SciAps Z-50
Specifications

Identify alloy grade and chemistry in seconds with limited sample prep, no radiation, and low cost of ownership. The SciAps Z-50 handheld LIBS provides fast, quantitative testing results in an air-burn environment.

A reliable alloy sorting device, mostly for aluminum, titanium alloys and stainless, the Z-50 is a great option for scrap metal recycling and quality assurance for aluminum production. **Argon-free** operation for six alloy bases: Al (including Li and Be down to 0.0001%), Ti, Stainless Steel, Ni, and Cu (including Be down to 0.0001%).

Ultra fast, precise LIBS analyzer

The SciAps Z-50 offers a durable, lightweight, safe, high-performance tool to meet your analytical needs.

Weight	4 lbs. with battery
Dimensions	8.25" x 11.5" x 4.5"
Display	5" color touchscreen, smartphone-type display – PowerVR SGX540 3D graphic
Power	On-board rechargeable Li-ion battery, rechargeable inside device or with external charger, AC power.
Processing Electronics	ARM Cortex -A9 dual-core / 1.2 GHz Memory: 1 GB DDR2 RAM, 1 GB NAND
Data Storage	Results Storage: 8 GB SD
Connectivity	Wifi, Bluetooth, USB. Connectivity to most devices, including SciAps ProfileBuilder PC software.
Sample viewing	On-board, auto-focus camera/video for viewing sample before and during analysis, LED targeting system for pinpoint accuracy.
Laser Raster	On-board XYZ stage for rastering laser to discrete locations for averaging across sample surface; typical testing area: 0.8 mm x 0.3 mm
Excitation Source	5-6 mJ/pulse, 50 Hz repetition rate, 1064 nm laser source
Argon-free	The Z-50 operates in an air environment, not argon purge. Upgrade path to argon purge system available.
Calibration Check	316 stainless steel internal standard for automated wavelength calibration
Drift Correction	On-board automated drift correction software with factory provided reference materials included with instrument
Grade library (alloy)	500+ grades, multi-library support, libraries may be edited with PC software package
Regulatory	CE, RoHS, USFDA registered. Class 3b laser. Sample sensor on board, allows for operation under Class 1.

THE Z-50 IS THE BEST
option to replace your
TSI CHEMLITE ANALYZER

GREAT NEWS: If you buy a Z-50 and need improved precision or carbon analysis, we offer attractive trade-ins to more advanced argon purge models, such as the Z-200 C+.

A path to upgrade your TSI ChemLite analyzer

TSI has recently announced they're exiting the handheld LIBS business, with no guarantee of ongoing support. SciAps has worked closely with TSI users to modify our handheld LIBS to provide the performance and operation TSI customers have come to expect. After extensive side-by-side testing, we're pleased to report that the Z-50 SciAps handheld LIBS (weighing about 4 lbs.) offers the same fast, quantitative testing results without argon purge.

SciAps Z-50 is the ChemLite replacement with upgrades:

- Handheld LIBS, weighing about 4 lbs.
- Air-burn operation for five alloy bases: Al, Ti, stainless, Fe and Ni
- May be operated under Class 1 conditions, provided sample sensor is engaged (engaged by default, password protected)
- Internal camera and flatter nose-plate for easier testing on curved or irregular circles
- 1 second tests like ChemLite and ChemLite +
- Expanded Ti and Al libraries compatible with ChemLite user expectations
- Detect down to 10 ppm Li and Be contamination in aluminum alloys

XRF & LIBS

Need precise Ni?

The Z-50 LIBS will ID high-temp alloys, but should not be used for precise Ni analysis. For precise analysis of nickel alloys and other high temps, use the SciAps X handheld XRF analyzer. Get them both with the One Box.

TSI TRADE INS?

We're offering attractive trade-in values for existing TSI units. Contact us with your model name and date of manufacturing for an estimate.

	TSI ChemLite	SciAps Z-50
Battery Life	The ChemLite battery life is 2.5 to 3 hours	6-8 hours
Standardization	Requires separate purchase of software at $2,500 and standards at $1,500; performed through the software with the instrument attached to your computer	Standardization can be done right on the instrument and the standards are included at no additional cost
Grade Library	Editing grade libraries requires separate purchase of software for $2,500	Easily add, remove, or edit grades through included desktop Profile-Builder software
Camera	No camera	High-resolution camera with targeting LED making it easy to test small areas or wire
Connectivity	No WiFi capabilities	WiFi and Bluetooth so you can send results and reports directly from the instrument to a printer or email; also supports data sharing to a network folder for live data sharing
Maintenance	ChemLite window and lens were not protected and had to be frequently cleaned with a lint-free swab, as dirt could be baked onto the lens or window	Protective shield does not allow the lens or window to be compromised, and can easily be cleaned with a paper towel or cotton swab

For more information, or to schedule a demonstration:

www.sciaps.com

339.927.9455

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