SULFUR ANALYZER by U.V. FLUORESCENCE

ASTM D5453 / ASTM D6667 / ASTM D 7183 / ASTM D7551 / ISO 20 846 NF M0759 - Licence TOTAL

PRINCIPLE

Sulfur Analyis

Mineralisation in gaseous phase of sulfur compounds forming SO2 molecules detected by ultraviolet fluorescence (photomultiplier tube measures ultraviolet radiation emitted when excited SO2 molecules return to base).

ERALY & Associés
4 Rue Georges Besse – Bât I
78330 FONTENAY-LE-FLEURY – France
Tel : +33(0)1 77 04 80 97
Fax : +33(0)1 77 04 80 96
www.eraly.com

TECHNICAL CHARACTERISTICS

➢ ***Detector***

- Graphic Liquid Crystal Display (LCD) / - Real-time synoptic flow diagram display
- Programmable measurement ranges / - Linearization of the measure
- Interactive menu driven software with enhanced speed display in 4 languages

➢ ***Apparatus***

MINERALIZATION PART:

- A quartz combustion tube with Teflon output connector
- A vertical combustion furnace at 1075°C (F2) for oxidation S ➔ SO_2

A SO_2 MEASUREMENT PART:

A specific detector of SO2 by U.V. fluorescence.

SIGNAL/ CALCULATION/ STORAGE PROCESSING PART:

Controlled by computer. The computer manages:

- SO_2 peaks integration / - Calculation of calibration coefficients / - Display of analysis results
- Storage on hard disk / - Automation and alarms.

GAS CONTROL PART:

Two gas circuits for Inert Gas and Oxygen, with gas pressure and flow regulators, pressure controllers and flowmeters.

ACCESSORIES PART:

- An Auto Injector for automatic injection of liquid specimens at controlled speed
- A color printer for analysis and calibration results.

OPTIONS :

- Automatic sampler for liquid samples
- Semiautomatic system for sampling and injection of gas in liquid LPG and / or gaseous phase

MINIMUM MAINTENANCE and easy to operate

VIDEO MONITOR: displays SO_2 peak as soon as the test starts

RESULTS (calibration or analysis) are automatically calculated at the end of the test and then printed

CALIBRATION Monopoint or Multipoint (linear regression) mode selection by icon.
The detector is linear; it is possible to dispense with the Multipoint calibration..

SOLID MODE AVAILABLE on request.

