

Thermo Scientific NITON XLt, XLp and XLi 800 Series Alloy Analyzers are the world standard for nondestructive analysis and grade identification of metal alloy materials in industries ranging from primary metal production to product fabrication to scrap recycling.

NITON XLt / XLp / XLi 800

The World Standard in Portable Alloy Analysis



The Thermo Scientific NITON Analyzer offers numerous appealing features including:

- **Very easy to use - even by nontechnical personnel**
- **Little to no sample preparation is necessary**
- **A truly nondestructive test with instantaneous results**



Thermo Scientific NITON Analyzers can be used to analyze all components in the system, even to verify the dilution ratio of finished welds.

The need for metal alloy material verification is an increasingly important issue across a wide range of industries. Specially engineered alloys are continually being developed to better withstand the specific stresses and requirements of many different specialized applications. Though necessary and exciting, these new introductions dramatically increase the complexity of material verification and QC testing needs.

Material inspection is intensely critical in certain industries such as aircraft and aerospace manufacturing, since human lives may depend on the proper performance of alloy components. A material mix-up in a petrochemical process system can be disastrous. On a spacecraft or commercial satellite it can mean millions of dollars and years of effort wasted. In a scrap recycling facility, misidentified material can result in a returned load and a loss of consumer confidence. Conversely, identifying and upgrading alloy material provides instantaneous return on investment to scrap metal recyclers.

Thermo Scientific NITON XRF (x-ray fluorescence) alloy analyzers are designed to quickly and reliably provide accurate alloy material verification, and have become the worldwide standard for material analysis in industries ranging from primary metal production to scrap metal recycling. NITON analyzers provide immediate nondestructive chemical analysis of alloy materials from titanium to nickel superalloys, from castings to fasteners, dip switches to scrap cuttings and turnings, incoming raw materials to final product QC. They supply fast, nondestructive analysis of high-temp, nickel and stainless steel, as well as screening for the presence of prohibited materials such as Sn, Se, Cd, and Zn in spacecraft applications, and Pb, Cr, Cd, Br, and Hg for RoHS compliance.

Optimized to Fit a Variety of Analysis Needs

Thermo Scientific NITON Alloy Analyzers are available in a variety of form factors and excitation options to provide the optimal analyzer configuration for your analytical needs. Sealed against moisture and dust, Thermo Scientific NITON Analyzers are designed to be just as effective in the field or on the shop floor as they are in the laboratory.

NITON XLt / XLp / XLi 800 Series Specifications



Built for the rigorous demands of field use, Thermo Scientific NITON Analyzers are sealed against moisture and dust.

The NITON XLt with an x-ray tube excitation source, provides laboratory analytical precision in a portable instrument with generally reduced regulatory requirements. It is also available with a helium-purge option, that allows light element analysis (Mg, Al, Si, P) that was previously impossible in a portable instrument.

The NITON XLi and its pistol-grip cousin, the NITON XLp provide fast, dependable material analysis and grade identification even in the most punishing environments. These rugged tools also feature Thermo Fisher's patented Infiniton™ maintenance-free excitation technology, providing the most economical analysis solution available in the industry.

Whether the need is quality control, positive material identification (PMI), failure analysis, RoHS compliance screening, or sorting of scrap material for recycling, Thermo Fisher Scientific provides the ideal solution for your business.

Thermo Scientific NITON 800 Series analyzers are just one of Thermo Fisher's Portable NITON Analyzer Solutions which include analysis tools for metal alloy identification, lead-based paint testing, RCRA metals in soil, RoHS and WEEE compliance screening and a host of other analysis needs.

Weight	XLt / XLp: 3.0 lbs (1.4 kg) XLi: 1.7 lbs (0.8 kg)
Dimensions	XLt / XLp: 9.75 x 10.5 x 3.75 inches (248 x 273 x 95 mm) XLi: 11.5 x 3.5 x 3.0 inches (292 x 89 x 76 mm)
Batteries	(2) Rechargeable Quick Swap Li-ion battery packs. 6-14 hour use.
Excitation Source	XLt: Low power (1.0W) X-ray tube with Ag anode target. Optional: Au anode target for improved detection of Cd XLp / XLi: One or more of the following sealed radioisotope sources: ²⁴¹ Am (Infiniton), ⁵⁵ Fe, ¹⁰⁹ Cd
X-ray Detector	High-performance Si-PIN detector; Peltier cooled
Analysis Range	25 standard elements from Ti to Bi Nonstandard in-range elements from Mg to Pu available
System Electronics	Hitachi SH-4 CPU ASICS high-speed DSP 4096 channel MCA
Display	Backlit VGA touch screen LCD
Testing Modes	Alloy Grade w/ Chemistry (Fundamental Parameters analysis) Standard Signature Store / Match Mode SuperChem Mode Pass / Fail Sorting Mode
Data Storage	Internal - ~6000 readings + spectra
Data Transfer	RS-232 serial cable or optional Bluetooth™ wireless connection NDT® PC software utility easily exports data for use in common PC applications, and provides data encryption QA/QC documentation
Standard Accessories	Shielded belt holster Locking shielded waterproof carrying case 110/220 VAC trickle charger/adaptor Spare Li-ion battery pack with holster RS-232 PC data transfer cable Integrated barcode reader NDT PC software utilities including live image display
Optional Accessories	Benchtop and Portable test stands Bluetooth™ wireless communication Weld collimator He Purge option for light element analysis Wireless Printers and Portable GPS
Security	Password protected user security
Licensing/Registration	Varies by region. Contact Thermo Scientific NITON Analyzers business unit or your local NITON product distributor

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