Human Eye Safe Portable Handheld LIBS Analyzer for Detection of Aluminum Based Metal

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: CE ISO9001
- Model Number: LB1000S
- Minimum Order Quantity: 1PC
- Price: Negotiable
- Packaging Details: International Shipping Pakcage
- Delivery Time: 30 working days
- Payment Terms: T/T
- Supply Ability: 100 PCS PER MONTH

Product Specification

- Laser Wavelength: 1535nm
- Laser Safety: Class1
- Spectral Range: 180nm ~ 460nm
- Touch Screen: 5" Color Touch Screen
- Weight: Around 1.9kg
- Working Temperature: -10 ~ +40
- Highlight: **Intelligent Recognition LIBS Metal Analyzer**,
  Intelligent Recognition libs analyser,
  LIBS Metal Analyzer 1535nm

More Images

Handheld LIBS Analyzer for Detection of Aluminum Based Metal

JINSP LB1000S is quick, accurate, and comprehensive! With just 5 seconds, the LB1000S, which utilizes eye-safe lasers, can reveal the precise content of alloy elements in the metal matrix for you. No cumbersome pretreatment is required, goodbye to complicated sample processing procedures!

Simply grind the surface of the matrix to expose a testing plane with a diameter of about 5mm, and you can easily start the analysis. Easy, simple, and efficient, allowing you to quickly obtain results on-site!

Choosing us is the perfect combination of safety, efficiency, intelligence, accuracy, compatibility, lightness, and portability! Let your inspection work become easier and more relaxed!

Technical Specifications:

Detection Alloy Matrix	Aluminium based elements: Al, Si, Fe, Cu, Zn, Mg, Mn, Ni, Cr, Ti, Pb, Sn Iron based elements: Fe, Cr, Ni, Mn, Si, Ti, Cr, Mo, V, Co Copper based elements: Cu, Zn, Mn, Al, Ni, Pb, Sn, Fe
Spectral range	180nm ~ 460nm
Laser wavelength	1535 nm, much safer for human eyes
Laser safety	Class1, the lowest risk among all the laser classes
Display screen	5.0-inch capacitive touch screen
Memory	16Gb
Working environment	Temperature: -5 to 40 . Humidity: ≤95%RH, no condensation
Sample types	Bulk solids, cylinders, sheets, wires with a diameter of 1mm or larger, thin slices, large blocks, lines, particles
Communication mode	4G, Bluetooth, WIFI
Operating time	8 hours

Element Detection Range:

1	Aluminium based		
Main Element	LOD (ppm)	LOD %(Min)	LOD %(Max)
Fe	2000	0	1
Si	500	0	8
Zr	2000	0	8
Pb	2000	0	1
Cu	500	0	10
Zn	1000	0	2
Mn	1000	0	0.1
Ni	500	0	0.1
Ti	500	0	0.1
Mg	500	0	18
Sr	500	0	0.1
Sn	1000	0	0.1
Cr	500	0	0.1
Sc	500	0	0.1
Be	20	0	0.01
Ag	500	0	0.5
Al		Balance	Balance

2	Copper based		
Main Element	LOD (ppm)	LOD %(Min)	LOD %(Max)
Al	800	0	8
Si	1500	0	0.5
Pb	500	0	5
Zn	800	0	40

Mn	500	0	13
Ni	2000	0	28
Fe	1000	0	5
Sn	2000	0	0.5
Co	1500	0	2
Nb	300	0	0.5
Cr	800	0	1
Cu		Balance	Balance

3	Iron based		
Main Element	LOD (ppm)	LOD %(Min)	LOD %(Max)
V	1000	0	2
Al	1000	0	1
Si	5000	0	3
Cu	3000	0	3
Co	1500	0	13
Mn	1000	0	22
Ni	5000	0	40
Ti	1000	0	1
Mo	1000	0	6
Cr	5000	0	22
Fe		Balance	Balance

Technical Features:

Safe and worry-free: Using 1535nm CLASS 1 eye-safe lasers completely eliminates the hidden dangers of X-ray ionizing radiation. The externally limited device is carefully designed to effectively prevent laser misfiring, ensuring the safety of every user.

Efficient and prompt: Whether it's thin sheets, large blocks, lines, or particles, we can quickly respond to various shapes of metals. Detection results can be issued within 5 seconds on site, making your workflow smoother and without any waiting.

Intelligent recognition: Automatically identify the type of metal matrix to avoid human error and make the detection results more accurate. Additionally, the device integrates Beidou positioning, 4G/5G, and WIFI networking capabilities, allowing you to upload detection data to the business system in real time regardless of your location.

Accurate and reliable: With full-element detection capabilities, it also demonstrates excellent detection results for light elements such as Al, Mg, and Si. This meets the precise analysis requirements of various industries, providing strong support for your business.

Wide compatibility: Capable of detecting aluminum-based, copper-based, and iron-based matrices, it can perform quantitative analysis of various alloy elements such as Cr, Ni, Ti, V, Mn, Mg, etc. We also provide matrix customization services to meet your specific needs.

Applications:

Recycled metal recovery
Utilization of recycled metals
Mineral exploration

Handheld LIBS Element Analyzer

Make element analysis simpler,
more efficient,accurate, and safer!

