

## AAS8510

# Flame Atomic Absorption Spectrophotometer

### Introduction

The flame atomic absorption spectrometer is a fully automated and intelligent flame atomic absorption instrument used to determine the content of constant, trace, and semi-metallic elements in various substances. This machine adopts a PC and Chinese interface operation software, making the instrument operation simple and intuitive. By applying advanced electronic circuit systems and USB3.0 communication control, the instrument has achieved automatic adjustment of functions such as wavelength scanning, peak finding and positioning, spectral passband width, rotating element lamp holder, atomizer height and position, gas flow rate, lamp current, and negative high voltage of photomultiplier tubes. Users can also modify the operating conditions as needed, and save the operating conditions, working curves, and test results to disk, which can be recalled for use and processing.



### Performance advantages



- **Implementing Acetylene Flow Control with a Mass Flow Controller**

Make the acetylene flow continuously adjustable and dynamically monitor the flow, making it easy to use, safe and reliable.



- **Pure titanium atomization chamber**

Effectively prevents acid gas corrosion and has a longer service life.



- **Efficient glass atomizer**

Adopting a dedicated and efficient glass atomizer, it has high atomization efficiency and strong universality.



- **More security measures**

- 1) Acetylene leakage monitoring
- 2) Acetylene pressure monitoring
- 3) Air pressure monitoring
- 4) Flame status monitoring
- 5) Explosion proof switch status monitoring

- **Total reflection achromatic optical system**

The use of concave mirrors instead of convex lenses as the optical focusing equipment of the instrument effectively solves the problem of color difference caused by different element focal points and improves the efficiency of the optical system.

- **USB 3.0 Communication method**

Eliminated the old 232 serial communication method and adopted the USB3.0 communication interface, which improved communication speed and was compatible with the latest computer systems.

- **Eight Element Light Tower**

One light works and can preheat seven lights simultaneously, saving time for changing lights and preheating, making element measurement faster and more convenient.

- **Background correction system**

Deuterium lamp background correction: Can correct 1A background. Self absorption background correction: Can correct 1A background.

- **Fully automated design**

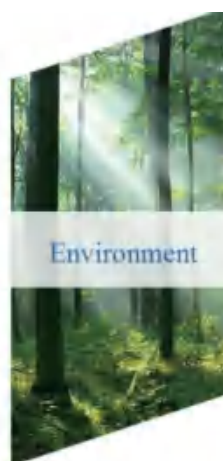
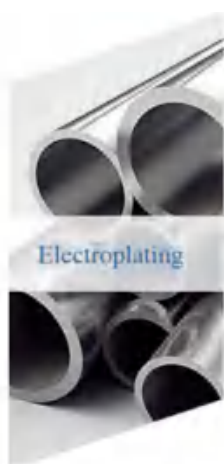
Except for the host switch, all instrument functions are automatically monitored and controlled by a PC.

- **Streamlined sheet metal process design**

The appearance adopts streamlined sheet metal technology design, which is simple and fashionable, and beautiful and generous.

## Application field

1. Detection of elements in bath solution and electroplating wastewater in the electroplating industry.
2. Testing of element content in various soils and minerals.
3. Detection of various pollution elements in water quality, soil, and atmosphere.
4. Element detection in various types of oil products, chemical raw materials, and products.
5. Detection of harmful and nutritional elements in various foods, drugs, health products, and their packaging materials.
6. Detection of material composition and impurity elements.



Specifications

Wavelength range	190nm～900nm
Monochrome type:	Cherney Turner type
Spectral bandwidth	0.1/0.2/0.4/0.7/1.6 nm Five speed automatic switching
Grating line	1800 lines/mm
Wavelength accuracy	±0.20nm
Wavelength Repeatability	<0.05nm
Resolution ratio	Better than 0.3nm
Characteristic concentration (Cu)	<0.025μg/ml/1%
Detection limit (Cu)	<0.008ug/mL
Precision(Cu)	<0.8%
Button background method	deuterium lamp+self absorption
Baseline stability	0.003 Abs(static)0.004 Abs(Dynamic)
Grating flash wavelength	230nm