



Model AOES-2004C Optical Emission Spectrometer

F e a t u r e s

- ★Reasonable design and perfect performance;
- ★Rapid analysis, perfect repeatability and stability;
- ★High integrated data collection and control system, high automatic degree;
- ★Used for many kinds of matrix analysis: Fe, Co, Ni, Ti, Cu, Al, Pb, Mg, Zn, Sn etc.
- ★High repeatability & stability excitation source is adopted. Excitation frequency can change in 150 ~ 600 Hz range. Select it based on analysis material user analyzes, to reach best analysis effect.
- ★Computer software is user-friendly and easy to be operated;
- ★Database is built in. User can transfer data through the internet, convenient and quick.
- ★Shake-protection performance is strong, and there is no need to make shake-protection base.
- ★Local constant-temperature technique is adopted to ensure the normal operation, minimizing requirement to environmental conditions.
- ★Operations and maintenance are easy and convenient, and maintenance cost is low.

S p e c i f i c a t i o n s

Spark Source

Power supply: AC 220v \pm 1% 50 Hz

Input power: 1.0 kVA

Charge capacitance: Pre-burn 7 μ f, Expose 1.5 μ f

Discharge Inductance: Pre-burn 35 μ h; Expose 70 μ h

Peak current: Pre-burn 100A; Expose 35A

Peak voltage: 300V

Ignite circuit: Amplitude of pulse +15 KV

Auxiliary gap 5mm

Discharging frequency: 300 Hz/150Hz or 400Hz/200Hz

Optical Unit

Spectrum range: 175-450 nm
 Optical channels: up to 36 channels
 Concaved grating: Focus length 750 mm
 Groove density 2400 lines /mm
 Ruled area 30 mm × 50 mm
 Blaze wavelength 300 nm
 Linear dispersion 0.55nm/mm
 Width of entrance slit: 20 μm
 Width of exit slit: 50 μm, 75 μm
 Constant temperature: 30±0.1 °C
 Gas supply pressure: 0.01~0.02MPa

Readout Unit

Readout mode: Subsection integration
 Repeatability RSD ≤ 0.2%
 Integrate capacitance 0.047 μf
 PMT HV power supplies
 Voltage -1000v
 Stability ≤0.5% (8 hours)
 HV adjustment Change through computer software

Data Processing Unit

Hardware: Computer embedded system, CPU main frequency 300MHz
 Display industrial 12.1 inch LCD
 Printer 24 pins
 Software (Please refer to WLD-4C Multi-channel Optical Emission Spectrometer Software Guide Book.)

Physical Data

Mainframe: 1500 (l) × 1100 (w) × 1200 (h) mm3
 Weight: about 450 kg

Analytical range for some major elements

Ele.	Content%	Ele.	Content%	Ele.	Content%	Ele.	Content%
Al	0.001~10.0	Nb	0.005~3.0	Cr	0.001~30.0	Sm	0.0005~0.50
As	0.001~0.30	Nd	0.001~0.50	Cu	0.005~10.0	Sn	0.002~10.0
B	0.0005~0.50	Ni	0.001~30.0	Fe	0.002~10.0	Sr	0.002~0.50
Be	0.002~0.50	P	0.001~2.0	Ga	0.0005~0.50	Ti	0.005~3.0
Bi	0.001~0.50	Pb	0.005~10.0	La	0.001~0.50	V	0.0005~6.0
C	0.0025~4.0	Pr	0.001~0.50	Mg	0.005~10.0	W	0.01~22.0
Cd	0.0005~0.50	S	0.001~0.35	Mn	0.001~20.0	Zn	0.01~10.0
Ce	0.001~0.50	Sb	0.002~0.50	Mo	0.001~10.0	Zr	0.005~3.0
Co	0.002~15.0	Si	0.001~20.0	Ag	0.005~0.1	Ca	0.0005~0.1

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