



METAL SCIENTIFIC
Measure with Precision

M6 OPTICAL EMISSION SPECTROMETER



M6 Optical Emission Spectrometer is the most advanced Arc/Spark-OES with Ultimate Performance for Metal Analysis. It uses full-digital technology to replace bulky photomultiplier tube (PMT) simulation technology and is in the lead of international spectrometer technology. The adoption of vacuum optical chamber design, full-digital excitation light source, advanced CMOS detectors, and high-speed data readout system equips the device with high properties, ultra-low limit of detection (LOD), long-term stability and repeatability.

²⁶ Fe Iron 55.8450	+	⁷ N Nitrogen 14.0070	¹³ Al Aluminium 26.9815	²⁹ Cu Copper 63.5460	²⁷ Co Cobalt 58.9332	²⁸ Ni Nickel 58.9634	³⁰ Zn Zinc 65.4090	¹² Mg Magnesium 1.0079	⁸² Pb Lead 207.2000	²² Ti Titanium 47.8670
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High Performance Metal Analyzer

Technical Data for M6

	Item	Index
OPTICAL SYSTEM	Focal Length	400mm
	Wavelength Range	130nm-800nm
	Detector	Multi resolution CMOS detectors
	Light chamber	Auto control within 6-20 pa
	Pixel resolution	30 pm
	Grating line	2400m1/mm
	First order spectral line dispersion rare	1.2nm/mm
	Average resolution ratio	10pm/pixel
Spark chamber temperature is controlled automatically		
SPARK SOURCE	Type	Digital arc and spark source
	Spark frequency	100-1000HZ
	Discharge current	1-80A
	Ignition voltage	>15000V
	Excitation light	Optimization of discharge parameters design High energy pre-combustion technology HEPS
	Processor	High-speed data synchronization acquisition and processing
SPARK STAND	Electrode	Tungsten electrode technology
	Make up	Thermal deformation self-compensation design
	Argon flushed with minimal consumption of Argon	
	Spray discharge electrode technology	
	Adjustable electrode technology	
OTHERS	Measurable elements	C, Si, Mn, P, S, Fe, Cr, Al, Cu, Ni, Ti, Co, Zn, Sn, Mg, Pb & N
	Dimension	650mm(L)*860mm*1200mm(H)
	Weight	About 235kg
	Storage temperature	0°C-45°C
	Operating temperature	10°C-35°C, 23±2°C is recommended
	Power	AC220V/50Hz (Customized)
	Power consumption	Spark:700W/Stand by:100W
	Argon quality	99.999%, Argon pressure>4Mpa
	Argon consumption	5L/min during spark mode
	Interface	Ethernet data transmission based on DM9000A

Main Features

1 Optical system

1. Integration of optical chamber forming, dynamic Romanian archives park installation, resistance to environmental temperature changes.
2. Light vacuum chamber designed to ensure the C, S, P, N to achieve the best performance.
3. Ray room temperature control, constant temperature of 35°C.
4. Direct MgF2 lens optics technology and materials to ensure the best energy C, S, P, N ultraviolet wavelengths.

2 Sample excitation station

1. Optimization of argon gas circuit design ensures effective cooling station excite and motivate metal dust generated in the process effectively into the filter. the sample excitation is more stable, and greatly reduce the body's intake of metal dust, help protect the operator health and safety.
2. Smaller excitation space, argon gas consumption less.
3. With the function of the electrode should sweep, longer service life, easy cleaning electrode.
4. 13 mm aperture stimulate a more conducive sample analysis.

3 Analysis Software

1. CMOS-based multi-language Windows system full spectrum graphical analysis software, convenient and practical.
2. Comprehensive management control of the entire measurement process and provide users with powerful data processing capability and test report output capacity.
3. Instrument can be configured with multiple factory calibration curve and more material analysis and advanced solutions.
4. Software to achieve full spectrum of detection, intelligent deduction interference, buckle dark current, background and noise algorithms to improve analytical instruments.
5. Complete automatic system diagnostics.
6. Comprehensive database management functions can be easily query, summary data.
7. Intelligent correction algorithms to ensure stable and reliable instrument.
8. Complete spectrum of information and interference deduction algorithm to ensure more accurate instrumental analysis.





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 D-507, 5th Floor, Ganesh Glory 11,
Jagatpur Road, Nr. BSNL Office,
S.G. Highway, Ahmedabad, Gujarat, India 382470

 +91 99797 77018 | +91 97248 16698

 sales@metalscientific.com

 www.metalscientific.com