



XRF Limits of Detection  < 50 ppm

available with SciAps LIBS

 < 2000 ppm

 < 300 ppm

 < 50 ppm

 < 25 ppm

 < 10 ppm

 < 5 ppm

Legend:

- available with SciAps LIBS
- < 2000 ppm
- < 300 ppm
- < 25 ppm
- < 10 ppm
- < 5 ppm

Periodic table showing element names and symbols. Elements with SciAps LIBS data are highlighted in dark grey. Elements with concentrations less than 2000 ppm are highlighted in red. Elements with concentrations less than 300 ppm are highlighted in orange. Elements with concentrations less than 25 ppm are highlighted in light grey. Elements with concentrations less than 10 ppm are highlighted in dark blue. Elements with concentrations less than 5 ppm are highlighted in light blue.

For more information, or to
schedule a demonstration:

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- Detection limit estimations assume an interference-free silicon dioxide sample matrix based on three sigma, 99.7% confidence level and 120-second beam times. Limits of detection may be higher depending on the concentration of specific interfering elements and or overall matrix density.
- Detection limits assume optimal X-500 series model for each element (e.g. X-505, X-550, X-555)
- Lanthanide LOD's are estimated based on K-line analysis using 55kV excitation of X-555. L-line analysis is generally not practical in geological matrices due to severe spectral overlaps with common transition metal elements. In unique matrices, improved LOD's can be achieved using L-line emissions.

LIBS	Model	Spectral Range (nm)	Best Application
 Z-901	Z-901 Alloy	200 - 420	General alloy testing for scrap sorting, PMI/NDT or quality assurance. Does not measure carbon.
	Z-901 CSi	190 - 260	Analyzes carbon and silicon only. The perfect complement to your XRF.
	Z-901 Li	380 - 680	Purpose built for lithium in soils, ores and rocks.
 Z-902	Z-902 Alloy	190 - 620	Measures 15-20 elements in 7 common alloy bases, including aluminum, stainless, iron, copper, titanium, nickel and cobalt.
	Z-902 Carbon	190 - 420	Identification of stainless steels and low alloy steels, including carbon analysis down to 70 ppm and instant CE calculations.
 Z-903	Z-903 Geo	190 - 950	Measures every element in the periodic table - from H to U.
	Z-903 Carbon	190 - 620	Extends the range of Z-902 Carbon to include lithium and improves limits of detection on transition elements.

XRF	 X-50	 X-200	 X-5	 X-505	 X-550	 X-555
Best Application	Basic sorting of SS, high temps and red metals. Only sort Al alloys by MLC's and 2000's and 7000's.	Great choice for scrap processing and NDT due to speed and analytical performance.	Great on low alloy, Cr/Mo steels, stainless and corrosion resistant alloys and precious metals. how to separate from X-50	Great for scrap processing, PMI/NDT, soil testing, mining and more!	Optimized for key PMI applications, Great on high temp alloys and precious metals. light elements/aluminum alloys, lead paint	Made for REE's - low detection limits on key elements like Ag, Cd, Sn, Sb, and Ba with optimal performance across the entire periodic table from Mg to U.