- Provide the installation and commissioning service for user free of charge, and one-year warranty and lifelong maintenance
- The Soohow Application Laboratory with complete equipment can be timely provided to client for learning and training
- Supply the favorable spare parts and accessories, relevant standard samples and reagents for a long term
- As the development of science and technology as well as technical progress of the company,it can provide the upgraded application software for users and more advanced analysis technique and method free of charge

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封底

书豪仪器 SOOHOW INSTRUMENT

Hotline :0512-36862668

FS800

Full Spectrum Direct Reading Spectrometer (Floor Style)

EXPLORER CCD FS800

KUNSHAN SOOHOW INSTRUMENT TECHNOLOGY CO.,LTD.

封面

COMPANY PROFILE

Kunshan Soohow Instrument Technology Co., Ltd. is a high-tech enterprise engaged in the development, production and sales of atomic emission spectrometer instruments and their software. The enterprise has passed the standards of enterprise credit management in Jiangsu Province, ISO9001:2015 quality management system certification, ISO14001 environmental management system certification, and has been awarded the honors of "National High-tech Enterprise", "Jiangsu Science and Technology Small and Medium-sized Enterprise", "Kunshan Research and Development Organization" and so on. The company has 38 patents, including 4 invention patents.

The company has the core technology and related supporting technology research and development capabilities of atomic emission spectrometer. We have successfully developed a number of products applied to material composition detection technology, including hollow cathode spectrometer, oil spectrometer, PQ ferromagnetic wear analyzer, spark direct reading spectrometer, full spectrum direct reading spectrometer and other products, trained a number of high-level spectral technology development talents, built a professional spectral development platform, equipped with various advanced development equipment, and provided strong software and hardware support for the smooth implementation of the project technology.

ENTERPRISE QUALIFICATIONS

For detailed product specifications, technical reference documents and available product options, please visit our website at www.soohow.com

INSTRUMENT INTRODUCTION

FS800 is the crystal of 10-year manufacturing technology of SOOHOW Company on direct-reading spectrometer and featured by the top analysis capability. The cutting-edge manufacturing technique makes FS800 series can satisfy different analysis requirements and apply to: analysis control during production process, quality control, and special and complex application of R&D Department. FS800 series adopt CCD technology.provide the optimal precision, flexible selection of element range and multi-substrate application for users and can analyze the major alloy elements, non-metal elements and trace elements in a fast and accurate way, such as O, N, P B... in iron and steel as well copper alloy,aluminum alloy and titanium alloy etc.

- Applying the international standard sample makes working curve in plants to realize the optimal precision and analysis quality, if any of more complex and special application, our experts can provide the new analysis method and program for you.
- The optical laboratory made by aluminum alloy is firm and stable, and can make the system relatively insulated from external environmental condition depending on the optimized Paschen-Runge structure, highly steady temperature and pressure control.
- The reading system can receive the display and analysis treatment for all data at the same time and complete that within one full-band scanning.
- The variable frequency spark source controlled by PC can improve the precision of plasma and repeatability,and reduce the testing time.
- The analysis software is convenient for operating with efficient and fast daily analysis, and supports network connection for remote control automation and standardization.
- The instrument is featured by self-diagnosis function and can automatically monitor the instrument working status.

MAIN FEATURES

1.Outstanding and fast analysis performance
2.Dynamic range: from ppm-%
3.The wide spark bench and special small sample clamp makes sure the instrument can apply to analyze various types of metal samples.
4.Accuracy: superior to 1% deviation
5.Excellent analysis performance on nitrogen and oxygen
6.High stability and reliability
7.Multiple high-performance CCD tester systems can be optional and 16 CCD testers are maximum according to application requirement to increase the flexibility of instrument substrate and upgrading element analysis
8.High-level calibration of standard sample
9.Variable frequency high energy pre-spark (HEPS) controlled by PC
10.High-precision temperature and pressure control
11.Advanced software function, convenient for operation and easy to master
12.Applying to analyze various types of metal materials

