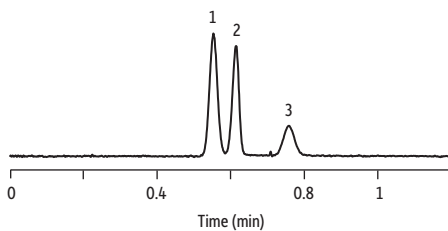
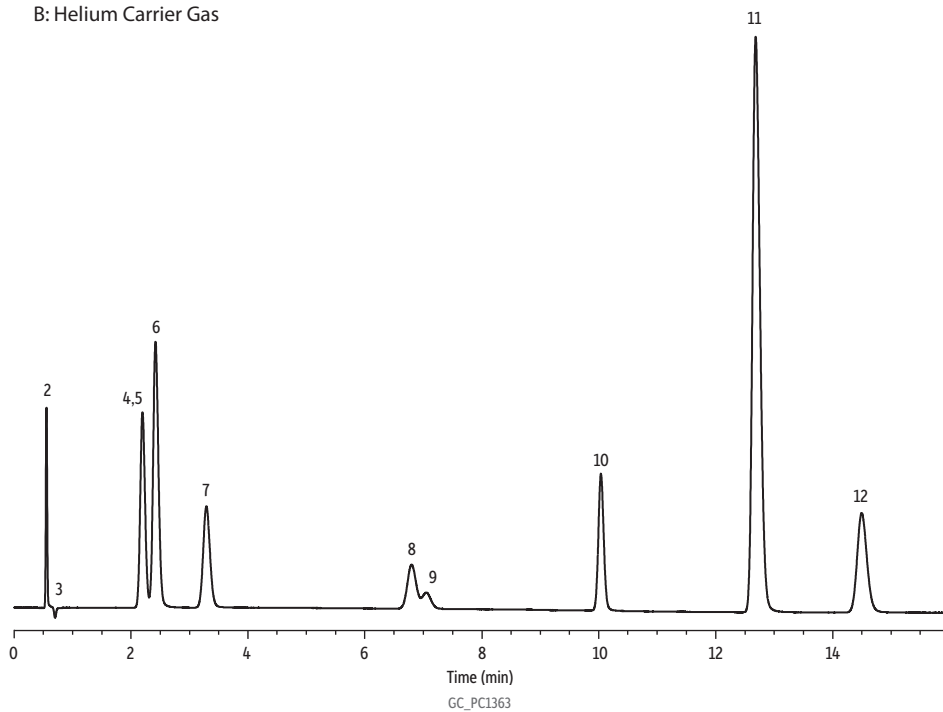


# Noble and Permanent Gases on ShinCarbon

A: Nitrogen Carrier Gas



B: Helium Carrier Gas



- Peaks**
1. Helium
  2. Neon
  3. Hydrogen
  4. Oxygen
  5. Argon
  6. Nitrogen
  7. Carbon monoxide
  8. Methane
  9. Krypton
  10. Carbon dioxide
  11. Xenon
  12. Sulfur hexafluoride

**Column** 100/120 mesh, ShinCarbon ST micropacked column, 2 m, 1.00 mm ID (cat.# 19808)

**Sample** Noble and permanent gas standard

**Conc.:** 2-10 mol%

**Injection**

Inj. Vol.: 200 µL split (split ratio 10:1)

Liner: Topaz 2.0 mm ID straight inlet liner (cat.# 23313)

Inj. Temp.: 150 °C

**Oven**

Oven Temp.: 35 °C (hold 3 min) to 80 °C at 10 °C/min to 200 °C at 30 °C/min (hold 5 min)

**Carrier Gas** He, constant flow

Flow Rate: 6.5 mL/min

**Detector** TCD @ 250 °C

**Instrument** Agilent 7890B GC

**Notes** Chromatogram A Analysis Conditions:

Inj. Vol.: 50 µL, split (split ratio 10:1)

Conc.: 33 mol% each

Inj. Temp.: 150 °C

Oven Temp.: 35 °C isothermal

Carrier Gas: N<sub>2</sub> constant flow

Flow Rate: 5.5 mL/min

Detector: TCD @ 250 °C