



SPECTROLAB

The SS-280“ Lab-Mate “Series For analyzing alloys, gold, precious metals and many other elements



The 280 series Desk Top EDXRF

A remarkable high performance EDXRF analyzer for trace element analysis

Gold assaying, precious metal analysis and basis metals

Concentration range	2ppm to 100 %
Repeatability	RSD \leq 0.05% Au \geq 90%
Sample type	Solid, powders, liquid
Elements of interests	Au, Ag, Pt, Pd
Basic metals	Ni, Cu, Zn
Detector:	Proportional counter
Tube voltage	5KV ~ 50KV
Resolution	800eV

Higher resolution	See Model 6000 and 9000
HV unit	0 ~ 50KV Spellman(USA)
Tube current	0 – 1mA
HD camera	Included
DMCP	Included
Sample chamber Dimensions	28 X 31 X 9.5 cm
Test time	30sec ~ 100sec
Software	Anaspec-Htek-FP
Instrument weight	31Kg

Typical Applications

- Gold Karat assays and identification
- Determination of carat values
- Alloy analysis
- Electroplating liquid analysis
- Easy to use .
- Perfect for all types of sample, metal, jewelry and finished products

Features

Accurate determination of elements

Determine karat values.

Quickly determine the cash price for gold and other items

Identify and characterize a wide range of alloys

Identify toxic elements in samples or finished products

Quickly and easily create analysis certificates

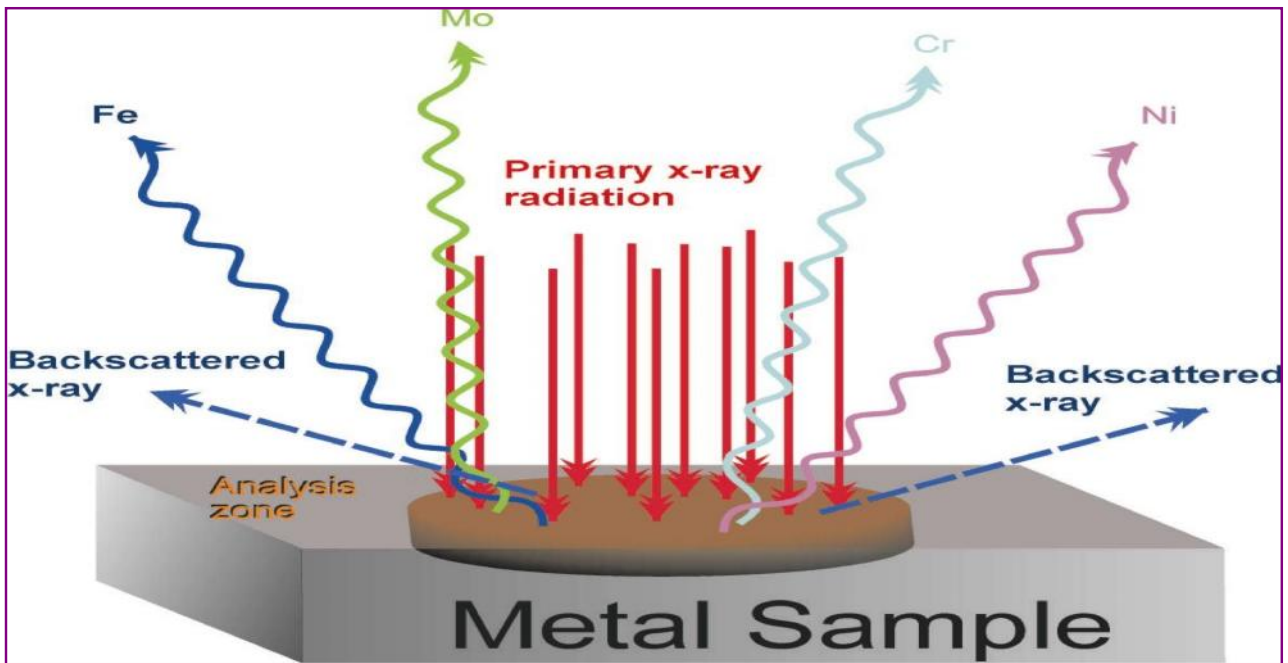
Safe and secure closed-beam system.

Very easy to use.

A unique compact instrument taking up minimal desk space.

Can be networked for easy access to testing results as they are being generated.



