

The **X** and **Z** of Scrap Processing

The industry's fastest, smartest tools for scrap sorting—built for real-world yards.

An XRF analyzer engineered from the ground up for scrap sorting.

A LIBS analyzer designed for rapid alloy ID and mill-ready aluminum processing.



 [YouTube.com/SciAps](https://www.youtube.com/SciAps)

SciAps

Meet the X

Redefining Handheld XRF Performance

Alloy+

No guesswork. No operator dependency.

Alloy+ on the X-550 automatically selects the optimal test mode based on alloy grade—delivering 1-2 second single-beam tests when possible, or dual-beam precision when required. The result: fast, consistent, and accurate sorting across all materials, regardless of operator experience.

Alloy Alerts: Sort Smarter. Ship Safer.

Built-in alerts that protect your shipments and your reputation. Alloy Alerts instantly flag problematic or high-risk materials—like beryllium copper, out-of-spec alloys, or unexpected chemistries—before they leave your yard. Customizable to your operation, Alloy Alerts act as a real-time safety net, helping operators avoid costly mistakes, rejected loads, and compliance issues.

Smart Sorting, Your Way

From basic grade separation to highly specific alloy differentiation (303 vs 304 stainless, or detailed bronze families), the X adapts to your workflow. Configure your sorting thresholds once—then let Alloy+ and Alloy Alerts handle the rest.

A Breakthrough in Aluminum Sorting

With the Aluminum App, sort up to 99% of aluminum alloys in just 1-2 seconds. The X-550 is the only handheld XRF capable of ultra-fast Mg and Si analysis—bringing aluminum testing speeds in line with stainless and high-temp alloys.

Detector Protector Technology (DPT)

Engineered for scrap yard realities. DPT is a reinforced safety grid that dramatically reduce detector punctures from sharp turnings, tools, or accidental contact. More protection. Less downtime. Lower total cost of ownership.

Service That Works for You

Service shouldn't be a profit center. SciAps keeps maintenance costs low, with tube and detector replacements at a fraction of typical industry pricing. Combined with DPT, you get maximum uptime and predictable costs.

Built for Alloy Sorting

Lightweight. Rugged. Unmatched speed. The X-550 delivers high-performance alloy chemistry across aluminum, stainless, red metals, and high-temp alloys—all in a platform designed for nonstop operation in demanding environments.



Meet the Z

LIBS Built for the Real World of Scrap

Laser-Induced Breakdown Spectroscopy (LIBS) brings fast, portable elemental analysis to the scrapyard—using a laser pulse to generate plasma and read chemistry in seconds. But not all LIBS are the same. The SciAps Z platform gives you two distinct approaches—so you can match performance to your operation.



Why SciAps Z Leads the Industry

SciAps Z analyzers combine speed, precision, and portability to handle everything from basic sorting to mill-grade analysis. Designed for scrap processors who demand more from their equipment.

Z-Series LIBS (Argon-Based)

Precision when it matters most. For applications that demand more than ID—where chemistry and low-level detection are critical.

Best for:

- Measuring light elements like Li, Be, and B
- Aerospace and specialty alloy applications
- Trace-level elemental analysis

With argon purge, Z-Series analyzers deliver highly precise chemistry comparable to lab-grade techniques—right in the field.

Z-70: Air-Burn LIBS

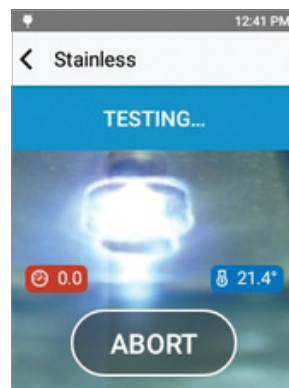
Fast. Simple. Built for the Yard. A rugged, high-speed LIBS analyzer designed for real scrapyard conditions—no argon, no hassle.

Best for:

- Dirty, coated, or anodized materials
- Rapid alloy ID without grinding or prep
- Operations that want to avoid X-ray regulations

The Z-70 powers through surface contamination to deliver fast, reliable alloy identification.

Note: Optimized for speed and simplicity—not trace-level precision.



Confidence on Every Test

Integrated camera and laser targeting make it easy to analyze turnings, small pieces, and irregular surfaces—reducing operator error and ensuring consistent results.

When to use Laser LIBS instead of XRF

Carbon Measurement

Sort ferrous alloys by carbon content and separate L-grade from H-grade stainless steels—capabilities only possible with LIBS.

Aluminum scrap

LIBS excels on dirty, coated, or anodized aluminum.

- Z-70: Fast ID without grinding
- Argon-based Z: Precise chemistry for mill-ready material

Light Elements

Use argon-based LIBS when measuring Li, Be, B, or low Mg levels—elements XRF cannot detect effectively.

Eliminate Burdensome Regulations and Inspections

The Z is operable as a Class 1 device. Operate without radiation licensing, inspections, or compliance programs—ideal for simplifying operations.

X&Z Series Model Guide



X-550 Scrapper XRF

Ultra-fast, lightweight analyzer for high-throughput scrap sorting.

Delivers precise chemistry across alloy families, with industry-leading speed on aluminum and low limits of detection for tramp elements.



Z-70 LIBS (Air-Burn)

Fast, rugged LIBS for everyday scrap sorting.

No argon. No surface prep. Ideal for quick alloy ID on dirty or coated materials—keeping operations moving without added complexity.



Z-Series LIBS (Argon-Based)

High-performance LIBS for advanced applications.

Measure light elements like Li, Be, and B, and achieve trace-level analysis for aerospace alloys and specialty metals.



SciAps Cloud+

Real-time visibility across your operation.

Access results, monitor usage, and generate reports from anywhere. Every test is stored, searchable, and instantly available.



SERVICE AND CALIBRATION PROGRAM

Keep your analyzers operating at peak performance.

Annual calibration ensures accuracy, updates software, and includes a full hardware audit—with discounted service parts to minimize downtime and extend instrument life.



OneBox

The complete sorting solution.

- **Z-Series:** Carbon, light elements, and aluminum applications
- **X-550:** Everything else

Shared UI, batteries, and accessories—plus built-in redundancy for peak demand.



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