

SPECTRO XEPOS HE XEP03HE

Advanced XRF Spectrometer for Demanding Applications. Optimized for the analysis of environmental and process-critical elements.



Don't be fooled by its small size: hidden inside are powerful components delivering new levels of sensitivity and accuracy especially for medium and heavy elements.

Optimum excitation using polarization and secondary targets, an autosampler for up to 12 items, pre-installed application packages and intelligent software modules, make the SPECTRO XEPOS HE one of the most advanced element analyzer available.

SPECTRO XEPOS HE

Excitation

The SPECTRO XEPOS HE uses a 50 Watt end-window X-ray tube to excite the samples. The target changer, with up to 8 polarization and secondary targets, offers many different excitation conditions ensuring optimum determination of the middle to heavy elements. The application range covers the elements from Na to U. A shutter improves the stability of the system by enabling the sample to be changed without having to turn off the X-ray tube. Consistent X-ray tube performance is ensured by the uninterruptible power supply (UPS) that compensates for power fluctuations. Measurements can be conducted in a He gas atmosphere or in a vacuum; many applications even in air.

Detector

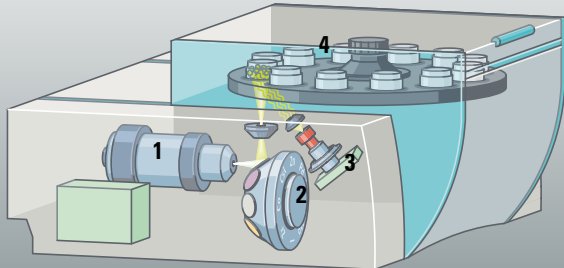
The detector is a state-of-the-art silicon drift detector. The resolution remains stable, regardless of the count rate. Internal collimators greatly

improve the signal/noise ratio. A resolution of less than 155 eV at Mn K-alpha is achieved. The high spectral resolution at high count rates results in reduced measuring times and improved measurement accuracy.

Sample Presentation

Not only powerful analytical components, but also exact sample presentation is critical for exceptional analytical performance. This was a special consideration during development of the SPECTRO XEPOS HE. The precision of the sample changer and a new generation of sample trays dramatically reduce the effects of mechanical and physical fluctuations; improving analytical results. The analyzer can handle samples with diameters of 32 mm, 40 mm and 52 mm. The sample chamber can be equipped with a sample spinner for 40 mm sample cups to further improve the measurement results for inhomogeneous samples or irregular surfaces.

- 1 - X-ray tube
- 2 - Target changer with up to 8 polarization and secondary targets
- 3 - SDD detection system
- 4 - Sample tray with samples



SPECTRO XEPOS HE

- **Highest sensitivity for medium and heavy elements**
- **High precision autosampler with sample trays for various sample diameters**
- **Pre-calibrated application packages**
- **Intuitive software**

