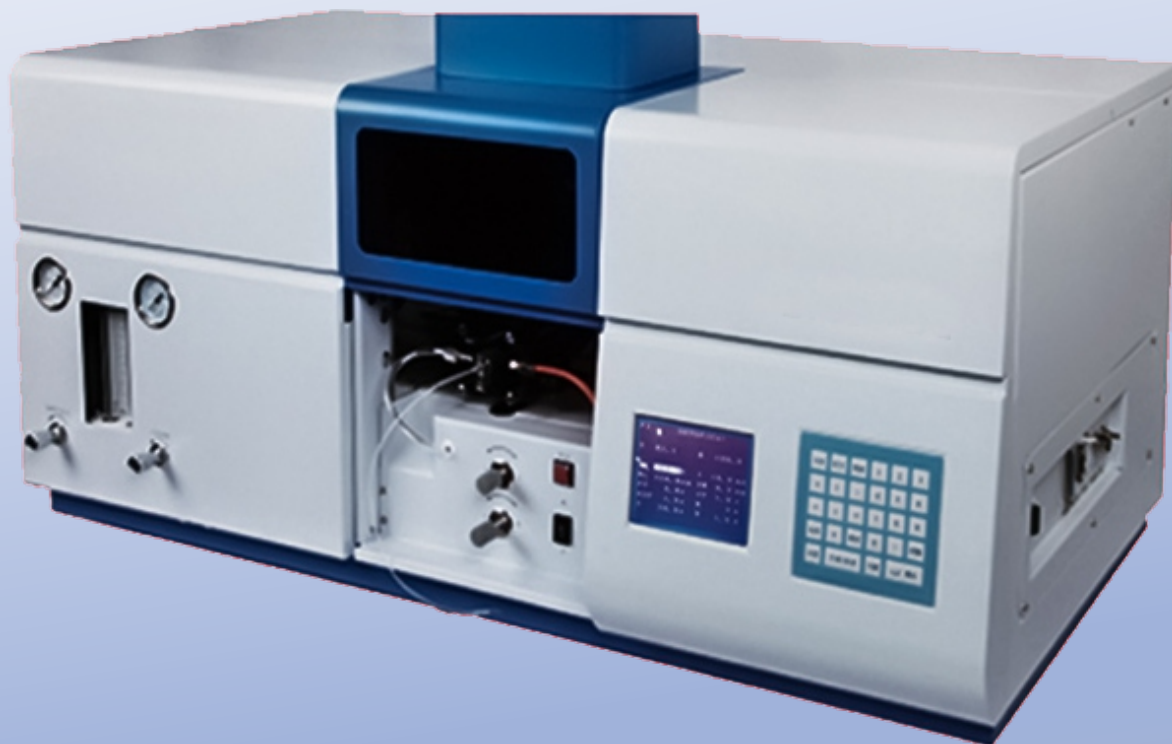


# Atomic Absorption Spectrophotometers

Designed to Transform Your Laboratory

**Double Beam Atomic Absorption Spectrophotometer**

Catalog No. 1119-1401



**Venchal  
Scientific**

19 W. 34th Street , Ste 1018 New York, NY 10001.  
[www.venchalscientific.com](http://www.venchalscientific.com)  
[sales@venchalscientific.com](mailto:sales@venchalscientific.com)

# Atomic Absorption Spectrophotometer (1119-1401)

Atomic Absorption Spectrophotometer is applied to micro and trace metallic elements test, covering over 30 elements. The instrument has simple structure, provides fast test, with good repeatability and less interference, especially suitable for testing Cu, Zn, K, Na, Au, Ag, etc.

## Features

- Build-in computer data processing and LCD display.
- Stability: Double-beam system can automatically compensate the light source drift and wavelength drift caused by the variation of temperature and electronic circuit drift.
- Quickly: The cathode lamp does not need to be pre-heated for long time and sample can be analysed immediately.
- 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.
- High energy optical path.
- Long-life and anti-corrosive atomization system.
- Multi-functional analysis mode: • Flame absorption • Flame emission • Graphite Furnace Atomic Absorption • 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.

## Technical Specifications :

Main Specifications	Model	1119-1401
	Wavelength Range	190-900nm
	Wavelength Accuracy	≤ ±0.5nm
	Wavelength Repeatability	≤ 0.3nm (single direction)
	Spectral Bandwidth	0.2nm, 0.4nm, 0.7nm, 1.4nm, 2.4nm, 5.0nm
	Grating	1800 lines/mm
	Resolution	<40%
	Base Line Stability	±0.004Abs/30min
	Characteristic Concentration	≤ 0.04μg/ml/1% (Cu)
	Detection Limit of Copper	≤0.008μg/ml (Cu)
	Background Calibration Ability	Greater than 30 times
	Power Supply	220V, 50/60Hz
	Packing Size(mm)	1250 x 795 x 765 (Main instrument), 545 x 445 x 1385 (Accessories)
	Gross Weight(kg)	138Kg (Main instrument), 56Kg (Accessories)
	Standard Accessories	RS232 serial port Oil-free air compressor Glass Atomizer Cu Hollow cathode lamp Atomizer unit, Burner unit ,Dust cover Water-separating gas filter Titanium burner---10cm
Optional Accessories	Model 1119-3202 Graphite Furnace System Hydride generator Graphite tubes Software Recirculating cooling water system Printer Hollow cathode lamp (Ag, Au, Ca, Cd, Cr ,Fe, Hg ,K, AU, Mg, Mn, Na, Ni, Pb, Zn, Sb, etc)	

