

## Specifications

X-ray tube	
Anode	W, Rh, Ag
Power	12 W
Voltage	60 kV
Current	1000 $\mu$ A
X-ray Detector	
Type	High-performance large area SDD
Energy resolution	140 eV at Mn K $\alpha$
Throughput, 350000	>350000 cps
Electronics	
DPP	Proprietary super-fast DPP, 80 MHz sampling rate
General	
Dimensions	430 x 340 x 200 mm
Weight	18 kg
Power supply	90 – 240 V, 50/60 Hz
Power consumption	40 W
Software	
Operating system	Window XP/Vista/7/8/10
Analysis algorithms	Fundamental parameters (FPA) Empirical (regression) algorithm Manual spectra comparison

## Optional accessories

- 16-position automatic sample changer
- Sample spinner
- CCD camera

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## Higher Productivity of your Laboratory

with the Newest Benchtop  
X-Ray Fluorescence Spectrometer **ElvaX 3**

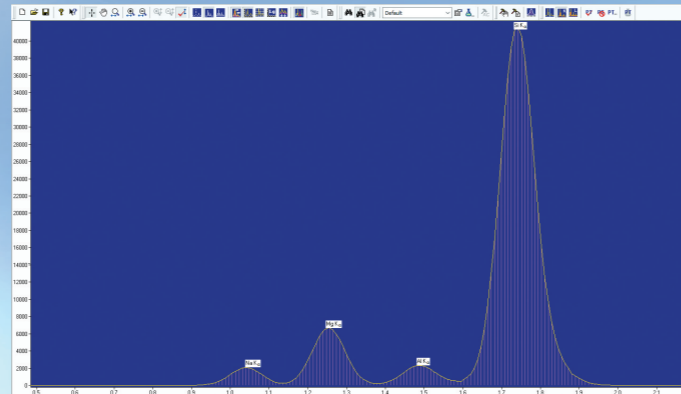
ElvaX 3 is the next-generation benchtop x-ray fluorescence analyzer. It offers a new level of analysis accuracy, speed and detection limits for a wide range of elements (from Na (Z=11) to U (Z=92)) due to the new 60 kV, 1000 uA x-ray tube. Powerful hardware combined with unique software algorithms make ElvaX 3 a multipurpose lab instrument for elemental analysis of various materials including solids, powders, liquids etc.

### User advantages

- World's fastest XRF analyzer (throughput above 350 000 cps) – highest accuracy within the shortest measurement time, excellent precision
- 60 kV X-ray tube voltage allows to analyze rare earth elements using K-series and greatly improves sensitivity to high-energy elements from Pd (Z=46) to Ba (Z=56)
- Up to 1000  $\mu$ A X-ray tube current improves accuracy and detection limits for light elements (Na, Mg, Al, Si, P, S) and allows to use small-size collimators (<1mm) for small spot analysis
- Automatic collimator changer for small spot analysis of jewelry, welds etc.
- Helium purge feature improves sensitivity to light elements (Na, Mg, Al, Si, P, S) several times
- 16-position automatic sample changer increases productivity of your lab
- Sample spinner for analysis of inhomogeneous samples
- Excellent calibration stability, compensation of influence of ambient temperature and pressure
- CCD camera for precise sample positioning

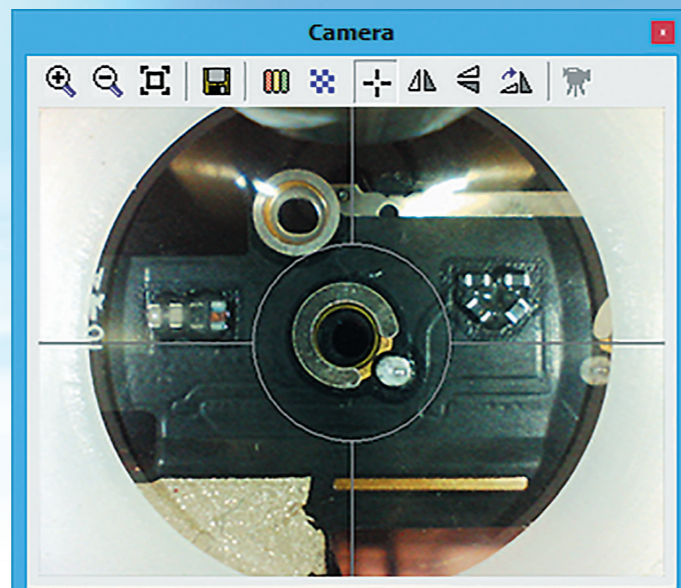
### Light elements

ElvaX 3 offers excellent precision, lowest detection limits for light elements (such as Na, Mg, Al, Si, P, S) due to the high anode current (1000 uA) X-ray tube and helium purge feature.



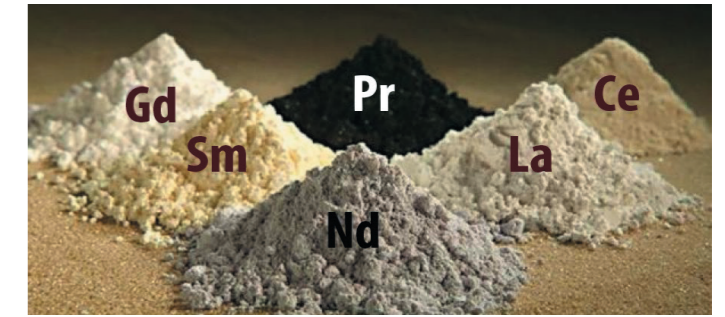
### Small spot analysis

A CCD camera combined with an automatic collimator changer offers simple positioning and local analysis of jewelry, welds and small objects. A powerful x-ray tube provides high count rate and short measurement time even with collimators less than 1 mm.



### Rare Earth Elements

The high-voltage 60 kV X-ray tube allows to analyze elements, which could not be measured before using K-series: La, Ce, Pr, Nd, Pm, Sm, Eu, Gd.



### Sample changer

An automatic 16-position sample changer coupled with fast measurement increases productivity of your lab up to 1000 samples per workday.



### Sample spinner

Accurate analysis of inhomogeneous samples became possible. The sample is rotated during measurement, which leads to averaging of the analysis results. This feature is very useful for analysis of soils, ores and geological objects, when a grinder is not available.

### Applications

- Positive material identification and scrap sorting
- Alloy analysis (magnesium, aluminum, titanium, steel, copper, nickel, solders and other alloy types)
- Ferroalloys
- Jewelry and precious metals analysis
- Mining and geology (iron, chrome, copper, gold, REE and other ores)
- RoHS, WEEE, ELV, Proposition 65 Compliance testing
- Construction materials and minerals (cement, limestone, gypsum, drywall)
- Refractory materials, clay, and ceramics
- Environmental testing of soils & sediments, water, paints and forensic materials
- Petrochemicals (sulfur and wear metals in oils and gasoline). ASTM D4294, ASTM D6481
- Automotive catalytic converters
- Coating thickness (Ni on Fe, Cr on Fe, Zn on Fe, Sn on Cu, and any other metal on any substrate)
- Custom applications are available upon request