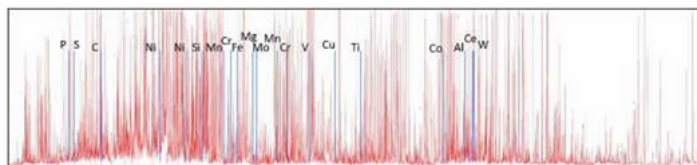


SPARK DIRECT READING SPECTROMETER (Suitable Iron, Cast Iron, Steels)

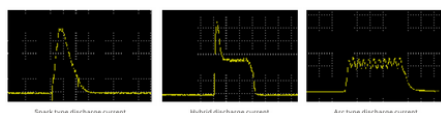


1. Adopt scientific research level CMOS detector with better performance

- The scientific research grade CMOS sensor has lower noise and high UV response, which can achieve the lower detection capability of PMT as well as the full spectrum analysis capability of CCD.

2. Adopt stable and reliable programmable full digital pulse source

- The programmable full digital pulse source can digitally control the synthesis of multiple high-frequency power pulses to achieve arbitrary burning waveforms, such as sparks, arcs and mixed discharge currents.
- It can set excitation currents based on different bases and elements to achieve ideal excitation and analysis results.
- The excitation frequency is high, up to 1000 Hz, meeting the analysis requirements of high-end applications.
- No temperature sensitive devices such as capacitors and inductors, good source stability, maintenance free.



3. Stability Improved

- Integrated cast aluminum alloy optical chamber, 4-stage stress relief treatment, good sealing performance, more stable.
 - The constant temperature design of the optical chamber ensures accuracy reaching 0.1°C, long-term stability and no drift of the spectral position.
 - The precise design of the airflow makes the analysis results more stable
- Professional RTMC spectrum optimization technology brings a more stable experience.

4. Operation Improved

- Friendly software design, more concise and clear interface, more convenient to use, and rich software functions meet the application needs of different customers.
- The perfect combination of high-quality hardware and specific algorithms provides multiple stability guarantees, better monitoring of instrument operation status, improving analysis results, and reducing standardization frequency
- Full spectrum detected makes it does not require additional hardware for adding bases and elements. The analysis range can be expanded through software, making it more flexible to use.
- Intelligent program makes no need for model selected.
- Customizable sample clamps meet various sample analysis needs.
- Remote screen data transmission, achieves zero distance between laboratory analysis and the factory and makes monitoring content and composition changed at any time.
- New remote maintenance function, which can remotely upgrade firmware programs, remotely check instrument status is responsible for instrument lifecycle health.

APPLICATION



Casting



Aerospace



Precision Manufacturing



Automobile Manufacturing



Rail Transit



Lab

SPECIFICATION

Model	IOES-4820	IOES-4850
Optical System	Paschen-Runge optical system using multiple high-performance CMOS detectors	
	Optical chamber with argon self-purification system	Dual chamber argon purging optical system
	Wavelength Range: 174~520 nm	Wavelength Range: 140~680nm
Source	Programmable full digital pulse source	
	High energy pre-ignition technology, ignition pulse: 1~14Kv	
	Maximum discharge frequency: 1000Hz, Maximum discharge current: 400A	
	Spark excitation pulse: 20~230V, Arc excitation pulse: 20~60 V	
Power supply and environmental requirements	Power supply voltage: (220 ± 20) V AC, (50 ± 1) Hz, single power supply with protective grounding	
	Maximum excitation frequency: 400W, Average standby power: 50W	
	Working temperature: 10~30 °C, Storage temperature: 0~45 °C, Working humidity: 20~80% RH	
Spark Stand	Opened sample operation platform, which can be equipped with various sample adapters for special applications to meet different small sample analysis needs	
	Optimized argon flushing design, better argon saving and spark stability	
	Easy to clean and maintain, intelligent reminder of maintenance cycle	
Argon	Aperture of spark stand: 13mm (optional: 6mm)	
	Purity: 99.999%, Pressure: 0.5MPa	
	Burning flow is about 3.5L/min, maintaining and standby flow is about 0.1L/min	Burning flow is about 3.5L/min, maintaining and standby flow is about 0.2L/min
Dimension	818*590*396 mm	623*735*443mm
Weight	70 kg	80 kg
EMC	IEC 610004-2, 61000-4-4, 61000-4-5	
Model F	None	Dual optical chamber configuration, best UV analysis capability, capable of accurately analyzing N elements, meeting high-end analysis requirements for various matrixes such as Fe, Al, Cu, Zn, Ni, Ti, Mg, Co, etc
Model N	Suitable for all matrix analysis and can meet the matrix analysis requirements such as Fe, Al, Cu, Ni, and Zn	Dual optical chamber configuration, strong UV analysis capability, meeting various matrix analysis requirements for Fe, Al, Cu, Zn, Ni, Ti, Mg, Co, etc
Model S	Suitable for nonferrous metal analysis and meet the matrix analysis requirements such as Al, Cu, Zn, and Mg	Single optical chamber configuration to meet matrix analysis requirements for Al, Cu, Zn, Mg, etc

Standard delivery	Qty
Main unit	1
Computer	1
Printer	1
Standard sample	1
Analysis and calibration software	1
Consumable and spare parts	1
Inspection Certificate (Manufacturer)	1