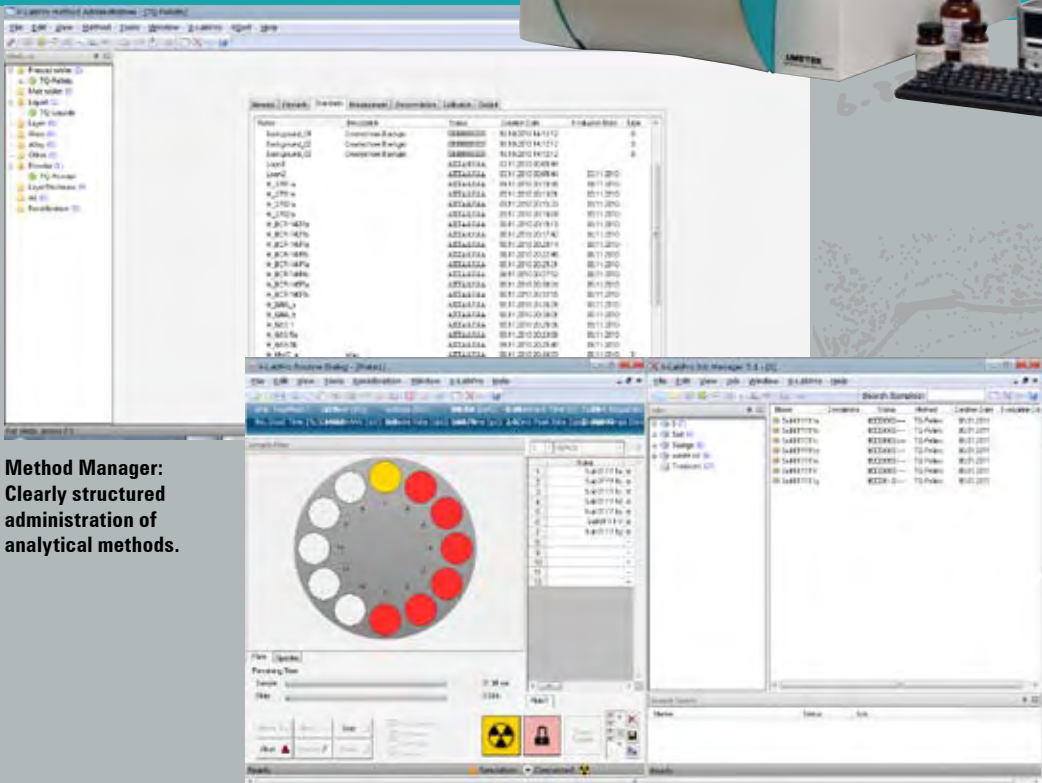
Software

Software

The SPECTRO XEPOS HE software is clear and easy-to-use. Measurement can begin after selecting the method and entering the sample identification information. The special SPECTRO TurboQuant methods are available for the effortless analysis of unknown samples.

The SPECTRO XEPOS HE can be delivered with pre-installed application packages. These are a combination of hardware and analytical methods; installed in the factory and individually tuned.

The range of applications includes, among others: **The analysis of geological samples, soils, sewage sludge, waste and used oil, as well as RoHS compliance testing; making the SPECTRO XEPOS HE a true multi-talent.**



Method Manager: Clearly structured administration of analytical methods.

The SPECTRO XEPOS is equipped with a 12 position autosampler. Job Manager: an archive for analysis results and measurement spectra.



SPECTRO XEPOS HE: Technical Specifications

Excitation

- Optimized especially for the analysis of high to medium atomic numbers
- Depending on the application, up to 8 optimized polarization and secondary targets are used

Detection system

- 30 mm² Si-Drift Detector (SDD) with Peltier cooling
- Spectral resolution (FWHM) at Mn Ka ≤ 155 eV

Sample handling

- Sample tray with 12 positions for samples with diameters of 32 or 40 mm
- Analysis in He atmosphere or optional in vacuum

Personal computer

- External computer system
- Windows operating system
- Keyboard, Mouse, Monitor, Printer

Software

- Menu-based X-LAB[®] Pro software for control of spectrometer functions and for evaluation of data

Application packages

- Optional TurboQuant screening methods for solids, powders and liquids
- Optional Geochemistry Method, optimized for the analysis of metals and heavy metals in geology samples
- Optional analyses method for waste and used oil
- Optional packages for various applications

Spectrometer data

- Nominal input voltage: 120V/230V AC ± 10%, 50/60 Hz
- Dimensions WxDxH: 650 x 750 x 400 mm (25.6" x 29.5" x 15.7")
- Weight: 80 kg (176 lbs.)
- Optional UPS to achieve optimal operating conditions (also in case of a breakdown in voltage)

Environment conditions

- Ambient temperature: 10-30°C / 50-85°F
- Specified instrument performance at 20-25°C / 68-77°F
- Rel. humidity at 25°C (77°F): 10-80 % not condensed
- Free of corrosive vapour and high dust pollution

Options

- Sample tray with 8 positions for samples with a diameter of 40 mm in combination with sample spinner
- Sample tray with 8 positions for samples with a diameter of 52 mm
- Vacuum system
- Packages for various applications
- UPS



Analytical Characteristics of SPECTRO's XRF Analyzers

		SPECTRO iQ II	SPECTRO XEPOS	SPECTRO XEPOS HE
Performance in the element range	Na-Mg	++	++	+++
Performance in the element range	Al-Cl	+++	+++	++
Performance in the element range	K-Mn	++	++	+++
Performance in the element range	Fe-Zr, Hf-U	+++	+++	+++
Performance in the element range	Nb-Pr	+	++	+++
Excitation flexibility		+	+++	+++
Automatic sample changer		n/a	up to 12 pos	up to 12 pos
TurboQuant screening available		n/a	yes	yes

+ good, ++ very good, +++ excellent

www.spectro.com/xrf-selector



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SPECTRO operates worldwide and is present in more than 50 countries. Please contact our headquarters for your local representative.

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