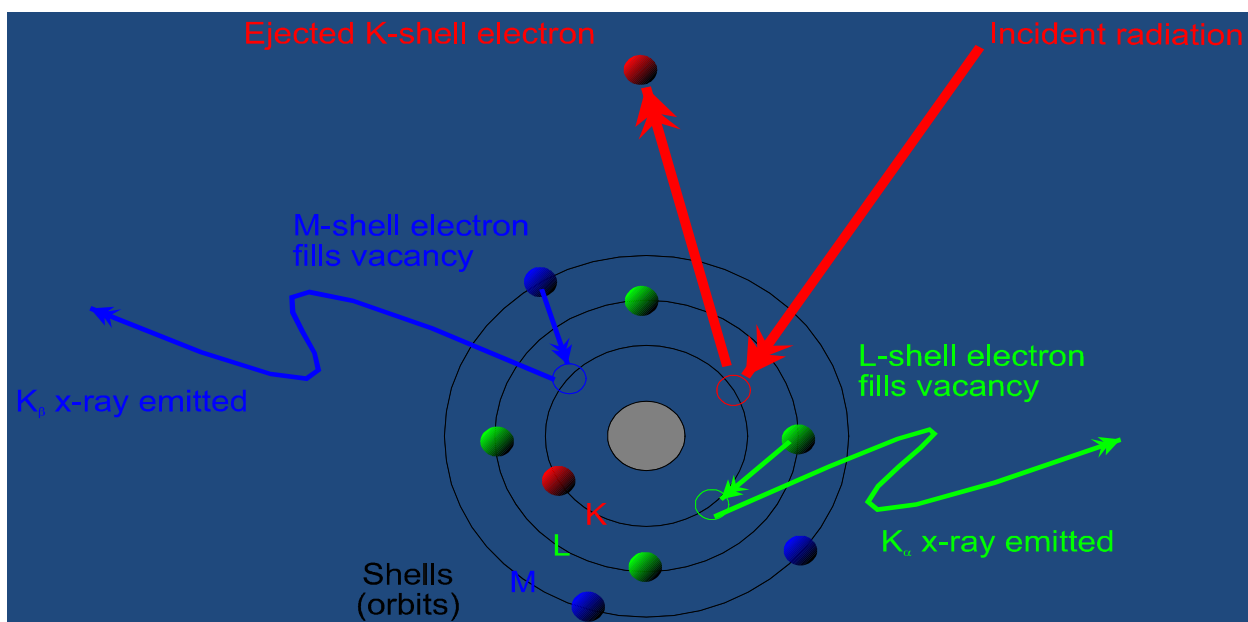


This is how the X-mate X-ray fluorescence spectrometer works?

Overview

Nondestructive Precious Metals Assay and Karat ID

XRF is a widely used, proven and accepted method of chemical analysis used for the determination of purity and quantity of precious metals or elements in any type of sample including both solids and liquids, films, coatings, powders or gels. XRF analysis is a multi-elemental testing alternative optical emission methods and is also quicker and less expensive. XRF provides on-the-spot analysis of your Gold, Silver, Platinum, and PGM metals and impurities, ensuring customer confidence and dealer reliability.



How the Goldmate analyzer makes an X-ray fluorescence photon (EDXRF)

How XRF works

X-rays have a unique ability to ionize or “excite” elements present in materials including oil. When elements such as Sulfur have been ionized by X-rays the electrons quickly return to a relaxed or stable state. In so doing they will emit fluorescent photons whose energy levels are “signatures” of specific elements present. Spectrolab XRF analyzers utilize this phenomenon by imaging ionizing x-rays onto a sample and measure the energy levels of the returning fluorescent x-rays (the elements’ “signature”). The quantity and energy of X-rays measured determines the relative concentration of each individual element present.



The onboard microprocessor then provides a complete elemental analysis of the sample and displays it on to a high brightness screen. All of this is done in just a few seconds, The analyzed results are stored in an Excel test report.

Given the current high value of gold, quantifying its fineness and purity is more critical than ever. Whether you buy or sell gold, manufacture jewelry, fabricate metal, or recycle scrap metal, you always need a fast, highly accurate method to determine karat (gold content) for quality control and pricing.

The Spectrolab X-mate XRF analyzer is an easy-to-use, cost-effective method to obtain alloy analysis and Karat classification with one nondestructive and nonintrusive test. Additionally exclusive FP functional analysis software features help the user to identify gold objects