LB1000S

Product Characteristics

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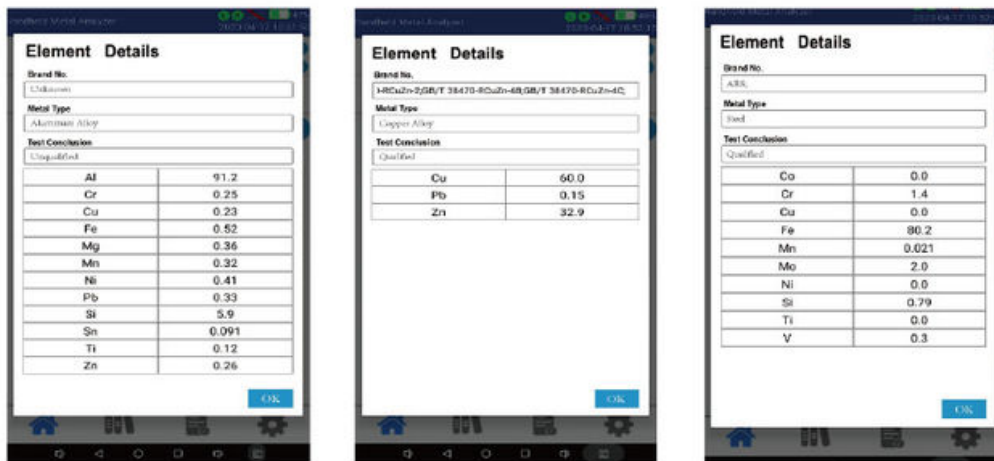
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Wide compatibility

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· It can be used for grade identification and element analysis in the recycling of scrap steel, scrap aluminum, and other recycled metals, helping customers achieve efficient utilization of recycled metal resources and enhance the value of recycled metals.

· It can play a role in the incoming inspection of recycled metals, control of critical processes during smelting, and material reliability identification (PMI), ensuring the quality of incoming raw materials and outgoing metal products.

· Used in mineral exploration, it helps users quickly understand the abundance of ores and detect the ore grade during mining, reducing dependence on minefield laboratories and improving the ability to control underground ore grade.

Element Details

Brand No.
Unknown

Metal Type
Aluminum Alloy

Test Conclusion
Unqualified

Al	91.2
Cr	0.25
Cu	0.23
Fe	0.52
Mg	0.36
Mn	0.32
Ni	0.41
Pb	0.33
Si	5.9
Sn	0.091
Ti	0.12
Zn	0.26

OK

Element Details

Brand No.
HRCuZn-2;GB/T 38470-RCuZn-6B;GB/T 38470-RCuZn-4C

Metal Type
Copper Alloy

Test Conclusion
Qualified

Cu	60.0
Pb	0.15
Zn	32.9

OK

Element Details

Brand No.
A3S;

Metal Type
Steel

Test Conclusion
Qualified

Co	0.0
Cr	1.4
Cu	0.0
Fe	80.2
Mn	0.021
Mo	2.0
Ni	0.0
Si	0.79
Ti	0.0
V	0.3

OK

Application Scenarios

Recycled metal recovery

Mineral exploration

Utilization of recycled metals

Company Introduction:

JINSP Company Limited, abbreviated as "JINSP", is a professional supplier with over 17 years of experience in spectral detection technology products, including Raman, FT-IR, LIBS technologies, etc. After 17 years of technology accumulation, the company's core key technologies have reached the international leading position at the level, and the cumulative number of patent applications exceeded 200.

JINSP offers over twenty spectroscopic products across various fields, including pharmaceutical and chemical industries, public security, and customs. Products are available nationwide and are exported to over 30 countries, with cumulative sales exceeding 3,000 units.
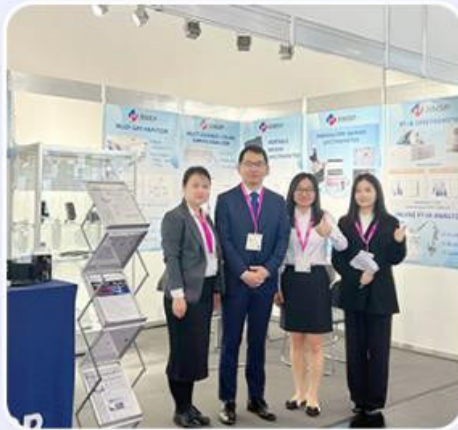
Benefit from 30+ R&D engineers, including 4 Ph.D., JINSP is deeply rooted in the field of personalized product customization, and is committed to meeting the diverse and unique needs of customers with excellent professional technology and innovative design capabilities.

We uphold the core value of "customer-centric" to ensure that every customer can enjoy unprecedented flexibility and personalized experience. From the initial concept to the final product, we work closely together to ensure that every detail is accurately aligned with customer expectations, and together create exclusive products that exceed expectations.

Company Profile

Exhibition

Support and Services:

The Handheld Element Analyzer product provides technical support and services to ensure that customers receive the highest level of performance from their analyzer. Our team of experts is available to assist with any technical questions or issues that may arise. Services include:

Installation and setup assistance

Training and Education

Maintenance and repair

Calibration and certification

Software updates and upgrades

Our goal is to provide fast and reliable support to minimize any downtime and help customers get the most out of their analyzer. Contact us to learn more about our technical support and services.

Certifications

FAQ:

Q: What is the brand name of this handheld element analyzer?

A: The brand name of this product is JINSP.

Q: What is the model number of this handheld element analyzer?

A: The model number of this product is LB1000S.

Q: Where is this handheld element analyzer made?

A: This product is made in China.

Q: What is the minimum order quantity for this handheld element analyzer?

A: The minimum order quantity for this product is 1 piece.

Q: What is the price of this handheld element analyzer?

A: The price of this product is negotiable. Please contact us for more information.

Q: What are the payment terms for this handheld element analyzer?

A: The payment terms for this product are T/T.

Q: What are the packaging details for this handheld element analyzer?

A: The packaging details for this product are 1 piece per box.

JINSP Company Ltd.

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