

ElvaX ART - wall or table-mounted XRF analyzer for precise art investigation and identification



Reveal the secrets of artworks with advanced nondestructive analysis

ElvaX Art is a portable analyzer designed specifically for artwork analysis, equipped with a CCD camera and using a narrowly collimated X-ray beam. This allows precise analysis of specific small parts of fixed artifacts, paintings or metal objects. The ElvaX Art system requires ElvaX software and a computer or laptop. This combination creates a powerful tool - more versatile than common handheld or desktop systems. The advantages of XRF analysis over other methods are its non-destructive and fast performance, cost-effectiveness, and ability to work with a wide range of elements.



Designed specifically for analyzing works of art

- CCD camera and narrow-collimated X-ray beam
- Detection of elements with concentrations below 10 ppm
- 5" TFT LCD screen with 10x zoom
- Detection and analysis of light elements from Mg to S, as well as a wide range of other elements from Cl to Pu

The high 500,000 cps count rate speeds up measurements, boosts accuracy, and lowers detection limits for elements (the minimum concentrations that can be detected by the analyzer).

500 000 cps



Non-destructive XRF method allows to keep integrity of objects and samples

The ElvaX Art spectrometer is ideal for analyzing and identifying elements such as titanium, lead, chromium, copper, zinc, iron, etc. in mineral pigments. It is also capable of detecting and identifying elements in glass, ceramics and obsidian, as well as analyzing the composition of precious and non-precious metals, stone objects and other materials.

Localness

The CCD camera and narrow-collimated X-ray beam allow precise targeting on the desired area for examination.

Wide range of analysis

The ElvaX Art system can detect and analyze light elements from Mg to S, as well as a wide range of other elements from Cl to Pu.

Mobility

The analytical unit of the ElvaX Art system can be mounted on either a manual or motorized dual-axis stand, or even on a robotic arm. With a lightweight design, weighing just 2.5 kg, it's easy to move it to wherever it's needed.

Applications of using

Art Authentication

Ceramics

Cultural Heritage Research

Archaeology and Archaeometry

Art Restoration

Metals and alloys

Custom applications are available upon request.

Specs

General specs

Frame dimensions: 2031 x 1600 mm

Weight: 40 kg

Power Supply: 100 – 240 VAC 50/60 Hz,

Max Power Consumption: 20 Watts

Video Screen: TFT LCD screen size is 5", 10x magnification

Data Acquisition: time 1 – 100 sec.

Motorized XY positioning stage, external dimensions 200x150mm

Tripod with head holder for horizontally aligned measurements

Digital X-Ray Source

Anode: Rh, W

Voltage: 4 - 40 kV (optional 50 kV)

Current: 0 - 200 uAmp

X-Ray Detector

Type: Large area SDD

Resolution: < 140 eV & Mn Ka

Throughput: > 500,000 cps