



SPECTROLAB

The New Model XF-2400-8800D Vacuum EDXRF Series For analyzing all elements from Na to U



Desk top vacuum EDXRF analyzers
Uses Silicon Drift Detector systems for ultra fast analytical times
and optimized precision for trace elements.

Typical Applications

- Cement
- Mineralogy
- Metallurgy
- Light element analysis
- Alloy analysis and Alloy PMI
- Hazardous metals Inspection: Including Hg, Cd, Cr, Pb
- Electroplating liquid analysis
- RoHS
- Perfect for all types of sample , metal alloys, Precious metals, jewelry and finished products

Features

Accurate determination of all elements present
High sensitivity for accurate analysis of light elements from Na to U
Selected Silicon Drift detectors
Very high count rates ensuring excellent linearity
Great resolution 123eV
Easy to learn intuitive Windows “FP” fundamental parameter software
An analysis within 2 seconds.
Five customizable Filters for fast and accurate analysis of minor and trace elements

Identify and characterize a wide range of minerals, alloys and others
Identify toxic elements in samples or finished products
Manage quality control of refining and smelting operations
Many options for coating thickness measurement and alloy PMI
Safe and secure closed-beam system.
Requires minimal training. 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.

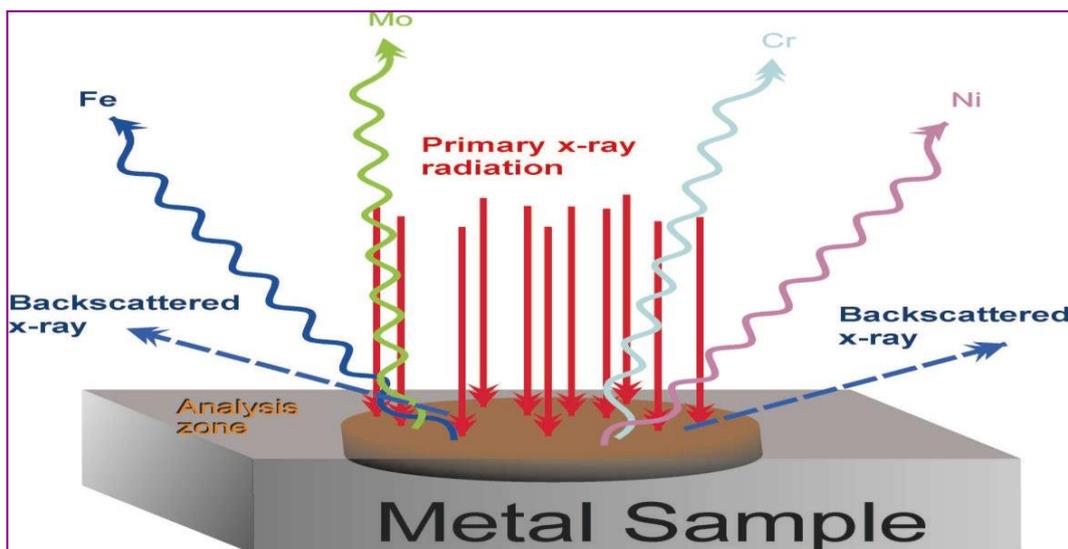
XRF elemental analysis in the field, plant or lab

XRF is a widely used, proven and accepted analytical method used for the determination of purity and quantity of all elements present in any type of sample including solids, liquids, films, coatings, powders or gels. XRF analysis is a multi-elemental testing alternative to optical emission and atomic absorption methods but is quicker and less expensive.

Especially designed and engineered for elemental analysis in different matrixes, whether on the plant floor or in remote field environments, the superior analytical power, flexibility and ease-of-use of the XF8800D instrument adds to its broad appeal for an ever expanding range of applications, including exploration, research, bulk RoHS inspection, research, as well as industrial and production control and monitoring applications. Whether the need is basic quality control (QC) or its more sophisticated variants — such as analytical quality control (AQC), quality assurance (QA)— the XF8800D is the most reliable high performance choice for both light or heavy element analysis by XRF.

RoHS applications are a major analytical technique and the XF8800D is perfect for this need. We offer excellent software suitable for most if not all applications including our unique **Fundamental Parameter software**

The Spectrolab XF-8800D series XRF analyzer is an easy-to-use, cost-effective method to obtain a complete analysis of all elements present in a sample in one nondestructive and nonintrusive test often taking just 2 or 3 seconds.



This is how the XF-8800D X-ray fluorescence spectrometer works?

