



Advanced XRF equipment and solutions

# ElvaX *PLUS*

**MEET THE NEW XRF STANDARD  
WITH THE NEWEST BENCHTOP  
X-RAY FLUORESCENCE SPECTROMETER**



ElvaX Plus spectrometer is a desktop energy-dispersive X-ray fluorescence (EDXRF) analyzer with extended element range from Na (Z=11) to U (Z=92). The Helium purge system and the automatic primary filter changer combined with the large area SDD detector are used to allow effective registration of the light elements spectra.

- ✓ World's fastest XRF analyzer (throughput above 400 000 cps) – highest accuracy and excellent precision within the shortest measurement time
- ✓ Wide element detection range from Na (Z=11) to U (Z=92)
- ✓ Helium purge feature improves sensitivity to light elements (Na, Mg, Al, Si, P, S)
- ✓ Excellent calibration stability, compensation of ambient temperature and pressure variations
- ✓ Optional 16-position automatic sample changer increases productivity of your lab
- ✓ Optional high-resolution CCD camera for precise sample positioning
- ✓ Low maintenance cost



## ACCURACY

With innovative hardware and unique software algorithms, the **EvaX Plus** offers the highest precision and accuracy of elemental analysis for a whole range of analytical applications

## SPEED

Dynamically Adaptive Shaping (DAS) DPP developed by Elvatech combined with the ultra large area Fast SDD detector makes the ElvaX Pro the **fastest XRF analyzer** on the market

## STABILITY

Thanks to the **digiX-50** digital X-Ray source, automatic temperature, and pressure corrections, and automatic calibration adjustment, ElvaX Pro offers long-life reproducibility of the analysis without the need to re-calibrate the system



The optional automatic 16-positions sample changer coupled with the fast measurement increases the productivity of your lab up to 1000 samples per workday.

At. Numb	Element	Series	Intensity	Concentration
28	Ni	K	145153	63.2316 ± 0.2404%
27	Co	K	18370	8.6076 ± 0.1553%
42	Mo	K	40521	6.4290 ± 0.0683%
74	W	L	6766	6.3930 ± 0.4855%
24	Cr	K	9804	6.2659 ± 0.1517%
26	Fe	K	10730	4.3035 ± 0.0962%
22	Ti	K	611	1.3837 ± 0.2246%
52	Te	L	3688	0.8797 ± 0.0904%
17	Cl	K	1891	0.8478 ± 0.2206%
19	K	K	2975	0.4896 ± 0.0610%
23	V	K	412	0.4766 ± 0.1410%
79	Au	L	594	0.2176 ± 0.1564%
25	Mn	K	574	0.2301 ± 0.1463%
13	Al	K	824	0.0622 ± 0.0076%
14	Si	K	868	0.0232 ± 0.0070%

The superior throughput, which is provided by state of the art DAS DPP, makes it possible to get the highest accuracy analysis results in just a few seconds.

**ElvaX Plus spectrometer is used for quantitative and qualitative analysis of the elemental composition of metal alloys, liquids, powders, food and biological samples, as well as samples deposited on surfaces or filters, in a wide range of element concentrations.**

**Analyzer's detecting limit is better than 1 ppm for most elements in a light matrix.**



### **Digital X-Ray Source digiX-50**

Anode: W, Rh, Ag  
Voltage: 50 kV  
Current: 200 uAmp  
Power: 5 W  
5 position filter changer

### **X-Ray Detector**

Type: Large Area SDD  
Area: 25 mm<sup>2</sup>  
Energy resolution: 130 eV at Mn K $\alpha$ ,  
85 eV at Al K $\alpha$   
Count rate: 500 000 cps

### **Electronics**

DPP: proprietary DAS (Dynamically Adaptive Shaping) type,  
80 MHz sampling rate  
MCA: 4096 channels

### **General**

Dimensions: 430 x 340 x 200 mm  
Weight: 18 kg  
Power supply: 90 – 240 V, 50/60 Hz  
Power consumption: 50 W

### **Software**

Operating system: Windows XP/Vista/7/8/10  
Analysis algorithms: Fundamental parameters (FPA), Empirical  
(regression) calibrations, Manual spectra comparison

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