Analyze Every Alloy fast!

SciAps

Z

with LIBZ TECHNOLOGY

New Z100

BETTER

Fast, precise analysis of stainless & high temps, comparable to XRF.

FASTER

Mg, Si, Al - Analyze Al alloys much faster. Measure Be, Li, B. Eliminates need for OES units - a single handheld analyzer for all your all alloy testing.

NO REGULATIONS

Laser is eye-safe rated, Class 1. No registrations, no licensing, no government reporting or fees, & no ionizing radiation.

LOW RISK

Eliminates costly detector replacements.

A laser-based technology

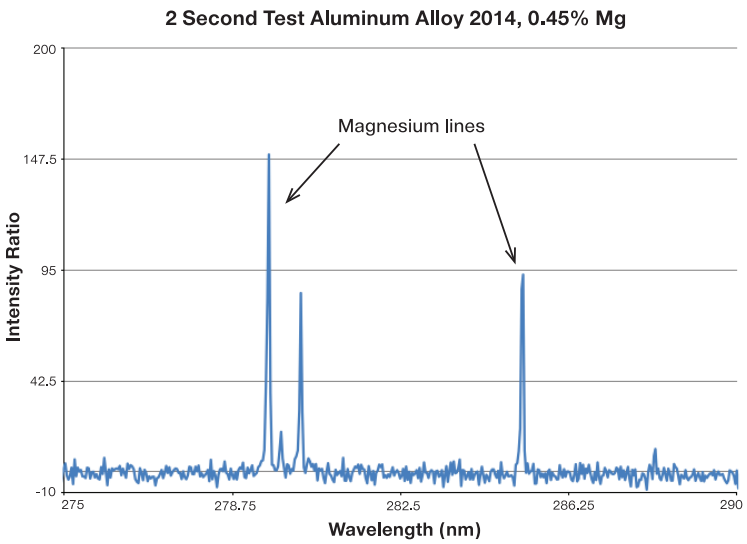
no x-rays

More metal sorted
per person per hour with true **Point-and-Shoot** simplicity

Z with LIBZ technology measures all the alloying elements - **Al, Si, Mg, Be, Ni, Mo, Co, Ti, Cu, Cr** and many more - lightning fast. The result is the world's first handheld analyzer that is FAST for all the metals you trade: aluminum alloys, red metals, stainless and high-temps. Z delivers the speed of x-ray for high temps, the speed of arc/spark for aluminum and red metals - all in a truly lightweight, handheld package.

No more compromises
& no more complications

The Z is fast for every element. It eliminates the productivity killing multi beam sorting techniques used by x-ray guns for aluminum alloys. Z also eliminates complicated grade library decision trees used by some x-ray devices. Low concentrations of **Mg** and **Si** are measured as fast **Ni, Mo, Co** and other high-temp elements. Thus, identifying a low **Mg** or **Si** based aluminum alloy is as fast as sorting stainless or nickel alloys.



Lines from 0.4% Mg in a wrought 2014 are shown in a 1.5 sec. test. The Z's speed and precision on Mg and Si allow for fast sorting of aluminum scrap based on Mg or Si content, compared to x-ray technology. The Z delivers fast measurements of Cu, Zn, Mn, Zr, Ni and other key alloying elements in aluminum alloys.

Superior Analysis
Analyze more elements with LIBZ technology

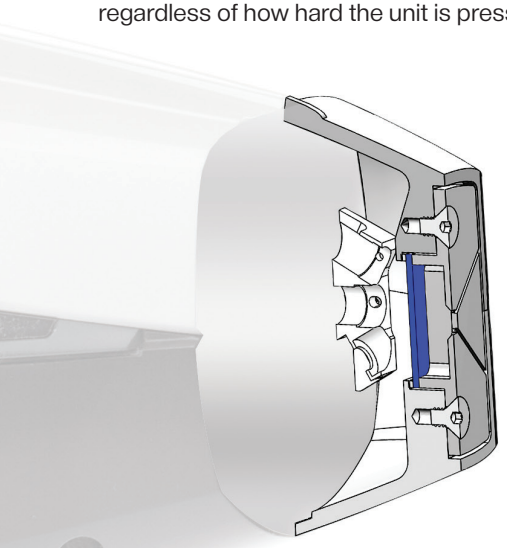
Z analyzes elements other technologies can't. Beryllium in copper alloys is a common request. More and more lithium is showing up in aluminum scrap. Z offers the trifecta of handheld alloy analysis:

1. **Be, Li**, & elements out of reach of other technologies
2. **Stainless** & **high temps** as well as other technologies
3. **Mg, Si, Al** with speed and precision

Z's Scrap Strong

Front End

Z's front end is scrap strong. The quartz window is > 100 times thicker than that of a silicon detector. It protects the device from any foreign object, no matter how sharp, regardless of how hard the unit is pressed onto the metal.



