



**Multiplelabs**  
Turnkey Laboratories Solutions

# AAS-9390D

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ATOMIC ABSORPTION SPECTROPHOTOMETER



## ►► Characteristics A

- Build-in computer data processing and LCD: adopting highly integrated micro digital circuit, which is stable and reliable with the functions of integral holding, peak height and area, auto zero adjusting, deuterium lamp and background, multi-linear and nonlinear curves fitting, various parameters and working curves displayed in screen and report printing, etc. It is equipped with interface for externally linking PC
- Good basic line stability: Double-beam system of optimized design can automatically compensate the light source drift and wavelength drift caused by the variation of temperature (with the function of the eliminating the affection of wavelength drift on the base line stability) and electronic circuit drift so as to reach a good basic line stability. The cathode lamp needs not be pre-heated for long time and sample can be analyzed immediately. It is the preferable instrument chosen by users to conduct analysis of multiple kinds of elements and fast analysis of samples.
- High precision of measurement: Gas path system is equipped with precision pressure stabilizing and current stabilizing devices to reach stable flame and low noise. Specially designed fine light beam passes through the flame to ensure a high precision analytical test and low characteristic concentration
- Optical path of high energy: A total reflection system is adopted to eliminate color difference in full range. By means of chemical conversion, a round light spot of the light source becomes a long light spot, which enters into the slit. Therefore the light flux of double beam is enhanced.
- Long-life and anti-corrosive atomization system: The burner is made of new type titanium alloys, anti-corrosive and fast thermal equilibrium. It meets the requirement of measurement sensitivity without water-cooling.
- Multi-functional analysis mode: for methods of flame absorption, flame emission, graphite furnace atomic absorption and hydride generation.
- Safe and reliable gas path system: Special devices of quick gas conversion and safety protection can be used to analyze air-acetylene flame as well as nitrous oxide-acetylene flame and extend the analytic elements to reach more than 60.
- Complete set of accessories: to be supplied with the instrument and ready for use after they are purchased.

## ►► **Characteristics B**

- Light-source system: Hollow cathode lamp power supply: with adjustable current Deuterium Lamp power supply: with fixed current
- Optical system: Double beam total reflection system, C-T type monochromatic Flashing wavelength: 250nm
- Flame atomization system: Inter-changeable titanium alloy burner of 10cm and 5cm slits. Gas path is equipped with pressure indication, high precision voltage stabilizing flow adjustment, fast conversion of air and nitrous oxide, gas supply cut off, power cut off, prevention of flashback and logic interlock protection devices.
- Signal processing: absorptions, concentration, emission and emission concentration; Standard curves: linear regression, curve fitting and multi-point standard calibration. Average value, standard deviation, relative standard deviation and correlation coefficient can be worked out. Standard curves, atomic absorption peak diagram, spectrum outline sketch, data as well as instrument parameters list and analytical reports can be displayed and printed out.

## ►► **Technical Specifications**

- Working spectral range: 190-900nm
- Wavelength accuracy:  $\leq \pm 0.5\text{nm}$
- Wavelength repeatability:  $\leq 0.3\text{nm}$  (single direction)
- Spectrum bandwidth: 0.2nm, 0.4nm, 0.7nm, 1.4nm, 2.4nm, 5.0nm
- Resolution:  $<40\%$
- Base line stability:  $\pm 0.004\text{Abs}/30\text{min}$
- Characteristic concentration of copper:  $\leq 0.04\mu\text{g}/\text{ml}/1\%$
- Detection limit of copper:  $\leq 0.008\mu\text{g}/\text{ml}$
- Background calibration ability: Greater than 30 times.
- Standby Interface: RS 232
- Instrument power supply: 220V, 3A, 50Hz

## ►► **Accessory**

Main accessories supplied with the instrument: Several decades of accessories including air compressor, printer, one piece of (Zn or Cu) and K. Gas external pipe, acetylene cylinder pressure-reducing valve and water knockout gas filter.

►► **Optional accessories:**

- GA3202 HGA graphite furnace system: Used to conduct trace and ultra-trace analysis with an absolute sensitivity of 10-10-10-12 gram

- 5cm long-life titanium burner: The necessary accessory for nitrous oxide-acetylene flame analysis.

Hydride generator (Totally automatic): Making the characteristic concentration of As, Se, Sb, Bi, Pb,

- Sn, Te, Ge, In, Tl, Cd and Zn lower than ppb level with cold atomic mercury measurement method.

- Nitrous oxide reductor: The necessary accessory for nitrous oxide-acetylene flame analysis.

- Hollow cathode lamp: All specifications are available.

- Graphite tube: All specifications are available.

- Software with I/O port

**Overall dimension & weight:**

Shipping package dimension:

Main instrument: 1260-800-730mm 160kgs

Accessories: 880-600-1010mm 65kgs