

The ISO 9001:2008 international quality certification system is adopted by our company



TO BE A WORLD-LEADING ANALYTICAL TESTING SOLUTIONS PROVIDER

• Spectroscopy • Chromatography • Mass Spectrometry

| Accurate | Rapid | Non-destructive |

Special optical path,
enhancing the Signal-to-Noise rate;
Low detection limit ,
achieving the function of super trace element testing!

SUPER XRF 2400 Super XRF Analyzer



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SUPER XRF 2400 Super XRF Analyzer



SUPER XRF 2400 Super XRF Analyzer

Wide measurable range High efficiency High intelligent

Special optical path enhances the Signal-to-Noise rate. Low detection limit achieves the function of super trace element testing

Oil-cooling system makes the instrument more stable and intelligent

Vacuum system: testing of light elements, such as Na, Mg, Al, Si, P

Application fields

Central laboratory, subcontract laboratory, environmental monitoring, chemical, mining, determination, food, electronic, cement and metallurgy industries.

Technical specifications

Measurable range: Na to U

Switchable testing modes: improve testing efficiency

Free switch of testing between the 12 testing samples

Testing of tens of elements simultaneously

Highest detection limit: 0.1ppm

Common analytical content: ppm to 99.99%

Long-time working stability: 0.1%

Ambient temperature: 15℃ to 30℃

Power supply: AC 220V±5V (equipment of AC purified stabilized voltage power supply is recommended)

Size: 752mm*988mm*759mm (W*H*L)

Standard configurations

SUPER XRF2400: Super sharp x-ray source and sample excitation structure

Imported 400W end-window light tube with automatic temperature control system

SDD detector with digital multi-channel data collecting and processing system

Automatic switchable collimator and filter

High and low voltage power

Automatic switchable sampler system

Professional x-ray XRF software

HD CCD camera



Performance advantages

Special optical path system

Special optical path system satisfies the testing of different trace elements in the matrix, enhances Signal-to- Noise rate and reduces detection limit.

400W power x-ray source

400W power x-ray source can achieve higher counting rate of the hard-excited trace elements. The detection limit order of magnitude is one level lower than the common EDXRF analyzer, which is more suitable for trace element testing.

Digital multi-channel technology

Digital multi-channel technology improves the testing counting rate to 100kcps, improving the testing precision and reducing the testing time.

Oil-cooling system

Oil-cooling system ensures the cooling of x-ray source, making the instrument more stable

Optical shutter

Because of frequent open and close of big power x-ray source and high pressure system, it will affect the testing stability of the instrument. Equipped with optical shutter, it keeps the high pressure, improving the stability of the instrument.

Vacuum system

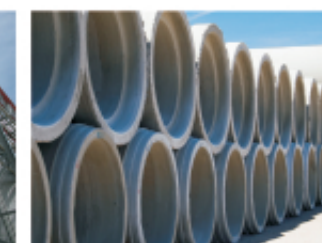
Vacuum system for light elements testing.

Automatic sampling system

Testing 12 samples every time, greatly improving the working efficiency



Automatic sampling system, testing 12 samples every time



Super XRF Spectrometer

SUPER XRF 2400 is a super functional instrument. It integrates common test and special optical path test mode (super sharp mode). Common test mode can test all elements, precious metals, RoHS, and plating. Super sharp mode can operate more precise testing to trace elements which are cared by customers. Because of the special super sharp optical system developed by Skyray, it reduces the background noise and improves the testing ability. Thus it improves the integral testing ability of the instrument.

Testing modes

Common Mode: testing mode of common XRF analyzer

Super Sharp Mode: testing mode of SUPER XRF 2400 Equipped with optical path system, it achieves two main functions: reducing background noise and lowering detection limit

V (green) and Cr (red) content in soil
Real part:(tested under the super sharp mode)
Counting rate: 4000cps
The red virtual part: (tested under common mode)
Counting rate: 7000cps
From the figure, it is obvious that the detection limit is lower under super sharp mode

The figure of Zr content in soil: Real part (tested under super sharp mode) Red virtual part (tested under common mode)
Counting rate: 7000cps
Zr strength tested under super sharp mode: 210.05
Zr strength tested under common mode: 155.72
From figure two, it is known that SUPER XRF 2400 greatly reduces the background noise

