

# MARK II THE GOLD JUDGE

## Benchttop Gold Analyzer

*Fast | Accurate | Trusted*



# SAY GOODBYE TO HARSH ACIDS



NAPCO Mark II Benchtop Gold analyzer offers a rapid and remarkably precise method for assessing karat or gold content, serving quality control, pricing, and practical utilization needs. It empowers users to conduct an immediate, cost-efficient, and entirely nondestructive examination to ascertain gold content and authenticate alloy composition.

Beyond gold, the device delivers exceptional performance for various other valuable metals of significance. The analyzers are equipped with a comprehensive precious metals suite encompassing elements such as Cr, Mn, Fe, Co, Ni, Cu, Zn, Ir, Pt, Au, Rh, Ru, Pb, Bi, Zr, Pd, Ag, Sn, Sb, Cd, In, Ga, Ge, and W. ( Plus Os for SDD detector)

In a matter of seconds, you can accurately measure the precise content of precious metals in jewelry, coins, and other valuable items using the Mark II benchtop gold analyzer.

## BENEFITS OF MARK II

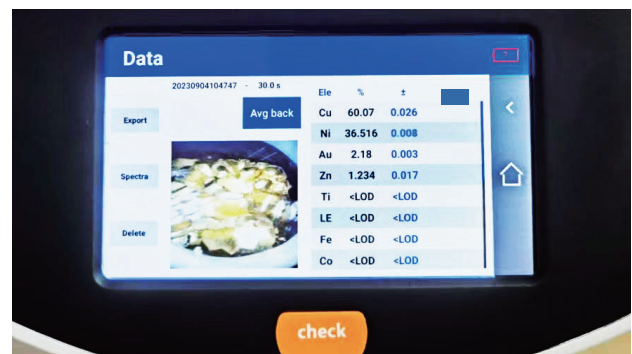
**Remarkably fast and user-friendly** – Just close the lid and press a button. Within seconds, you'll see results displayed on a vibrant touch-screen color monitor. No need to handle harsh chemicals or acids that could cause burns, damage attire, and harm surfaces. Additionally, an optional small-spot focus enables the isolation and testing of small components, while the built-in CCD camera simplifies precise sample positioning.

**Reliably accurate and precise** – Achieving fire assay comparable outcomes, the analyzer helps prevent losses resulting from the acquisition of under-karated or counterfeit materials.

**Designed for practicality** – Tailored for retail environments, NAPCO Mark II precious metal analyzers are factory-calibrated and ready for use upon arrival. The closed-beam design ensures no x-ray exposure to customers or operators, and LED-illuminated sample chambers are visible through front and rear windows, assuring customers that their items never leave their sight during analysis.

**Detection of gold plating** –Efficient to tackle the challenge of identifying gold-plated items, including gold-plated silver, gold-plated copper, steel, tungsten, and other non-gold substrates.

**Non-destructive** – In contrast to destructive testing methods like acid and fire assay, the tested samples remain intact and unharmed, preserving their original state.



**MARK II detected low-value gold-plated jewelry with a gold concentration of around 2%**

# FEATURES OF MARK II

- Allow user to operate independently or connected to a computer
- Enables coating/plating detection to distinguish counterfeit gold or gold-plated jewelry.
- Extremely fast and easy to use – read results in seconds from the bright color touchscreen display.
- Avoid using any harsh chemicals or acids that can burn fingers, ruin clothing or damage counters. Compared with the nitric acid detection method, it is simpler, faster and more accurate. Compared with the fire assay gold method, it is faster and more comprehensive, and has comparable accuracy.
- Compact design does not take up much space on the table or counter
- Ergonomic design, equipped with LED lighting, easy to operate in jewelry stores, (accessory)
- Rear view lead glass keeps analytical sample in sight
- Precise determination of the presence and amount of other trace alloying elements and harmful heavy metals (Cd,Pb,In...) elements that may affect value and future refining needs.
- Built-in dual CCD cameras can easily realize precise positioning of samples (two functions).
- Optional small spot collimator (3mm, 10mm) can be used to detect smaller samples.
- Optional external portable printer, external balance, display, etc.
- Battery operated, portable

