

# Handheld XRF Analyzer for Car Catalyst Application

## TrueX-500(Si-Pin) / TrueX-500S(SDD)

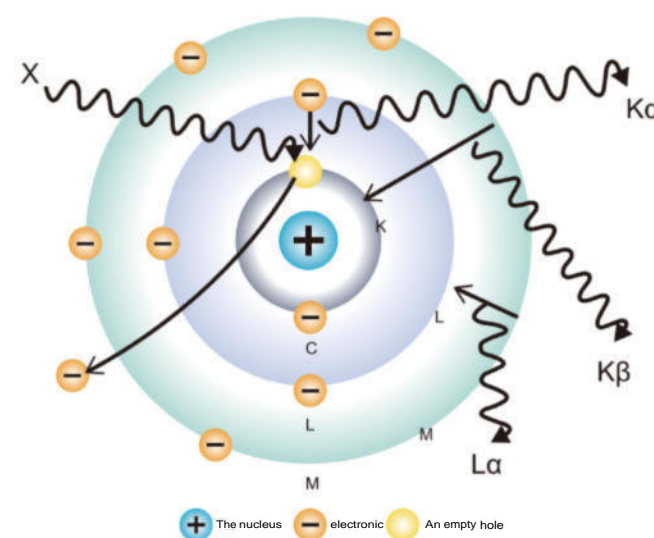
### Features

1. The instrument is smaller, lighter and easier to carry.
2. High-speed processing chips, advanced algorithms and efficient software work together to make instrument analysis faster.
3. The selection of imported high-performance X-ray emitting tubes and ultra-high-resolution detectors, combined with digital multi-channel processing technology, makes TrueX handheld X-fluorescence spectrometers have ultra-high analytical accuracy.
4. Users can customize the creation of professional reports: including company logo, company address, test results, spectrogram and other sample information (such as product description, origin, lot number, etc.).
5. Built-in all-round environmental sensing system. This enables TrueX to sense changes in the surrounding environment in real time and automatically make parameter adjustments to accurate elemental analysis under extreme conditions such as high and low temperatures, dust, darkness and dampness.
6. Built-in DoubleBeam™ technology automatically senses the presence or absence of samples in front of the instrument, improving the safety and protection level of the ray. And automatically adjust the display brightness according to the brightness of the external environment.
7. The device can be connected to the Internet, and the instrument can be set up and overhauled remotely.
8. TrueX's built-in new net strength fitting algorithm optimizes the spectral resolution process, giving TrueX extremely low detection limits comparable to large lab equipment.
9. Smart battery with MSBUS bus, real-time monitoring battery, backup battery can directly view the remaining capacity of the battery.
10. Compared to capacitive screen with better backlight performance, industrial resistive touch screen is still clearly visible in the field of strong light, while eliminating the risk of glove removal in special environments in the field.



### Principles and characteristics of X-ray fluorescence analysis

The sample is bombarded with X-rays, and the sample is excited to produce X-ray fluorescence, which usually punches the electrons in the inner layers of the K and L layers of the elemental atom layers out of the atoms, and the holes created are filled by high-energy outer electrons. High-energy electrons supplemented into low-energy orbits radiate excess energy in X-ray fluorescence. These radiated spectral lines contain the characteristics of various elements, like fingerprints, and are independent of the chemical valence state of the atom. The intensity of radiation is proportional to the concentration of this element in the samples.



## Parameters

<b>Weight</b>	1.8Kg (with battery)
<b>Dimensions</b>	254 x 79 x 280 mm ( L x W x H )
<b>Excitation source</b>	Up to 50KV/200pA, tube pressure and tube flow can be adjusted freely, Target Ag (standard), Au(optional), W(optional), Rh(optional)
<b>Detector</b>	BOOST Si-PIN/SDD detector
<b>Range of detection</b>	All elements between Mg and U.
<b>Display system</b>	Industrial resistive touch screen with screen size of 4.3" Professional operating system and software Multiple languages including English and Chinese And it automatically adjusts display brightness according to the environment brightness
<b>Data processing</b>	32GB memory USB, Bluetooth, wifi can connect the device to the Internet, repair and setup can be done remotely Data can be exported as EXCEL or PDF. Users can customize the reports by adding their company logos, addresses, test results, spectrum and others (such as product description, origin and batch number)
<b>Heat dissipation</b>	Equipped with a dedicated T-shaped radiator to dissipate the heat; no need to wait for cooling of detector time again.
<b>Safety</b>	Built-in double beam technology can automatically sense whether there is a sample at the measurement window. This is also a safety and protection feature Waterproof, dust-proof and shockproof suitcase Safety Band
<b>Power supply system</b>	Intelligent battery with MSBUS bus, real-time monitoring battery, spare battery can directly check the remaining capacity of the battery, the battery complies with air dangerous goods transport regulations A single battery can work for about 8 hours..

## Application

Raw material testing of catalyst products



Identification of car catalyst products

Quality control in the manufacture of catalyst products

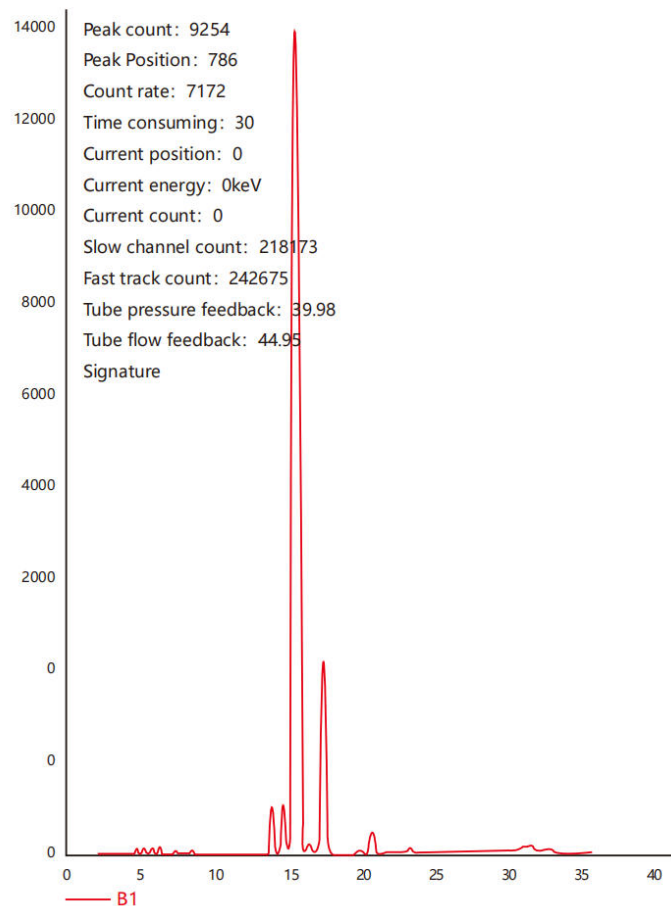


Recovery and evaluation of car catalyst converters





**Test Reference**



TCB #70 30 64%

Elem	ppm	+/-
Pd	1207.681	30.61
Pt	315.85	29.59
Rh	212.02	41.089