

# AA4530F Atomic Absorption Spectrophotometer



## Characteristics

- 1、 Completely controlled by PC.
- 2、 Integrated floated optical platform design can obviously improve the optical system shock resistance and keep stable though use the optical signal for a long term.
- 3、 Eight light stands can be changed automatically and preheat the eight lights meantime as well as optimize the working condition of the hollow cathode lamp.
- 4、 Position adjusting: the best height of the flame burner and can automatically set the front and rear positions.
- 5、 Fully automated wavelength scanning and peak searching.
- 6、 Complete safety chains protection equipment: the function of warning and automatic safety protection towards the wrong burner, leakage of the gas, under voltage of air and the abnormal flameout.
- 7、 Deuterium lamp and self-absorption background regulation.
- 8、 Data processing: super strong database, possesses more than 500 data self-storage and cut-off storage function, can store the analyzed result with the form of EXCEL and the testing method and the result can be randomly called.
- 9、 Measuring method: flame absorption method and emission method.
- 10、 Result printing: parameter printing, data result printing and diagram printing.

## Complete Automatic Controlling System

With the help of the software, the following can be easily achieved

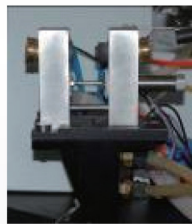
- 1、 Selection of the element lamp
- 2、 Up-down-front-rear adjustment of the lifter
- 3、 Adjustment of the optical energy
- 4、 Selection of the slit
- 5、 Determination of wavelength scanning and peak searching
- 6、 Selection of the atomizer
- 7、 Setting of the background deduction method
- 8、 Controlling of the gas flow
- 9、 Automatic flaming and flaming out
- 10、 Setting of the graphite furnace testing method

## Advanced Graphite Furnace Temperature Controlling Technology

- The bringing in of PID technology can effectively overcome the influence on the temperature rising process caused by the voltage fluctuation and the resistance change to make more accurate controlling process. The combination of the 3ms/time fast sampling technique can make more accurate and reliable testing data
- The fast heating capacity can improve the flexibility of the elements further
- Use the ordinary power source of 220V without need of dynamic power of 380V
- The maximum procedure heating capacity setting of 20 levels can make a more convenient and easier test of different samples
- Three grades adjustable gas flow can accustom to more application needs
- Can timely alarm when the gas and water is stopped and insufficient gas and water, can avoid the equipment damage and measuring error

## Safe, Reliable And Convenient Flame System

- EPC can control the flow of Acetylene ( $C_2H_2$ ) more accurately and it is a kind of system which also can operate easily
- Efficient atomization system enables a higher

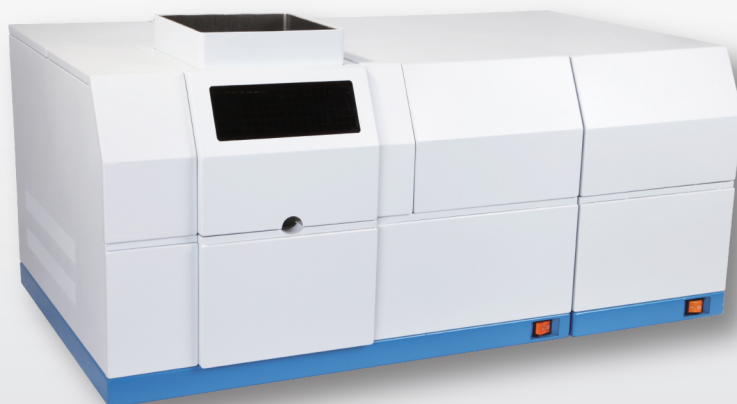
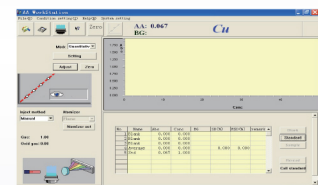
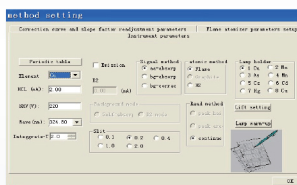
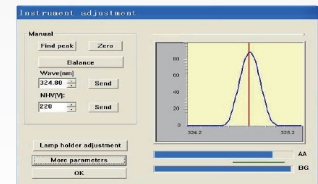
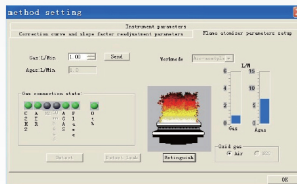


