

# ATOMIC ABSORPTION SPECTROMETER (STANDARD TYPE)

## CODE AAS-D506

LIQUID ANALYSIS



- Widely used in metallurgy, petrochemical industry, geology, medicine, environmental protection, scientific research, agriculture, disease control, food industry, materials science, commodity inspection, etc.
- It can analyse more than 70 elements, enabling trace and sub-trace elemental component analysis
- The design of optical system suspension effectively nullifies the impact of vibrations and environmental variations on the optical system
- The flame atomizer, graphite furnace and graphite furnace power supply are ingeniously integrated
- It takes only 2 seconds to automatically switching between flame and graphite furnace
- Overcurrent protection for hollow cathode lamps, low pressure or gas leakage alarm for fuel gas/protection gas, overheating protection for graphite furnace, abnormal flame condition protection



Cu hollow cathode lamp (included)



circulating water chiller (included)



hydride generator (optional)



flame auto-sampler (optional)



graphite furnace auto-sampler (optional)



flame /graphite furnace auto-sampler (optional)

### STANDARD DELIVERY

Main unit	1 pc
Computer	1 pc
Software	1 pc
Air generator	1 pc
Circulating water chiller	1 pc
Cu hollow cathode lamp (AAS-D506-CU)	1 pc
Standard sample (AAS-D506-BY)	1 pc
Tool	1 set

### OPTIONAL DELIVERY

Flame auto-sampler	AAS-D506-FG10
Graphite furnace auto-sampler	AAS-D506-GF20
Flame /graphite furnace auto-sampler	AAS-D506-FGF600
Hydride generator	AAS-D506-HG15
Hollow cathode lamp	AAS-D506-□□*

\*□□ is analysis element, for example, code AAS-R304-ZN stands for the hollow cathode lamp used to analyze the element Zn

## SPECIFICATION

Optical system	<b>lamp position</b>	6 positions*
	<b>wavelength range</b>	190~900nm
	<b>wavelength repeatability</b>	≤0.05nm
	<b>wavelength accuracy</b>	±0.1nm
	<b>shining wavelength</b>	250nm
	<b>resolution</b>	better than 0.1nm
	<b>monochromator</b>	C-T type
	<b>raster line</b>	1800 lines/mm
	<b>spectral bandwidth</b>	five levels auto-matic switching (0.1, 0.2, 0.4, 1.0, 2.0)nm
	<b>baseline stability</b>	≤0.003A/30min (dynamic), ≤0.002A/30min (static)
Flame system	<b>characteristic concentration (Cu)</b>	≤0.02µg/mL/1%
	<b>detection limit</b>	≤0.003µg/mL
	<b>precision</b>	RSD≤0.6%
	<b>burner</b>	interchangeable single seam 100mm titanium burner and 50mm stainless steel burner the position and rotation Angle of the front and back of the combustion head are adjustable optional burner automatic lifting function ( <b>AAS-D506-AUTO</b> )
Graphite furnace system	<b>characteristic quantity (Cd)</b>	≤0.3×10 <sup>-12</sup> g/1%
	<b>detection limit</b>	≤0.2×10 <sup>-12</sup> g
	<b>precision</b>	RSD≤2%
	<b>temperature control range</b>	room temperature ~3000°C
	<b>temperature control program</b>	maximum 20 steps of heating procedures, ladder, slope, maintain three heating methods
Background correction	<b>warming model</b>	light-controlled heating rate: ≥3000°C/s, power heating rate: ≥2000°C/s
	<b>correction mode</b>	deuterium lamp, optional self absorption background correction ( <b>AAS-D506-SPBC</b> )
	<b>correction capability</b>	when background absorption approaches 1.0 Abs, the instrument is capable of a background correction of 60 times or more
<b>Acetylene (C<sub>2</sub>H<sub>2</sub>)</b>		≥99.9%
<b>Argon (Ar)</b>		≥99.9%
<b>Work environment</b>		15~35°C, ≤85%RH
<b>Power supply</b>		AC 220V, 50 Hz, main unit power: 500W, graphite furnace power: 5kW
<b>Dimension (L×W×H)</b>		880×540×450mm
<b>Weight</b>		125kg

\*Only Cu hollow cathode lamp included and other element lamps need to be optioned

## ANALYSIS ELEMENT

<b>Black metal element</b>		Fe, Cr, Mn
Non-ferrous metal element	<b>light metal element</b>	Al, Mg, Na, K, Ca, Sr, Ba
	<b>heavy metal element</b>	Cu, Pb, Zn, Ni, Cd, Hg*, Sn, Sb, Bi
	<b>precious metal element</b>	Au, Ag, Pt, Pd, Rh, Ir, Os, Ru
	<b>metamaterial element</b>	B, Si, As*, Sb, Te
	<b>rare metal element</b>	Li, Rb, Cs, Ti, Zr, Nb, Mo, Ta, W, Ga, In, Ge, Tl, La, Ce, Nd, Y, Sc, etc.

\*Analysis of this element requires the selection and configuration of a hydride generator **AAS-R304-HDG**