



The Handheld Alloy Analyzer (XRF) is a crucial tool for the hightemperature and high-pressure industries, such as boilers, containers, pipelines, and manufacturing, enabling the identification of material reliability during the production process, known as Positive Material Identification (PMI). It plays a significant role in the identification of metal materials in key national projects, including steel smelting, nonferrous metals, aerospace, weapons manufacturing, submarines, and ships. In the production processes of industries like petrochemical refining, fine chemicals, pharmaceuticals, power plants, aerospace, and engineering installation, the device ensures the identification of metal materials, thereby ensuring equipment acceptance, material acceptance, and meeting the specified requirements of the projects.

It is a powerful tool in the recycling industry for identifying metals in the recycling of scrap metal. Widely used in on-site scenarios such as quality control, material classification, alloy identification, safety precautions, and accident investigations. The handheld alloy analyzer provides a rapid analysis of alloy grades, metal components, and addresses the fundamental challenges in industrial raw material analysis. It integrates cutting-edge research and innovation, serving as a powerful tool for identifying metal materials during the production process. Users can also customize a personalized analysis system based on their specific needs.

Technical **Specifications**



	Detector	Si-PIN Detector Module / High-performance Silicon
	X-ray Source	45KV/200uA - Integrated Micro X-ray Tube and Hig
	Element Detection Range	Elements with atomic numbers from sulfur (S) to ura uranium (U)
	Detection Target	Solid
	Analysis Method	Direct Reading Analysis + Fundamental Parameters
	Software	Remote Control System, operable via software on bo data synchronization across multiple platforms (instr and report printing. The instrument client allows sen
	Weight	≤1.75KG (including battery)
	Microcomputer Display System	1.Semi-transparent semi-reflective industrial-grade of 2.Resolution 1080*720
	Power Supply	Rechargeable lithium battery, standard 6800mAh, vo
	Charging Mode	Power supplied through a universal adapter
	Collimator, Filter	1, Special radiation-resistant collimator with an inner 2, No filter, eliminating the need for switching time;
	Front-End Test Window	≤9mm*5mm "waist" window
	Camera	Built-in 5 million pixels high-definition camera funct management
	User Management	Multi-level user management function (multiple accortaceability)
	Protective Cover	The instrument comes with a protective cover, with a configuration)
	Material Sensing Instrument Status Indication	1. The body has material sensing function, intelligen 2. Smart status indicator light, displaying three work flashing indicates no test object in front, green long l
	Test Report Transmission Method	Data Transmission Methods: Email sending, Bluetoo
	Data Transmission Method	Wifi, Bluetooth
	Maintenance Method	Remote software upgrades and diagnostics, on-site m
	Operating Environment Temperature, Humidity	Humidity ≤90%, Temperature -20~60°C
	Safety	 Instrument side measurement value ≤0.2uSv/h (aff Note: The supplier must provide a copy of the "Hand metrology institution or a national-level testing center Multiple safety protections, no radiation when not Radiation level during operation is far below nation
		the absence of a sample
	Accessories	1. Three-proof military-grade protective box with wa 2. Testing software for instrument, PC, and mobile

aterproof, dustproof, and shockproof functions. device, each set. 3、Rechargeable lithium battery *2, 4. Universal battery charging adapter *1

Optional Accessories: Base-type testing bracket, protective cover



Drift SDD Detector Module

gh-voltage Source with Silver or Tungsten Target Window

anium (U) / Elements from magnesium (Mg) to

(FP) Method

oth PC with Windows system and mobile devices with Android system, achieving ument, cloud). The software includes functions like data analysis, spectrum display, ding analysis reports via email.

customized touch screen ≥5 inches

oltage: 7.2V; continuous working time up to 8 hours

diameter of 3MM software deducts background interference

tion, convenient for photographing the tested objects for

ounts can be created, corresponding to individuals for easy management and data

calibration, radiation protection, and damage prevention functions (non-standard

tly identifying whether there is a test object in front ing states through the indicator light (red flashing indicates testing, green ight indicates a test object in front)

oth synchronous transmission, software synchronous transmission

aintenance, diagnostics

ter deducting background) theld X-ray Analyzer (Leakage) Report" issued by a nationally authorized legal er in the response document

testing

onal safety standards, with the function of automatic shutdown of the X-ray tube in



Technical Specifications

Handheld Spectrometer	A461	A561	
Weight	≤1.75KG (including battery)		
Dimensions	245(L)X91(W)X319mm(H)		
Excitation Source	45KV/200uA - Integrated Micro X-ray Tube and High-	voltage Source with Silver or Tungsten Target Window	
Detector	Si-PIN Detector Module	SDD Detector Module	
Display	1 Semi-transparent semi-reflective industrial-grade customized touch screen ≥5 inches 2 Resolution 1080720		
Standard Analysis Range	Elements from sulfur (S) to uranium (U)	from magnesium (Mg) to uranium (U)	
Data Transmission	3G/4G, wired connection, WiFi, Bluetooth		
Safety Protection	Password Protection		
Standard Analysis Mode	Alloy Mode		
Data Input	Touch Screen, Keyboard		
Battery	Rechargeable lithium battery, standard 6800mAh, volta	age: 7.2V; continuous working time up to 8 hours	
Standard Accessories	 Three-proof military-grade protective box with Testing software for instrument, PC, and mobile Rechargeable lithium battery *2 Universal battery charging adapter *1 	h waterproof, dustproof, and shockproof functions ile device, each set	

• Scrap Recycling and Sorting

Scrap Metal Recycling and Reutilization involves on-site analysis, testing, and sorting of a diverse range of alloy types and materials. It enables swift and reliable judgments for both buyers and sellers during transactions.

• Application Fields and Safety Standards (Power Plants, Machinery, Petrochemicals, Military, etc.):

Alloy Material Identification (PMI) for incoming material inspection; Inventory material management; Installation material reinspection to prevent serious safety accidents in industries such as petrochemical construction, metal smelting, pressure vessels, power plants, petrochemicals, fine chemicals, pharmaceuticals, casting, aerospace, etc., caused by mixing or using unqualified materials. Ensures the safety of process equipment materials.Adheres to industry and international standards such as the American Society for Testing and Materials (ASTM), Chinese National Standards (GB), Unified Numbering System (UNS), Power Industry Standards (DL), American Petroleum Institute (API), Japanese Industrial Standards (JIS), Good Manufacturing Practice (GMP), Technical Supervision Guidelines (TSG), Machinery Industry Standards (JB), and other relevant standards.

• Quality Control and Quality Assurance (QC/QA) and Effective Error Prevention (PKKA-YOKE):

In the metal processing and manufacturing industry, quality control and quality assurance (QC/QA) for materials (raw materials), semi-finished products, and finished products, along with effective error prevention (PKKA-YOKE), are essential. The use of mixed or unqualified materials can lead to significant losses for businesses. From small metal material processing factories to large aircraft manufacturers and various manufacturing industries.

• Data Processing and Enterprise Resource Planning (ERP):

Data transmission is facilitated through various methods such as WIFI, wireless Bluetooth, and files can be sent via email, Bluetooth synchronous transmission, and software synchronous transmission.



Product Advantages:







	More convenient operation
	Better performance
[4	More power
\bigcirc	Higher-end configurations
	More secure protection
\bigcirc	Smarter software