Система для анализа S-PRO 3200 OI Analytical

OI Analytical's S-PRO 3200 is a complete turn-key system for sulfur analysis in gas-phase samples. Designed to work with our new, patented 5383 Pulsed Flame Photometric Detector (PFPD), the S-PRO 3200 is a powerful analytical tool capable of obtaining simultaneous sulfur and hydrocarbon chromatograms from a single detector.

The S-PRO 3200 is a custom-configured gas chromatograph for selective, high-sensitivity measurement of sulfur compounds in gas-phase samples and Liquified Petroleum Gas (LPG) streams (such as propylene and ethylene).

The key technology within the S-PRO is the 5383 PFPD, which has a linear equimolar response to sulfur allowing selective measurement of individual sulfur species from low ppb to ppm levels, and total sulfur as the sum of individual peaks.

We have integrated a number of special design features into the System's GC platform, the Agilent 7890 GC System, to provide unique analytical and performance capabilities. Platform features include:

Permeation Oven

Accommodates up to 5 permeation devices

Pure sulfur compound diffuses across a permeable Teflon® barrier at a temperature-dependent rate

Precise oven temperature control produces a constant diffusion rate

Controlled, measured flow of dilution gas creates an accurate gas standard for calibration

Agilent 7890B keypad- or ChemStation-controlled temperature and dilution gas flow

Automated Injection System

4-port sample selection valve enables sample selection from a gas stream, or to deliver calibration and check standards from the permeation oven

6-port gas-phase switching valve with sample loop injects samples through the Volatiles Interface into the GC column

Sulfur Detection – PFPD

Superior sensitivity and increased selectivity compared to conventional FPDs

Better long-term stability and less maintenance than SCD or XRF

Quick, easy calibrations

Self-cleaning design

Volatiles Interface

Optimized for ultralow dead volume flow rates, inertness, and ease of column installation

The S-PRO 3200 System is ideal for using in demanding sulfur analysis applications, such as:

Sulfur content in LPG

COS in ethylene and propylene feedstock

Sulfur in natural gas

Impurities in beverage grade CO_2

Semiconductor and industrial gas purity

Quality control in gas production and blending operations

S-PRO 3200 Features:

Provides automated sample injection, calibration, and QA/QC

Integrated permeation oven provides single or multiple calibration or QC standards

Automated injection of calibration or check samples provided by the built-in valving and permeation system eliminates using unstable, expensive sulfur gas standards

OI Volatiles Interface, optimized for valve injection, provides low dead volume split or splitless injection for a wide dynamic range

Sulfinert™-treated sample pathway minimizes absorptive surfaces for optimal performance, particularly for low sulfur concentrations

Proven PFPD detector provides stability, sensitivity, selectivity, equimolar sulfur response, calibrations in linear or quadratic modes, and multi-element detection capability

Single-digit ppb sensitivity for sulfur analysis

Full EPC control of all injector, permeation oven, and detector gases

Using additional or alternative detectors (PID, ELCD, XSD, or tandem configurations) allows the analysis of other compounds of interest

Detectivity	Sulfur < 1 pg S/second
Selectivity	At optimum detectivity levels: Sulfur > 10^6 S/C
Permeation Oven	Temperature range: 30 - 75 ˚C+ 0.05 ˚C

OI Volatiles Interface	Effective split range: Splitless to 150-to-1, Maximum Temperature: 325 ˚C
GC Column	GS-GasPro, 30-meter x 0.32 mm I.D. Maximum Temperature: 260 ˚C