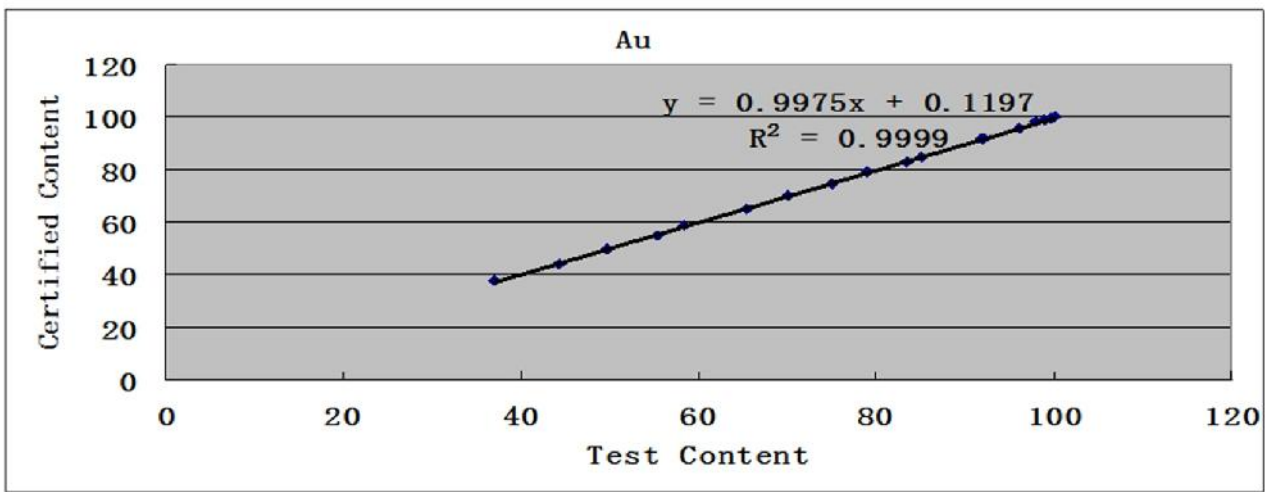
Customized Reporting

Data can be exported easily to a spreadsheet format, Customized results and reporting certificates including analytical results, an image of the tested sample, the company logo, and more, can be generated via the PC Software

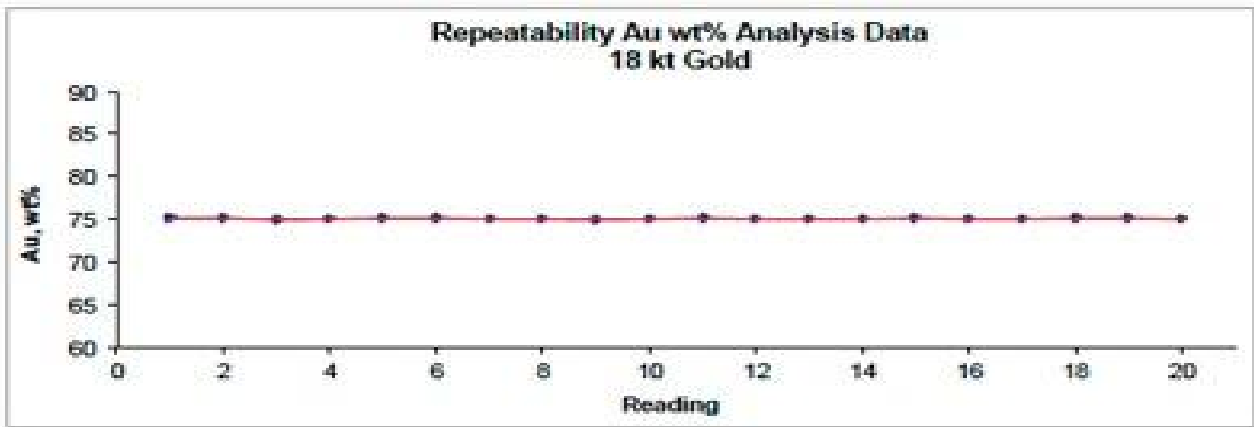
Test Report													
Sample Name		Gold Piece											
Test Time(s)		30(s)											
Test Date		2014/1/1 17:01											
Gold		75.005(%)				Karat		18 Karat					
Element	Au	Ag	Ni	Cu	Zn	Ru	Rh	Pd	Cd	In	Sn	W	Re
Content	75.005	14.860	2.04	4.010	4.000	0	0	0	0	0	0	0	0
	Os	Ir	Pb	Fe	Co	Ti	Cr	Ge	Mn				
	0	0	0	0	0	0	0	0	0				
Spectrum Photo													

Spectrolab X-mate Series Test performance

Showing accuracy for Au in certified Gold alloy standards



Repeatability Plot: Twenty repeat readings on an 18k certified gold alloy standard



Accessories:

Sample cup for liquid and powders

Ring holder



Who needs an “X-mate “

This series is recommended for those interested in an easy to use inexpensive analyzer for precise analysis of materials including plating and liquids. X-mate is recommended for general karat and trading applications. It is also recommended for high purity gold analysis with specific non interfering metal impurities inside the sample.

Other EDXRF instruments include

Hand Held XRF

Portable XRF

Wavelength Dispersive XRF

Energy Dispersive XRF

Process control XRF

Our partners in Xray technologies include Anaspec, HTek, Ametek, Varian, Spellman



Spectrolab Science

Oxford House, 20 Oxford St Newbury, Berkshire. RG14 1JB UK. Offices in UK, EU, Dubai

sales@spectrolab.co.uk

www.spectrolab.co.uk