

Atomic Absorption Spectrophotometer - AAS - 31 / AAS - 32



CE



- High sensitivity
- simple and safe operation
- Low analytical cost

Features

High cost-effective flame AAS

Reasonable design, adopting the same key parts as in high-end instruments, ensures basic functions but less automation to provide an economic model for users

Reliable integration of main unit with microprocessor

Built-in microprocessor with necessary auto-control and data processing functions achieve high reliability of the instrument

Simple and easy operation

Eye-catching digital display, multi-function data processing ability and fast function-key direct input realize easy and fast analysis



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Main Specification

Wavelength range	190 - 900nm
Wavelength accuracy	$\pm 0.5\text{nm}$
Resolution	Two spectral lines of Mn at 279.5nm and 279.8nm can be separated with the spectral bandwidth of 0.2nm and valley-peak energy ratio less than 30%.
Baseline stability	0.005A / 30min
Background correction	The D2 lamp background correction capability at 1A is better than 30 times

Light Source System

Light Source System	2 lamps are powered simultaneously (one preheating) Lamp current adjustment range: 0 ~ 20mA Lamp power supply mode Powered by 400Hz square pulse
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Optical System

Monochromator	Single beam, Czerny-Turner design grating monochromator
Grating	1800 l/mm
Focal length	277mm
Blazed Wavelength	250nm
Spectral Bandwidth	0.1nm, 0.2nm, 0.4nm, 1.2nm, automatic change

Flame Atomizer

Burner	10cm single slot all-titanium burner
Spray chamber	Corrosion resistant all-plastic spray chamber
Nebulizer	High efficiency glass nebulizer with metal sleeve, sucking up rate: 6 - 7ml/min
Position adjustment	Manual adjusting mechanism for vertical, horizontal positions and the rotation angle of the burner/min
Gas line protection	Fuel gas leakage alarm/min

Detection and Data Processing System

Detector	R928 Photomultiplier with high sensitivity and wide spectral range.
Electronic and micro-computer system	Automatic adjustment of light source power. Light energy and negative high-voltage auto-balance
Display mode	LED display of energy and measurement values, concentration direct reading.
Read mode	Transient, time average, peak height, peak area, integral time is selectable in the range of 0.1~19.9s.
Scale expansion	0.1~99
Data processing mode	Automatic calculation of mean, standard deviation and relative standard deviation. Reporting number is in the range of 1~99
Measurement mode	Automatic curve fitting with 3~7 standards; Sensitivity auto-correction
Result printing	Measurement data, working curve, signal profile and analytical conditions can all be printed out
Instrument self-check	Check current status of each function key

Characteristic

Concentration and Detection Limit

Air- Acetylene	Cu: Characteristic concentration $\leq 0.025\text{mg/L}$, Detection limit $\leq 0.006\text{mg/L}$;
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Function Expansion

Hydride vapor generator can be connected for hydride analysis

Dimensions & weight

Main unit	102×49×54cm, unpacked 80kg
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Order Information's

0.100.018	AAS-31 Package	Atomic Absorption Spectrophotometer, flame type Microprocessor control, LED display
0.100.019	AAS-32 Package	Atomic Absorption Spectrophotometer, flame type Microprocessor control, LED display, D2 background correction

Options

0.100.100	Air compressor
0.100.101	Hydride vapor generator
0.100.102	Pyrolytically coated platform graphite tube
0.100.103	Pyrolytically coated graphite tube
0.100.104	Normal graphite tube
0.100.105	High efficiency glass nebulizer
0.100.106	Water Chiller
0.100.107	PC-Working place incl. PC, Printer, TFT Display



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Hollow cathode lamps

0.100.130	Al / Aluminium	0.100.160	Mn / Manganese
0.100.131	Sb / Antimony	0.100.161	Hg / Mercury
0.100.132	As / Arsenic	0.100.162	Mo / Molybdenum
0.100.133	Ba / Barium	0.100.163	Nd / Neodymium
0.100.134	Be / Beryllium	0.100.164	Ni / Nickel
0.100.135	Bi / Bismuth	0.100.165	Nb / Niobium
0.100.136	B / Boron	0.100.166	Os / *Osmium
0.100.137	Cd / Cadmium	0.100.167	Pd / Palladium
0.100.138	Cs / *Cesium	0.100.168	Pt / Platinum
0.100.139	Ca / Calcium	0.100.169	K / Potassium
0.100.140	Ce / Cerium	0.100.170	Re / Rhenium
0.100.141	Cr / Chromium	0.100.171	Rh / Rhodium
0.100.142	Co / Cobalt	0.100.172	Rb / *Rubidium
0.100.143	Cu / Copper	0.100.173	Sm / Samarium
0.100.144	Er / *Erbium	0.100.174	Sc / *Scandium
0.100.145	Eu / *Europium	0.100.175	Se / Selenium
0.100.146	Gd / Gadolinium	0.100.176	Si / Silicon
0.100.147	Ga / Gallium	0.100.177	Ag / Silver
0.100.148	Ge / Germanium	0.100.178	Na / Sodium
0.100.149	Au / Gold	0.100.179	Sr / Strontium
0.100.150	Hf / *Hafnium	0.100.180	Ta / Tantalum
0.100.151	Ho / *Holmium	0.100.181	Tb / *Terbium
0.100.152	In / Indium	0.100.182	Te / Tellurium
0.100.153	Ir / Iridium	0.100.183	Tl / Thallium
0.100.154	Fe / Iron	0.100.184	Sn / Tin
0.100.155	La / Lanthanum	0.100.185	Ti / Titanium
0.100.156	Pb / Lead	0.100.186	W / Tungsten
0.100.157	Li / Lithium	0.100.187	V / Vanadium
0.100.158	Lu / *Lutecium	0.100.188	Zn / Zinc
0.100.159	Mg / Magnesium	0.100.189	Zr / Zirconium

Note: For elements marked with *, please confirm the availability before ordering.

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