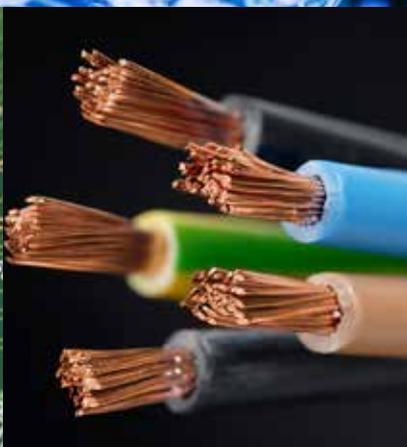


SPECTRO MIDEX

SMALL SPOT ED-XRF SPECTROMETER



Elemental analysis for small-spot,
line scan, and mapping applications

Fast and accurate elemental analysis plus compliance screening

SPECTRO MIDEX

Many elemental analysis tasks in industry, research, and the sciences require a nondestructive system that's extremely sensitive and capable of focused small-spot measurement.

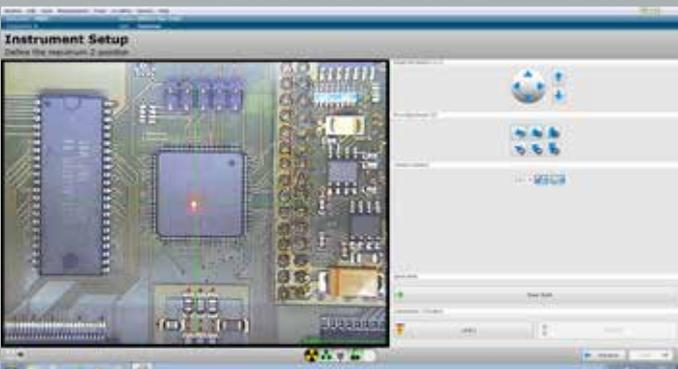
The SPECTRO MIDEX XRF spectrometer meets and exceeds these requirements. It offers fast, nondestructive elemental analysis of small spots, plus rapid mapping of large surfaces, including double-format printed circuit boards (PCBs). For years, SPECTRO MIDEX has turned in top-rated XRF performance. Recently optimized, the improved SPECTRO MIDEX analyzer sets new standards for analytical performance.

Ideal applications include compliance screening for RoHS and similar regulatory directives; the analysis of small components plus detection of inclusions in the metal, automotive, and aerospace industries; elemental analysis in forensics science; and many similar mission-critical tasks.



SPECTRO MIDEX SMALL-SPOT ENERGY-DISPERSIVE X-RAY FLUORESCENCE (ED-XRF) ANALYZER

SPECTRO MIDEX incorporates the latest high-spectral-resolution detector technology, plus a greatly improved count rate. These innovations make it one of the most advanced midrange laboratory XRF benchtop analyzers available for small-spot elemental analysis, plus line scanning and mapping. It lets users choose significantly increased accuracy — even for trace elements — or substantially accelerated testing times for higher sample throughput.



EXCEPTIONAL PERFORMANCE

For regulatory compliance applications, SPECTRO MIDEX provides fast screening of elements such as chromium, bromine, cadmium, mercury, and lead. An optional collimator changer varies the spot size to fit the required analysis area. For specialized industrial applications, an optional XYZ sample tray — together with maximum 4 x 4 mm spot size — allows ultra-fast large-area mapping. Areas of concern can then be analyzed in detail with a smaller spot. And in forensics science, applications range from the analysis of tiny fragments to the mapping of larger samples for gunshot residues.

SPECTRO MIDEX

Fast elemental screening



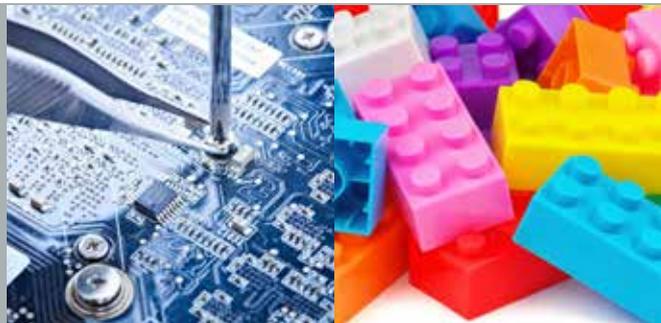
For accurate analyses of metal alloys, SPECTRO MIDEX applies its proprietary FP+ fundamental parameter method for alloy testing. For compliance screening applications it provides an optimized RoHS calibration covering a wide range of elements and matrices. For unknown samples, a fast point analysis can determine concentrations of typical and important elements in the range from magnesium to uranium in less than 180 seconds.

