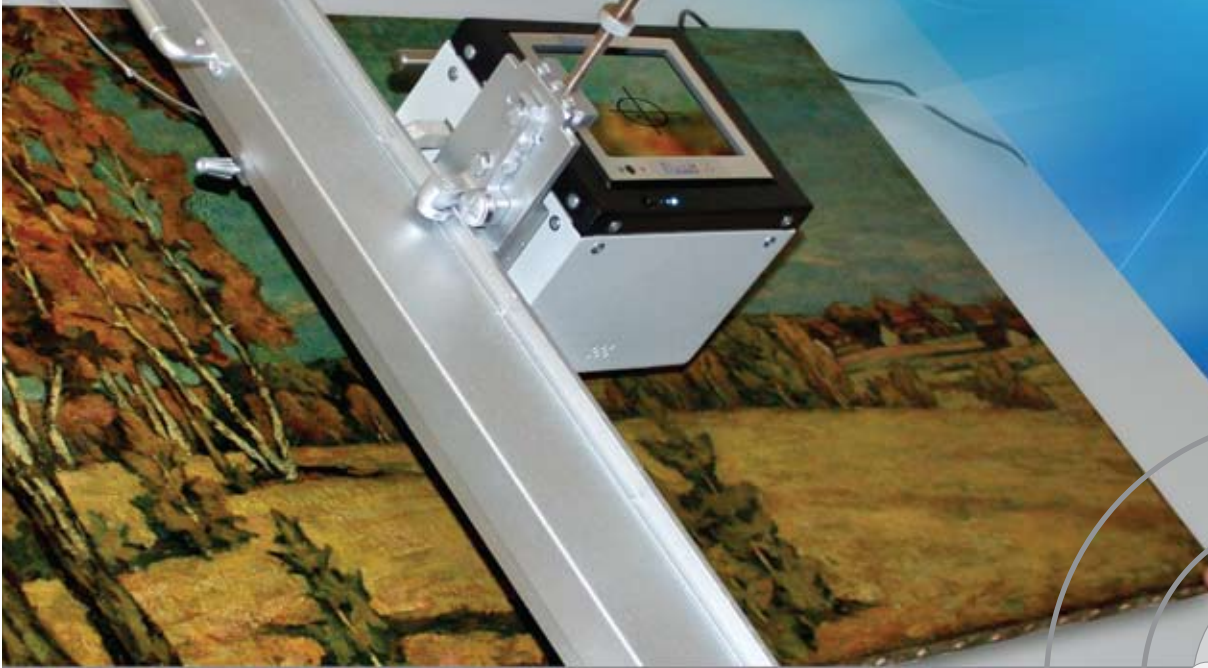
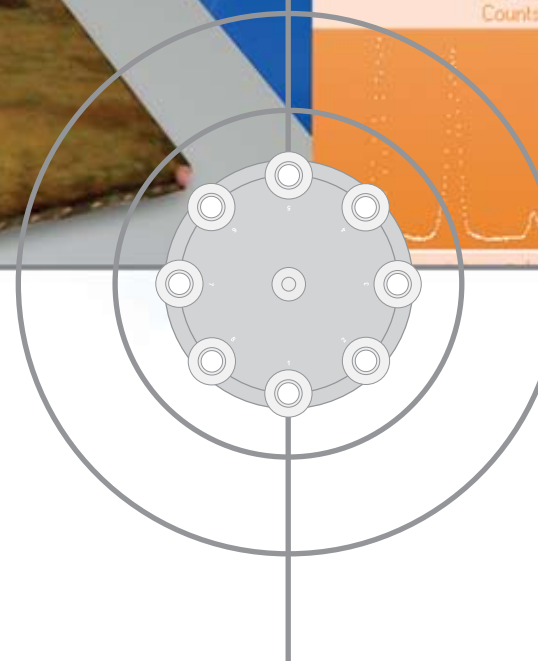


ElvaX *Art*

Portable EDXRF Art Analyzer



analytical equipment



The Elva X (Art) is a remarkable new Mini EDXRF instrument designed specifically for the needs of art restoration, archeology and all other applications requiring elemental mapping about two dimensions

This remarkable new instrument is based on a new miniature X-ray fluorescence analyzer capable of measuring and identifying the concentration all elements ranging from Chlorine to Uranium and therefore includes most paint pigments used in ancient or new paintings and many elements that might be present in any other object. Elements such as Titanium, Lead, Chromium, Copper, Zinc, Iron etc can easily be identified, along with alloys and minerals of all types

Other applications include solid objects or adsorbed material including ceramics, minerals generally, and all metal objects. This includes archeological material such as stone tools, soft materials and the like. And the analysis is made without effecting the integrity of the sample.

The technology is Non Destructive and will not effect the structure or composition of paints or pigments. It will also analyze all or part of a painting or artifact without the need to take a sample . The object can me analyzed as a complete object without the need to scrape off a sample.

The miniaturized analyzer head is mounted onto an X & Y coordinate scanner which can be manually positioned or scanned under motor control. In use the analyzer can map elements present in concentrations from 1% to 100% according to the sample matrix enabling direct analysis of paints and pigments used in a painting and thereby determining actual composition. The spatial resolution is excellent and is only limited by the selected beam size which can be adjusted from 0.2mm to 4mm diameter.

Robot or XY coordinate scanner

The miniature analyzing head can be mounted on either an XY pantograph as seen in the catalogue image or mounted to a multi axis robot according to need. Although for art applications the XY pantograph will probably be seen as the most useful

For non scanning element analyzers we offer a range of desk operated X-ray fluorescence spectrometers whereby smaller samples can be measured . .

- ⊙ 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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