TECHNICAL CONFIGURATION PARAMETERS

Optical system

1.High-performance holographic diffraction grating, 2700 grating lines/mm, primary dispersion rate: 0.74nm/mm, secondary dispersion rate: 0.37nm/mm.
2.Paschen-Runge optical structure, with the focal length:500mm.
3.Spectral line wavelength: 130-800nm; The specific configuration range is selected by the actual customer application.
4.Single CCD3648 pixels, with a maximum resolution of 16 * 3648 pixels.
5.All optical system automatic tracing.
6.The closed vacuum light chamber can avoid the interference of dust and light.
7.Temperature stabilization system, constant temperature of light chamber: 38 ℃ +0.1 ℃.
8.Use special materials to cope with drift.
9.Damping rubber pad is installed in the light chamber to prevent vibration.
10.The direct-reading spectrometer FS800 uses an intermittent vacuum chamber to control the vacuum within the target range. The working time of the vacuum pump is less than 20 minutes per day, and the lens heating system greatly reduces the risk of light chamber pollution.
11.The straight-through optical path design does not need to be attenuated through optical fiber. The data has good long-term stability, small curve drift, and the design is simple and easy to maintain.

Spark table (excitation table)

1.Open spark excitation table can analyze samples of various shapes weighing up to 20KG.
2.Argon purging spark table, low argon consumption.
3.The static argon purging design shortens the heat engine time.
4.The electrode is easy to disassemble and maintain.
5.The convenient sample is carried with safety protection, and cannot be excited if it is placed abnormally.
6.Ultra-low standby static flow.
7.Adapters for different samples can meet the needs of various samples (optional).

Spark power supply

1.The computer automatically controls the spark source, and can set various parameters according to the test material.

2.Semiconductor controlled discharge excitation.

3.1 to 100A plasma current.

4.Discharge parameters are protected by password.

5.Adjustable excitation parameters.

6.Stable spark light source system is not affected by fluctuation of power supply system.

7.Excitation parameters are calibrated and controlled by excitation line and analysis program

8.Analysis time: 15-30 seconds.

9.High and low excitation frequency design, and spark frequency 20-1000HZ (adjustable).

10.Spark duration 10-10000us (adjustable).

Control, electronic acquisition and data readout system

1.Microprocessor-controlled multi-channel integration and data acquisition system.

2.High-speed 16-bit analog-to-digital converter.

3.ISP mixed-signal Flash micro controller 100MHz.

4.Design of high-speed USB data transmission.

5.Up to 16 high-performance CCD detection modules can be customized.

WinLab analysis software

1.Window7 operating system, office operating software, user-friendly graphical interface.

2.Monitoring and control instrument status, self-diagnosis function.

3.Process and calculate instrument data.

4.Simultaneous determination of elements and background.

5.Various matrices (reference lines) shall be taken into account when calculating the correction curve of each element.

6.Spectral line database, reference material database, historical data database.

7.Graphics processing function, automatically calculate channel strength and deduct background strength.

8.Automatic optical path calibration function.

9.Create or modify analysis program.

10.Curve calibration fitting.

11.standard deviation.

12.Correction of interference between elements.

13.Standardization function, sample control correction function, measurement data processing function.

14.Statistical calculation function, calculating average value, standard deviation and relative standard deviation.

15.Support the calculation of C equivalent or other parameters.

16.Mark the analysis results beyond the calibration curve range.

17.Display test results and statistics.

23.Edit sample information, print according to the editing template, or save to the historical database function.

18.Data transmission to external computer or central system function.

19.The user can add the curve of metal material grade of other alloy matrix on the site as required.

Size

Size dimension:
1260mm*900mm*500mm
(length * width * height)
Instrument weight: about 184 kg

Power Supply

220V +/-10%,
Single-phase, 50/60Hz
10 A，1.0 KVA

Laboratory environment

Temperature: 10-30 ° C
Relative humidity: 20-80%