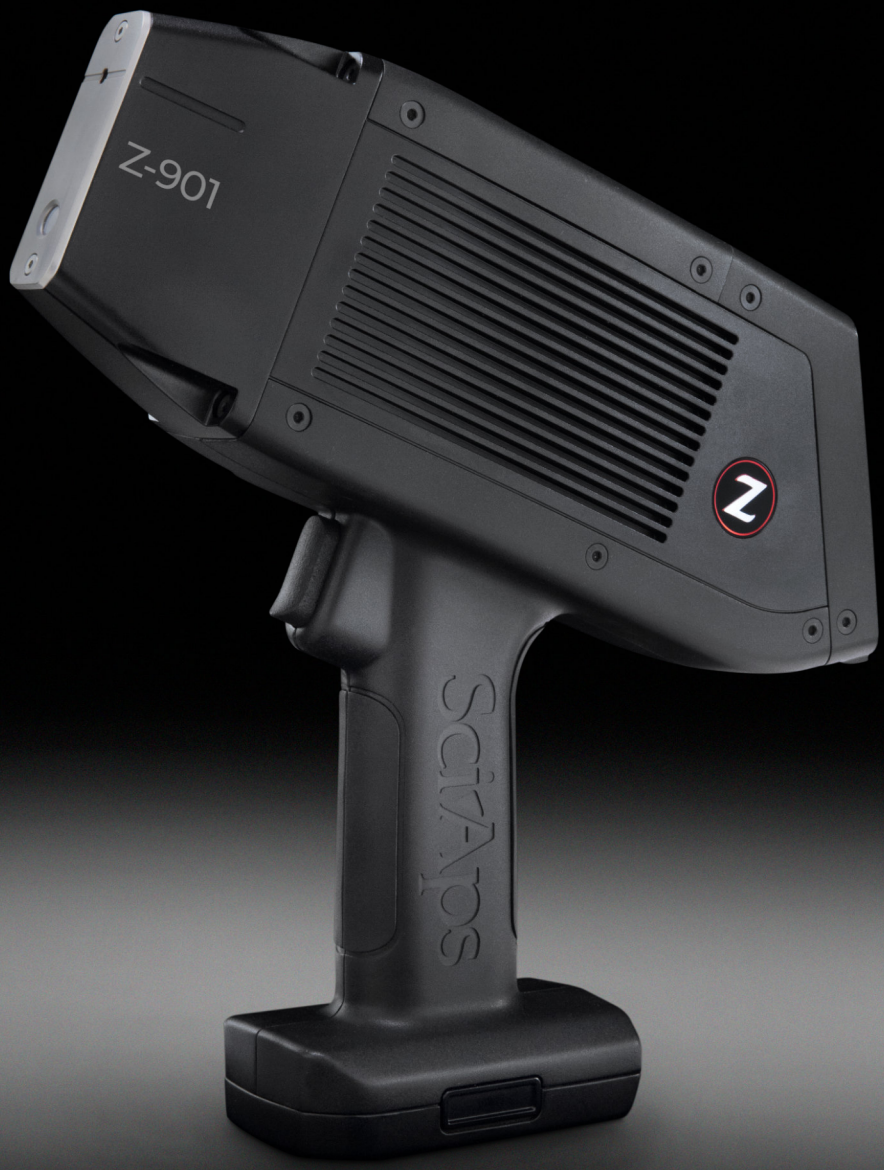
# Highest Performance LIBS Analyzers

## Features Unique Dual-Burn Technology

Air-burn for fast material sorting and screening
Argon-purge for precision and superior limits of detection




SciAps

## Elemental Analysis

Alloys – Mining – Environmental – Forensics – General Analytical Analysis

LIBS TECHNOLOGY

KVALITEST INDUSTRIAL

# The Z-900 Series

## A nicely loaded LIBS system designed for usability, durability, and safety

Full range of applications, from basic material sorting and screening to exacting elemental analysis.

## Mining, Exploration, and Environmental Applications

LIBS complements handheld XRF because it is especially good at measuring low atomic number elements — including those too light for handheld XRF.

- **Lithium** ● in ores and brines.
- **Light elements** ● full suite of light elements in soils and ores including Li, Be, B, C, F and Na.
- **Organic carbon** ● total organic carbon in agricultural applications.
- **Beryllium** ● in soil or other materials as an environmental contaminant.

## More Applications

### Forensics, Quality Control, Research, Education

The Z-900 Series features our desktop/tablet ProfileBuilder software package to add elements, create calibrations and apply advanced spectral processing.

- **Develop** ● test methods for unique analytical or quality control needs.
- **Academic** ● tool for researchers and students alike – LIBS does not use X-ray radiation or its accompanying regulations.
- **Forensics** ● Small spot analysis (100 um) and ProfileBuilder yield a powerful, highly versatile field analytical technique.