A spacious chamber features a large, easy-access opening for sample placement and removal. An integrated video system aids in exact measurement positioning. For irregular shapes (components with “valleys,” high-relief jewelry, ring inner surfaces, etc.), an optional 20 mm working distance permits focusing on sample points at varying heights.

The long travel path of an optional motor-driven XYZ table enables line scans and mappings of large sample surfaces. (Table can also be used as a sample changer, with software-based position settings enabling automatic measurements of large numbers of samples.) SPECTRO MIDEX is one of the fastest XRF mapping systems commercially available. The entire sample surface is measured in a high-speed process; mapping of a Eurocard-format double PCB can be completed in less than 30 minutes. Relevant areas can then be rescanned with even higher spatial resolution.

EXCELLENT EASE OF USE

Intuitive software supplies all relevant information on a single screen, guiding the user through each task. The integrated video system aids in accurate sample positioning and can help document the testing spot. For line scan and mapping, users simply position the sample, adjust the sample height, define the area of interest; and then start the analysis. Display, printout, and transfer of analysis results support later data use and/or proof of compliance.



GLOBAL SUPPORT

Many applications in industry, research, and the sciences depend on the availability of accurate analysis for productivity — and often for profitability. To ensure that SPECTRO MIDEX analyzers keep up the pace, SPECTRO offers the AMECARE Performance Services program.

More than 200 AMECARE service engineers in 50 countries help ensure peak performance and extended life for every SPECTRO MIDEX instrument. AMECARE’s high-value, customized services include proactive maintenance programs; application solutions; access to specialists; and instrument-specific training.



SPECTRO MIDEX Technical Specifications

SPECTRO MIDEX available in two configuration

SPECTRO MIDEX SD (2 mm working distance from sample)

SPECTRO MIDEX LD (20 mm working distance from sample)

Detector	SDD
Excitation	X-ray tube, molybdeum (Mo) anode, 48 kV max.
Dimensions	
Height	740 mm (29.1 in)
Width	580 mm (22.8 in)
Depth	670 mm (26.4 in)
Weight	55 - 70 kg (121 - 154 lbs) depending on configuration
Sample	Video system to display sample image
Chamber	Manually adjustable sample table
Power	Operating voltage 95-120V/200-240V, 50/60 Hz
Supply	Power consumption spectrometer: 200 W
Evaluation system	External computer system; Windows operating system keyboard, mouse, monitor, printer
Software	Menu-based software for control of spectrometer functions and evaluation of data
Analyses	Fundamental Parameters program FP+ for element analysis of alloys Calibration for RoHS compliance screening of plastics and composite material
Options	Motor driven XYZ precision table with a maximum travel path of 240x178x160 mm/ 9.4x7.0x5.3" (WxDxH) maximum sample weight of 3 kg/6.6 lbs
SPECTRO MIDEX SD only	
	He flush for the improvement in detection sensitivity for the elements Mg-Cl
	Software-controlled collimators for measuring spots (in mm): 0.2/0.5/1/2.5/3.3
SPECTRO MIDEX LD only	
	Software-controlled collimators for measuring spots (in mm): 0.25/0.7/1.2/3.5/4.4

FULL FAMILY OF ANALYZERS

SPECTRO provides one of the most comprehensive suite of advanced elemental analyzers. Devices particularly suited for jewelry and recycling applications include the high-end SPECTRO XEPOS benchtop analytical instrument; the midrange, versatile SPECTRO MIDEX benchtop small-spot XRF spectrometer; the portable yet powerful SPECTROSCOUT ED-XRF spectrometer; and the SPECTRO xSORT handheld XRF spectrometer.

Whatever the product, SPECTRO's more than 30 years of experience in elemental analysis and unparalleled record of technological innovation ensure the best results in the business.

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