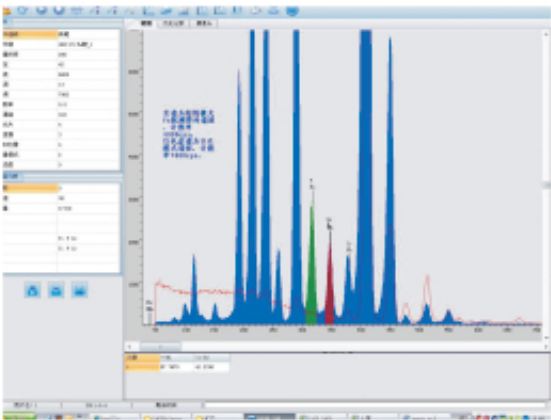


Figure One

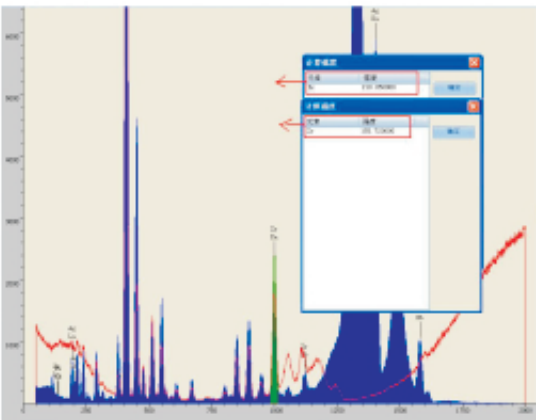


Figure Two

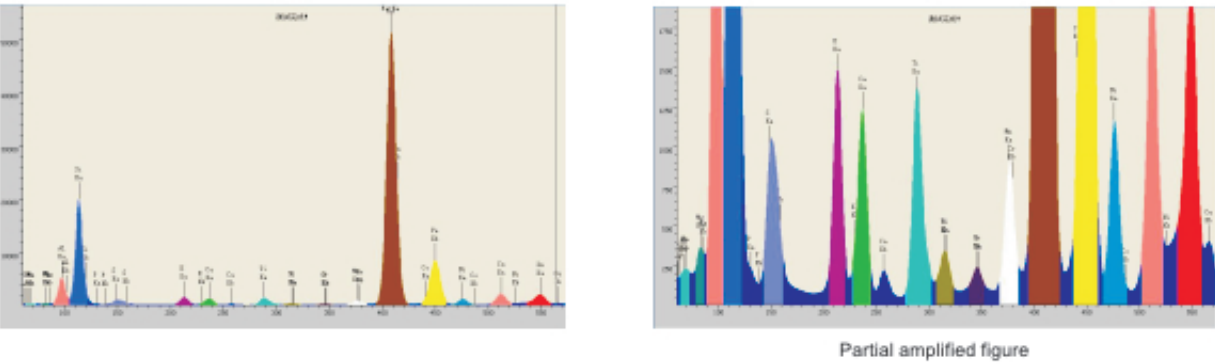
From the above figures, it is known that SUPER XRF 2400 features better precision, which is more obvious in testing of trace elements. Secondly, due to the specificity of XRF testing, the effects of background noise are very important. However, equipped with advanced optical path system, SUPER XRF 2400 greatly reduces the background noise, which perfectly solves this problem.

Testing Contrast Table Between SUPER XRF 2400 & Common XRF Analyzer

Content	SUPER XRF 2400 Testing Figure	Common XRF Testing Figure
Lead content of 39ppm in cupronickel		
Cr content of 139ppm in Mg		
Lead content of 50ppm in solder		
Lead content of 23.9ppm in plastic		
Professional Comments	In order to introduce the good performance of SUPER2400, we choose four basic kinds of material for contrast. From the figures, we can see that SUPER2400's testing results of the energy peak strength, peak types and Signal-to-Noise are all better than common XRF analyzer, which show the better detection limit, precision and stability of SUPER2400. Therefore, SUPER2400 are more suitable for high precision testing, which can satisfy the requirements of environmental testing and scientific testing.	

