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 4-50kV/60kV, 20-2000 µA current air cooled X-ray tube and the ultra large area high resolution FSDD detector. Powerful hardware combined with unique software algorithms make instrument a multipurpose lab instrument for elemental analysis of various materials including solids, powders, liquids, thin films etc.

- World's fastest XRF analyzer (up to 500000 cps) – highest accuracy and excellent precision within the shortest measurement time

- From 4-50 kV/60kV in steps of 1kV 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 2000 µA in steps on 20 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.

- He (helium) purge feature improves sensitivity to light elements
(Na, Mg, Al, Si, P, S) several times.

- Measurement < 20 seconds. Sample spinner for analysis of inhomogeneous samples

- Peltier cooling system for detector.

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

- Software controlled 16 position autosampler with safety interlocks to prevent accidental radiation expose.

General Features:

- Beam Atomization: Automatic primary beam atomization
- Detector window: Be (12 um/ 8um) & user removable film cartridges
- A 8 position x-ray beam primary filter and user variable beam size from 1mm to 8mm
- Connectivity: PC based software transfer data to PC even for same make HH XRF
- Fixed position X-Ray tube direct excitation
- High resolution CCD camera to adjust the sample position for spot measurement and image capture
- Safety: Splash water proof protection, Xray tube window film protector, X- Ray safety light, Password protection, proximity sensor for sample identification, ingress protection IP65. Barometric and Temperature correction available.

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
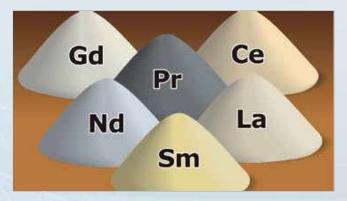
SPEED

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: Air cooled, W, Rh, Ag, Pd

Voltage: 4-50/60 kV in steps of 1kV fixed point direct excitation

Current: 20-2000 uAmp

Power: 12 W/ 20W/ 50W

8 position filter changer

5 position collimator changer

Detectable range : From ≤10 ppm to 100%

X-Ray Detector

Type: Fast SDD

Energy saving mode: Yes

Energy resolution: <85 eV at
5.90 keV Al Kα
<130 eV at
5.90 eV Mn Kα

Measured Count rate:

500000 cps (From Source to sample)

1600000 cps (From Sample to detector)

Electronics

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

General

Dimensions: 430 X 340 X 200 mm (approx.)

Weight: 18 kg (approx.)

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

Elvatech Ltd.
50 Mashynobudivna str.,
Kyiv 03680, Ukraine

Phone: +38 (044) 599-11-43
Fax: +38 (044) 406-65-83

E-mail: office@elvatech.com   www.elvatech.com