KT-100S™

Cutting-edge Laser-based Metal Alloy Analysis

RELIABILITY PRECISION ACCURACY

Rigaku
Analytical Devices

KT-100S™

Cutting-edge Laser-based Metal Alloy Analysis

OVERVIEW

Integrating proprietary laser induced breakdown spectroscopy (LIBS) technology, the unique features and advantages of the KT-100S™ handheld LIBS metal analyzer include:

- **Smallest & Lightest Handheld LIBS**
  Sort All of Your Common Alloys with Ease
- **QuickID™ Software**
  Identify More in Less Time
- **10+ hour Battery Life**
  Avoid Unscheduled Downtime
- **Durable, Tested Design**
  Built for Your Environment

APPLICATIONS

Scrap Metal Recycling

Scrap metal recycling has become one of the most financially valuable segments in the metal production process around the globe. Depending on the alloy grade, materials and parts leftover from manufacturing can be found in scrap yards that will be sorted and later sold to smelters. These metal parts can have huge monetary worth and has led to a significant increase in the demand for better identification methods to sort metal more accurately.

Metal Fabrication

Verification of alloy grades, including aluminum alloys, is imperative during any type of metal fabrication. Fabrication and machine shops prepare and assemble various raw materials using different processes. Analysis of incoming raw materials, during manufacturing, and even of finished goods is critical, as even the smallest component could have detrimental effects if the incorrect metal type is used.

Positive Material Identification (PMI)

Petrochemical, petroleum and power plants have put more stringent positive material identification (PMI) programs in place, to avoid disastrous, even tragic accidents. To ensure safety, it is absolutely imperative that before any metal component is used in the construction or repair of an industrial plant, that the alloy composition is established. Further, verifying metal alloy composition is also crucial for metal alloy already installed with a plant. API RP 578, 3rd edition details the use of LIBS for PMI.

1 

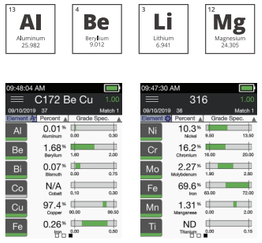
Laser "On" Indicator
Know when the instrument is operating

2 

Tilt Screen
For easy viewing in any lighting, in any position

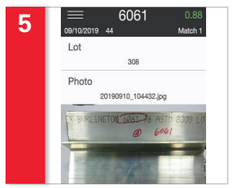
3 

QuickID™ Software
Easily customize your results layout and eliminate guesswork



4 

Slotted Aperture / Safety Window
Slotted aperture allows for easy alignment and analysis of small samples, while thick safety window keeps dust, scrap, debris and dirt out.

5 

Macro Camera
On-board camera for capturing / storing images or barcodes

6 

Large Button Navigation
Use while wearing work gloves

7 

USB / WiFi Connectivity
Easy transfer of data and/or PDF reports from anywhere on your network or mobile hotspot

8 

Trigger / Quick Launch Buttons
Single touch trigger / navigation buttons at your fingers

9 

Contoured Handle
Comfortably handle your lightweight KT-100S all day, every day

10 

Unique Kick Stand
For optimum viewing and grabbing position

11 

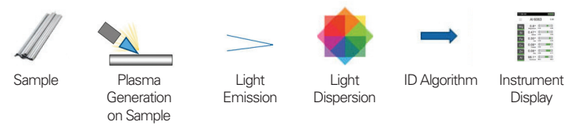
Rechargeable Li-ion Battery & IP-54 Sealed Compartment
Easy to open and close battery compartment for quickly swapping your battery

LIBS TECHNOLOGY

The Rigaku KT-100S utilizes cutting-edge LIBS technology in the most advanced handheld platform ever designed. In seconds,the powerful and highly focused laser engine of the KT-100S ablates a small amount of your sample, creating a plasma. By analyzing that plasma, the KT-100S measures the chemical composition and with its best-in-class identification algorithm, determines the grade ID of your sample. The collection of this plasma on the same axis allows the KT-100S to have the smallest footprint versus other similar devices. The intuitive user interface of the is designed for maximum convenience and productivity. After powering on and logging in, the KT-100S is immediately ready for analysis.

Handheld LIBS Benefits:

- **FAST** testing times
- **SUPERIOR** light element capabilities – especially Al alloys
- **NO** radiation licensing
- **LITTLE TO NO** sample preparation



KT-100S ADVANTAGES over XRF

	KT-100S LIBS	XRF
Analysis of stainless, high temperature and non-ferrous alloys, including Al alloys in < 3 seconds	●	
Ruggedized (MIL-STD-810G and IP-54) package with no susceptible sensitive components (x-ray tubes, x-ray detectors)	●	
Low cost of ownership over lifetime of device	●	
Minimal regulatory headaches	●	
Analysis of light elements including Be and Li	●	
Analysis of Mg in Al down to 200ppm	●	

ACCESSORIES

Our transformation of metal analysis continues. Beyond the superior identification analytics and ruggedized form factor, the KT-100S adapts to provide convenience for any industrial environment with the following:

Docking Station

Continuously charge the analyzer battery and store in a secure location when not in use

Holster

Safely maneuver around the facility with the ability to easily withdraw for immediate use

Li-ion Batteries

Benefit from 10+ hours of continuous operation

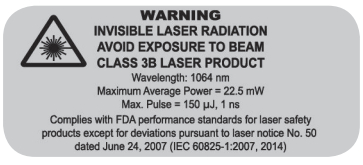
Aluminum & Stainless Check Samples

Verify the instrument's calibration is accurate

SUPPORT

The KT-100S is backed by a global network of sales and service support partners of Rigaku, offering installation, preventative maintenance and prompt service support. We have been developing both laboratory and field equipment for many years and the combination of our expertise and the quality of our instruments is well known within the scientific instrumentation space. Having built a solid reputation in the analytical world, we are confident that we can firmly establish the Rigaku KT-100S as the premier solution for handheld metal identification in industrial applications.

Our global customer support team is ready to provide you with assistance, wherever you are.



Rigaku Analytical Devices is leading with innovation to pioneer a portfolio of handheld and portable spectroscopic analyzers for use in the protection of public health and safety, aid in the advancement of scientific and academic study, enable the recycle and reuse of metal alloys, and ensure quality of key metal alloy components in mission critical industries. Our core goal is to be recognized globally for quality, reliability and expertise in all aspects of our business through our commitment to exceed our customer's expectations by providing technologically advanced products.

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