No More Broken Detectors

Lower Cost of Ownership

You know the story. You test turnings, or irregular-shaped scrap. A sharp edge on the metal punctures the detector window of your x-ray gun and POOF! The replacement cost of the latest silicon drift detector may be $8,000 or more, nearly a 1/3rd the cost of the analyzer. The reason is simple. In order to get good performance on Mg, Al and Si, x-ray detectors have very thin windows. The detectors must be placed very close to the front end of the analyzer to function. Even minor contact from a foreign object - or a fingertip during window replacement - and detector may be destroyed.

Switch to the Z and eliminate the high cost of silicon detector replacements

Revolutionary

Patent-pending design

LIBZ is based on optical technology, not x-rays. Light is collected in the visible and ultraviolet spectrum. Light at these wavelengths can travel great distances in transparent media, unlike x-rays. The light passes through a thick, protective quartz shield - think Pyrex baking dish. It's then piped down fiber cables to a spectrometer in the back of the analyzer. There's ZERO sensitive components anywhere near the testing window of the analyzer. With LIBZ, expensive repairs are a thing of the past.

No Regulatory Hassles

The revolutionary eye-safe laser has a Class 1 rating, and NO ionizing radiation.

No more State Registrations, no more inspections, paperwork or annual fees. Z eliminates the need for x-ray emitting devices. Z's proprietary eye-safe laser has the same safety requirements - meaning non - as common laser points. Z combines patent pending optics with a laser operating at 1532 nm - the eye safe region of the spectrum. We can offer high pulse energy - hundreds of times more than micro-LIBS units - but but maintain a Class 1 rating as opposed to the more dangerous Class 3b lasers found in other instruments.

Regulatory Requirement	Z with Eye-safe Laser	Any LIBS unit using 1064 nm laser
Laser Safety Glasses Required or Strongly Recommended	NO	YES
Operator Safety Training	NO	YES
Risk for Permanent Eye Damage	NO	YES
Requires Proximity Sensor, makes irregular samples a challenge	NO	YES

Printing and Emailing Data

The Power of Android

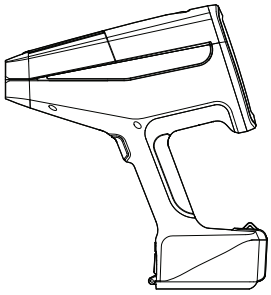
Instantly share testing data & upload - Tap the icon and the analyzer shows any connectable device via Bluetooth or wireless. Pick a device to immediately share data. For example, you can instantly create and print a sample test report in PDF format on a wireless printer or send the result to your Smartphone or other wireless device. Email results from your phone - share an instant result from the Z right to your cell phone as a pdf, and email it anywhere in the world.

Instantly and wirelessly print labels after a test with a single screen tap. Labels include time, date stamp, alloy ID, and chemistry.

Z100

Handheld For Scrap

The Z100 is a smaller and lighter handheld LIBZ unit and is a great alternative for many HHXRF or portable Arc/Spark applications. It enables analysis for elements as light as Be (Z=4) and as heavy as U (Z=92); however, it does not have argon purge and will not analyze carbon(C). It is great for fast analysis of a wide range of aluminum alloys, red metals, stainless, nickel and other high temps. It incorporates a lower power pulsed laser, a mid range resolution spectrometer (200-550nm), and a medium sized display.



Z500

Handheld

Need carbon? Need low limits of detection of tramp metals? Then the Z-500 is the better choice. The Z-500 is the most advanced handheld LIBZ unit available. It enables analysis for elements as light as H (Z=1) and as heavy as U (Z=92), and provides the best possible limits of detection. It incorporates the highest power pulsed laser, the best resolution spectrometer(180-700nm), patent-pending OPTi-Purge Technology™ for carbon (C) analysis, and a large sized display.

ISO 9001 CERTIFIED QUALITY ASSURANCE

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