

Greenhouse gas, any gas that absorbs infrared radiation emitted from Earth's surface and reradiates it back to Earth's surface, thus contributes to the greenhouse effect. Water vapor, carbon dioxide, most refrigerants are the most important greenhouse gases. This system can analyze and accurately quantify the composition of greenhouse gases in the air and soil, including nitrous oxide (N₂O), CO₂, CH₄, etc. For some inorganic gases, such as hydrogen, oxygen and nitrogen, we can meet the analysis requirements by adjusting flow path.



Features of Analyzer :

1. ECD detector can be used for analysis of N₂O, the concentration of which is lower than 1ppb
2. FID with Jetanizer detector can be used for analysis of CH₄ and CO₂, the concentration of which is lower than 1ppm.
3. The analyzer is easily expanded to the analysis of more components



Greenhouse Gas Analyzer

Instrument configurations:

Two-valve four-column / ECD + FID with Jetanizer

If the analysis of other inorganic gases is required, the parameter of flow path and detector can be adjusted accordingly.

Note: this system can be equipped to SHIMADZU and AGILENT host system.

Sample:

greenhouse gases in the air or soil (compost)

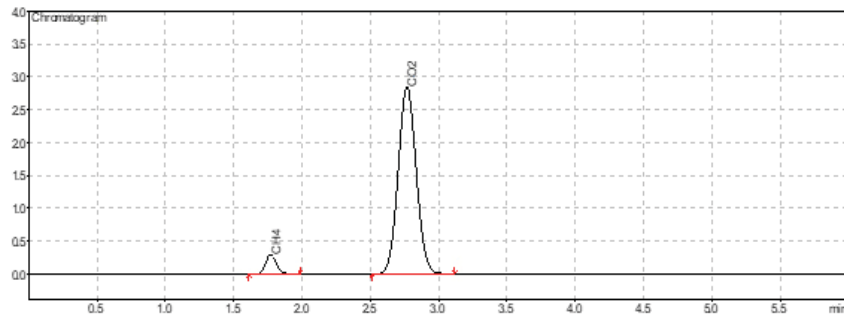
Target compounds:

N₂O, CH₄, CO₂

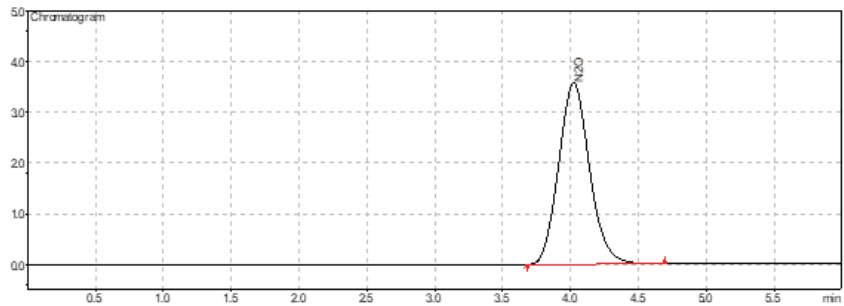
Detection sensitivity:

N₂O >50ppb, CH₄ >10ppm, CO₂ >1ppm

Typical chromatogram:

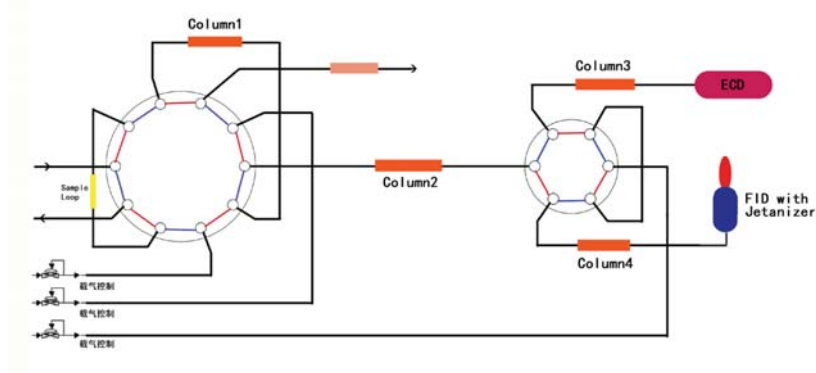


Typical chromatogram 1



Typical chromatogram 2

Typical flow diagram :



The characteristic gases in transformer oil include hydrogen, methane, ethane, ethylene, carbon monoxide, carbon dioxide, etc. Changes in the composition and content of these dissolved gases in the transformer oil usually result from the overheating, discharge or other potential fault conditions existing in the transformer equipment. Therefore, the internal failure can be predicted to effectively prevent accidents by analyzing the dissolved gas in the transformer oil.



Features of Analyzer:

1. with one injection, the analysis of all components could be achieved.
2. can extend to C3 and C4 analysis.
3. OxyFID detector or optional FID detector with Jetanizer can be used to analyze CO and CO₂, detection sensitivity < 1ppm