

Thermo Scientific Niton XRF Analyzers Prove Priceless for Precious Metal Recycler – The Bullion Room

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– Eamon Gaughan, Managing Director, The Bullion Room



Gold bar analysis



The Bullion Room, Birmingham, UK

Thermo Scientific Niton XL2 GOLDD Analyzer Benefits

- Accurate analysis for all precious metals and other elements of interest
- Point-and-shoot simplicity
- Reliable results in seconds
- GOLDD technology for the ultimate in sensitivity and speed
- Ruggedized with sealed construction

The Bullion Room

The Bullion Room was founded in 2004. Since opening its doors in Birmingham's famous Jewellery Quarter in the United Kingdom, it has experienced an incredible rate of growth, with additional sites opening in Manchester and Dublin. Further, the Birmingham headquarters relocated to much larger premises in March 2010. The company's rate of expansion has been so exceptional that it has gone from a "standing start" to become one of the largest privately-owned bullion dealers in Europe in just six years, handling hundreds of millions in precious metals.

Specializing in buying and refining scrap precious metal from trade sources, the company's buying center in Birmingham is capable of handling postal deliveries from relatively small clients, right up to large consignments from national chains of pawnbrokers. At its new, extended site, it also has the capacity to carry out smelting of up to one ton in a single melt.

Recognizing Value

The Bullion Room has the distinction of being the first UK operator in the precious metals sector to recognize the advantages that handheld Thermo Scientific Niton x-ray fluorescence (XRF) technology can bring to its business. The company's first instrument, a Thermo Scientific Niton XL3t analyzer, was acquired in August 2008. Utilizing advanced technology, the range of Thermo Scientific Niton instruments also includes the Niton® XL2 with GOLDD technology for improved sensitivity and speed as well as light element detection (Mg-S). The Bullion Room now uses Thermo Scientific Niton instruments throughout the organization for a variety of applications, including grading and analysis of incoming postal deliveries at the Birmingham headquarters; the provision of instant valuations at the company's customer-facing buying counter; and for checking metal purity during smelting. A key advantage of the handheld XRF analyzers is that they provide a completely nondestructive alternative to the acids and mass spectrometry techniques that were previously employed at The Bullion Room. They are also much faster and easier to use in comparison to traditional methods of assaying.

In addition to being the first UK user of Thermo Scientific Niton instruments in the precious metal sector, The Bullion Room is also unique in being the only user to date that has successfully resold these XRF analyzers to its own customers – thanks in no small part to the constant visibility of the instruments on The Bullion Room’s own premises.

Eamon Gaughan, managing director of The Bullion Room comments, “We use [Thermo Scientific] Niton x-ray ‘guns’ at every point in our internal processes, from checking bought gold at our Trade Counter to estimating the purity of bars after melting and prior to assay. As the amount of metal we buy over our counter has increased by huge volumes in a very short space of time, speed and accuracy of analysis have become essential and the [Thermo Scientific] Niton x-ray guns have helped us greatly.”

For further information on The Bullion Room please visit www.thebullionroom.com.

For more information on Thermo Scientific Niton XRF analyzers and how they can help meet your elemental analysis needs, contact your local Thermo Scientific Niton Analyzer representative or visit our website at www.thermoscientific.com/niton.



The Niton XL2 for quality assurance

The Thermo Scientific Niton XL2 GOLDD Analyzer

The Niton XL2 GOLDD analyzer provides many distinct benefits:

- Improved sensitivity and speed as well as light element analysis (Mg-S)
- Very easy to use – even by non-technical personnel
- Rugged design for real-world industrial environments
- Truly nondestructive test with near instantaneous results
- From turn on to trigger pull to results in seconds

These features make it the ideal choice to:

- Analyze metal alloys for scrap recycling or final product QC
- Carry out mining exploration and grade control
- Screen electronics and consumer goods for lead, cadmium, and other toxic metals

Technical Specifications

- Weight:* 3 lbs. 5.8 oz. (1.53 kg)
- Dimensions:* 10.25 x 11 x 4 in. (256 x 275 x 100 mm)
- Tube:* Ag anode 45 kV maximum, 100 µA maximum
- Detector:* Geometrically Optimized Large Area Drift Detector
- System Electronics:* 400 MHz ARM 11 CPU
300 MHz dedicated DSP
80 MHz ASICS DSP for signal processing
4096 channel MCA
64 MB internal system memory/128 MB internal user storage
- Display:* Fixed angle, color, touch-screen display
- Standard Analytical Range:* Up to 30 elements from Mg to U
- Data Transfer:* USB, Bluetooth™, and RS-232 serial communication
- Alloy Modes:* Metal Alloy, Electronics Alloy, Precious Metals
- Bulk Modes:* Mining, Soil
- Plastics Modes:* RoHS Plastics, Toys & Consumer Goods
Plastics, TestAll™, Painted Products
- Custom Modes:* Upon request (based on application feasibility)
- Data Entry:* Touch-screen keyboard, user-programmable pick lists, optional wireless remote barcode reader