



# *Skyray* Instruments

XRF Spectrometry

Mass Spectrometry

Chromatography

Elemental Analyzers

## 2016 PRODUCT CATALOG

## New Products

### ☑ Explorer Handheld XRF



#### Features

- Skyray Instruments 6th generation Explorer Handheld X-Ray Fluorescence Spectrometer is our best and most advanced Handheld XRF. Performance and accuracy of a Desktop X-Ray Fluorescence Spectrometer combined with convenience and portable size factor of a Handheld XRF.
- EXPLORER introduces newer digital multi-channel technology, lower detection limits, high stability and wide application range making the instrument capable of virtually any XRF application.
- RoHS/WEEE Screening
- CPSIA Screening
- Hazardous Substance Detection
- Positive Material Identification(PMI)
- Precious Metals
- Scrap Metal Recycling
- Alloy & Steel Grade Verification
- Mineral Analysis

### ☑ OES 6000 & OES8000 Spectrometers



#### Features

- Skyray Instruments OES 6000 and OES8000 series Optical Emission Spectrometers are specifically designed for fast quantitative measurement of ferrous and non-ferrous metals. Results are obtained within 35 seconds and the instrument can be used 24 hours a day, 7 days a week.
- OES 6000 Optical Emission Spectrometer features a new design which eliminates the need of a vacuum pump or vacuum sealed chamber for accurate analysis.
- OES 8000 Optical Emission Spectrometer features a compact size compared to similar OES Systems and greatly reduces laboratory space.
- Small size
- Fast analysis: 35 seconds testing
- Excellent reliability and repeatability- 24/7 operation
- No vacuum necessary

# Energy Dispersive X-Ray Fluorescence Spectrometer

## EDX 600 Precious Metals Analyzer



### Application field:

- Content determination of precious metals Au, Pt, Ag and other elements
- Precious metal and jewelry processing industries

### Features:

- Specialized testing of precious metals
- Built-in Signal to Noise Enhancer improves signal processing
- Intelligent analytical precious metals software
- Independent matrix effect correction model
- Multi-variable non-linear regression

## EDX880 Precious Metal Analyzer



### Application field:

- Content determination of precious metals Au, Pt, Ag and other elements
- Precious metal and jewelry processing industries

### Features:

- Specialized testing of precious metals
- Built-in Signal to Noise Enhancer improves signal processing
- Intelligent analytical precious metals software
- Independent matrix effect correction model
- Multi-variable non-linear regression

## EDX 1800B RoHS Analyzer



### Application field:

- RoHS /Quality Control
- RoHS Directive industries

### Features:

- Auto-switching collimators and filters
- Developed specifically for RoHS Analysis
- Built in Signal to Noise Enhancer improves signal processing
- Intelligent RoHS Software
- Multi-variable non-linear regression
- Optional Plating Thickness analysis software

# Energy Dispersive X-Ray Fluorescence Spectrometer

## EDX 3000 Precious Metals Analyzer



### Application field:

- EDX 3000X X-Ray Fluorescence Spectrometer is Skyray most popular model for Gold and Precious Metals analysis. Thanks to Electro-cooling Si-Pin semiconductor detector EDX3000X can achieve 0.1% accuracy with 30-60 seconds non-destructive analysis. Able to analyze up to 24 elements simultaneously in the range of Potassium(K)- Uranium(U).

### Features:

- Improved testing stability and accuracy with Signal to Noise Enhancer
- Rapid and accurate data processing with Digital Pulse Processor
- Accurate measurement without standard sample
- Karat weight and elemental identification
- Independent matrix effect correction

## EDX3000D RoHS Analyzer



### Application field:

- Electronics and electric appliance, testing of hazardous elements in plastics, wood, glass and other materials
- Electroplating industry

### Features:

- Automatic movable platform
- Auto-switching of collimators and filters
- Software adjusting sample position
- Signal to noise Enhancer

## EDX3200S PLUS Sulfur Analyzer



### Application field:

- EDX 3200S Plus X-Ray Fluorescence Spectrometer is specifically developed for Sulfur in Petroleum Analysis. Thanks to Helium gas sealed sample chamber and SDD detector EDX3200S Plus is able to analyze up to 24 elements simultaneously in the range of Sulfur(S)- Uranium(U).

### Features:

- Portable design for on-site or lab use
- W-Target X-ray tube with SDD detector
- Sealed Helium charge sample chamber
- No sample preparation required
- Heavy X-ray shielding
- One-key operation

# Energy Dispersive X-Ray Fluorescence Spectrometer

## EDX 3600B Full Element Analyzer



### Application field:

- Steel and non-ferrous industries, cement testing and mineral aggregate analysis

### Features:

- High resolution UHRD Detector-Skyray patented technology reduces element interference greatly and makes hazardous elements testing more accurate
- Vacuum pump system improves light elements testing
- Automatic collimators and filters

## EDX3600H Non-halogen Analyzer



### Application field:

- EDX3600H X-Ray Fluorescence Spectrometer is an all-in-one XRF capable of virtually any elemental application. EDX3600H comes standard with best in class UHRD/SDD detector and advanced vacuum system and can be used for multiple testing types including Mineral, Alloy, RoHS, Plating Thickness and custom applications.

