

## ATOMIC ABSORPTION SPECTROPHOTOMETER - SYS-813



### Features

- Automatic hollow cathode lamp changeover. The high performance HCL can be used directly.
- Auto-changeover and position optimization of integrated flame/graphite furnace atomizer.
- Auto-ignition, automatic spectral bandwidth selection.
- Fully automated wavelength scanning and peaking
- Light-controlled graphite furnace power supplier, adopting FUZZY-PID temperature control technique and dual curve working mode, ensures fast heating, accurate and stable temperature control and good temperature reproducibility. Temperature auto-correction function provided.
- Graphite furnace with pneumatic control and pressure lock ensures constant pressure and reliable contact. (Optional)
- Perfect safety protection measures, alarm and automatic safety protection to fuel gas leakage, air pressure deficiency and abnormal flame extinction; spray chamber made of explosion-proof material, all-titanium burner and explosion-proof stopper for flame analyses; alarm and protection function to argon pressure deficiency, insufficient cooling water supply, over-heating and over-current etc. in graphite furnace analyses.
- Adopting large-scale programmable logic array and Inter IC bus technique and highly reliable adapters for electric design.
- Easy and flexible WINDOWS operating system, with multi-windows processing technology to observe the signal profile, the measured results and the calibration curve at the same time. Various analytical programs, data, signals and graphics can all be stored for later use.

## Specifications of SYS-813 AA Spectrometer

<b>Main Specification</b>	<b>Wavelength range</b>	190-900nm
	<b>Wavelength accuracy</b>	±0.25nm
	<b>Resolution</b>	Two spectral lines of Mn at 279.5nm and 279.8nm can be separated with the spectral bandwidth of 0.2nm and valley-peak energy ratio less than 30%.
	<b>Baseline stability</b>	≤0.004A/30min
<b>Hollow Cathode Lamps</b>	<b>Lamp turret</b>	4-lamp turret auto alignment, fully automated scan and peak-picking.
	<b>Lamp current adjustment</b>	Automatic adjustment and display. Wide pulse current: 0~25mA, Narrow pulse current: 0~10mA
	<b>Lamp power supply mode</b>	Powered by two pulses simultaneously
<b>Optical System</b>	<b>Monochromator</b>	Czerny-Turner design grating monochromator
	<b>Grating</b>	1800 l/mm
	<b>Focal length</b>	277mm
	<b>Blazed Wavelength</b>	250nm
<b>Atomizer</b>	<b>Spectral Bandwidth</b>	0.1nm, 0.2nm, 0.4nm, 1.2nm automatic change.
	<b>Flame/Graphite furnace</b>	Flame/Graphite furnace atomizer auto changeover
<b>Detection and Data Processing System</b>	<b>Detector</b>	Photomultiplier with high sensitivity and wide spectral range.
	<b>Software</b>	Ms-Windows 98/Me operating system
	<b>Analytical method</b>	Working Curve Method (1st order and 2nd order fitting), Sensitivity auto-correction, Standard Addition Method.
	<b>Concentration</b>	Auto-calculation of concentration and content
	<b>Repeatable measurement</b>	Maximum 20 times of repeat measurement, automatic calculation of mean value, standard deviation and relative standard deviation.
	<b>Multi-task function</b>	Sequential measurement of multi-elements in one sample
	<b>Condition reading</b>	With model function
<b>Flame Analysis</b>	<b>Result printing</b>	Measurement data and final analytical report printout, editing with Excel.
	<b>Burner</b>	10cm single slot all-titanium burner
	<b>Spray chamber</b>	All-plastic spray chamber.
	<b>Nebulizer</b>	High efficiency glass nebulizer with metal sleeve.
	<b>Position adjustment</b>	Adjusting mechanism for vertical, horizontal positions and the rotation angle of the burner.
<b>Characteristic Concentration and Detection Limit</b>	<b>Protection for gas system</b>	Fuel gas leak protection, abnormal flame extinction alarm, air-pressure deficiency protection and explosion-proof device.
	<b>Flame ignition</b>	Automatic
	<b>Normal Air-C<sub>2</sub>H<sub>2</sub> flame</b>	Cu: Characteristic concentration ≤ 0.025mg/L, Detection limit ≤ 0.006mg/L;
<b>Graphite Furnace Analysis</b>	<b>Temperature range</b>	20~3000°C
	<b>Light-controlled temperature range</b>	1500°C -3000°C, temperature auto-correction
	<b>Temperature control accuracy</b>	≤1%
	<b>Heating rate</b>	2000iæ/s
	<b>Characteristic mass Precision</b>	Cd ≤ 0.5 x 10 <sup>-12</sup> g, Cu ≤ 5 x 10 <sup>-12</sup> g, Mo ≤ 1 x 10 <sup>-11</sup> g RSD ≤ 4%
	<b>Safety protection</b>	Protections for over-heating, over-current, and less cooling water and argon pressure monitoring functions
<b>Power Supply</b>	220V, 200W	
<b>Dimensions</b>	1020 (L) x 492 (W) x 537 (H) mm (main unit) 420 (L) x 420 (W) x 460 (H) mm (graphite furnace) (Optional)	
<b>Weight</b>	Unpacked 80kg (main unit), 50kg (graphite furnace)	

### **Sold & Serviced by :**

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