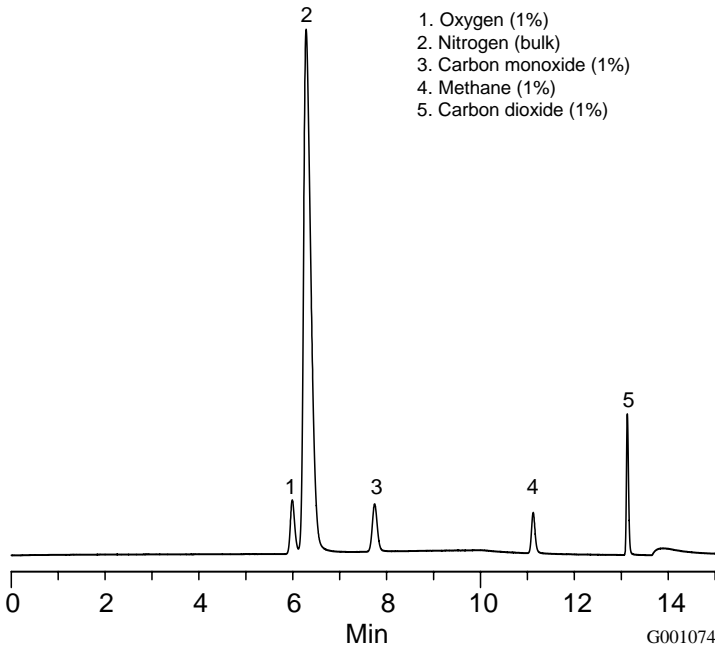


永久ガスおよび低級炭化水素

希ガス

Column: Carboxen-1010 PLOT, 30m x 0.53mm ID
Cat. No.: 25467
Oven: 35 (7 min), 24 /min to 225
Det.: TCD
Carrier gas: Helium, 22.7cm/sec
Sample: Permanent gases

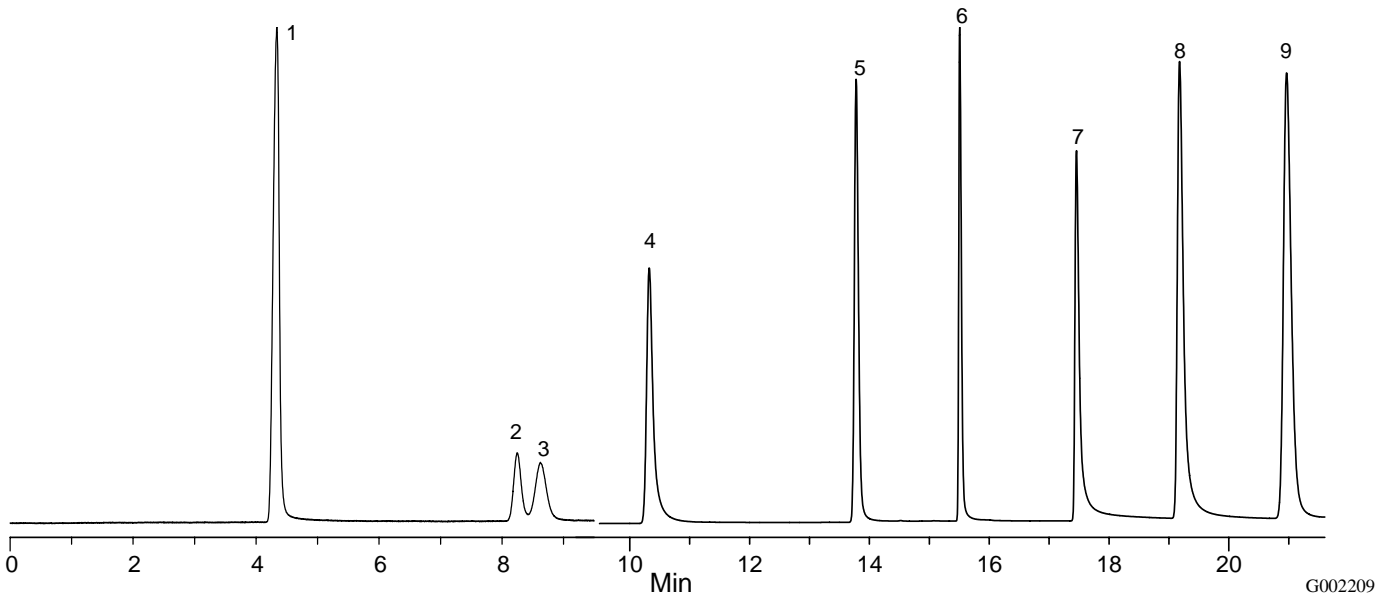
Column: Carboxen-1010 PLOT, 30m x 0.53mm ID
Cat. No.: 25467
Oven: 35 (6 min), 24 /min to 225
Carrier gas: Helium, 3mL/min (set at 35)
Det.: TCD
Sample: Noble gases



