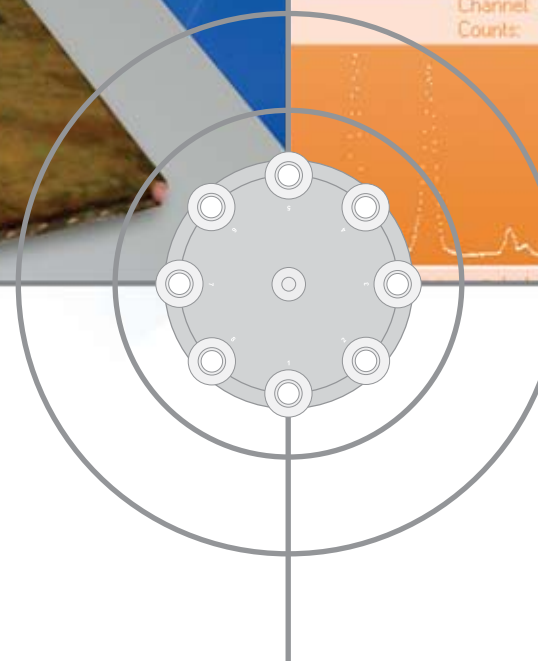


ElvaX *Art*

Portable EDXRF Art Analyzer



analytical equipment



The **ElvaX *Art*** is a new unit to join the family of portable X-Ray Fluorescence (EDXRF) Spectrometer systems produced by **Elvatech Ltd.** This mobile, portable system, designed specifically for art analysis, includes a CCD camera and small beam. This makes it possible to accurately measure a small selected section of an immobile artifact, painting, or metal article. The **ElvaX *Art*** system is designed to be used with the ElvaX software package and a desktop or laptop computer, creating a powerful tool, more versatile than typical handheld or desktop systems. Compared to other techniques, **ElvaX *Art*** has the advantage of being non-destructive, multi-elemental, fast, and cost-effective.

The analytical head of the **ElvaX *Art*** can be mounted on the manual or motorized dual-axis positioning stage, or on the robotized arm for on-site analysis.

The **ElvaX *Art*** system can be used to qualitatively analyze and identify elements in mineral pigments, such as Titanium, Lead, Chromium, Copper, Zinc, Iron, etc. Additionally, it will determine elements in glass, ceramic and obsidian, as well as precious & non-precious metals assay. **ElvaX *Art*** can also be utilized for stone tool and metal artifact identification or with numerous museum artifacts. With non-destructive X-Ray Fluorescence, objects and samples remain intact and unharmed.

- ⦿ Painting authentication
- ⦿ Investigation of cultural heritage
- ⦿ Art restoration
- ⦿ Ceramic items
- ⦿ Archeology and archeometry
- ⦿ Metals and alloys

Measurement Capabilities

Detectable range	Cl (17) – Pu (94)
Optional light elements range	Mg (12) – S (16)
Detectable concentration	below 10 PPM for most elements in a light Matrix

Chamber

Beam size	0.2 mm to 4 mm, manual
Dimensions	174 x 143 x 172 mm
Weight	2.5 kg
Power Supply	100 – 240 volt ac 50/60 Hz, 50 Watts Max Power Consumption
Video Screen	TFT LCD screen size is 5", 10x magnification
Data Acquisition time	10 – 1200 sec.

X-Ray Generation information

W target anode, 250 um Be window, (optional Ag anode 125 um Be window for improved light elements sensitivity)

X-Ray tube, air cooled

4 – 40 kV (adjustable in 0.1 kV steps), Tube

Current 0 – 100 uA (0.2 uA steps) 5 W max

X-Ray Detection

Si – Pin Diode (optional SDD), Thermoelectrically cooled

Detector resolution 160 eV; Mn (<140 eV for SDD)

Be 12 um window



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