sensitivity

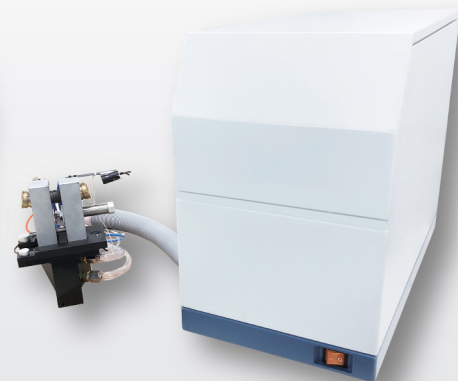
- The whole operation system has a high security as the fire safety system can alarm whenever the electricity is cut off, abnormal flame occurs, a lack of pressure happens or the burner does not match well. And it will automatically turn off the gas, prohibit tempering. Thus it keeps the operation people and equipment from harm and damage.

## Multi-Functional Software Workstation

- A workstation that is supported WINDOWS 7
- The rich menu brings great convenience to the use of customer
- Convenient conversion between different menus makes the operation more easily
- Various analytical correction methods provide the users more choices
- Basic default parameter settings enable even the beginners can do the normal operation
- Flexible storage, editing and printing methods give the user largest support



4530 Atomic Absorption Spectrophotometer (Flame+Graphite)



4510G Graphite Furnace

# AA4530F Atomic Absorption Spectrophotometer

## Specifications

Wavelength range	190 – 900nm
Spectral bandwidth	0.1, 0.2, 0.4, 1.0 and 2.0nm
Accuracy of the wavelength	±0.15nm
Receptivity of the wavelength	≤0.04nm
Base line stability	≤0.002A/30min (Cu)
Characteristic viscosity	0.02µg/ml/1% (Cu)
Checking limit	0.004µg/ml (Cu)
Preciseness	0.5%
Grating	1800 lines/mm
Inflamer	All-metal titanium burner
Atomizer	Effective glass atomizer
Lamp stand	8
D2 background correction ability	When the background is 1 A, the background ability should be deducted not less than 50 times; self absorption background deduction method
Package size	860mmx705mmx755mm (Main instrument) 1170mmx645mmx900mm ( Accessories)
Power source	220V±22V AC

## Flame System

Acetylene air burner	100mm
Ignition dynamic baseline drift	≤0.006A/30min
(Cu) Characteristic viscosity	≤0.025µg/ml/1%
Related standard deviation of the accuracy	≤0.5%(Cu, absorbance > 0.8A) (detection limit Cu≤0.008µg/ml)
Safety system	Can automatically cut off the gas when the pressure is not enough, the power is off, flameout and unconformity of the burner.

## 4510GF Graphite Furnace

The highest temperature	3000℃
The largest temperature rising speed	≥2000℃/S
Characteristic quantity	Cd≤0.5×10 <sup>-12</sup> g Cu≤0.5×10 <sup>-11</sup> g
Accuracy	Cu≤3% Cd≤3%
Size and weight	730mm×625mm×700mm 79.3Kg
Safety system	Over current protection Low air pressure alarm / protection Low cooling water flow alarm/protection
Power source and power	220V±22V AC 7000W

## Standard Accessories

PC workstation  
Inkjet printer  
Oil free Air compressor  
Acetylene reducing valve  
Cu Hollow cathode lamp  
Air filter

## Optional Accessories

Hollow cathode lamp  
Graphite tubes  
Recirculating cooling water system  
Hydride Generator





## AS800 Cooling Water Circulation Machine

It is an important optional accessory for supporting atomic absorption spectrophotometer and graphite furnace.

- Nominal cooling capacity: 800W
- Temperature control range: 5 ~ 35 ( C )
- Temperature control accuracy:  $\pm 0.1$  ( C )
- Pump head (max./rated): 10/8 (m)
- Flow (Max / Rated): 15/6 ( L / min )
- Water tank volume: 15L
- Power supply: AC220V / 50Hz
- Instrument size: 330mm  $\times$  500mm  $\times$  500 mm