



Application Data Sheet



System Gas Chromatograph

TOGAS Analysis System with Manual Sampling Nexis GC-2030TOGAS2 GC-2014TOGAS2

A simple and efficient method based on the technique of manual sampling and valve switching is developed for the analysis of TOGAS. The sample is directed into main-column-1 (P-N) through headspace, and separated in groups. The permanent gas and CH4 are directed into main-column-2 (MS-13X) through 2-1, and H2, O2, and N2 are detected by TCD. CO and CO2, reduced into CH4 by a methanizer, are detected by FID. Valve switching occurs before the CO2 is directed into main-column-2The other hydrocarbons and CO2 are directed into main-column-3 (P-Q). They are detected by FID.

After the detection of C2H2, the valve is immediately backed to its original position to wait for the next analysis. A headspace injector can be connected to configure TOGAS analysis with a headspace device. The system includes LabSolutions GC workstation software.

Analyzer Information

System Configuration:

Two valves / four packed columns / TCD / Methanizer with FID

Sample Information:

H₂, O₂, N₂, CH₄, CO, CO₂, C₂ in transformer oil

Methods met: ASTM-D3612C

Concentration Range:

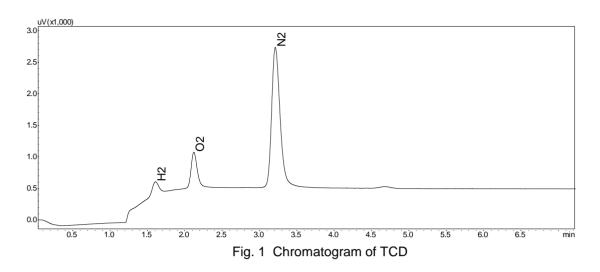
No.	Name of Compound	Concentration Range	
		Low Conc.	High Conc.
1	H2	2.5ppm	50ppm
2	O2	50ppm	500ppm
3	N2	50ppm	1%
4	CH4	1ppm	1%
5	СО	1ppm	1%
6	CO2	1ppm	1%
7	C2H6	1ppm	1%
8	C2H4	1ppm	1%
9	C2H2	1ppm	1%

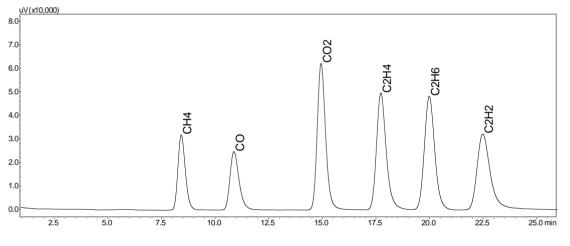
Detection limits may vary depending on the sample. Please contact us for more consultation.

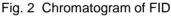
System Features

- ·Single channel with packed columns
- ·Manual sampling and valve switching with optional head space
- •16 minute analysis time
- •Trace level of CO and CO2 are deoxidized into CH4 by Methanizer and detected by FID

Typical Chromatograms







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