

# X-PMA

Precious Metals  
EDXRF  
Spectrometer :  
Fast, Accurate,  
Easy to Use.



Quantitative &  
Qualitative Elemental  
Analysis

Fast and  
Non-Destructive  
Analytical Method

Precious Metals

- Analysis of jewelry and precious metals such as: Au, Ag, Pd, Pt, Rh and the like
- Easy, precise and non-destructive analysis of small samples
- Down to 155 eV  $\pm$  10eV resolution
- Robust design, compact geometry
- Easy to operate due to the proprietary nEXt™ software package
- Fundamental parameters professional software
- Integrated camera for accurate sample positioning
- Small spot size down to 1mm

# X-PMA Spectrometer

Xenemetrix's X-PMA Energy Dispersive X-Ray Fluorescence (EDXRF) spectrometer offers a cost-effective solution in today's market for elemental analysis.

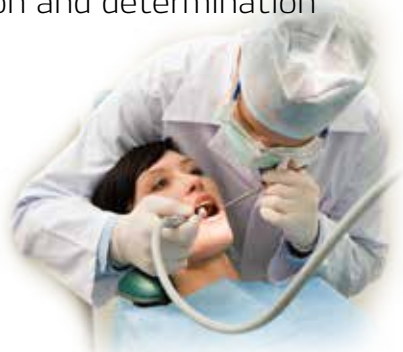
Xenemetrix's X-PMA uses a high resolution detector and a powerful X-Ray tube with variable spot sizes in order to accommodate samples of various sizes- small spot size down to 1mm- utilizing the micro spot beam.

The analyzer provides non-destructive qualitative and quantitative determination of various elements such as: gold, platinum, silver and other precious metals, which exist in the form of solid, powdered and liquid samples. No sample preparation is required.

The main advantage of using Xenemetrix X-PMA analyzer is its high precision and accuracy. With Xenemetrix X-PMA you will speed up your complete process: position the sample, running the analysis and getting results at a touch of a fingertip.

## Key applications

- Jewelry
- Watch trade
- Gold and precious metals detection and determination
- Purity detection and determination
- Sorting applications
- Recycling companies
- Dental alloys detection and determination



## Limits of Detection

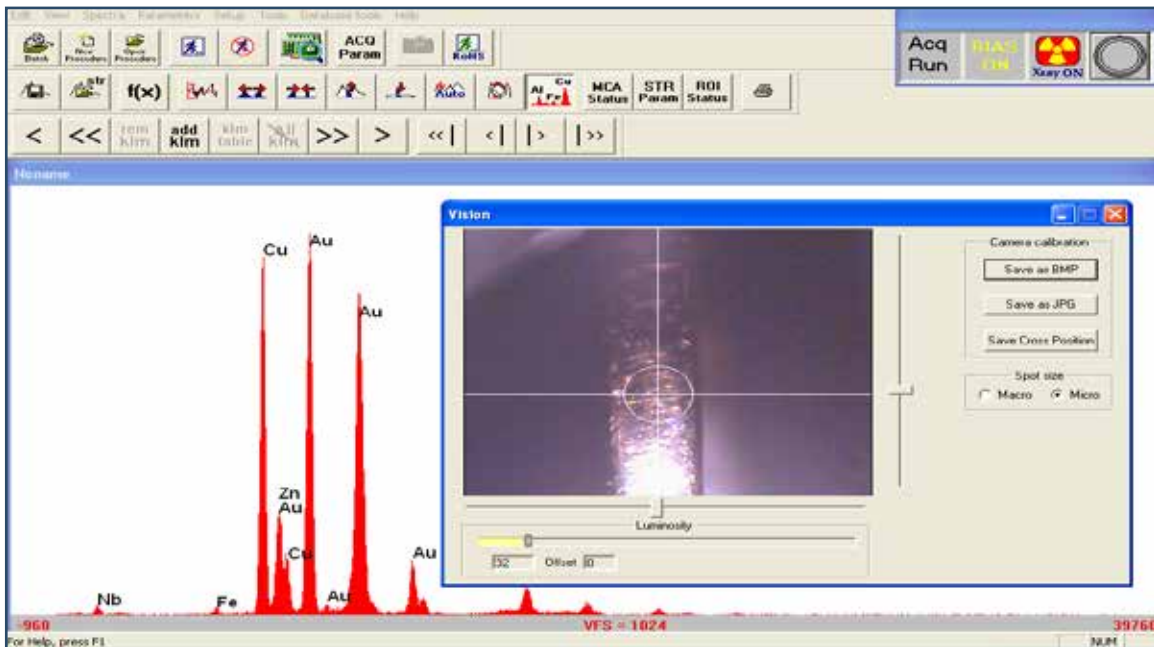
Other Applications	ppm
EPA RCRA and Pollutant Metals, Many Liquids/Oils/Fuels, Aluminum Alloys	
Cr	5-10
Cd	1-2
Ag	1
Sn	4-5
Sb	4-5
Ba	20
Pb	3-5
As	3-5
Hg	3-5
Ti	3-5
Cu	1-2
Ni	1-2
Zn	1-2
Precious Metals Exploration and Mining	
Gold (Au) in soil, sediment	3-5
Silver (Ag) in soil, sediment	1-2
Platinum Metals Group 1: Pd, Rh, Ru	1-2
Platinum Metals Group 2: Pt, Ir, Os	3-5
Rare Earth Elements	
La, Ce, Pr, Nd	15-25