### Features:

- Full-elemental analysis- Na-U
- RoHS/WEEE Analysis, Mineral Analysis, Alloy Analysis
- and Plating Thickness
- Custom calibrations for virtually any application

## EDX6000B Full-element Analyzer



### Application field:

- Cement testing, steel and non-ferrous metal testing, mineral analysis, RoHS testing

### Features:

- Thermoelectric-cooling UHRD detector
- Vacuum pump system improves light element testing
- Built-in Signal to Noise Enhancer improves signal processing
- Automatic collimators and filters
- Arbitrary optional analysis and identification
- Independent matrix effect correction model
- Multi-variable non-linear regression

# Energy Dispersive X-Ray Fluorescence Spectrometer

## EDX Portable-1



### Application field:

- Hydrological survey, geographic prospecting, archeological study

### Features:

- Integrated miniature end window X-Ray tube
- Si-Pin detector
- Precious Metal, Mineral and RoHS analysis

## Genius XRF Series



### Application field:

- Genius Handheld XRF Spectrometer features rapid non-destructive elemental identification and composition analysis with SDD Detector for precise detection of any element from Magnesium to Uranium.

### Features:

- Built-in GPS records altitude, latitude and longitude during testing
- Auto X-Ray tube shut off without sample
- Bluetooth, expandable SD Card for data storage and mini-USB
- Light elements detection with Helium gas

## SMART 100 PLUS



### Application field:

- Smart 100 X-Ray Fluorescence Spectrometer is our most advanced instrument for Precious Metals Analysis. Thanks to new generation Silicon Drift Detector (X-SDD) and multi-channel technology, Smart 100 is able to analyze Precious Metals of all sizes and get accurate results in 2 seconds.

### Features:

- Skyray most advanced detection technology - Silicon Drift Detector (X-SDD), with resolution as low as 125eV
- Digital multichannel technology improves efficiency with 30 kcps countrate
- High-power X ray tube and automatic collimation/filter system provides higher excitation efficiency
- Optical shutter system improves test efficiency and accuracy

## Plating Thickness X-Ray Fluorescence Spectrometer

### Thick800A



#### Application field:

- Measurement of plating thickness and element composition

#### Features:

- 0.1 micro collimator
- Accurate XYZ positioning precisely locates desired test spot
- High-resolution detector improves accuracy
- Multiple levels of X-Ray protection

## Wavelength Dispersive X-Ray Fluorescence Spectrometer

### WDX200 Multi-channel X-ray Fluorescence Spectrometer



#### Application fields:

- WDX-200 Multi-channel X-Ray Fluorescence Spectrometer features 10 fixed light diffraction channels and 10 elements can be analyzed simultaneously.(from Na to U) WDX200 is widely used in cement, steel, powder metallurgy, coal, petroleum and environment protection industries. Varian 400W thin Be end window Varian X-ray tube ensures best performance and reliability.

### WDX400E Multi-channel X-ray Fluorescence Spectrometer



#### Application fields:

- Building materials, steel, nonferrous metals, mining industry, geology, chemical industry, petroleum and quality control

#### Features:

- Varian 400W thin Be end window Varian X-ray tube
- low maintenance
- fixed challes eliminate goniometer wear
- fast and non-destructive analysis

# Inductively Coupled Plasma Spectrometer

## ICP 2060T Inductively Coupled Plasma Emission Spectrometer



### Application field:

- ICP 2060T Sequential Inductively Coupled Plasma Emission Spectrometer is designed to measure major, minor and trace elements in various samples with excellent analytical precision and accuracy. ICP2060 has wide wavelength range of 190nm to 800nm with 2400 line grating.

### Features:

- Over 70 elements can be measured
- Fast analysis, analyzing 5-8 elements per minute
- Simultaneous analyses of multiple elements
- Excellent detection limits- ppb level for most elements

## ICP-3000 Inductively Coupled Plasma Optical Emission Spectrometer



### Application fields:

- ICP-3000 Inductively Coupled Plasma Optical Emission Spectrometer is powerful simultaneous full—spectrum direct-reading spectrometer designed to trace elemental analysis in various samples with excellent analytical precision and accuracy. ICP2060 has wide wavelength range of 190nm to 800nm with 2400 line grating.

