

Model WLD-4C Optical Emission Spectrometer



Features

- 1 Various metal bases can be analyzed: ferrous metals of Fe, Co, Ni and Ti base, and non-ferrous metals of Cu, Al, Pb, Mg, Zn and Sn base
- 2 Adopting the exciting source with high reproducibility and stability. The exciting frequency can be changed in the range of 150-600Hz to match the material to be analyzed and get the best analytical results
- 3 Adopting highly integrated data collecting and controlling system with high automation
- 4 High-speed analysis with high antijamming ability, good reproducibility and stability
- 5 Reasonable design with more integrated construction
- 6 Windows based software with easy and simple operation
- 7 In-built data base allowing long-distance data transfer
- 8 Quality control diagram can be established automatically for easy quality control and monitoring
- 9 High vibration resistance ability. It's not necessary to make vibration resistance base
- 10 Partial thermostat system for fewer requirements to the environment

Specifications

Spark Source

Power supply: AC 220v \pm 10% 50 Hz

Input power: 1.0 kVA

Spectroscope

Spectral range: 175~450 nm

Grating: 2400L/mm concave grating in radius of 0.75m; Blazed at 300nm (1st order);
Ruled area: 30×50mm²; Reciprocal linear dispersion: 0.55nm/mm

Width of entrance slit: 20 μm

Width of exit slit: 50 μm, 75 μm

Maximum number of channel: 36

Constant temperature: 30±0.1 °C

Measurement and control system

Measuring mode: sectional integration

Measuring reproducibility: RSD ≤ 0.2%

PMT high voltage power supplies: Voltage -1000v

Stability: better than 0.5% (8 hours)

PMT high voltage adjustment: controlled by PC

Data Processing System

Industrial controlled built in PC, LCD display. Software: under Windows Operating system

Dimensions

Main Unit: 1500 (l) × 1100 (w) × 1200 (h) mm³

Area required: 15-20 square meters

Weight: about 450 kg

Laboratory requirements

Environment temperature: 20 ± 5 °C relative humidity: < 70%

Purity of Argon gas: 99.999%

Power supply: AC 380V 10%, 50Hz, 3KW, 3-phase, 4-line

Ground lead: An independent ground lead should be used for the spectrometer itself.
Grounding wire resistance < 20Ω

Analytical range for some major elements in ferrous metals

Ele.	Content%	Channel	Ele.	Content%	Channel
Fe	0.002~0.50	1	Bi	0.001~0.50	1
P	0.001~2.0	1	La	0.005~0.50	1
S	0.001~0.35	1	Ce	0.005~0.50	1
B	0.0005~0.20	1	Si	0.001~5.0	1
Sn	0.002~0.50	1	Mg	0.005~1.0	1
Sb	0.002~0.50	1	Mn	0.001~20.0	1
As	0.001~0.30	1	Al	0.001~6.0	1
C	0.0025~4.0	1	V	0.0005~6.0	1
Mo	0.001~10.0	1	Ti	0.005~3.0	1
W	0.01~22.0	2	Co	0.002~15.0	2
Cu	0.005~2.5	1	Pb	0.005~0.50	1
Ni	0.001~30.0	2	Nb	0.005~3.0	1
Cr	0.001~30.0	2	Zr	0.005~0.10	1

Analytical range for some major elements in non-ferrous metals

Ele.	Content%	Channel	Ele.	Content%	Channel
P	0.005~2.0	1	Sb	0.005~0.50	1
Sn	0.002~10.0	2	Al	0.0005~0.50	1
Zn	0.01~10.0	2	Cd	0.005~0.50	1
Si	0.005~20.0	2	As	0.001~0.10	1
Fe	0.005~10.0	2	Bi	0.002~0.5	1
Cu	0.005~10.0	2	Be	0.002~0.50	1
Mg	0.005~10.0	2	Zr	0.002~3.0	1
Mn	0.002~3.0	1	La	0.001~0.050	1
Ti	0.005~1.0	1	Ce	0.001~0.50	1
Ni	0.005~3.0	1	Pr	0.001~0.50	1
Cr	0.005~3.0	1	Nd	0.001~0.50	1
B	0.002~0.50	1	Ga	0.0005~0.5	1
V	0.002~0.50	1	Sr	0.002~0.50	1