

Application Data Sheet

No. 16

System Gas Chromatograph

Town Gas Analysis Nexis GC-2030TGA4 GC-2014TGA4

The system enables quantitative and qualitative analysis of He, H₂, O₂, N₂, CO, CO₂ and C₁ to C₃ in municipal gas. A fixed volume of gaseous sample is loaded into the GC and individual components of the sample are identified using two thermal conductivity detectors (TCD). The system is equipped with three automated valves. LabSolutions GC workstation system handles all aspects of GC control, automation, and data handling.

Analyzer Information

System Configuration:

Two valves / three packed columns with TCD detector

Sample Information:

H₂, O₂, N₂, CO, CO₂, C₁, C₂

Concentration Range:

No.	Name of Compound	Concentration Range	
		Low Conc.	High Conc.
1	He	0.01%	10%
2	H ₂	0.01%	10%
3	O ₂	0.1%	50%
4	N ₂	0.1%	50%
5	CO	0.1%	10%
6	CH ₄	0.1%	90%
7	CO ₂	0.1%	10%
8	C ₂ H ₂	0.1%	40%
9	C ₂ H ₄	0.1%	40%
10	C ₂ H ₆	0.1%	40%

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

System Features

- Single channel with packed columns
- About 12 minute analysis time with Ar carrier gas
- Column sealed technology for CH₄ and CO
- Calorific value software is available
- Good separation between CH₄ and CO

Typical Chromatograms

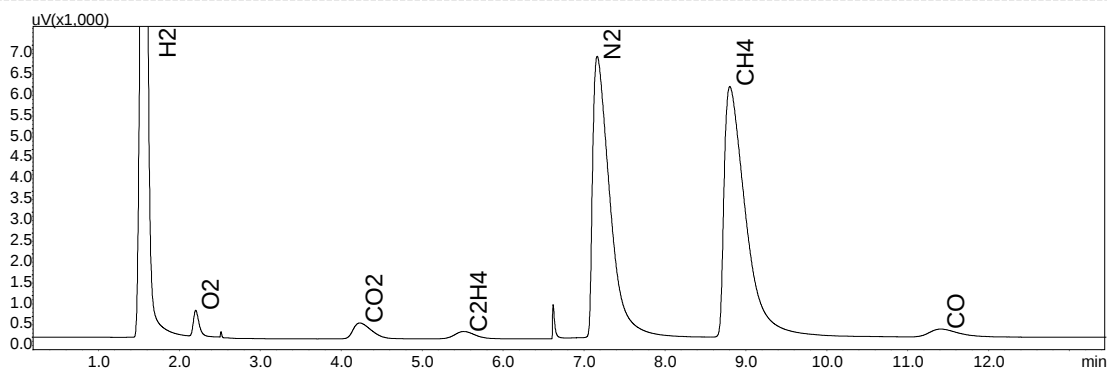


Fig. 1 Chromatogram of TCD

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