

STALWART

Atomic Absorption Spectrophotometer SAA-Series



SAA-Series

Introduction

Stalwart's Atomic Absorption Spectrophotometer is fully PC controlled. It can be flexibly equipped with optional graphite furnace, auto sampler and hydride generator. Unique optical mechanical design, safe and convenient flame system, optional background correction technologies, as well as convenient functions provided by the workstation, suit your pursuit of automatic and precise test results.

Features

1. Excellent total reflection optical system ensures excellent signal-to-noise ratio of the instrument.
2. Comprehensive and safe intelligent gas control module.
3. Excellent full band deuterium lamp background correction technology and high-performance self absorption double background correction.
4. Fully automatic instrument control, light source supports high-performance element lamp, and can be completed quickly with one key.
5. Original lamp position eight lamp holder 360 degree rotation design.
6. Novel atomizer and intelligent elevator.
7. Simple, professional, automatic and fully operated RG WIN AAS workstation software under MS window system.

Standard Specification

Model	SAA-782	SAA-784	SAA-788	SAA-790
Optical System	Single Beam			Double Beam
Monochromator	Czerny-Turner type, focal lengths at 350mm			
Grating	Holographic diffraction with 1800 lines/mm			
Wavelength Range	190-900nm			
Slits	Automated slit selection 0.1,0.2,0.4,0.7,1.4,2.0 nm			
Wavelength Repeatability	±0.1nm	±0.1nm	±0.05nm	±0.05nm
Wavelength Accuracy	±0.3nm	±0.2nm	±0.15nm	±0.15nm
Lamp	Automated 4-lamp turret	Automated 8-lamp turret		
Reading Mode	T, A, C			
Photometric Range	0-125%, -0.1-3.00			
Static Baseline Drift (Cu)	≤0.004A/30 min	≤0.003A/30 min	≤0.002A/30 min	≤0.002A/30 min
Dynamic Baseline Drift (Cu)	≤0.004A/15 min	≤0.003A/15 min	≤0.002A/15 min	≤0.002A/15 min
Background Correction	Deuterium (D2) Background Correction		Deuterium (D2) Background Correction Self-absorption Background Correction	
Auto Sampler	Optional			
Measuring Method	Flame method, Graphite furnace method, Hydride generation-Atomic absorption method, Flame emission method			
Concentration calculation Method	Standard curve method (6 linear/non-linear fitting methods), Standard addition method, Interpolation method			
Repeat measurement times	1-30 times, Calculate and give the average value of absorbance/ concentration, standard deviation and relative standard deviation			

Specification

Model	SAA-782	SAA-784	SAA-788	SAA-790
Report printing	Parameter printing, Data result printin			
Dimensions/ Weight	850 x 650 x 550 mm/95Kg			
Ambient Temp	10 ~ 35 °C			
Ambient Humidity	≤85 %			
Power	110/220V, 50/60Hz			

Specification For Models with Flame

Model	SAA-782F	SAA-784F	SAA-788F	SAA-790F	
Flame	Characteristic Concentration	≤0.04ug/ml	≤0.035ug/ml	≤0.02ug/ml	≤0.02ug/ml
	Detection Limit (Cu)	≤0.008ug/ml	≤0.006ug/ml	≤0.004ug/ml	≤0.004ug/ml
	Repeatability (Cu)	RSD≤1%	RSD≤0.6%	RSD≤0.5%	RSD≤0.5%
	Acetylene Flow Control	Auto 12-Level			
	Air Assist Control	Auto 4-Level			
	Ignition Method	PC control			
	Detector	Wide range UV sensitive photomultiplier tube			
	Burner Head	Titanium 100mm burner for air/acetylene operation			
	Nebulizer	High efficiency glass nebulizer			
	Spray Chamber	Corrosion resistant material spray chamber			
Safety Protection	Automatically cut off gas in case of low pressure, power failure, flame out, or burner mismatched				

Specification For Models with Graphite Furnace

Model	SAA-782FG	SAA-784FG	SAA-788FG	SAA-790
Graphite Furnace	Characteristic Amount	Cd≤0.9pg, Cu≤2	Cd≤0.6pg, Cu≤20pg	Cd≤0.5pg, Cu≤20pg
	Detection Limit (Cu)	≤0.008ug/ml	≤0.006ug/ml	Cd≤0.8pg, Cu≤25Pg
	Repeatability (Cu)	RSD≤4%	RSD≤3%	RSD≤2.5%
	Heating range of graphite furnace	Room temperature-3000°C		
	High power heating range	1500-3000°C		
	Slope and holding time	1-255s		
	Heating rate	Maximum heating rate 2000°C		
	Atomization heating mode	Light-controlled heating, Time-controlled heating, General heating		
	Protective gas flow outside pipe	1 L/min		
	Protective gas flow inside pipe	Automatically cut off gas in case of low pressure, power failure, flame out, or burner mismatched		
	Safety Protection	Cooling water flow, Protective gas pressure, Furnace body temperature, Power supply temperature, Graphite furnace installation alarm		

Note:

Standard Specifications are for all models specifications for flame will be added in standard specification for models with flame specifications for Graphite furnace will be added in standard specifications.

Examples:

SAA-782 is Standard

SAA-782F with with Flame

SAA-782G with Graphite Furnace

SAA-782FG is with both Flame and Graphite Furnace

Accessories

Hydride Generator	
Cooling Water Circulator	
Air Compressor	
50mm Nitrous Oxide Burner	
Graphite Tube	
Glass Nebulizer	
Hollow Chathode Lamp (HCL)	Al, Ba, Bi, Ca, Cu, Co, Cr, Fe, Ga, Hg, K, Li, Mg, Mn, Mo, Na, Ni, Pb, Sb, Sn, Ti, Zn, Ag, As, B, Cd, Ge, Se, Si, Te, V, W, P, Au, Rb, Cs