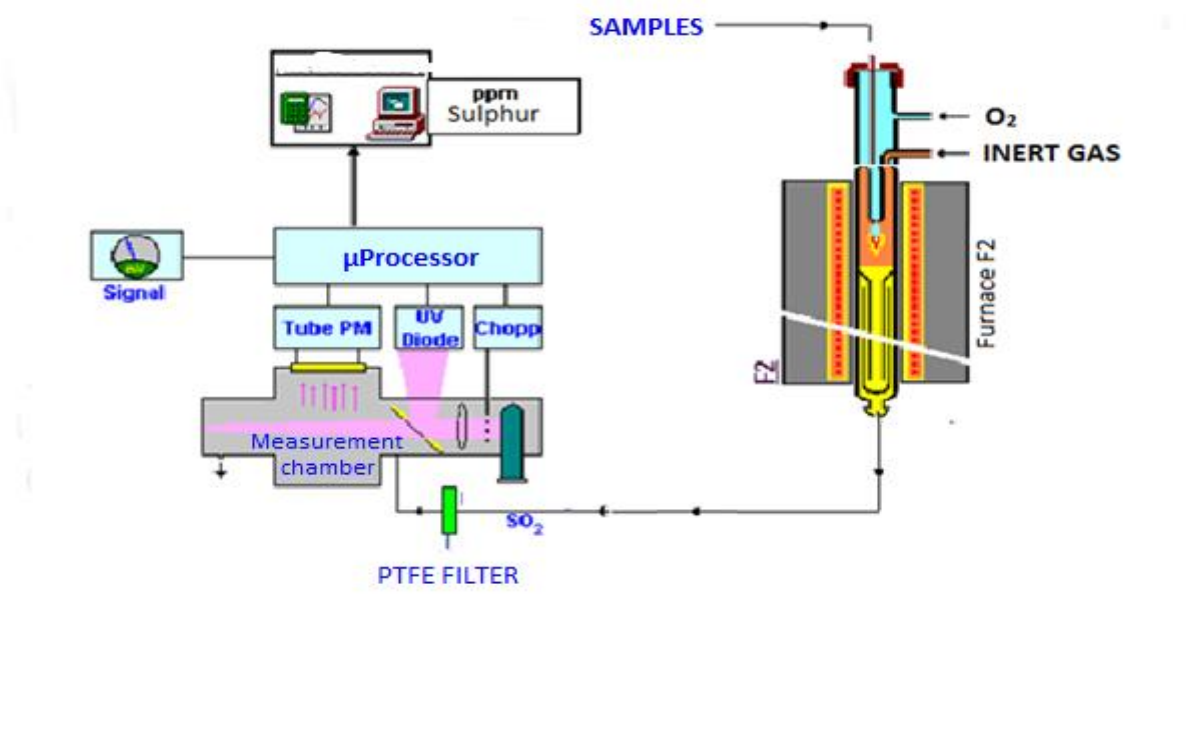
APPLICATIONS

Liquid and gaseous products, essentially petroleum products, but also organic compounds compatible with the method (industrial chemical products, rubber, synthetics, and so on).

TECHNICAL SPECIFICATIONS

DETECTION METHOD		
Sulfur	U.V. Fluorescence	
SAMPLE SIZE		
Liquid	20 to 100 µl with Syringe	
Gas	1 to 25 ml with Syringe 10ml with Gaz / GPL Sampler	
LPG	10 µl with sampler Gas /LPG	
Solid	Available on request	
TYPICAL ANALYSIS TIME		
Liquid and Gas	About 5 minutes	
Solid	Available on request	
SUPPLY		
Inert (Argon or Helium)	99.995% - 3 bar / 100 to 200 ml/min	
Oxygen	99.998% - 3 bar / 200 to 300 ml/min	
Electric	230 V – 50Hz – 1200 W	
ACCURACY		
At 0.5 ppm (mg/kg) level	**+/- 0,05 ppm (mg/kg)**	
At 1000 ppm (mg/kg) level	+/- 15 ppm (mg/kg)	
MEASUREMENT RANGE	**DETECTION LIMITS**	**LOW QUANTIFICATION LIMIT**
Sulfur	10 ppb (µg/kg) to 10%	20 ppb (µg/kg) or 0.02 ppm (mg/kg)
DIMENSIONS		
Analyzer, Without computer	**45 cm x 55 cm x 46 cm (WxHxD) / weight: 35 Kg**	

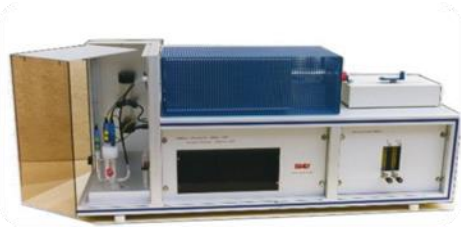
Schematic diagram of Gas circuits



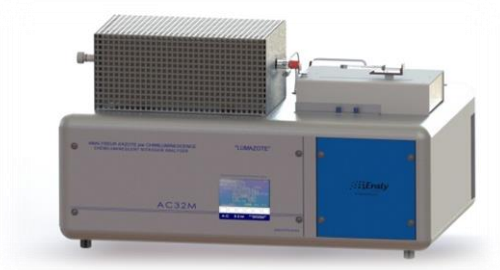
We manufacture also :

Wickbold / Sulfur
ASTM D2784 / ASTMD2785 - AFNOR M41-009 / ISO 4260 - IP243 / DIN 51408 NF.EN 24260 / EN41

Tubular furnace with temperature controller for laboratory



Chlorine Analyzer
AOX - Pox - Eox according to ISO 9562



Nitrogen and/or Sulfur Analyzer
ASTM D4629 / ASTM D6069 / ASTM D5453 / ASTM D6667….etc

Tri-four pyrolysis for
Tritium, Carbon 14, Chlorine 36, Iodine 129

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