BSXRF-2700B Spectrometer

Energy Dispersive X-Ray Fluorescence Spectrometer

Mineral Analysis Expert



Simply the Best

- A high-performance alloy element analysis spectrometer XRF Analyzer that eliminates argon and helium consumption
- Comparable to the detection performance of direct reading spectrometers, complete non-destructive analysis (no need to destroy the sample)
- Vacuum test environment provides the best light element detection results (Na,Mg,Al,Si,P)
- High-resolution SDD detectors can cover up to 40 elements in one test
- No need to repeat calibration every day, fast analysis, easy to use
- Multi-combination filter system, effectively improve the detection limit of trace elements
- Durable, suitable for a variety of complex and harsh field work environment

  Very high cost performance

Introduction

- Medium and low alloy steels have important applications in many fields.
- In the construction industry, its high strength is used in high-rise building steel structure frames, Q345 low alloy steel can withstand vertical loads.

  It is also used in the main cable, main beam and other parts of long-span Bridges, and its toughness and weld ability ensure that Bridges resist wind load, water impact and dynamic load.
- In mechanical manufacturing, automobile engine crankshaft, transmission shaft, medium and low alloy steel can withstand inertia and centrifugal force, torsion and bending stress. The machine tool spindle is used to ensure accuracy and stability, and the lifting arm and bucket of construction machinery are also durable because of its wear resistance and high strength
- In the field of energy, oil well pipes go deep underground, and medium and low alloy steel is resistant to underground high temperature, high pressure and corrosion. Oil pipelines use it to resist soil, seawater corrosion and internal and external pressure to ensure the safety of energy mining and transportation..
- In terms of ship manufacturing, the hull structure uses medium and low alloy steel to resist the sea pressure and wave impact, the Marine propeller relies on it to achieve wear-resistant and efficient operation, and the deck uses it to withstand the cargo load to ensure the safe navigation and transportation of the ship.

  BSXRF-2700B X-ray fluorescence spectrometer have excellent performance to test middle-low alloy steel.



BSXRF-2700B Energy Dispersive Fluorescence Spectrometer-Mineral Analysis Expert EDX9000B provides exceptional accuracy at all concentration levels. It also offers rapid (typically 2 to 3 minutes) turnaround. Bringing unprecedented precision and speed to the field makes BSXRF-2700B ideal for applications such as analyzing cores e.g., to detect shale gas boundary layers - enabling fast direction changes that maximize drilling productivityher instruments in its class. In BSXRF-2700B analyzer's purchase price is highly com Litive with many cases, it is also half the price of larger laboratory instruments. Furthermore, with direct improvements in mining or exploration productivity due to rau availability of ac curate information, BSXRF-2700B delivers an outstanding return on Investment

Production and Mineral Processing

Fast, laboratory-grade sample analysis is made simple: test your samples on site with little or no sample preparation. Achieve the accuracy needed to provide defensible data for process control, quality assurance, and other operational decisions.

- Grade control
- Delineate ore and waste boundaries
- Ore trading
- Concentrate measurement

Industrial Minerals

BSXRF-2700B XRF analyzer is an emerging inum of choice n-quarry exploration and evaluating the composition of raw materials such as phosphate otash, gys, and limestone for industrial use

Ideal for determining penalty elements in limestone, Fe and bauxite

Blending and sorting of raw matenals

Instantly flag grade, sub-grade, and waste, and prevent taking ore to the waste heap

BSXRF Introduction

BSXRF instrumentation separates the characteristic x-rays of different elements into a complete fluorescence energy spectrum which is then processed for qualitative or quantitative analysis

BSXRF technology is a convenient way to screen all kinds of materials for quick identification and quantification of elements from Sodium (Na) to Uranium (U)

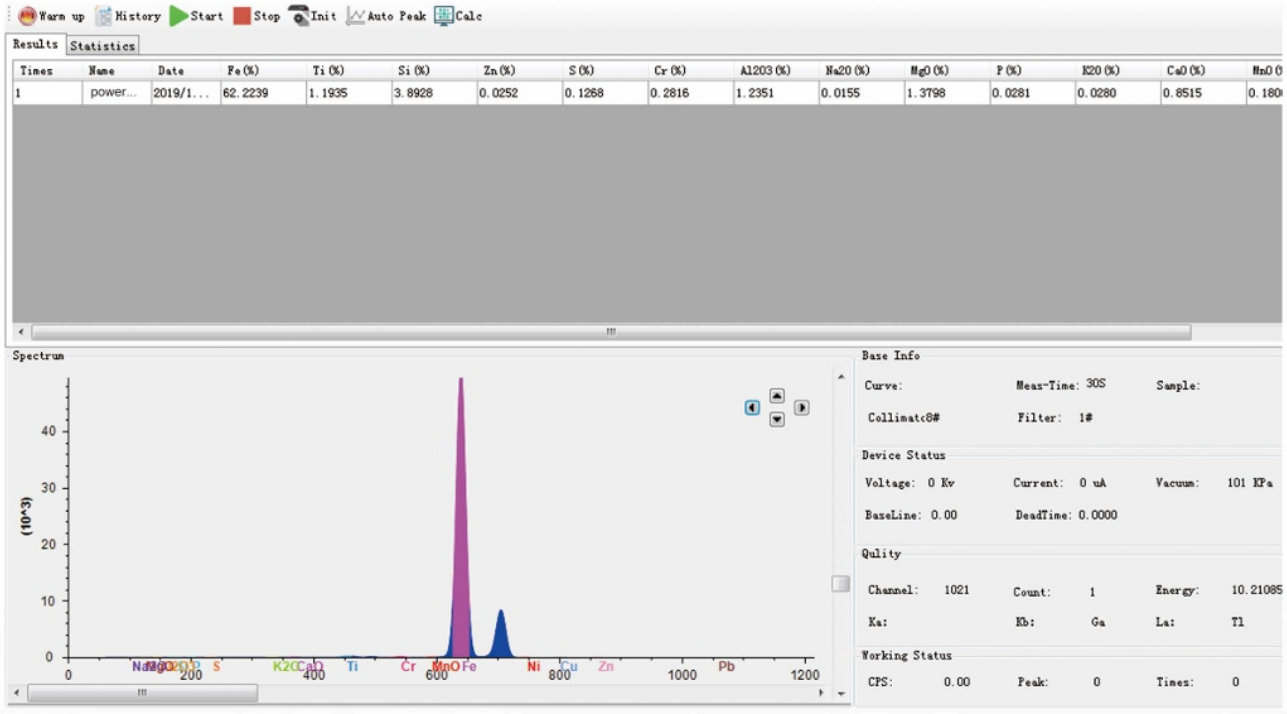
BSXRF instruments may be either handheld or portable depending on user preference, making them the perfect tool for in-field analysis, and providing instant feedback to the user without the long trip to the laboratory. Low cost of ownership and rapid elemental analysis of any sample type make BSXRF an attractive front-end analysis tool.

