TrueX TCB Hand-held XRF Analyzer

Product advantage

With the support of policy, the market of ternary lithium battery has been growing rapidly in recent years. The demand for cathode materials is increasing, and the energy density, capacity and safety of cathode materials are also put forward higher requirements. The ternary materials mainly include NCM (nickel cobalt lithium manganate) and NCA (nickel cobalt lithium aluminate). NCM is the most popular ternary material at present. The common NCM materials include ncm111, ncm523, ncm622, ncm811, etc. Because of the high technical barriers, NCA has a small application scope.

TrueX TCB ternary battery analyzer is a special XRF analyzer for batteries developed by LANScientific Instrument Co., Ltd. in combination with market demand, integrating optoelectronics, microelectronics, semiconductors, computer software and other technologies. It is suitable for quantitative and qualitative analysis of elements in cathode materials of ternary batteries, With the advantages of fast, high efficiency, non-destructive and durable, it is an ideal tool for ternary battery material manufacturers, dealers and waste recyclers.

Product characteristics

1,the instrument is smaller, lighter weight, easy to carry.

2,high-speed processing chip, advanced algorithms and efficient software to make the instrument analysis faster.

3,industrial resistance touch screen, compared to the capacitive screen has a better backlight performance, in the field of light is still clearly visible, while the field of special environment to avoid the risk of glove removal.

4,the use of anti slip body of the fuselage design, very lightweight, easy to carry and transport, and integrated wave of the most cutting-edge research and innovation.

5,support the instrument battery hot plug, can be replaced in the working state of the battery, no need to shut down.

6,the user can be customized to create a professional report: including company logo, company address, detection results, spectral and other sample information (such as product description, origin, lot number, etc.).

Analysis of elements and patterns -

TrueX TCB	Ni, Co, Mn, Al, Fe, Ti, Zr, Cu elements can be added if there is special element demand

Application range -

1.Identification of battery cathode materials

It is important to avoid using substandard or substandard batteries.

In many serious battery accidents in the past, more than half of them were caused by substandard batteries. Therefore, it is very important to determine the elements and element content of battery cathode materials to ensure that they meet the standard. Truex TCB ternary battery analyzer can quickly and accurately identify the elements and element content of battery cathode materials. It is suitable for battery manufacturers, battery purchasers, third-party testing centers, national quality inspection departments, research centers and other user groups.

2.Quality control in battery manufacturing

For battery manufacturers, the quality control and quality assurance of materials (raw materials), semi-finished products and finished products are essential. If unqualified cathode materials are used, it will cause catastrophic accidents, even lead to casualties, bring great economic losses to the enterprise and damage the reputation of the enterprise. Especially in the process of finished battery delivery, truextcb three-way battery analyzer can help testers accurately detect each lithium battery sample under non-destructive conditions, making the finished product detection faster and more efficient.

3.Recycling and sorting of waste batteries

Waste batteries contain a lot of heavy metal elements such as manganese, cobalt and nickel. Meanwhile, the electrolyte also contains high toxic substances such as lithium hexafluorophosphate and volatiles. Improper disposal will cause serious damage to the environment. In recent years, with the increasingly prominent problem of battery recycling, in the face of a variety of battery types and the quality of good and bad materials, it is necessary to use advanced detection means to conduct rapid and accurate analysis and detection on site. Through the recycling of waste batteries, it can avoid environmental pollution, improve the utilization efficiency of batteries, create new profit space, and reduce the cost of battery production. Truex TCB ternary battery analyzer can be used for on-site detection and rapid classification of a large number of waste batteries. In a few seconds, the type and content of waste battery can be obtained. It provides necessary information for the buyers and sellers to make quick and reliable judgment in the transaction.

Technical parameters and specifications -

WEIGHT	1.6Kg(with battery)
DIMENSIONS	254×79×280mm (L×W×H)
EXCITATION SOURCE	50KV/200μA maximum pipe pressure pipe flow can be adjusted freely,Agtarget (standard),Au,W,Rh target(optional)
DETECTOR	Si-pin detector
RANGE OF DETECTION	All elements between Mg and U.
DISPLAY SYSTEM	Industrial resistive touch screen with screen size of 4.3".Proprietary operating system and LANScientific analysis software.Multiple languages including English and Chinese.And it automatically adjusts display brightness according to the environment brightness.
DATA PROCESSING	32GB memory.USB, bluetooth, WIFI,or liked to the Internet, instrument can be configured and repaired remotely.Data can be exported via 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).
HEAT DISSIPATION	Equipped with a dedicated T-shaped radiator to dissipate the heat,no need to wait for cooling of detector time again.
SAFETY	Built in DoubleBeam™ technology to automatically detect the front of the sample, to improve the safety and protection of the radiation level, Waterproof,dust-proof and shockproof suitcase.LANScientific Safety Band.
POWER SUPPLY SYSTEM	Intelligent battery management through MSBUS bus, real-time monitoring of the residual capacity of battery and backup battery.The battery complies with air transport regulations of dangerous goods.A single battery can last 8 hours.

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