永久ガスおよび低級炭化水素 – トランスフォーマーガス ASTM Method D3612-96

Column: Carboxen-1010 PLOT, 30m x 0.53mm ID
Cat. No.: 25467
Oven: 35 (7 min), 24 /min to 250
Det.: TCD/methanizer-FID, 230
Carrier gas: Argon, 3mL/min
Injection: 10 μ L valve injection
Sample: 500ppm each analyte, transformer gas for ASTM method D3612-96

1. Hydrogen
2. Oxygen
3. Nitrogen
4. Carbon monoxide
5. Methane
6. Carbon dioxide
7. Acetylene
8. Ethylene
9. Ethane



低級炭化水素

Column : Alumina sulfate PLOT, 50m x 0.53mm ID

Cat. No. : 28324-U

Oven : 35 (2.5 min), 5 /min to 150 (4.5min)

Inj. : 150

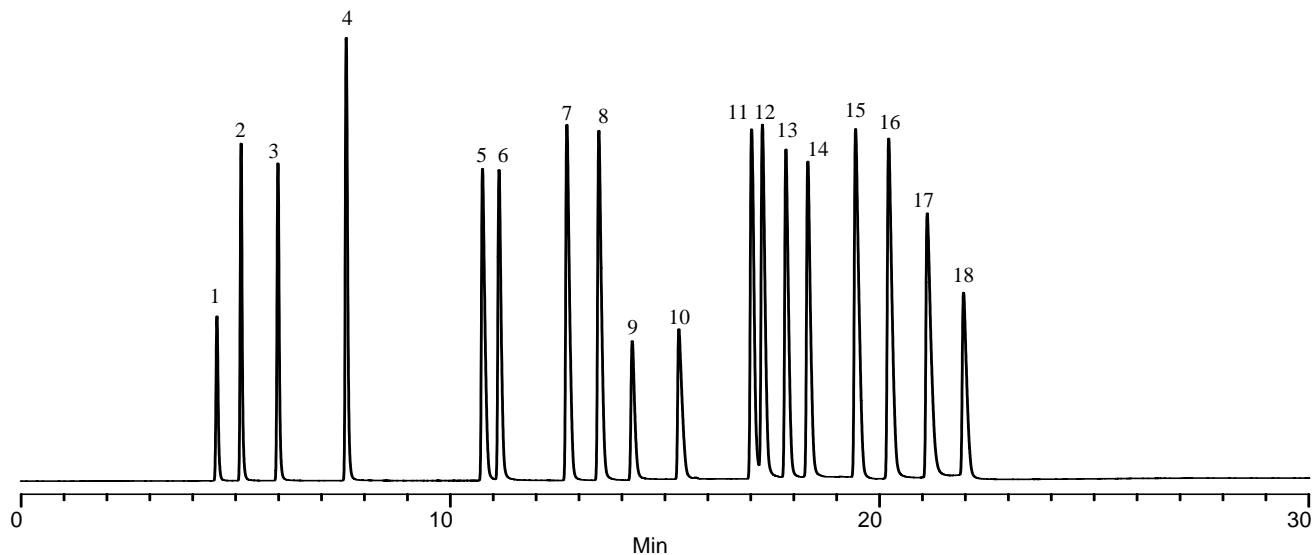
Det. : FID, 230

Carrier gas: Helium, 3.05mL/min (set at 35)