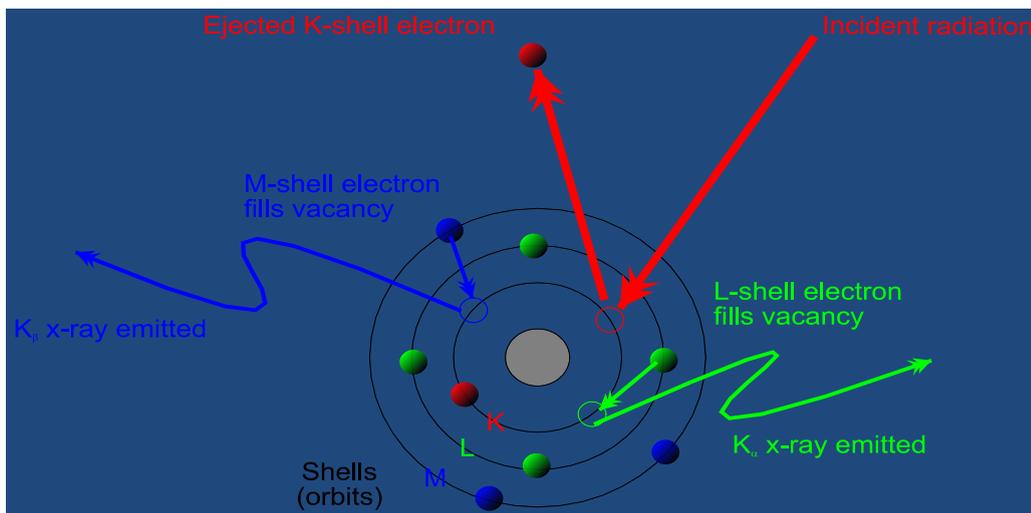
X-rays have a unique ability to ionize or “excite” elements present in all types of materials. When elements present in a sample have been ionized by X-rays, the electrons quickly return to a relaxed or stable state. In so doing they will emit fluorescent photons whose energy levels are “signatures” 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.

Light elements

When analyzing light elements, typically elements below Sulfur, it can be advantageous to remove air from the spectrometer in order to minimise the scatter and or absorption of X-rays by air. In this way a significant improvement in limits of detection are possible. The XF8800D is a fully evacuable spectrometer which can also be He purged if required.



How the XF-6000 analyzer makes an X-ray fluorescence photon (EDXRF

Customized Reporting

Data can be exported easily to a spreadsheet format, and the integrated memory can be accessed remotely when the XF-8000 is networked via its Windows CE operating system. Customized results and reporting certificates including analytical results, an image of the tested sample, the company logo, and more, can be generated via the optional PC Software with the click of a button.