# Atomic Absorption Spectrophotometer - Optional Accessories

## Graphite Furnace System

1119-3202



### Features

- Heating steps: 9 steps
- Temperature range (nominal Temperature): 20°C~3000°C
- Slope heating time: 0~999s
- Heating holding time: 1s~999s (the sum of both time should be less than 999 seconds)
- Inert gas needed: argon, pressure of entry larger than 0.3Mpa
- Cooling water: tap water or cycling water, flow rate no less than 2L/min
- Output: LCD
- Gas pressure alarm, furnace overheated alarm
- Interface with Atomic Absorption Spectrophotometer, autosampler and RS232
- High-power temperature heating function (1000°C~2700°C)
- Test sample together with atom absorption equipment. Cd ≤1×10<sup>-12</sup>g; Cu ≤1×10<sup>-10</sup>g
- Working Conditions:  
Power source: 220V±22V, 50Hz±1Hz, 3A  
220V±22V, 50Hz±1Hz, 30A  
Power: 5.1kW for 220V on about 2700°C  
Ambient temperature: +10°C~+30°C  
Relative humidity: less than 85%  
Instrument rating power: 7.2kW

## Chiller Circulation

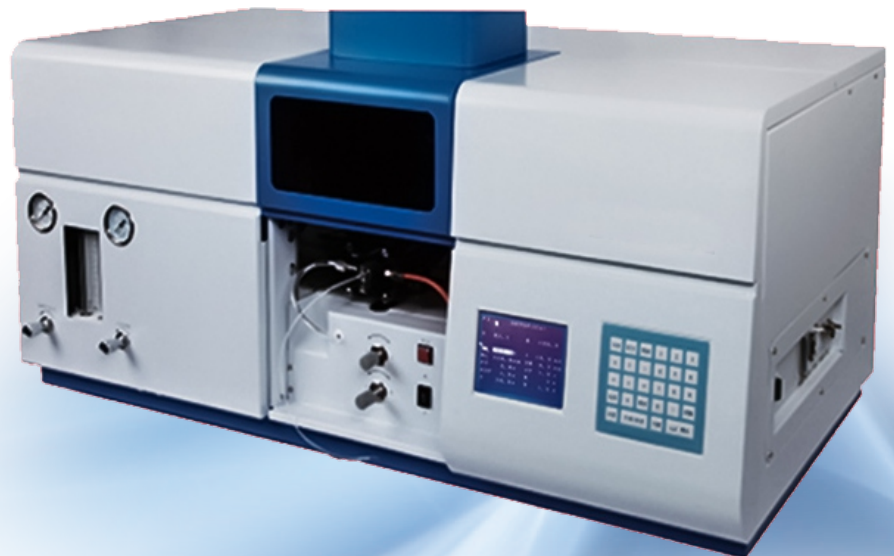
1119-800



It is an important optional accessory for supporting Atomic Absorption Spectrophotometer and Graphite Furnace

### Features

- Nominal cooling capacity: 800W
- Temperature control range: 5 ~ 35 (°C)
- Temperature control accuracy: ± 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 × 500mm × 500 mm



# Atomic Absorption Spectrophotometer - Optional Accessories

## Hydride Generator

1119-1021



Hydride Generator is used with Atomic Absorption Spectrophotometer

### Features

- Measurement Method : Continuous Flow Injection
- Reducing Agent: NaBH<sub>4</sub>
- Sample Feed Rate: 0~ 7mL / min
- Reagent Feed Rate 0 ~ 2.5mL / min
- Burning Head : Heating Quartz Tube (Heating with acetylene combustion)
- Carrier Gas Ar, Supply Pressure 0.32MPa
- Power Supply: AC220V / 50Hz / 30W
- Instrument Size: 290×220×208mm

## Autosampler

1119-4020



The autosampler is an important optional accessory to improve the technical indicators and automation of the Atomic Absorption Spectrophotometer.

Under the control of the graphite furnace system, standard solutions can be prepared automatically. It can be automatic sample pre concentration & dilution, and automatically add matrix improver, automatic cleaning and other functions.

### Features

- Number of sample cups: 95
- Sample cup capacity: 1.5mL
- Number of reagent cups: 5
- Reagent cup capacity: 5mL
- Injection volume: 1 ~ 95μL (1μL increment)
- Injection volume accuracy: ± 2% (20μL)
- Injection volume precision: ≤1% (20μL)

