

Redlands

EDX 2800

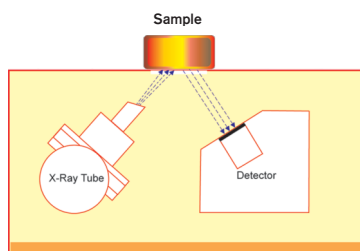
EDXRF SPECTROMETER

with Multi collimator



APPLICATION

- Retail Jewellery
- Hallmarking centres
- Buying old gold
- Quality control
- Gold refinery
- Iridium detection



Working principle



EDX 2800

Applications and Features

Redlands offer you EDX 2800 is versatile energy dispersive X-ray fluorescence spectrometers for a variety of applications. High precision, repeatability, non destructive analysis and large area measurement are the highlights of these instruments. It is economically priced, its precision and ease of operation make it the most favoured purity analysis instrument in the jewellery trade. The instrument is interfaced to a computer through USB port and uses an extremely user friendly Windows based software for fast and easy analysis. It has the largest measurement area up to 20mm and is therefore most suitable for measuring precious jewellery. These features make Redlands the ideal X-ray Fluorescence spectrometers, for analysis of gold and precious metal alloys.

How do XRF's work

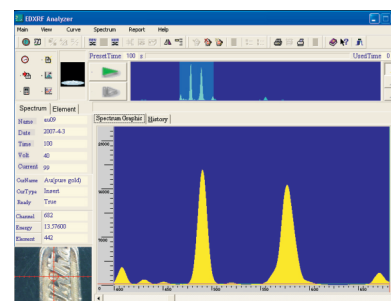
Have you wondered why fluorescent colors seem very bright? These colors absorb light for a moment and then utilises this stored light to emit a much brighter color. The process is called fluorescence. Similarly when a (primary) X-Ray beam strikes an element, it absorbs the radiation and reflects another (secondary) X-ray. Each element reflects a different x-ray which identifies the element. The XRF's detector registers the radiation emitted by the secondary x-ray and transmits it to the proprietary software which calculates and displays the qualitative and quantitative values. The intensity of radiation indicates the concentration of each element.

Specifications

X-ray Source	X-ray Tube Ti or W cathode
HV Generator	50kv adjustable in 200V steps Current adjustable in 1µA steps
Detector	Semiconductor Pin diode
Detection Range	S(Z=16) to U(Z=92)
Measurement Range	0.1 - - - 99.99 %
Measurement Time	30 - - - 300 seconds
Measurement Precision	± 0.1% In homogeneously melted Sample (Accuracy levels in comparison with fire assay result only)
Measurement Area	1mm to 20 mm
Collimators and Filters	8 Collimators and 5 Filters automatically switched as per requirement
Working Temperature	15 - - 25°C
Relative Humidity	10 - - 80%
System Requirement	External PC with Windows XP / Windows 7 (32bit)
Software	Windows Based
Power Requirement	220V , 50Hz
Power Consumption	100W
Dimension	760mm x 550mm x 450mm
Sample Chamber	466mm x 305mm x 70mm
Weight	70Kg

Measurement Area

The Redlands EDXRF Spectrometers has a spacious sample chamber which allows for measurement of large samples. The maximum diameter of the measurement area can be enlarged from 1mm to 20mm, a feature exclusive to the Redlands EDXRF Spectrometers. This feature eliminates the need to obtain multiple measurements to calculate averages for achieving accurate results.



Spectrum



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