SHIMADZU
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Application Data Sheet

No.15

System Gas Chromatograph

Town Gas Analysis
Nexis GC-2030TGA3
GC-2014TGA3

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 / four packed columns with TCD detector

Sample Information:
H_2, O_2, N_2, CO, CO_2, C_1, C_2, C_3

Concentration Range:

No.	Name of Compound	Concentration Range	
		Low Conc.	High Conc.
1	He	0.01%	10%
2	H2	0.01%	10%
3	O2	0.1%	50%
4	N2	0.1%	50%
5	CO	0.1%	10%
6	CH4	0.1%	90%
7	CO2	0.1%	10%
8	C2H2	0.1%	40%
9	C2H4	0.1%	40%
10	C2H6	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 20 minutes analysis time with Ar carrier gas
- Calorific value software is available
- Good separation between CH_4 and CO

Typical Chromatograms

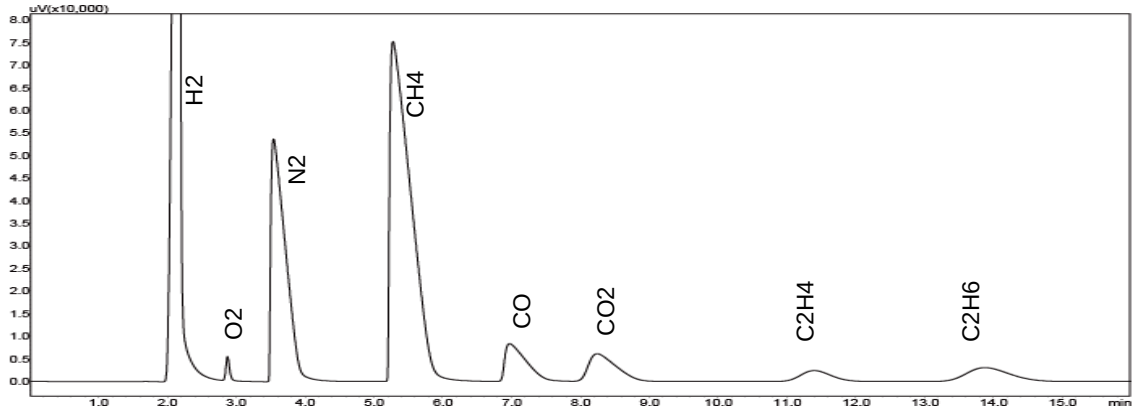

Fig. 1 Chromatogram of TCD

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