

Application Data Sheet

No. 18

System Gas Chromatograph

CO, CO₂, CH₄ Analysis Nexis GC-2030CCC2 GC-2014CCC2

This system is designed to measure carbon monoxide (CO), methane (CH₄) and carbon dioxide (CO₂) in a gas sample. The sample is injected automatically through a 10-port valve. The target CO, CO₂ and CH₄ are treated by a pre-column and then separation occurs in a charcoal column. Since the target concentrations are high, a TCD is used. If the matrix gas contains H₂, N₂, O₂ and Ar, the concentrations should be less than 0.1%. The system includes LabSolutions GC workstation software.

Analyzer Information

System Configuration:

One valve / two packed columns with TCD detector

Sample Information:

CO, CO₂, CH₄

Concentration Range:

No.	Name of Compound	Concentration Range	
		Low Conc.	High Conc.
1	CO	0.01%	20%
2	CO ₂	0.01%	20%
3	CH ₄	0.01%	20%

Detection limits may vary depending on the sample. Please contact us for more consultation.

System Features

- Single channel with packed columns
- Hydrocarbons and water are backflushed by the pre-column while trace CO, CO₂, CH₄ reach TCD
- 4 minutes analysis time

Typical Chromatograms

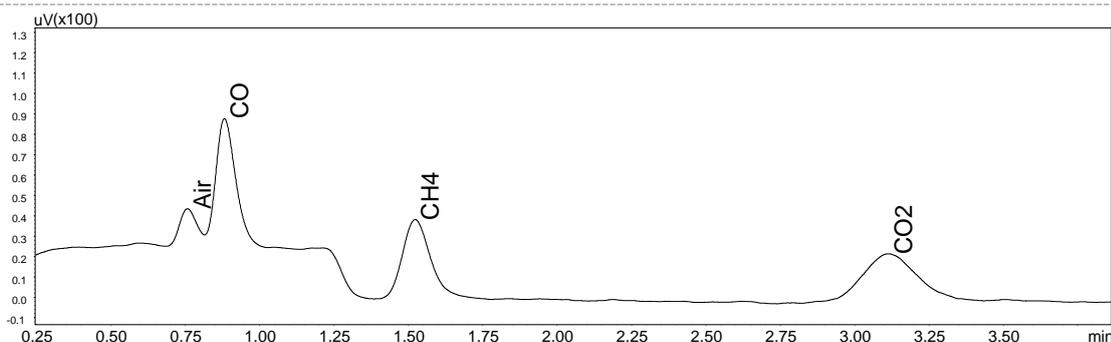


Fig. 1 Chromatogram of TCD

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