Injection : 10 µ L valve injection

Sample : 18 components in nitrogen (bulk) at 25 ng each on column

- | | |
|-----------------|--------------------|
| 1. Methane | 10. Acetylene |
| 2. Ethane | 11. trans-2-Butene |
| 3. Ethylene | 12. 1-Butene |
| 4. Propane | 13. Isobutylene |
| 5. Cyclopropane | 14. cis-2-Butene |
| 6. Propylene | 15. Isopentane |
| 7. Isobutane | 16. n-Pentane |
| 8. n-Butane | 17. 1,3-Butadiene |
| 9. Propadiene | 18. Propyne |



G002208

低級炭化水素

Column : Alumina chloride PLOT, 50m x 0.53mm ID

Cat. No. : 28329-U

Oven : 35 (2.5 min), 5 /min to 150 (4.5min)

Inj. : 150

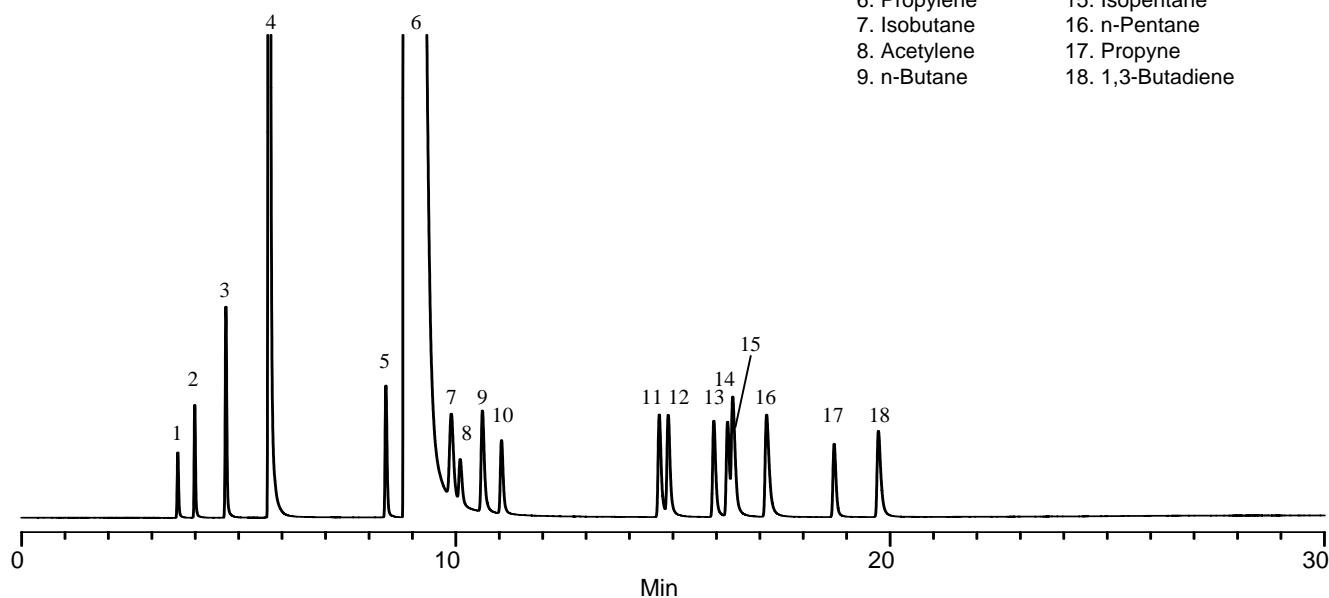
Det. : FID, 230

Carrier gas: Helium, 3.05mL/min (set at 35)

