



### AAS-5000A Series

Atomic Absorption

#### ■ Details Info

# Summary: Characteristics

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  - Eight light stands can be changed automatically and preheat the eight element lights meantime as well as optimize the working condition of the hollow cath
  - ♦ Position adjusting: the best height of the flame burner and can automatically set the front and rear positions
- ◆ Fully automated wavelength scanning and peak searching
  - ♦ 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
- ♦ Deuterium lamp and self-absorption background regulation
  - ◆ Data processing: super strong database, possesses more than 500 data selfstorage and cutoff storage function, can store the analyzed result with the form of EXCEL and the testing method and the result can be randomly called
- $\ \, \ \, \ \, \ \, \ \, \ \,$  Measuring method: flame absorption method and emission method
- ♦ 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

- ◆ Selection of the element lamp
- ◆ Up-down-front-rear adjustment of the lifter
- ◆ Adjustment of the optical energy
- ◆ Selection of the slit
- ◆ Determination of wavelength scanning and peak searching

- ◆ Selection of the atomizer
- ◆ Setting of the background deduction method
- ◆ Controlling of the gas flow
- ◆ Automatic flaming and flaming out
- ◆ 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 3/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 (C2H2) 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 XP/2000/NT
- ◆ 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
- ♦ Instrument configuration:

Atomic Absorption Spectrophotometer 1pc

Air compressor without noise 1pc

PC workstation: computer, HP inkjet, apparatus operating software (the object can be prevailed on the specific configuration)

A set of accessories (including Acetylene reducing valve, one copper and manganese element lamp and air filter)

| Wavelength range              | 190 – 900nm                                                           |
|-------------------------------|-----------------------------------------------------------------------|
| Spectral bandwidth            | Can automatically change between 0.1nm, 0.2nm, 0.4nm, 1.0nm 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                                                         |
|                               |                                                                       |

| 2016                                                                         | Acculabusa::AAS-5000A Series                                                                                                |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Inflamer                                                                     | All-metal titanium burner                                                                                                   |
| Atomizer                                                                     | Effective glass atomizer                                                                                                    |
| Lamp stand                                                                   | Eight lamps                                                                                                                 |
| Size and weight                                                              | 700mm×550mm×450mm 75Kg                                                                                                      |
| Power source                                                                 | Po220V±22V AC                                                                                                               |
| D2 background correction ability                                             | When the background is 1 A, the background ability should be deducted not less than 50 times; self absorption backgr method |
|                                                                              | Flame system                                                                                                                |
| Acetylene air burner                                                         | 100mm                                                                                                                       |
| Nitrous oxide acetylene flame head                                           | 50mm                                                                                                                        |
| 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       |
|                                                                              | Graphite furnace                                                                                                            |
| The highest temperature                                                      | 3000°C                                                                                                                      |
| The largest temperature rising speed                                         | ≥2000°C/S                                                                                                                   |
| Characteristic quantity                                                      | Cd≤0.5×10-12g Cu≤0.5×10-11g                                                                                                 |
| Accuracy                                                                     | Cu≤3% Cd≤3%                                                                                                                 |
| Size and weight                                                              | 550mm×450mm×300mm 65Kg                                                                                                      |
| Safety system                                                                | Over current protection                                                                                                     |
| Low air pressure alarm / protection  Low cooling water flow alarm/protection |                                                                                                                             |
| Power source and power                                                       | 220V±22V AC 7000W                                                                                                           |
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# Ordering Information:

| AAS-5000APCS   | Atomic Absorption AAS-500 Including air compressor and pc with software                   |
|----------------|-------------------------------------------------------------------------------------------|
| AAS-5000AGFPCS | Atomic Absorption AAS-500 Including air compressor, graphite furnace and pc with software |