



SYSTRONICS (INDIA) LIMITED



ATOMIC ABSORPTION SPECTROPHOTOMETER SYS-819D

Features:

1. Excellent total reflection optical system ensures excellent signal-to-noise ratio of the instrument

The atomic absorption spectrophotometer adopts unique optical design such as total reflection full band achromatic optical system and full band energy automatic linear balance to ensure the unity and optimal optical position of two beams of sample channel and reference channel of various elements at different wavelengths. Make the beam imaging and signal-to-noise ratio at the best level to ensure the accuracy and reliability of the measurement results. All optical elements adopt special processing technology, so that the whole optical system has good reflection efficiency in the deep ultraviolet region, so that the instrument has unique and excellent signal-to-noise ratio in the full wavelength range.

2. Comprehensive and safe intelligent gas control module

Modular concept, integrated air island design and independent single chip microcomputer control are adopted. Intelligent 32-stage acetylene gas linear flow regulation and multi-stage auxiliary air conditioning control module are adopted; It also has the functions of intelligent gas abnormal alarm and disconnection. The design of safety tank under acetylene air module increases the safety of flame. Abnormal pressure monitor of flame assisted gas: use the gas pressure monitor during air acetylene flame analysis to detect the change of air pressure at any time. In case of abnormality, it will automatically cut off the acetylene gas and shut down the fire safely. Safety measures for graphite furnace: graphite furnace cooling water flow, protective gas pressure, furnace body temperature, graphite tube installation, automatic protection and alarm.

3. Excellent full band deuterium lamp background correction technology and high-performance self absorption double background correction

The instrument has two methods of background correction: deuterium lamp and self absorption effect. The special automatic optical balance technology widens the wavelength application range of deuterium lamp

background correction. When the background absorbs 1a, the double balance technology of full wavelength optical energy automatic balance and photoelectric signal automatic gain can obtain the excellent performance of more than 40 times of deuterium lamp buckle background and 80 times of self absorption effect buckle background!

4. Fully automatic instrument control, light source supports high-performance element lamp, and can be completed quickly with one key

Automatic peak seeking, automatic setting of spectral bandwidth, lamp current, negative high voltage and lamp position, automatic energy balance, and automatic energy balance of two beams of light. The light source supports high-performance element lamp; One click to quickly complete the settings of wavelength, spectral bandwidth, lamp current, negative high voltage, energy balance, etc.

5. Original lamp position eight lamp holder 360 degree rotation design

The unique design of automatic 8 lamp holder system can adjust the position of hollow cathode lamp in an all-round way; The eight lamp holder of the instrument lamp position adopts a unique design to realize 360 degree rotation, which completely avoids the instrument failure caused by wire winding of the conventional eight lamp holder, and improves the reliability of the instrument.

6. Novel atomizer and intelligent elevator

The unique design of all titanium burner and atomization system make the temperature balance fast and the combustion stable. The atomizer can lift intelligently and automatically to obtain the maximum sensitivity.

7. Simple, professional, automatic and fully operated RG winaas workstation software under MS window system

Rich application experience and professional development technology make RG-WinAAS operating system not only show excellent professional ability, but also show the humanized and practical characteristics of rich information, clear and easy to understand, complete function but easy to use. Without professional training, you can become an atomic absorption analysis expert immediately. From standard and sample setting, instrument condition setting, sample measurement to result output, experts provide you with real-time guidance. The data output and saving comply with GLP standards. At the same time, they provide functions such as text, table, graph saving and curve data export on the sharing of result data and graphics, so as to provide a variety of information support for experimental researchers. If you are a tester, the functions you want in the test can be reflected in RG-WinAAS software.

QA / QC function: for each test, submit the SD and RSD of ABS. In the test, and provide the SD and RSD of calculated concentration. The working curve of test standard sample is to automatically check the correlation coefficient of the curve to ensure the accuracy of the test.

Full information measurement: each measurement saves the results of different data processing methods (average, peak height, peak area and statistical results) for users to study the results. Workstation software can meet the different needs of various users, save and output a variety of data and graphic materials, and support post-processing of data.

Six correction equations: six linear and nonlinear concentration calibration methods are provided to ensure the accuracy and stability of the analysis results.

The working software is equipped with rich expert system information database

One click to quickly complete the settings of wavelength, spectral bandwidth, lamp current, negative high voltage, energy balance, etc.

Specifications:

Monochromator	Czerny-Turner type, focal lengths at 350mm		
Wavelength range	180-900 nm		
Grating	Holographic diffraction with 1800 lines/mm		
Wavelength repeatability	±0.2nm	±0.1 nm	±0.05 nm
Wavelength accuracy	±0.4 nm	±0.3 nm	±0.2 nm
Reading mode	T, A, C		
Photometric range	0-125%, -0.1-3.00A		
Sensitivity (Cu)	approx. 0.9A at 5 ppm, RSD≤0.5%		
Slits	Automated slit selection 0.1; 0.2; 0.7; 1.4; 2.0 nm		
Detector	Wide range UV sensitive photomultiplier tube		
Lamp	Automated 4-lamp	Automated 8-lamp turret	
Background Correction	Deuterium (D2) Background Correction	Deuterium (D2) Background Correction and Self-absorption Background Correction.	
Burner	Titanium 100mm burner (Titanium 50mm burner is optional)		
Nebulizer	High efficiency glass nebulizer		
Spray Chamber	Corrosion resistant material spray chamber		
Gas Controls	Programmable gas control features software-controlled gas flows with automatic setting of gas flows for each element.		
Dimensions/ Weight	800 x 580 x 575 mm / 80kg		
Ambient Temp.	10 ~ 35 °C		
Ambient Humidity	≅ 85 %		
Power	110 / 220V±10%, 50/60Hz		

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