Elvatech

Advanced XRF equipment and solutions

ElvaX *PRO*

HIGHER PRODUCTIVITY OF YOUR LABORATORY
WITH THE NEWEST BENCHTOP X-RAY FLUORESCENCE SPECTROMETER

ElvaX Pro 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(11) to U(92) due to the new 60kV, 1000 uAmp X-ray tube and the ultra large area Fast SDD detector. Powerful hardware combined with unique software algorithms make ElvaX Pro a multipurpose lab instrument for elemental analysis of various materials including solids, powders, liquids etc.

- World's fastest XRF analyzer (throughput above 400 000 cps) – highest accuracy and excellent precision within the shortest measurement time

- 60 kV X-ray tube voltage allows to analyze rare earth elements using K-series and consistently improves sensitivity to the high-energy elements from Pd (Z=46) to Ba (Z=56)

- Up to 1000 μA 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

- Motorized 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 the productivity of your lab

- Sample spinner for analysis of inhomogeneous samples

- Excellent calibration stability, compensation of ambient temperature and pressure influence

- High-resolution CCD camera for precise sample positioning

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ACCURACY

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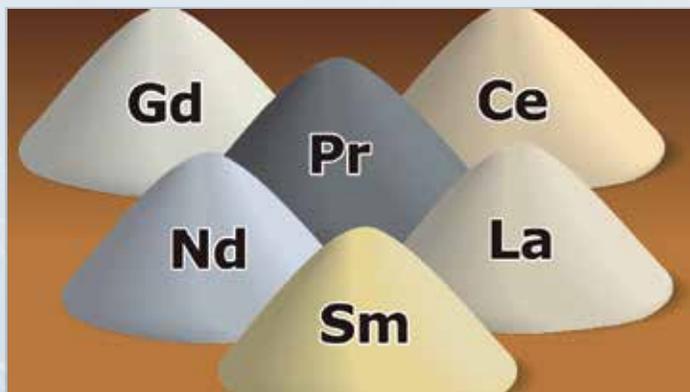
SPEED

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-60** 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 automatic 16-positions sample changer coupled with the fast measurement increases the productivity of your lab up to 1000 samples per workday.

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

ElvaX Pro is the most powerful EDXRF spectrometer among the ElvaX Family for the most demanding users. It offers excellent performances for the light elements analysis, as well as for the high energy elements including the rare earth.

The high resolution CCD camera combined with the automatic collimator changer offers simple positioning and local analysis of jewelry, welds and small objects.

The powerful X-ray tube and ultra large Fast SDD provide high count rate and short measurement time even with collimators less than 1 mm.

Digital X-Ray Source digiX-60

Anode: W, Rh, Ag

Voltage: 60 kV

Current: 1000 uAmp

Power: 12 W

8 position filter changer

5 position collimator changer

X-Ray Detector

Type: Fast SDD

Area: 70 mm2

Energy resolution: 130 eV at Mn Kα,
85 eV at Al Kα

Count rate: 500 000 cps

Electronics

DPP: proprietory 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