### Features:

- Advanced CID detector and Full-frame Imaging entire ICP-OES spectrum can be analyzed(165-900 nm)
- Fast analysis, analyzing 5-8 elements per minute
- Intuitive Software controls all parts of the instrument
- Fast auto-matching

## Gas Chromatograph

### GC-5400 Gas Chromatograph



#### Features

- GC-5400 Gas Chromatograph incorporates advanced modern manufacturing technologies with years of experience in research and development. Our multi-functional, easy-to-use and remotely controllable gas chromatograph provides superior performance for all applications.

#### Application field:

- Chemistry, medicine and forensic science
- Agriculture and food industries
- Environmental protection, quality control and petrochemical industries

## Liquid Chromatograph

### LC-310 Liquid Chromatograph



#### Features:

- LC-310 Liquid Chromatograph achieves the best balance in performance and stability. LC-310 High-performance Liquid Chromatograph features improved separation, sensitivity, speed, accuracy and stability. Advanced series pump and check valve ensure the user can achieve the accuracy and pulsation of solvent delivery.

#### Application field:

- Science and Education
- Agriculture and food industries
- Pharmaceutical and petrochemical industries

## Electrochemecal Analyzer Series

### HM-3000P Portable Water Quality Analyzer- Heavy Metals



#### Application field:

- Precise heavy metals detection in labs and in the field
- Water quality monitoring
- Heavy metals testing

#### Features:

- Rapid testing: 30 seconds up to 5 minutes
- Wide testing range: typical measurement include Cu, Cd, Pb, Zn, Hg, As, Cr, Mn, Ti and others
- Low detection limits: ppb levels

## Mass Spectrometer Series

### ICP-MS 2000 Inductively Coupled Plasma Mass Spectrometer



#### Application field:

- Environmental: drinking water, seawater, food, hygiene and disease control, goods inspection
- Semiconductor: metals, reagents, Si chips, photoresists
- Pharmaceutical: medical research on hair, blood, serum, urine sample, biological tissues, Lead testing in blood

#### Features:

- Quick analysis, simple operation, high sensitivity, low background noise
- One-button plasma setting for convenient plasma optimization
- Advanced plasma shielding technology improves sensitivity and reduces detection limit for low mass elements-reaching ppt level
- Wireless vacuum chamber

### LC-MS 1000 Liquid Chromatograph Mass Spectrometer



#### Features:

- Quick scan speed (maximum 10,000 amu/s, bar chart);
- Wide scan range (10-1100 amu)
- High detection sensitivity
- Auto calibration and tuning function
- All components are integrated and controlled by software
- Wireless vacuum chamber

#### Application fields:

- LC-MS 1000 is a necessary analytical tool for organism analysis lab, drug and food laboratory, production process control, quality control department, etc.

## Mass Spectrometer Series

### GC-MS 6800 Gas Chromatograph Mass Spectrometer



#### Application field:

- Industrial: textile, electronics, plastics and cosmetics
- Food safety: pesticides, fragrances, additives and packaging
- Environmental protection: air, water, soil and waste
- Pharmaceutical industry: pharmaceutical and drugs
- Petrochemical industry: refinery, chemical plants
- Public security: explosives, drugs and evidence

#### Features:

- GC system equipped with electronic pressure/flow control system (EFC/EPC) with EI filament for high electron emission efficiency
- Quadrupole with pre-filter and high energy dynode electron multiplier
- Reliable Vacuum system with turbo molecular pump
- Real-time vacuum monitoring with vacuum gauge
- Digital RF Technology ensures better sensitivity and resolution in full mass range
- The "ChemAnalyst" software controls auto sampler, GC and MS
- Full scan (SCAN) and selective ion monitoring (SIM) modes
- Quick display of total ion current (TIC) and mass spectrogram

## Atomic Absorption Spectrometer

### AAS Series Atomic Absorption Spectrometer



AAS 6000 Flame AAS

AAS 8000 Graphite Furnace AAS

AAS 9000 Combined AAS

#### Application field:

- Geology, minerals, metallurgy, steel, non-ferrous metals
- Environmental analysis: air, water quality, soil and solid waste
- Petrochemical industry and light industrial products
- Food, biomedicine and health products
- Building materials (glass, ceramic, paints, etc.)

#### Features:

- 8 element lamps with individual power supplies
- C<sub>2</sub>H<sub>2</sub> analysis and flame measurement
- Fully automatic operation
- Enhanced ultra-violet zone sensitivity
- 230nm grating blazed wavelength
- 1800 g/mm grating density and optimized resolution

# Skyray Instruments



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Spectroscopy

Chromatography

Mass Spectrometry

Skyray Instruments specializes in the R&D, manufacturing and sales of analytical and measuring instruments in Spectroscopy, Chromatography and Mass Spectroscopy fields. Our Products include X-ray Fluorescence Spectrometry, Atomic Absorption Spectrometry, Gas Chromatography, Inductively Coupled Plasma Spectrometry, Mass Spectrometry and many others.

Skyray has been providing customers around the world with reliable and affordable Scientific Instruments for more than 20 years