Injection: 10 µ L valve injection, 150

Sample : Propylene at approximately 95.0%

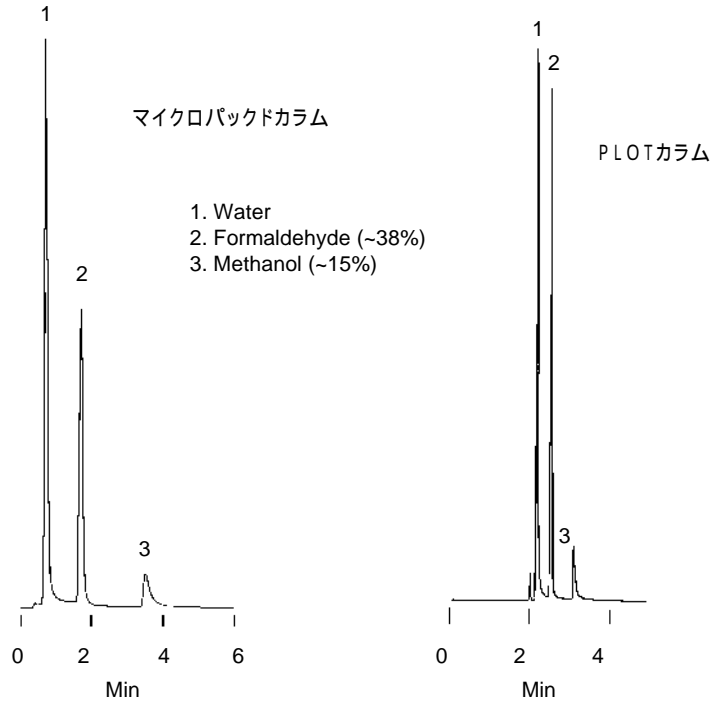
- | | |
|-----------------|--------------------|
| 1. Methane | 10. Propadiene |
| 2. Ethane | 11. trans-2-Butene |
| 3. Ethylene | 12. 1-Butene |
| 4. Propane | 13. Isobutylene |
| 5. Cyclopropane | 14. cis-2-Butene |
| 6. Propylene | 15. Isopentane |
| 7. Isobutane | 16. n-Pentane |
| 8. Acetylene | 17. Propyne |
| 9. n-Butane | 18. 1,3-Butadiene |



G002207

アルデヒド類

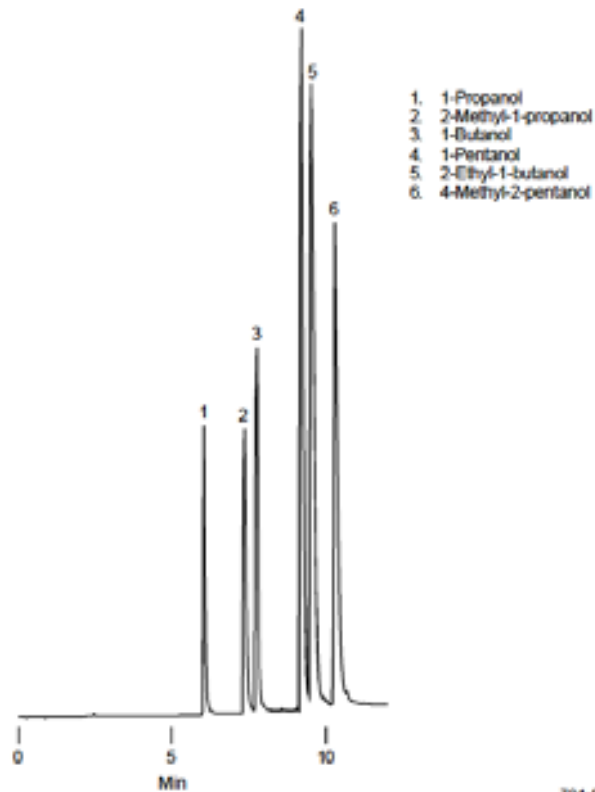
Column : Carboxen 1004 micropacked, 2 m x 1/16" stainless steel
Cat. No. : 12846
Column : Carboxen 1006 PLOT, 30 m x 0.53 mm ID
Cat. No. : 25461
Oven : 220
Inj. : 230
Det. : TCD, 230
Carrier Gas : Helium, 22 cm/sec
Injection : 0.2 μ L, direct
Sample : formalin solution



