



## Low-level sulphur analyser

CL300



- Analysing sulphur components at ppb levels
- Liquid injection, FPD detection
- InstantConnect injector and detector modules

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CL300v1

# Low-level sulphur analysers in liquid samples

The GAS Low-level sulphur analyser based on Trace GC 1600 provides precise measurement of sulphur species in liquid samples. It can operate independently as a standalone analyser or be added to another analyser. FPD (Flame Photometric Detector) offers sensitive and selective measurement of the sulphur components.

## Principle of operation

The low-sulphur analyser for liquid samples in the chemical application field comprises a Split/Splitless Injector (SSL), a suitable separation column, and a FPD (Flame Photometric Detector), see figure 1. As sulphur species readily adsorb onto active surfaces, Sulfinert (SilcoNert 2000) deactivation is applied to the entire sample path, a measure that is critical for reliable and accurate quantification.

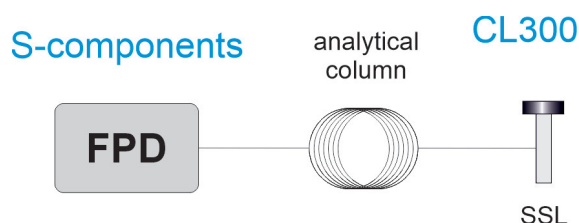


Figure 1 Diagram low level sulphur analyser

## Result

Figure 2 shows the analysis of benzothiophenes in diesel using FPD

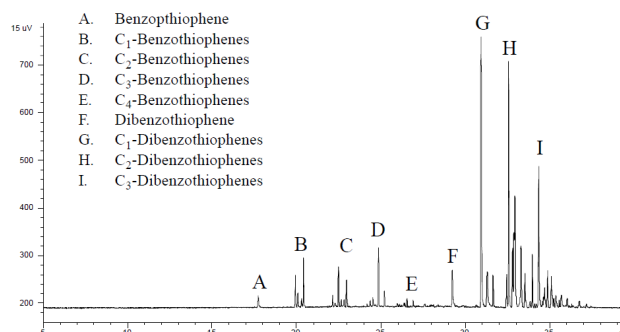


Figure 2 Sulphur components in diesel

## FPD

FPD offers excellent long-term stability and high sensitivity. The detection limits is 100-200 ppb dependent on the type of sulphur component.

## Choice of separation column

The choice of the optimal separation column depends on the components being analysed and the sample matrix. Available column phases include non-polar, sulphur-selective, and porous polymer.

## Specification

- Thermo Trace GC1600 SSL, capillary column and FPD
- Runtime: dependent on application
- Sensitivity: 5pg S/s (Methyl Parathion)
- Selectivity (S/C): 10<sup>6</sup>:1
- Repeatability < 1%

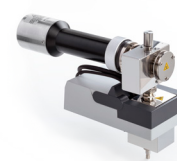


Figure 3 InstantConnect FPD detector module (Trace GC 1600)

Ordering information	CL30X - ABCDE			
code X	0	1	2	3
GC model, power	1600, 230V	1610, 230V	1600, 115V	1610, 115V

For selecting options ABCDE (e.g. valve type and passivation, pump and vacuum sampling, rotameter and sample connections, pressure and moisture sensors, hydrogen sensor for safety shut-off, power plug type and more), [see the options table in the order guide.](#)

## About GAS

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