

Thermo Scientific Portable XRF Analyzers

AuDIT Technology

Gold plating identification



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AuDIT – Gold Plating Detection System



Don't Waste a Precious Minute

For buyers of scrap gold jewelry, gold-plated pieces present significant challenges and can adversely affect profitability. We can help you meet that challenge – accurately and easily – with Thermo Scientific Au Detection & Identification Technology (AuDIT™). AuDIT is a proprietary plating detection technology developed for, and only available on, Thermo Scientific portable x-ray fluorescence (XRF) analyzers, including the Thermo Scientific Niton DXL and Niton® XL2 precious metal analyzers. This breakthrough software feature comes standard on any of our handheld or desktop analyzers that are calibrated for precious metals analysis. Several independent, complementary methods in the software work in tandem to alert you to the probability that an item is plated.

Quickly Detect Gold Plating

The primary patent-pending technology is used as the first test for gold-plated items. If this test fails, you can be relatively certain that the items are, in fact, plated.

This method works regardless of the gold concentration of the plated surface layer. If this initial test fails, “Gold Plate Probable” is displayed and highlighted on the screen.

30 - 10/05/12 13:34 - 3.5s

NAV Tools

Gold Plate Probable

12.1 Kt Gold

Au	50.5	1.1
Cu	39.5	0.9
Zn	6.3	0.4
Ag	3.3	0.3

<-- Main -->

With patent-pending AuDIT technology, now there's an plating with a simple push of a button or pull of a trigger

Available exclusively on
Thermo Scientific portable
XRF analyzers



Other tests are conducted simultaneously to warn users that something is “off” in the analysis of the sample.

These are considered secondary tests and will warn you only if the initial test passes. These tests include, but may not be limited to, the following:

1. High nickel (Ni) content, which can indicate presence of a Ni boundary layer between the substrate and plated surface
2. Low karat values
3. Non-standard karat values (readings significantly different than, 9, 10, 14, 18, 22, and 24 karat gold)

NAV Tools		
Gold Plate Not Detected		
18.0 Kt Gold		
Au	75.0	0.6
Ag	11.9	0.3
Cu	11.0	0.3
Zn	2.1	0.1
Main		

NAV Tools		
Non-Standard Karat		
16.4 Kt Gold		
Au	68.2	0.6
Cu	21.4	0.3
Ag	10.0	0.2
Pd	0.3	0.0
Main		

What's Under Your Plate

For more information on how AuDIT gold-plating detection technology can help you save time and costs, please contact your local Thermo Scientific Portable XRF Analyzer representative or visit our website at www.thermoscientific.com/niton.

easy way for gold-buying operations to detect gold



For more information, visit www.thermoscientific.com/niton or talk with your account representative.

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