**Be** Beryllium — **The Z is currently used at multiple government facilities for beryllium screening and clean-up**

# Z-901

## Alloy Analysis

**SciAps offers the only LIBS-based alloy analyzer operable in a "dual burn" test setup**.

### QuickSort

Air-Burn for rapid material sorting or grade identification.

### Alloy

Argon-Purge for high precision and improved detection limits. Many customers use argon-purge to analyze and sell mill-ready aluminum scrap. Quantify low ppm levels of beryllium, boron and lithium.*




*In 1-2 seconds, Z-901 provides alloy chemistry, grade, and specification data*

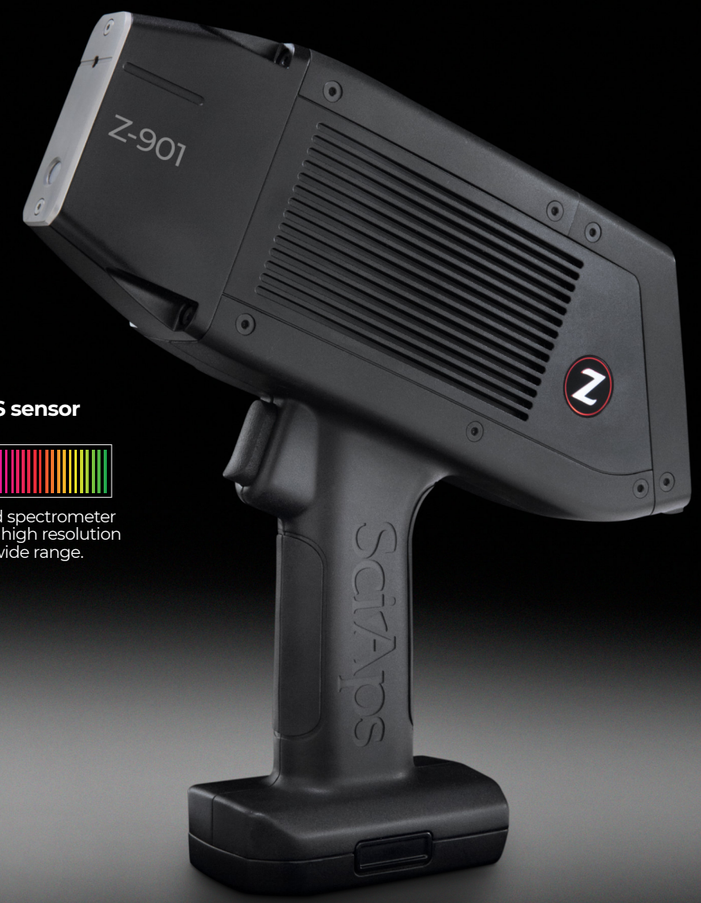



*Choose Alloy or QuickSort*

*The Z-902 model with two spectrometers is required to measure lithium emission at 610 nm. See reverse for more information on models and range.


**High-resolution display**
rear-facing display for easy viewing

**Intuitive Android**
operating system, with app based software




**LIBS sensor**

Advanced spectrometer design for high resolution and wide range.

**Internal camera**
precise targeting of analysis location.

**Macro camera**
photo documentation of samples, reading barcodes and QR codes.

**Report generation**
SCIAPS CLOUD
full-featured, with available cloud data management and reporting.

**Narrow snout**
tapered for welds or difficult-to-access test locations.

**Laser safety sensor**
patented sample sensor allows Class 1 operation, subject to LSO approval.

**Rugged metal body**
Maximum durability and minimal service costs.

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LIBS TECHNOLOGY

# Z-900 Series Models

| Model | Spectrometers | Range | Elements Analyzed [1,2] |
|---|---|---|---|
| Z-901 | 1 spectrometer | 200 – 420 nm | Factory calibrated with suites of 15-20 elements, app dependent. For some elements, model 902 or 903 is required. |
| Z-901 CSi | 1 spectrometer | 190 – 240 nm | Analyzes carbon and silicon only. The perfect complement to your XRF. |
| Z-902 | 2 spectrometers | 190 – 625 nm | Adds emissions for Li, Na |
| Z-903 | 3 spectrometers | 190 – 950 nm | Adds emissions for H, F, N, O, Br, Cl, Rb, Cs and S |

[1] Every element is not necessarily factory-calibrated. Factory calibrations are provided for a set 15-20 elements depending on the application.

[2] "All elements" excludes unstable and radioactive elements. Detection limits vary greatly by element and sample type.

## One Box

Pair any Z Series with our industry-leading XRF unit and get optimal analysis across every element in the periodic table and every sample type!

## XRF

Great for transition and heavy metals. Easy to use especially on bulk, soil, and ore type materials.

## LIBS

Analyze elements XRF can't test: Li, Be, B, C, F, Na and more
Improved performance on Mg, Ca, K compared to XRF
Microanalysis capability with 100 um laser spot size.

FEB2021

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