# System Specifications

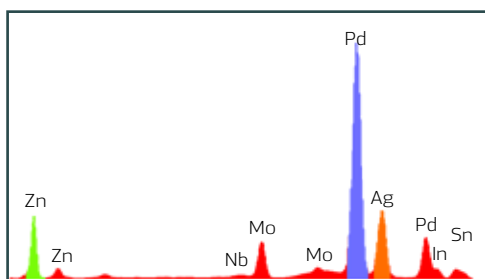
System Specifications	
Measurement Capability	
Detectable Range	Na (11) - Fm (100)
Detectable Concentration	ppm -100%
X-Ray Generation	
X-Ray Tube	Mo anode
X-Ray Source	50kV, 50W
Excitation Type	Direct with filters
Spot Size	1 mm diameter (Micro spot size)
Stability	Precision 0.1% at ambient temperature
X-Ray Detection	
Detector	Thermoelectrically cooled PIN diode
Resolution (FWHM)	155 eV $\pm$ 10eV at 5.9 keV
Window	Be
General Features	
Autosampler	1 positions chamber
Work Environment	Air
Tube Filters	6 software selectable (customized)
Power Supply	110-230VAC 50/60Hz
Pulse Processing	Digital multi-channel analyzer
Sample Holder	Designed for small pieces handling
System Dimensions (L x W x H, cm)	Unpacked: 55 x 55 x 32, Packed: 80 x 80 x 65
System Weight	50kg (net), 90kg (gross)
Chamber Dimensions	22 x 22cm, H=5cm
Computer	Integrated PC
Software	
Operating Software	nEXt™ analysis package, running under Microsoft Windows™ OS + basic fundamental parameters
Control	Automatic control of excitation, detection, sample handling and data processing
Spectrum Processing	Automatic escape peak and background removal. Automatic peak deconvolution. Graphical statistics
Quantitative Analysis Algorithms	Multi-element regression with inter-element corrections (six models available). Gross, net, fit and digital filter intensity methods
Reporting	User-customizable data print out
Options at Additional Cost	Helium purge.

# Software Environment (GUI)

Simple, Straight Forward, User Friendly nEXT™ Platform.

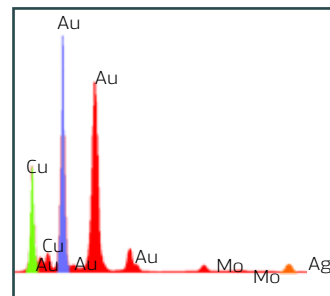


FP Analysis of Precious Alloy



Component	Conc.
Pd	60.789
Ag	23.915
Sn	10.901
In	2.885
Zn	1.430

FP Analysis of Gold 18K



Component	Conc.
Au	72.028
Ag	12.447
Cu	2.885

## Xenometrix

**Worldwide Distributions:**

North America, Latin America, Europe, Asia, Australia, Africa & Middle East

Xenometrix is a leading designer, manufacturer and marketer of Energy-Dispersive X-Ray Fluorescence (EDXRF) systems. With more than 30 years experience, Xenometrix continues to develop highly innovative technologies and solutions suitable for

today's ever-growing analytical challenges. Xenometrix combines the latest technological developments with innovative engineering, to provide cost-effective solutions to a wide range of industries and applications.

