Skyray **Skyray Instrument**

Performance index:

Measuring range	Mg to U
Processor and RAM	CUP: 667MHz RAM:256M Maximum expanded storage: 32G Standard configuration: 2G , for storage of large amounts of data
Analytical range	ppm~99.99%
Testing time	3-30 seconds
GPS、WIFI	Built-in GPS & WIFI system
Battery	Chargeable lithium battery, with capacity of 7800mAh, continuously providing 8 working hours ;
Equip with wide voltage (110V-220V) general adapter
Testing object	Solid, liquid , powder
Detector	25mm² ,SDD
Detector resolution	Minimum resolution:139eV
Excitation source	Target: Ag High voltage: 5-40kv Tube current: 1-100 μ A
Collimator and filter	Collimator kinds: 2 (4.0 mm and 2.0mm diameter) Filter types: 6 Automatic switch: YES
Video system	CMOS HD camera
Screen	Semi-transmission & semi-reflection LCD touch screen, resolution 640*480
Detection limit	Detection limit: ppm level
Safety	Self-contained password administration
Testing window	Φ12mm
Gas charging system	Optional Helium charging system
Operational environment	Humidity ≤90%
Temperature: -20℃~+50℃
Size	234×306×82mm(L×H×W)
Weight	Net weight:1.6kg Battery : 0.3kg

| Rapid | Accurate | Non-destructive |

Genius 7000 XRF
Handheld Mineral Analyzer

Skyray

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Genius 7000 XRF
Handheld Mineral Analyzer

Performance Advantage

Perfect performance

Small power integral end-window miniature X-ray tube, large dimensional beryllium window Silicon Drift Detector (SDD, the best detector in the world), and miniature digital signal multi-channel processor, greatly reduce the testing time and testing deviation, and improve the testing precision.

Rapid & nondestructive detection

1-2secs for rapid detection,More than 10secs for precise detection,

Detection of light elements

Helium-charging system (optional) greatly expands measurable range (analyze elements from Mg), satisfying the requirements of customers for light elements detection.

HD camera for convenient observation

Observation of testing position at any time.

Direct testing

directly analyze on the surface of the analytes, without needing of preparing samples.

Simple deviation calibration

Built-in intensify calibration method ensures simple deviation calibration caused by different geometry shapes and inhomogeneous structure density.

Professional software for easy operation

professional mineral analysis software. Combining FP with EC software, it is easy for operation and acquiring wider application fields.

Faster data transmission

Built-in system, HD touch screen (resolution 640*480), digital multi-channel technology, and SPI data transmission technology, effectively accelerate the data transmission and improves the counting ability.

Multiple safety protection, caring for health

Automatically shut-down of X-ray light tube within 2 seconds with no sample in testing; the radiation level is far lower than the international safety standard; compliment away test safety cover.

Powerful battery & convenient charging

Compliment away two Lithium batteries (7800mAH), it can continuously work for 8 hours all together. It is convenient for charging because of wide voltage AC charger and Onboard charger.

Simultaneously testing elements

can detect the elements such as S, K, Ca, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Zr, Nb, Mo, Ag, Cd, In, Sn, Sb, Hf, Ta, Re, W, Au, Hg, Pb, Bi, Cs. And it can detect more elements according to the customers' requirements.

Application Advantages for Geology and Mineral Industry

- Rapid categorization of ore samples. One-key for qualitative and quantitative analysis.
- Built-in intensify calibration method ensures simple deviation calibration caused by different geometry shapes and inhomogeneous structure density.
- Built-in GPS system can record the data into GIS system, which is convenient for geological exploration and mineral in-situ testing. For instance, it helps to search the satellite signals, recording the longitude, latitude, altitude, and satellite number when testing, and save these data accompanied with the test report.
- Quickly test a big range of mining area, effectively detect the land belt mode, and locate and map mineral distributions, doing great help for mining rich mineral area in primary.
- Test raw ore, concentrate, and tails during the washing process.
- Identification of the raw ores and concentrates when purchasing.
- Testing of light elements, such as Mg, Al, Si, P, S etc.
- HD camera helps to visual the testing mineral vein and mineralized points directly.

Analytical Precision

Measuring Precision of the Main Elements in International Polymetallic Nodule Sample Testing for 30 Seconds

Sample	Ti	V	Mn	Fe	Co	Ni	Cu	Zn	As	Pb	Ca	Sr	Zr	Mo
07249_1	1.027	0.055	20.85	18.75	0.352	0.347	0.267	0.056	0.018	0.097	2.020	0.122	0.064	0.037
07249_2	1.052	0.053	20.85	18.76	0.351	0.350	0.249	0.056	0.018	0.096	2.063	0.122	0.064	0.037
07249_3	1.066	0.055	20.89	18.72	0.347	0.354	0.265	0.055	0.018	0.097	2.050	0.123	0.064	0.037
07249_4	1.024	0.054	20.89	18.74	0.347	0.337	0.280	0.054	0.018	0.100	2.074	0.121	0.065	0.038
07249_5	1.035	0.058	20.85	18.71	0.359	0.346	0.261	0.055	0.018	0.098	2.040	0.120	0.063	0.037
07249_6	1.032	0.053	20.86	18.76	0.350	0.344	0.273	0.055	0.018	0.096	2.062	0.122	0.064	0.037
07249_7	1.056	0.057	20.85	18.70	0.353	0.353	0.275	0.056	0.017	0.083	2.072	0.122	0.063	0.037
Average Value	1.042	0.055	20.862	18.734	0.351	0.347	0.267	0.055	0.018	0.095	2.054	0.122	0.064	0.037
Standard Deviation	0.0161	0.0018	0.0195	0.0244	0.0039	0.0059	0.0104	0.0007	0.0003	0.0058	0.0193	0.0010	0.0005	0.0005
RSD/%	1.55	3.35	0.09	0.13	1.12	1.71	3.88	1.29	1.89	6.05	0.94	0.80	0.79	1.45