Designing/Development/Manufacturing/Sale/Service

Skyray Instrument

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Skyray Instrument

EDX-Pocket-Ⅲ

Handheld X-ray Fluorescence Spectrometer

Precision Instruments, Skyray Elaborates

EDX-Pocket-Ⅲ

Handheld X-ray Fluorescence Spectrometer

Skyray Skyray Instrument

Company Profile

Established in 1992, Skyray Instrument Inc specializes in the development, manufacture, sales and support of X-ray Fluorescence Spectrometers. XRF technology is characterized as rapid, accurate and non-destructive. XRF analyzers can be used in areas requiring elemental analysis from Na to U, e.g., electronic and electric appliances (RoHS), jewelries and ornaments (precious metals, plating thickness), toy safety (EN71-3), building materials (cement, glass, ceramic), metallurgy (steel, non-ferrous metals), petroleum (trace elements S, Pb, etc), chemistry, geography, commodity inspection, quality control and even human body trace elements analysis. Up to now Skyray has won two World's No.1 titles: No. 1 in Sales Amount and No. 1 in Product Categories.

EDX-Pocket-Ⅲ

Handheld X-ray Fluorescence Spectrometer

The 3rd and 4th generation of Handheld X-ray Fluorescence Spectrometers i.e. EDX-Pocket-III and EDX-Pocket-IV are to be put on the market soon. They are improved on basis of the 2nd generation. They have the features of more functions, better accuracy and simpler operation. Their introduction makes on-site elemental analysis practical and feasible.

EDX-Pocket-Ⅲ Handheld X-ray Fluorescence Spectrometer Application Fields:

EDX-Pocket-Ⅲ Handheld X-ray Fluorescence Spectrometer Specifications:

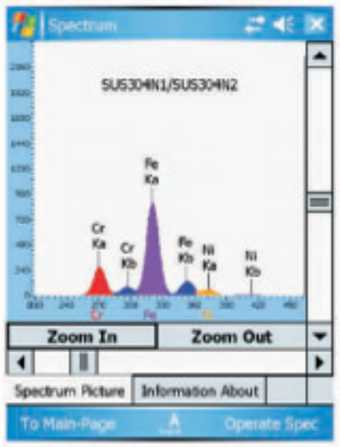
- Working principle: XRF analysis using X-ray fluorescence Spectrometry
- Measurable elements: Ti-Bi
- Detector: advanced electric-cooling Si-PIN semiconductor X-ray detector with high performance and high energy resolution
- Excitation source: mini 40kV/50μA X-ray tube, Ag anode
- Data display: high definition and high resolution PDA (Personal Digital Assistant), Windows CE operating system, Bluetooth communication, personal data handling and e-mail sending.
- Data storage: Large capacity SD card and SD card reader enable the data to store on PC and print out
- Power supply: operating time of two fully-charged Lithium batteries is 8 hours
- Weight: 1.35 kg
- Overall size: 260×25×25mm（L×H×W）
- Ambient environment: temperature -20℃-50℃; humidity <85%
- Safety: both PDA and software operations require passwords. Unauthorized people are not allowed to operate.
- Standard accessories: shock, pressure & water-proof carrying case with padlocks, 110v/220v general-purpose charger, large capacity SD memory card, SD card reader, two 4000mAh Lithium batteries, Lithium battery charger, PDA accessories, lab test stand (optional), etc.

