



Application Data Sheet



System Gas Chromatograph

N₂O/CO/CO₂/CH₄ analysis system (TCD) Nexis GC-2030NCCC3 GC-2014NCCC3

This method provides for the determination of nitrous oxide (N2O) released from soil by gas chromatography (GC) with Electron Capture detector (ECD) using Porapak-N and HayeSep-D packed column. A total of 5 valves and 7 columns are applied in this GC system. Sample is introduced into two sample loops for determination. Channel 1, the N2O is separated by the HayeSep-D column and detected by ECD. Channel 2, First Porapak-N column is pre-column to cut the above C2 compounds. Second Porapak-N functions to separate Air/CH4/CO and CO2. Air/CH4/CO are separated by MS-13X column. On the other hand, CO2 moves through Porapak-Q and detected by TCD. The system includes LabSolutions GC workstation software.

Analyzer Information

System Configuration:

Four valves / five packed columns with one ECD detector and one FID detector

Sample Information: N2O, Permanent gas

Concentration Range:

No.	Name of Compound	Concentration Range		Detector
		Low Conc.	High Conc.	Detector
1	N2O	50.00ppb	100.00ppm	ECD
2	CH4	0.01%	10.00%	TCD
3	СО	0.01%	10.00%	TCD
4	CO2	0.01%	10.00%	TCD
5	N2	0.01%	20.00%	TCD
6	02	0.01%	20.00%	TCD

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

System Features

- · Versatile software easy GC system operation
- •One ECD, one TCD channel
- Good repeatability





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