XRF FOR NONDESTRUCTIVE PRECIOUS METALS ANALYSIS

- Jewelers
- Refiners
- Recyclers
- Cash-for-Gold
- Retail
Nondestructive Precious Metals Assay and Karat ID

Get fast, accurate analysis results with the Olympus Innov-X GoldXpert

XRF is a widely used, proven, and accepted method of chemistry analysis and karating of precious metals samples, including purity and fineness. XRF analysis provides a less expensive, quicker testing alternative to fire assay and chemical tests, and on-the-spot analysis of your silver, platinum, or other materials, making it an easy way to boost customer confidence and ensure dealer reliability.

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

The Olympus Innov-X GoldXpert XRF analyzer is an easy-to-use, cost-effective method to obtain alloy chemistry and karat classification with one nondestructive and nonintrusive test.
Great reasons to choose the Olympus Innov-X GoldXpert:

- The GoldXpert is designed to be compact, taking up minimal countertop space
- An attractive design suitable for the showroom floor
- Easy to use analyzer - karat and compositional analysis results with one push of a button
- Accurate chemistry and karat results within seconds
- Quickly and easily create result certificates (with optional PC software)
- Testing chamber window and interior lighting allows continuous sample viewing for utmost customer security
- Optional battery allows for testing on the road – take the GoldXpert with you to visit customers or vendors
- The GoldXpert can be networked for easy access to testing results as they are being generated
- Safe – the analyzer is a secure closed beam system with minimal training required (varies by country)

With the GoldXpert XRF analyzer:

- Price cash-for-gold pieces quickly and accurately
- Identify and characterize a wide range of alloys including silver, platinum, and others
- Identify poison elements in samples
- Manage quality control of refining and melting operations
GoldXpert Portable Benchtop XRF
The Compact Professional Precious Metals Testing Solution

The GoldXpert offers the best of both worlds. A handsome countertop analyzer fit for the consumer showroom environment, it can also be networked for high productivity QA/QC jobs. The large chamber door opens quickly, with a push of the large front trigger. The GoldXpert can also function as a portable analyzer, running off of a rechargeable Li ION battery pack. Compact and lightweight, weighing only 22 lbs (10 kg), the GoldXpert can be transported easily to wherever testing is needed.

**Leaded glass viewing window** - easily see sample in chamber

**Integrated camera indicating sample analysis points**

**Safe closed beam XRF system**

**Small spot collimation for analysis; ability to switch between 3-mm and 10-mm diameter spots with one push of a button**

**4 W X-Ray tube, 200 µA current (max), plus optimized beam settings for accurate analysis**

**Small desktop footprint:**
267 mm x 310 mm x 340 mm
(10.5 in x 12.2 in x 13.4 in)
(with door closed)

**LED-lit sample chamber:**
125 mm x 210 mm x 180 mm
(4.9 in x 8.2 in x 7.0 in)

**Analysis indicator light with 360° visibility**

**Portable - optional battery operation for mobile off-site use**

**USB interface port for high-speed data export and printing**

**Responsive, bright, color touch screen display**

**Silicon PIN detector system standard. Silicon Drift Detector system available for optimized precision and sensitivity.**
In Focus and On Target for Every Shot

The GoldXpert comes equipped with an integrated CMOS camera, which records sample images to memory along with analysis results for report generation.

The X-ray beam collimation is utilized for measurement of small components and samples. A simple press of a button activates the 3-mm diameter collimation, and an on-screen indicator shows the operator exactly where the analysis spot is focused. Collimation can be easily reverted to a 10-mm diameter for standard bulk analysis.

Customized Reporting

Data can be exported easily in a spreadsheet format, and memory can be accessed remotely when the GoldXpert is networked via its Windows CE operating system.

Customized result report certificates including analytical results, image of tested sample, company logo, and more, can be generated via the optional PC Software, at the click of a button.
Ease of Use You Can Rely On

The GoldXpert XRF analyzer is ideal for pawn shops, cash-for-gold operations, the jewelry industry, museums, archaeological sites, coin collectors, scrap recycling, and more.

Features and Benefits

- Powerful 4 W X-ray tube provides reliable and accurate analytical performance
- Speed – fast results within seconds
- Portability - can be powered by a compact battery for analysis on the road
- Easy and accurate measurement automatically compensates for sample shape and size
- Automatic karat determination
- Large data storage capacity for test archiving
- Easy data export and reporting for immediate certification generation
- Integrated camera and small spot collimation for focused analysis and sample image archiving

Typical Applications

- On-the-spot gold karat classification, 0-24 kt
- Identification of impurities
- Accurate compositional analysis of platinum, silver, and other precious alloys
- Detection of silver and other metal content in gold
- Verification of gold content in scrap metal
- Determination of gold and silver content in coinage
- Analysis of dental alloys
- Completely nondestructive testing method
Performance You Can Count On

In an economic environment where fast and accurate results are more important than ever, the GoldXpert XRF analyzer provides outstanding precision and accuracy. Olympus Innov-X analyzers give you the benefit and convenience of easy, on-the-spot analysis, so you can feel confident about the results for your gold and precious metal assets.

The followed accuracy and precision data was generated using a GoldXpert with a Si PIN detector system, and is representative of typical performance expected from a Si PIN base system:

- **% Au GoldXpert vs. Certified Au**
  - $y = 0.9978x + 0.0859$
  - $R^2 = 0.9999$

- **% Ni GoldXpert vs. % Ni Certified**
  - $y = 1.0323x - 0.0098$
  - $R^2 = 0.9987$

- **% Ag GoldXpert vs. Ag Certified**
  - $y = 0.9987x - 0.0166$
  - $R^2 = 0.9998$

- **Repeatability 20 sec for 22K Au**
  - Values range from 93.8% to 94.3%

- **Repeatability 20 sec for 18K Au**
  - Values range from 72.0% to 77.0%
Your Partner

Olympus Innov-X is focused on long-term partnerships with precious metal traders, refiners, and manufacturers. We understand the industry and know that our customers rely on our instruments to succeed in business. Our analyzers are engineered to be reliable and accurate, and we are committed to supporting you and your investments.

Return on Investment

XRF provides the capability to perform hundreds of analyses per day, where and when needed. XRF is nondestructive, requires little to no sample preparation, and delivers dependable results in a matter of seconds. That means immediate analysis results, when you need them. Less laboratory testing, less guesswork.

Outstanding Customer Support

From initial demonstration to identification of your testing needs, to thorough user training and fielding any questions or needs going forward, we are here to support you. We take pride in the comprehensive training offered by our support department, and in our responsiveness to customer needs. We are committed to your satisfaction.

Global Support Coverage

With offices around the world, we have local support centers to serve and assist you and your analyzers, wherever they are being utilized.