IP54 WATERPROOF | LASER CLASS CLASS I | EYE SAFE LASER | NO RADIATION

HANDHELD LIBS SPECTROMETER
CODE HLS-B410

test interface

- LIBS is used to analyze elemental composition by focusing high-energy pulses onto the surface of a sample and generating a plasma after exciting the electrons in the outer layers of atoms
- Widely used in metallurgy, casting, iron and steel, non-ferrous metals and scrap metal recycling industry, can be a variety of elements of the material rapid quantitative and qualitative analysis and alloy grade identification
- Can accurately analyse light elements such as Al, Be, Mg, etc.
- Direct analysis of solid samples is a powerful tool for rapid screening and is compatible with alloy samples of various shapes
- Radiation-free, faster, more accurate, eye-safe handheld spectrometer
- Built-in grade database, you can create your own grade database
- Lightweight and portable, long standby time, worry-free battery life
- IP54 dust/waterproof

wavelength calibration foil (included)

iron base calibration foils (included)

aluminum base calibration foils (included)

copper base calibration foils (included)

STANDARD DELIVERY

Main unit	1 pc
Battery	2 pcs
Charger	1 pc
Sanding paper	20 pcs
Iron base calibration foils	2 pcs
Aluminum base calibration foils	2 pcs
Copper base calibration foils	2 pcs
Wavelength base calibration foil	1 pc

SPECIFICATION

Application	**alloy analysis**	Can be used for almost all alloys, including scrap metal, high temperature alloys, alloy steel, stainless steel, tool steel, chromium molybdenum steel, aluminum alloys, nickel alloys, titanium alloys, cobalt alloys, cupric alloys, precious metals, zinc alloys, anomalous alloys, au-zirconium alloys, mixed alloys, etc.
	material properties identification (PMI)	Can be used for quality control in the metal fabrication and processing industry to analyze material composition and identify alloy grades for a wide range of materials including critical missing pieces, raw materials, and welded seams
Operative system		android
Touch panel		5", 720×1280, Multi-Touch, adjustable brightness
Light source		pulsed laser
Wavelength		1535nm
Laser life		1 billion times
Laser class		class I
Detection limit		0.05%
Repeatability		major element RSD<1%, nonmajor element RSD<5%
Analysis time		<5s
Work distance		fit to probe plane
Analysis environment		no protective gas required, direct analysis in ambient air
View window material		sapphire
Memory		16G
Data export format		PDF, xlxs (photos available)
Data transmission		USB, flash drive (type C)
Protection class		IP54
Battery		3300mAh lithium battery
Work time		8h
Power		10W
Operation temperature		-10~40°C
Dimension (L×W×H)		290×300×90mm
Weight		1750g

STANDARD DATABASE

Alloy type	Elemental range
Iron Alloy	Fe, Cr, Ni, Mn, Cu, V, Mo, Si, Ti, Co, etc.
Aluminum Alloy	Al, Cr, Ni, Si, Mg, Ti, Fe, Cu, Sn, Pb, Zn, Zr, Be, Sr, Sc, etc.
Copper Alloy	Cu, Fe, Al, Mn, Sn, Pb, Zn, Ni, etc.

OPTIONAL DATABASE

Alloy type	Database number	Elemental range
Nickel Alloy	**A1**	Ni, Cr, Fe, Nb, Mo, Ti, Al, Mn, Cu, etc.
Titanium Alloy	**A2**	Ti, Al, V, Fe, Cr, Mo, Sn, Mn, Zr, Nb, Si, Cu, etc.
Magnesium Alloy	**A3**	Mg, Si, Cu, Mn, Zn, Zr, Al, Y, Be, Ni, Fe, etc.
Au	**A4**	Au, Ag, Zn, Ni, Pd, Cu, Co, In, etc.
Ag	**A5**	Ag, Cu, Zn, Cd, Ni, etc.
Pt	**A6**	Pt, Pd, Ag, Cu, Ni, Zn, Co, Ru, Pb, Cr, Au, etc.
Pd	**A7**	Pd, Cu, Ni, Zn, Fe, Co, Ag, As, Pb, Cr, etc.