Typical application cases

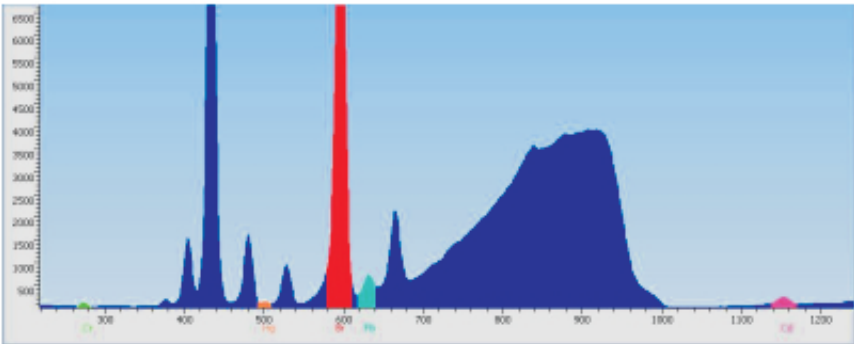
1、 Soil, mineral test figure



Testing results

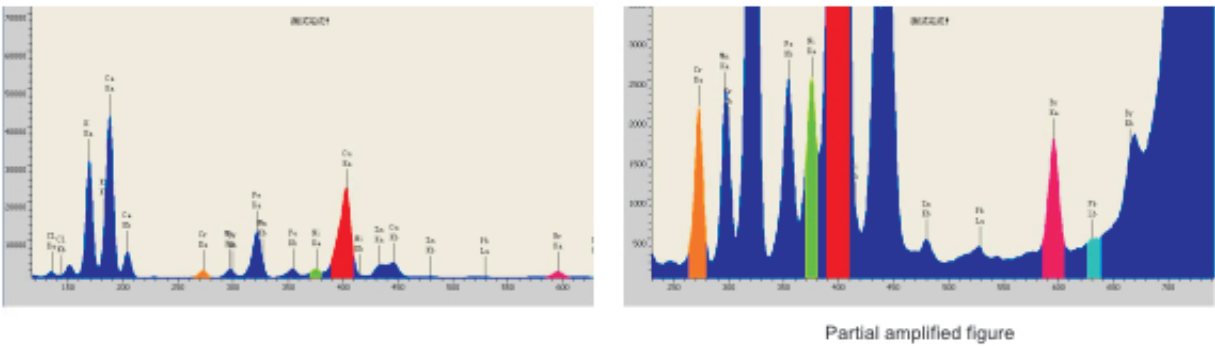
Name	Na ₂ O (%)	MgO (%)	Al ₂ O ₃ (%)	SiO ₂ (%)	P ₂ O ₅ (%)	S	Cl	K ₂ O (%)	CaO (%)	TiO ₂ (%)	V	Cr
Dark brown soil	1. 66	1. 81	14. 18	62. 6	0. 17	310	78	2. 59	1. 72	0. 81	86	62
	Mn	Fe ₂ O ₃ T (%)	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Rb
	1760	5. 19	14. 2	20. 4	21	680	19. 3	1. 3	33. 5	0. 14	2. 9	140
	Sr	Y	Zr	Nb	Mo	Ag	Cd	In	Sn	Sb	Te	I
	155	25	245	16. 6	14	0. 35	4. 3	0. 81	6. 1	0. 87	0. 51	1. 9

2、 RoHS test figure



Material	Cr (ppm)	Br (ppm)	Cd (ppm)	Hg (ppm)	Pb (ppm)
Recycled plastic	11.7	172.9	14. 1	2.1	7. 8

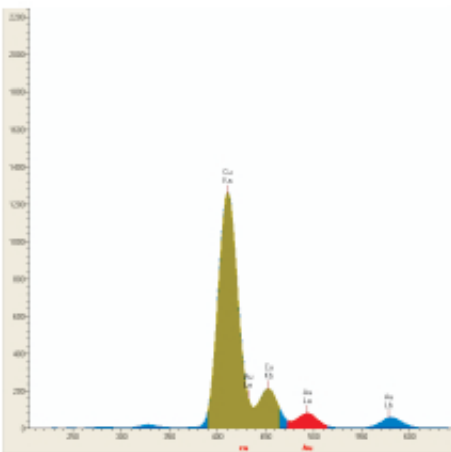
3、 Tobacco test figure



Testing results

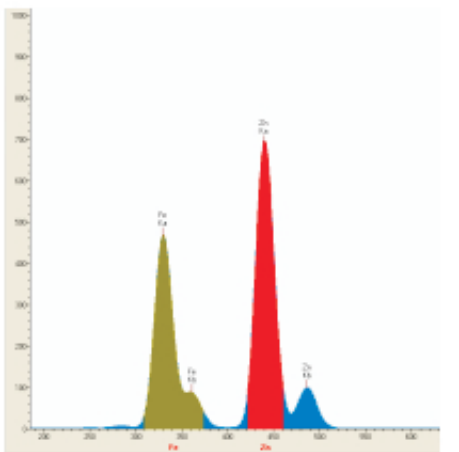
Material	Cr (ppm)	Br (ppm)	Cd (ppm)	Ni (ppm)	Cu (ppm)	As (ppm)
Tobacco	2.7	11.2	1. 2	3.1	45. 6	0. 7

4、 Plating test figure



Gold-plated copper test figure

Testing times	Au
1	0. 172 μ m
2	0. 169 μ m
3	0. 177 μ m
4	0. 175 μ m



Galvanized iron test figure

Testing times	Zn
1	2. 741 μ m
2	2. 733 μ m
3	2. 738 μ m
4	2. 729 μ m