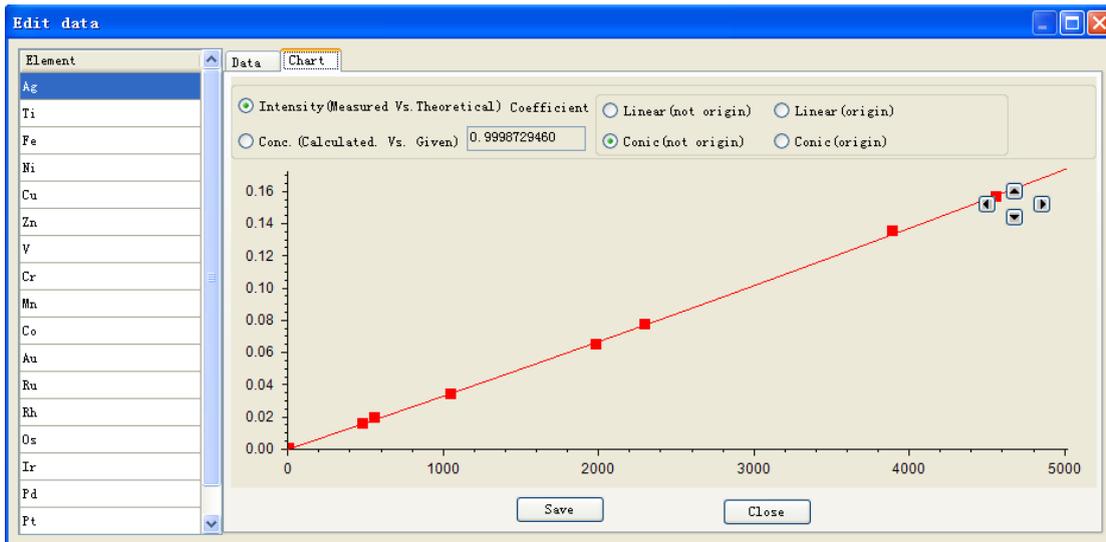


The simple elegant design of XF8800D EDXRF

Typical test report format

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													

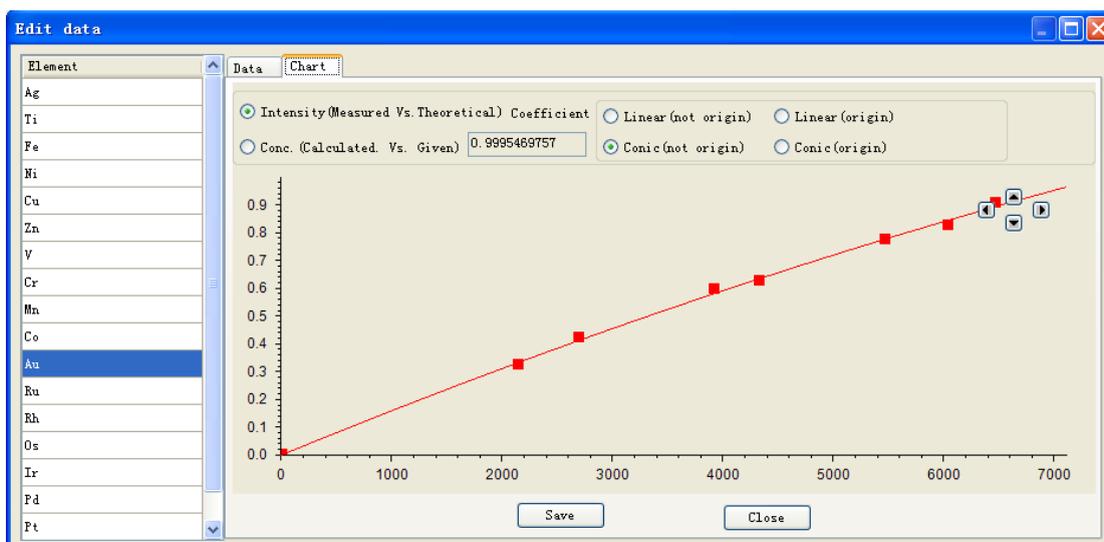
Calibration format



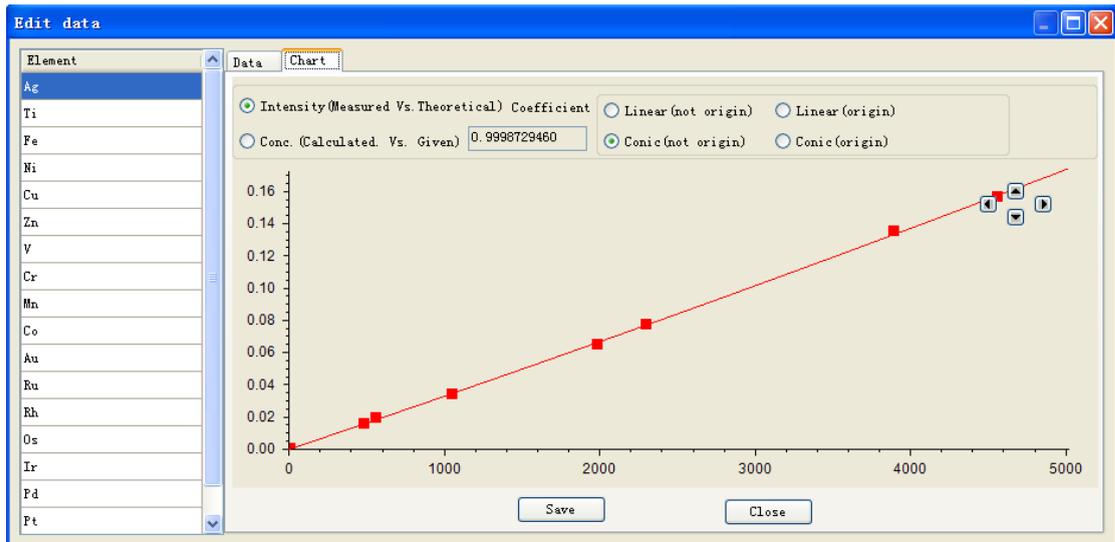
3. Application Examples of the unique **FP** Fundamental parameter Calibration software

(1) Precious Metal

Graph below shows the FP calibration curve of **Au**. (Y axis is theoretical intensity and the X axis is the measured intensity)



Graph below shows the FP calibration curve of **Ag**. (Y axis is theoretical intensity and the X axis is the measured intensity)



Comparison of FP and EC calibration for the same Au standards

Specifications

•Excitation

- 50kV X-ray tube 50 Watts max power
- 5 tube filter positions
- 8 collimator options from 8mm to 0.05mm

•Detection

- High performance SDD detector (FSDD optional)
- Peltier thermo-electric cooling
- High spectral resolution with very high count rates

Element range

Na to U

•Sample Chamber

- Large 520*300*170mmsample chamber
- Analysis in air or vacuum

•Environmental Conditions

- Ambient temperature 10-35°C (50-95°F)
- Relative humidity ≤85%
- Vibration: undetectable
- Free from corrosive gas, dust and particles
- Single phase AC 100/220V, 1.5A (50/60 Hz)

General Applications

Metals analysis	Refineries	Mineralogy
Pharmaceuticals	Forensics	General Laboratory
Alloy analysis	Precious metals	Gold Assaying
Archeology	Refining	Field work
Petrochem	Oil analysis	RoHS

Sample holders

Sample cup for liquid and powders

Ring holder



Spectrolab in Xray Science

XRF

FTIR

UV Vis

Raman

XRD

Atomic Absorption

Hollow cathode lamps

XRD

Microscopes

Visit our growing web site @



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