SHIMADZU
Excellence in Science

Application Data Sheet

No.56

System Gas Chromatograph

Hydrocarbon NGA/RGA Gas Analysis System
Nexis GC-2030HNR2
GC-2014HNR2

This method is for determining the chemical composition of natural gases and similar gaseous mixtures within the composition range shown in the specification sheet. This test method provides data for calculating physical properties of the sample, such as heating value and relative density, or for monitoring the concentrations of one or more of the components in a mixture. A total of 1 valve and 2 columns are usedin this GC system. Sample is introduced into four sample loops for introduction into the GC.. Using a pre-column, C6+ components are back-flushed as a single peak. The valve timing then allows the hydrocarbons C3 through C5 to be separated individually through Alumina capillary column and to be detected by FID. The final analysis time is approximately 10 minutes. The system includes LabSolutions workstation software and BTU and Specific Gravity calculation software.

Analyzer Information

System Configuration:
One10-port valve / one packed and one capillary columns with one FID detector

Sample Information:
C1-C6

Concentration Range:

No.	Name of Compound	Concentration Range		Detector
		Low Conc.	High Conc.	
1	CH4	0.001%	80.0%	FID
2	C2H4	0.001%	10.0%	FID
3	C2H6	0.001%	10.0%	FID
4	C2H2	0.001%	10.0%	FID
5	C3H8	0.001%	5.0%	FID
6	C3H6	0.001%	5.0%	FID
7	i-C4H10	0.001%	1.0%	FID
8	n-C4H10	0.001%	1.0%	FID
9	Propadiene(C3H4)	0.001%	1.0%	FID
10	Trans-C4H8	0.001%	0.5%	FID
11	1-C4H8	0.001%	0.5%	FID
12	i-C4H8	0.001%	0.5%	FID
13	Cis-2-C4H8	0.001%	0.5%	FID
14	i-C5H12	0.001%	0.5%	FID
15	n-C5H12	0.001%	0.5%	FID
16	1,3-C4H6	0.001%	0.5%	FID
17	C3H4	0.001%	0.5%	FID
18	C6+	0.001%	1.0%	FID

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

System Features

- Versatile software easy GC system operation
- One FID channel
- Good repeatability

Typical Chromatograms

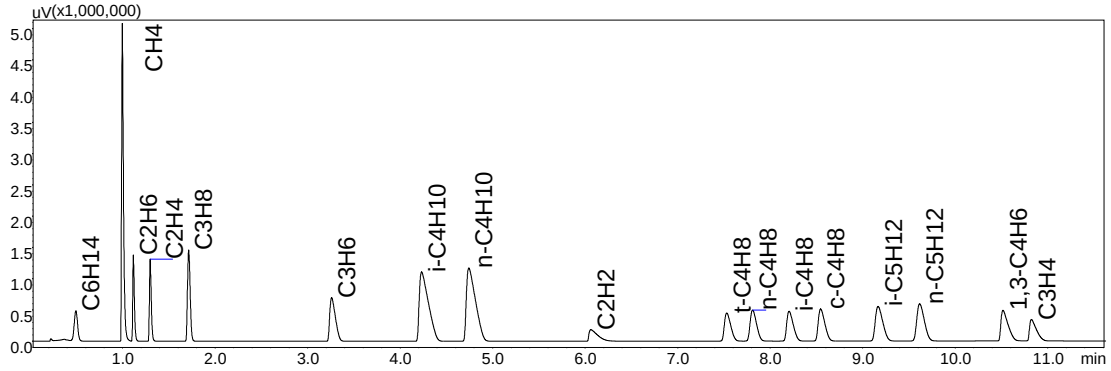

Fig. Chromatogram of FID

First Edition: November, 2017

SHIMADZU

Shimadzu Corporation
www.shimadzu.com/an/