

XRF OPTIM'X

ARL OPTIM'X is a simple to use WDXRF system with unique SmartGonio™ technology for analysis of elements from F to U. It can also be fitted with MultiChromators™ for simultaneous analysis and/or in combination with flexible sequential analysis. The ARL OPTIM'X does not require any water cooling. Its operational and maintenance costs are kept to strict minimum. With a typical limit of detection of around 1ppm for sulfur, ARL OPTIM'X is already capable of meeting future requirements for quantifying sulfur below 5ppm level. Indeed, ASTM D2622, ISO14596 and ISO20884 regulations are easily met with this instrument on a routine basis.



- Uncompromising flexibility (peaks, backgrounds and internal references) to meet various XRF based regulations
- High sensitivity, repeatability and stability for routine analysis of S
- Lowest cost per analysis with little or no peripheral dependence
- Ease of use with direct sample loading in a disposable liquid cup

Sola II

The SOLA II is an essential tool for the measurement and control of gas or liquid phase sample sulfur content. Producers of low sulfur motor fuels use the SOLA II to ensure diesel and gasoline are produced with the targeted sulfur content. The SOLA II's superior analytical performance enables petroleum refiners to confidently make timely process adjustments to enhance the economic efficiency of desulfurization and fuel blending operations. A refiner or petrochemical producer may also use the SOLA II to measure and control the total sulfur content of kerosene, naphthas, LPGs, natural gas, propylene and ethylene. The trace measurement option enables detection as low as 25 ppb S.



The SOLA II is an on-line adaptation of:

- ASTM method D 5453 "Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence"
- ISO method 20846 "Petroleum Products – Determination of Sulfur Content of Automotive Fuels – Ultraviolet Fluorescence Method"

The SOLA II's simple, effective design, low utility requirements, proven reliability, unparalleled accuracy and precision, comprehensive diagnostics and superior data communications set it apart from all other on-line total sulfur analyzers.

In addition to these offices, Thermo Electron Corporation maintains a network of representative organizations throughout the world.

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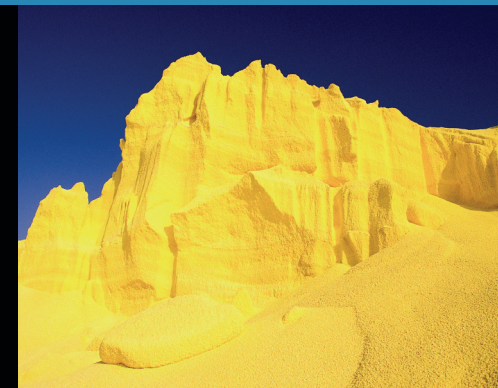
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Specifications, terms and pricing are subject to change. Not all products are available in all countries. Please consult your local sales representative for details.

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Total Sulfur product range

When it comes to the analysis of Total Sulfur, Thermo Electron Corporation has the answer for your laboratory, at-line, and on-line needs in the refining and petrochemical industries. A complete product range from XRF to controlled combustion and sensitive detection, accomplished with a range of detectors.

The technologies you need

The brand you trust

The service you deserve

Thermo
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Analyze • Detect • Measure • Control™

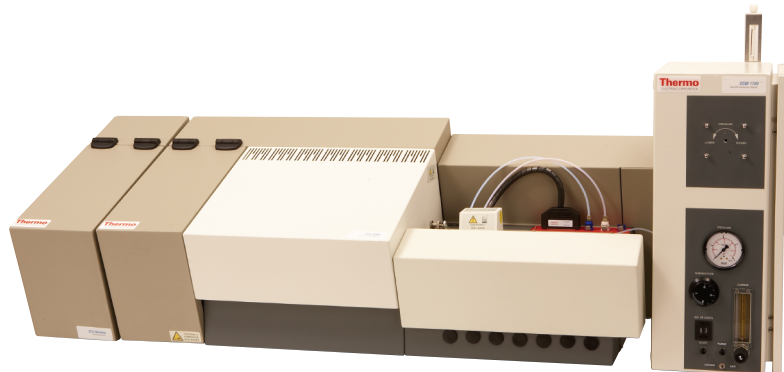
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Flexible ECS 1200/3000 analyzers

The easy to use Total Sulfur analyzers ECS 1200 and ECS 3000 are able to measure Total Sulfur fast and accurate in a wide range of solid, high viscous, liquids and gaseous samples. Each system offers a suitable solution for specific customer needs. The detection is based on micro-coulometric titration according to ASTM D3961, ASTM D3120 and ASTM D3246. But there is more:

- Broad dynamic range 0.1 - 5000 ppm
- Well established technique
- Controlled combustion
- Expandable to Total Chlorine analysis



TS 3000 analyzer for future proof technology

The versatile TS 3000 is the choice for the analysis of Total Sulfur in motor fuels, gases, LPG and a wide range of light and heavy hydrocarbons. The detector principle is based on pulsed-UV fluorescence and complies with ASTM D5453 and ASTM D6667 methodology. This flexible analyzer is also expandable to Total Nitrogen analysis and has a multitude of advantages like:

Extremely low detection limits (down to low ppb)

- Low cost per analysis
- High stability, sensitivity and reliability
- Simultaneous Total Nitrogen and Total Sulfur analysis
- Preferred method according legislation bodies

XVI⁺ analyzer for ultimate versatility

The Next Generation Total Sulfur XVI⁺ analyzer, based on the lead acetate tape detection, is able to measure Sulfur routinely at very low concentration levels. Sample types vary from liquid hydrocarbons to gaseous samples. The XVI⁺ is the analyzer for fuel cell technology R&D and production. The XVI⁺ analyzer complies with ASTM D4045, ASTM D4084, ASTM D4468, ASTM D 6212 and ASTM D6313.

- Complete flexibility and compatibility
- Reliable and proven methodology
- Ultra-low detection limit (ppb level)
- High productivity



Multi-talented SphiNCX analyzer

The SphiNCX multi-elemental bench top analyzer presents fast, reliable and sensitive analysis of Total Sulfur (TS), Total Nitrogen (TN), Total Organic Carbon (TOC) and Total Organic Halogens (AOX/TX). The four-in-one configuration of the SphiNCX offers a total solution for research and development laboratories, environmental laboratories and QC laboratories in the petrochemical, plastics and high-grade chemical industries. The SphiNCX offers high and low measuring ranges in a wide variety of sample types, and is ideal for controlling ultra low levels of Sulfur preventing contamination in fuel cells.

- Fast and optimum results
- Minimized verification and calibration time, less down time
- Interference free, highest accuracy
- Round the clock operation with multi-purpose NeXYZ auto sampler

