SciAps field portable LIBS, XRF and Raman analyzers provide instant analysis of major and trace elements, minerals and compounds, either in the lab or in the field. Get the entire picture for research, spectroscopy education, materials analysis, archeological and geological, art conservation, forensics, authentication and attribution.

**LIBS**
Complete periodic table coverage in the palm of your hand. In-field analysis of Li, Be, B, C, Na, F – something no other handheld analyzer can do. High sensitivity to other major elements Mg, Si, Al, Ca, K. Also analyzes ppm to percent level transition and heavy elements, and percent level concentrations of H, O, N.

**XRF**
Smallest, fastest, most precise handheld XRF available. With its powerful software and easy customization, the X has become the HHXRF of choice for unique analytical applications.

**RAMAN**
Molecular spectroscopy for the analysis of many chemical compounds and minerals. Both handheld and benchtop form factors available.

Get the entire picture for research, spectroscopy education, materials analysis, archeological and geological, art conservation, forensics, authentication and attribution.

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Analyze any Element, any Chemical, Any Mineral, Anyplace on the Planet

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Dear SciAps

I've used the SciAps X and Z for over a year now on a variety of projects, including the analysis of spent shell casings for source attribution, ink on currency to identify the origin of counterfeit notes, and 'conflict' minerals for geographic provenance. The Z gives me full periodic table coverage, including light elements like beryllium and lithium, and the X provides fast, non-destructive materials analysis. Using the desktop software I can overlay spectra, do peak identification for various elements, and set up quantitative calibrations as needed. In addition, these analyzers, especially the handheld LIBS unit, make for great tools for teaching spectroscopy to my students.

Professor Richard R. Hark, H. George Foster Professor
Department of Chemistry, Juniata College.
Meet the X – the world’s most advanced field portable XRF and the perfect complement to LIBS.

The SciAps team, with more than 30 years experience designing and supporting FPXRF offers an advanced FPXRF with all the performance and the features advanced users demand.

Elements and Analysis Methods
The X may be factory calibrated with up to 37 elements starting from Mg in the periodic table, up to uranium. The X’s software supports up to 3 different beam settings for optimal excitation across the elemental range, with 6 different filter positions via internal, programmable filter wheel. The X is available with either an Au or Rh anode, application dependent.

The X supports both qualitative and quantitative elemental analysis. Via ProfileBuilder, analyze any sample for instant peak identification. Compare spectral overlays between samples for attribution or authentication purposes.

Want to Quantify? The X supports fundamental parameters, Compton Normalization and empirically derived calibrations. It can be factory calibrated, and with the powerful ProfileBuilder software package, users may add new elements and modify calibrations and save as new test methods. With Android, bundle any test method into a custom App for future use or sharing.

Small-spot Analysis Use one or more of the filter wheels to produce a small spot x-ray beam (3 mm diameter) for more targeted analysis. However for true microanalysis nothing beats the Z’s 100 um laser beam!

Connectivity
On-board camera, Wifi, GPS, Bluetooth.

Still Can’t Decide? Get ‘em Both

The ONE BOX
Why settle for sub-optimal detection limits, especially on low atomic number elements like Na, Mg, or Al. With the LIBS plus XRF, you analyze any element, and any type of sample – soils, powders, liquids – with best precision across the entire periodic table. The X and Z share the same user interface, same batteries, chargers, cables and data structures.

Tune and Customize your Laser and XRF Calibrations with Profile Builder

SciAps Profile Builder (PB) for both Z & X free you from reliance on factory generated calibrations and methods. Tune and customize your calibrations. View calibration curves, generate new ones, build highly customized models for your own elements of interest. Overlay and compare spectra for element identification, or to compare different materials for conservation, authentication, forensics or attribution analysis.

Both X and Z can be operated as simple, point and shoot analyzers with factory calibrations, or as sophisticated tools with the power to create advanced analytical methods – you decide.
SciAps offers a fully redesigned Chem-500 handheld Raman analyzer featuring the 1030 nm laser for reduced fluorescence and thus extended analytical abilities on a range of compounds and minerals. Longer wavelength laser excitation in Raman spectroscopy mitigates the influence of competitive fluorescence that can overwhelm the Raman spectrum in lower excitation systems including 785 nm laser excitation.

**Key features to the Chem-500**

- 1030 nm laser for the best signal to noise performance across the widest range of compounds
- Large touchscreen display
- Fully sealed to IP67 waterproof and dustproof standards for decontamination or use in clean room environments
- Android-based operating system, GPS, Wifi, Bluetooth and USB communications
- A range of sampling attachments including right-angle for powders, 8 mm and 15 mm vials for liquids
- Runs HazmasterG3 third party software on the analyzer as an Android App (safety, security and emergency response applications).

The Advantage series offers high performance, low-cost Raman spectrometers that facilitate research and development, and quality control in academic and industrial markets around the world.

A successful Raman application depends largely on the selection of the optimal laser source. SciAps offers three Advantage systems with different laser source choices - 532 nm, 785 nm, 1064 nm. A variety of accessories and sampling attachments can be selected for these systems.