

EDX 6000B

— All-element Analysis Expert

Quality gains greatness
Profession creates excellence

| Rapid | Accurate | Non-destructive |



The cost effective world-leading X-ray generator and high-voltage unit make the Instrument produce results compliant with State standards.

The instrument is specially designed for metallurgy and building material industry.

Features:

- ◆ It performs professional all-element analysis on cement, steel, aggregate, plating thickness detection and RoHS.
- ◆ Vacuum sample chamber, good for analyzing low content light elements.
- ◆ In-built SNE improves the signal processing ability up to 25 times.
- ◆ The collimators and filters can be switched automatically for different samples.
- ◆ Electro-cooling UHRD detector instead of liquid nitrogen cooling one
- ◆ Intelligent all-element analysis software matches with the hardware well.
- ◆ Arbitrary optional analysis and identification models
- ◆ Independent matrix effect correction models
- ◆ Multi-variable non-linear regression procedure

Technical specifications:

Range of measurable elements: Na to U
Ability of simultaneous analysis: 24 elements
Detection limit: The highest detection limit of hazardous elements (Cd/Pb/Cr/Hg/Br) in RoHS directive reaches 1ppm.
Functions: RoHS detection, ore analysis, plating thickness, all-element analysis; one instrument for multi purposes
Analysis accuracy: 0.05%(above 96%)
Forms of samples: powder, solid and liquid
Testing time: 60s~100s (Optional vacuum device)
Ambient Temperature: 15°C~30°C
Ambient Humidity: ≤70%
Working Voltage: AC 110V/220V

Unique configurations

- Signal-to-Noise Enhancer (SNE)
- Light path enhancement system
- High efficient ultra thin end window X tube
- Electro-cooling UHRD detector
- In-built high resolution camera
- Automatic collimator and filter switch
- Enhanced metal sensitivity analyzer

Sample Changer

- ◆ 10-position sample changer
- ◆ Simple, convenient and timesaving
- ◆ A large quantity of samples can be analyzed automatically without manual operation.
- ◆ Convenient for sample loading
- ◆ Applicable to solid, liquid, powder (tablet forming, ore slurry, particulate matter, thin membrane, coating, etc)



Working principle

When a substance is irradiated by X-ray beam from X-ray tube, atoms of element in this substance will be excited and emit the so-called X-ray fluorescence.

Each element in a sample emits its own characteristic X-ray fluorescence and the intensity is interrelated with the concentration of the element. This is the basis for XRF analysis and is one of the most convenient and accurate elemental methods.

Energy Dispersive XRF is a method to detect X-ray fluorescence comprised of X-ray photons that are emitted at various energy levels. These photons have different energies and when they are received by the detector in a spectrometer, they will convert into series of electrical signals. Then these signals get amplified, treated and transformed into numerical values (digital signals) by using electronic methods. These numerical values are stored in multi-channel analyzer (MCA) and separated according to their photon energies, so to form a spectrum. Special software treats the spectrum and displays the results in element concentration as unit, and the value can also be shown in other concentration unit.

Working principle