Data

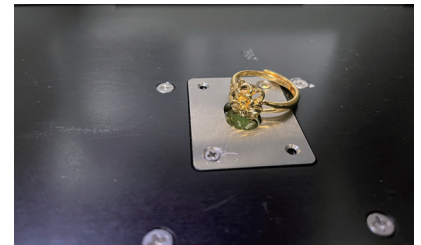
75

20230822110525 - 30.0 s

18 K

Avg back

Ele	%	±
Au	75.964	0.048
Cu	15.8	0.019
Ag	4.834	0.005
Zn	3.092	0.009
Pt	0.31	0.028
Ti	<LOD	<LOD
LE	<LOD	<LOD
Fe	<LOD	<LOD
Co	<LOD	<LOD
Ni	<LOD	<LOD
Hf	<LOD	<LOD



# APPLICATIONS

- Jewelry Retailers and Manufacturers
- Pawnshops and Cash-for-Gold Operations
- Precious Metal Refiners
- Bullion Dealers and Traders
- Archaeologists and Museums
- Analytical Laboratories



# PRODUCT SPECIFICATIONS

Model	MARK II
Weight	7.76 kg (including battery)
Dimension	320mm*390mm*380mm(length * width * height)
Sample chamber	280mm*220mm*160mm(length * width * height)
Excitation	high-performance 4W micro X-ray tube, silver target 50kV/80μA (maximum)
Detector	Imported high-performance semiconductor silicon detector, resolution <140eV fwhm at Mn Ka
Filter	Smart Multibit
Window	Kapton window, carbon fiber anti-puncture window (optional)
Battery	7.2V Li-ion battery
Display	Large-size capacitive intelligent touch color LCD display (5 inches 720P)
System Electronics	i.MX 8M Mini quad core 1.8GHz DP5 Digital Signal Processor 80 MHz ADC digital signal processor 4096-pixel multi-channel analyzer DDR4 2GB
Collimator	small point 1mm/2mm collimator switch
Analytical elements	Ag, Pd, Rh, Ru, Au, Pt, Ir, Zn, Cu, Re, Ta, Hf, Ni, Co, Fe, Ti, Cr, Mn, Pb, Bi, Zr, Sn, Sb, Cd , In, Ga, Ge, W, Os, etc., can be added if there is a need for special elements
Exceeding the standard prompt	When the harmful elements in the detected sample are higher than the normal value, the instrument will have an exceeding standard prompt
One-key measurement	When the sample needs to be measured for a long time, the "one-key measurement" mode can be selected to prevent the operator from pulling the trigger for a long time and protect the operator to the greatest extent
Data input	touch screen keyboard, user can customize data input
Advanced data storage	8GB memory, can store 100,000 pieces of data
Data transmission	WiFi、USB
Security protection	Multiple passwords protect user data security
Structural design	The integrated design of engineering plastics and aluminum alloy conforms to the best ergonomic principles; the unique internal Super Heatsink heat dissipation design can provide the best heat dissipation effect
Camera (optional)	Integrated CCD microscopic and macroscopic camera with auto-focus lens for positioning and recording the position of the measuring point
OS	Android
Software	NAPCO Software
Language	Chinese, English, Russian
Certifications/Compliance	CE, RoHS, IP54 (splash proof, dust proof)

# Unveil the True Value of Gold with NAPCO Benchtop Gold Analyzer. Contact Us Today to Learn More!

## PERFORMANCE YOU CAN TRUST

NAPCO Mark II benchtop gold analyzer is offered in two versions: the standard Mark II and the high-performance Mark II Plus. The standard Mark II features a Si-PIN detector that delivers exceptional precision and sensitivity for most scenarios. On the other hand, the high-performance Mark II Plus boasts an advanced silicon drift detector, enhancing precision and sensitivity.

The high-performance Mark II Plus model provides a twofold enhancement in precision and sensitivity compared to the standard variant, resulting in superior detection limits. This model is particularly recommended for refiners requiring rapid reading times and the highest level of analytical accuracy. The standard Mark II benchtop gold analyzer, however, is well-suited for general karat assessment and trading purposes.



## ACCESSORIES



### LED spotlights

Low energy consumption  
Long lifespan  
Ultra high color rendering



### Sample holder

Fixed irregular sample

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