X-Ray Fluorescence (XRF) Analyses (or Spectrometry) an instrumente, comparative analytical method

Based on phenomenon of near instantaneous emission orescence) of quanta of characteristic energy by atoms of material irraduated by external X, or gamma radiation of appropriate energy (wavelength)

Radicisotopes or X-ray tubes are used as sources of extemal radiation to excite sample

Powerful and user-friendly testing software



Speed: Our XRF analyzer offers real-time analysis capabilities to enable quick decisions, including whether to drill or not to drill, equipment relocation considerations, where to focus on the grid, and when to take a proper sample for laboratory analysis.

Real-Time Reporting: Field analyses provide for faster delineation of drill targets for timely operational and financial reporting back to management and/or investors.

Increased Sample Density Running more assays in the field allows for finer grid resolution and the ability to send prequalified samples to an off-site laboratory. With improved statistics, this high-density analysis produces a more comprehensive picture of the targel than the cyrusive use of the traditional bag and lab method.

Our Mission Statement

ESI will design, manufacture, sell and service high quality inne tive analytical instruments to the world.

We will achieve this by

- Delivering value to customers and providing outstanding levels of customer service and support.
- Continuous improvement and an open mind to new technologies.
- By striving for market leadershipMaking quality key in all we do.

Repeatability Test performance of Iron ore sample

Test Times Elernent	Fe (%)	Si02 (%)	Ti02 (%)	Mn0(%)	Zn(%)	P(%)	Pb(%)	K20(%)
1_1	65.4014	6.6835	0.1128	0.0489	0.0090	0.0099	0.0078	0.0664
1_2	65.4336	6.6575	0.1038	0.0465	0.0095	0.0008	0.0070	0.0677
1_3	65.3355	6.7223	0.1121	0.0491	0.0097	0.0097	0.0098	0.0654
1_4	65.3802	6.7145	0.1075	0.0491	0.0093	0.0807	0.0065	0.0677
1_5	65.4161	6.7280	0.1021	0.0462	0.0097	0.0535	0.0069	0.0564
1_5	65.4320	6.7306	0.1027	0.0461	0.0099	0.0038	0.0070	0.0677
1_7	65.4369	6.7803	0.1017	0.0512	0.0052	0.0036	0.0068	0.0664
1_3	65.4321	6.7508	0.1028	0.0512	0.0049	0.0098	0.0076	0.0677
Average	65.4024	0.65750	0.1170	0.0059	0.0099	0.0870	0.0118	0.0677
SD	0.0316	0.0500	0.0001	0.0016	0.0059	0.0164	0.0181	0.0717
SD	0.0021	0.245%	0.31787	0.05035	0.05780	0.0487	0.01123	0.06877
Test Times Element	NaZO(%)	MgO(%)	Al2O3(%)	As(%)	Cr(%)	Nl(%)	Cu(%)	CaO(%)
1_1	0.0021	0.7200	0.0334	0.0055	0.0164	0.0164	0.0084	0.0634
1_2	0.0232	0.5091	0.1022	0.0005	0.0176	0.0164	0.0013	0.0634
1_3	0.0022	0.7630	0.0531	0.0033	0.0164	0.0038	0.0044	0.0631
1_4	0.0021	0.7515	0.1570	0.0027	0.0164	0.0084	0.0013	0.0632
1_5	0.0022	0.7590	0.0634	0.0016	0.0116	0.0015	0.0013	0.0631
SD	0.0021	0.0688	0.0004	0.0127	0.0099	0.0013	0.0634	0.6317
RSD	0.6009	0.2015	0.1738	0.2936	0.0008	0.0034	0.6317	0.9875

Size of Spectrometer	560mm*380mm*410mm
Size of sample chamber	460mm*310mm*95mm
Size of Vacuum sample chamber	Φ150mm*75mm
Weight	45Kg
Element Range	Na11-U2
Analysis content range	1ppm- 999% 99.9%
Detector	AmpTek high resolution SDD
DPP Analyzer	4096 Channel DPP analyzer
Excitation Source	50W X-ray tube
HV unit	0-50kV
Power supply	20ACV 50/60HZ
Environment	-10 °C to 35 °C

Standard	Optional
Ag- Calibratiory standard	Mill machine
Vacuum pump	Sample pressing machine
Sample cup	Drying oven
USB cable	Fusing bead machine
Power supply cable	Balance
Test Mylar	Mineral Standard samples
Calibration report	Power stabilizer
Warranty card	