



The **ElvaX Art** system is the latest to join the family of portable X-Ray Fluorescence (EDXRF) Spectrometer systems from Xcalibur XRF Services. This small, portable system, designed specifically for art analysis, includes a CCD camera and small beam. This makes it possible to accurately measure a small section of an immobile artifact, painting or metal sample. The **ElvaX Art** system is designed to be used with the **ElvaX** software 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 **ElvaX Art** operates at a high voltage of 35KV, but can be set for up for 45KV. It has a detectable range of Cl to U with detection limits below 10ppm in a light matrix. Supplied with a W anode, 250um Be window x-ray tube, or the optional Ag anode, 125um Be window x-ray tube for improved light element sensitivity.

The **ElvaX Art** system can be used to qualitatively analyze and identify elements in pigments such as Copper, Lead, Manganese, 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.



EDXRF Applications & Specifications

EDXRF technology has been used in a wide range of applications including but not limited to metals analysis, environmental and environmental pollutants, RoHS (metals contamination), art & archaeological, biological, food, forensics, geological, fuel & lubricants, etc.

Applications Include:

- Art/paint analysis
- Archeology and archeometry
- Metallurgy, precious & non-precious metal assay

Measurement Capabilities:

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

Chamber:

- Beam size 0.2mm to 4mm, fixed
- Dimensions: 174 x 143 x 172 mm
- Weight: 2.5 kg
- Power supply: 100 – 240 vac 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 Detection:

- Si – pin diode, thermoelectrically cooled
- Detector resolution 160ev; Mn
- Be 8um window
- Optional: SDD (140ev Mn)

X-Ray Generation Information:

- W anode 250um Be window x-ray tube, air cooled
- Optional Ag anode 125um Be window x-ray tube for improved light element sensitivity
- 4 – 40kv (adjustable in 0.1kv steps), tube current 0 – 100 uA (0.2uA steps) 5W max

System Includes:

- Unit, ElvaX Art
- Dell laptop or desktop computer
- ElvaX analysis software package, running under Microsoft Windows
- Quantitative analysis algorithms; fundamental parameters, quadratic stepwise multiple regression, manual spectra comparison



For more information on these and other Xcalibur products, contact us today!



1340 Lincoln Avenue, Unit #6, Holbrook, NY 11741

www.xcaliburxrf.com • Tel: 631.435.9749 • Fax: 509.691.3344