EDX-Pocket-Ⅲ Handheld X-ray Fluorescence Spectrometer Main characteristics:

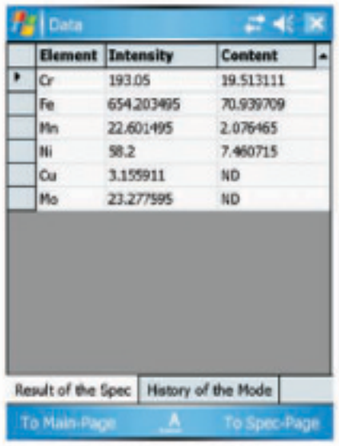
- The instrument is small, light and portable, providing rapid and non-destructive analysis of the tested samples on the site.
- Figurative interface, flexible software operation, intuitive spectrum display and definite results
- Several working curves are provided in the software, which can even be edited and renewed upon test requirements.
- Optional GPS helps locate the tested sample when mining or surveying in the field.
- SD card with super large capacity is available. There is no limit of data storage.
- Attractive design and comfortable feel when held in hand
- The carrying case has high strength and high sealing capacity, drop and shock proof as well.
- Faster analysis and better accuracy, delivering lab-quality results
- Measurable elements: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Zr, Nb, Mo, Sn, Hf, Ta, W, Re, Pb, Bi, Se, Sb, Pb, Au and Hg
- Application fields: RoHS screening; full-element analysis; analyzing alloy steel, stainless steel, tool steel, Chrome-Molybdenum Steel, Nickel alloy, Cobalt alloy, Nickel-Cobalt heat-resistant alloy, Titanium alloy, Copper alloy, Bronze, Zinc alloy and Tungsten alloy; Grade identification of light Aluminum and Magnesium alloys by measuring other alloy elements.

EDX Pocket III
Test Example and Analysis

An Introduction to Scrap Metals Recycling and Utilization



▲Spectral analysis



▲Measurement Results

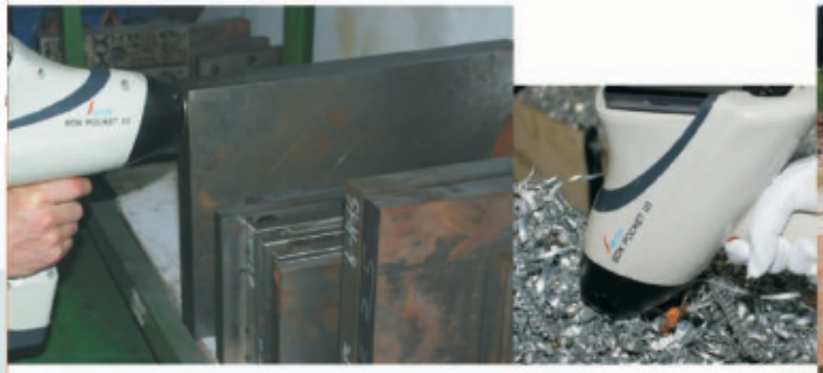
The major compositions of the scrap metals are Fe, Cr, Ni and Mn.

EDX Pocket III
Application fields

An Introduction to Scrap Metals Recycling and Utilization

Scrap metals recycling is an indispensable aspect of circular economy, which has positive influence on environment protection and resources economization. Nowadays, nations around the world are propelling the cause of scrap metals recycling, waste electronic products reuse and circular economy transformation of steel and non-ferrous industries. China is currently making experiments on circular economy in key industries, areas, industrial parks, and cities.

Skyray EDX Pocket III Handheld X-ray Fluorescence Spectrometer is designed for on-site measurement and rapid sorting of volume scrap metals. It allows the scrap dealers to make rapid and reliable judgment on the raw material deals. As a powerful weapon used for metal identification in scrap and regeneration metals recycling, it has contributed significantly to the development of renewable material industry.



▲Overstock steels recycling in warehouses

▲Sorting of metals in salvage station

▲Test of cutting scraps or shavings

Applied to:

- *Scrap metals recycling:* Rare metals: gilt,silver plating,silver point, Hg, Mo, Ni and W; Non-ferrous metals: Cu,Al,stainless steel, lead soldering tin, tin dross, zinc, etc
- *Waste electric appliances recycling:* household appliances such as air-conditioner, refrigerator, washing machine,TV and refrigerator
- *Waste commercial units recycling:* central air conditioning system, refrigeration equipment,electric wire and cable,battery cell, electric motor,machine tool,elevator, jack box, transformer and boiler