794-0122, 0123

Figure D. Alcohols

Column: Supel-Q PLOT, 30m x 0.53mm ID
Cat. No.: 25462
Oven Temp.: 35°C (3 min) to 250°C at 16°C/min
Carrier: helium, 3mL/min
Det.: FID, 250°C
Inj.: 0.1 μ L (approx. 16% each analyte), direct injection, 230°C



794-0821

Figure B. Water in Gasoline

Column: Supel-Q PLOT, 30m x 0.53mm ID
Cat. No.: 25462
Oven Temp.: 35°C (3 min) to 250°C at 16°C/min
Carrier: helium, 3mL/min
Det.: TCD, 260°C
Inj.: 0.4µL gasoline, direct injection, 230°C

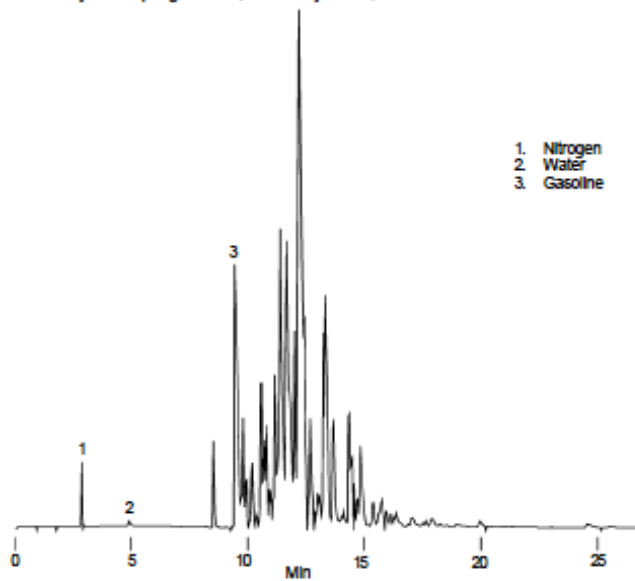
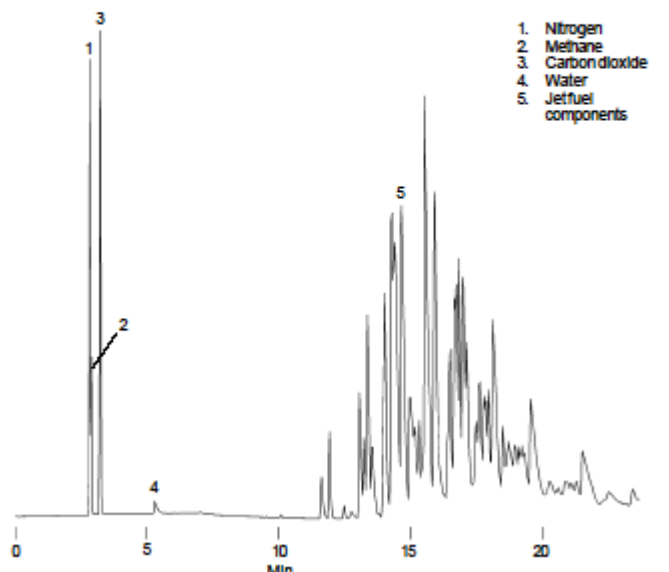


Figure C. Small Molecules in Jet Fuel

Column: Supel-Q PLOT, 30m x 0.53mm ID
Cat. No.: 25462
Oven Temp.: 35°C (3 min) to 250°C at 16°C/min
Carrier: helium, 3mL/min
Det.: TCD, 250°C
Inj.: 0.6µL JP4 jet fuel, direct injection, 230°C



Alcohols: Supel-Q PLOT Column

Column: Supel-Q PLOT, 30m x 0.53mm ID
Oven Temp.: 35°C (3 min) to 250°C at 16°C/min
Carrier: helium, 3mL/min
Det.: FID, 250°C
Inj.: 0.1µL (approx. 16% each analyte), direct injection, 230°C

