



## W4 Optical Emission Spectrometer (Arc/Spark-OES)

Economical and Easy Metal Analyzer

### Specification:

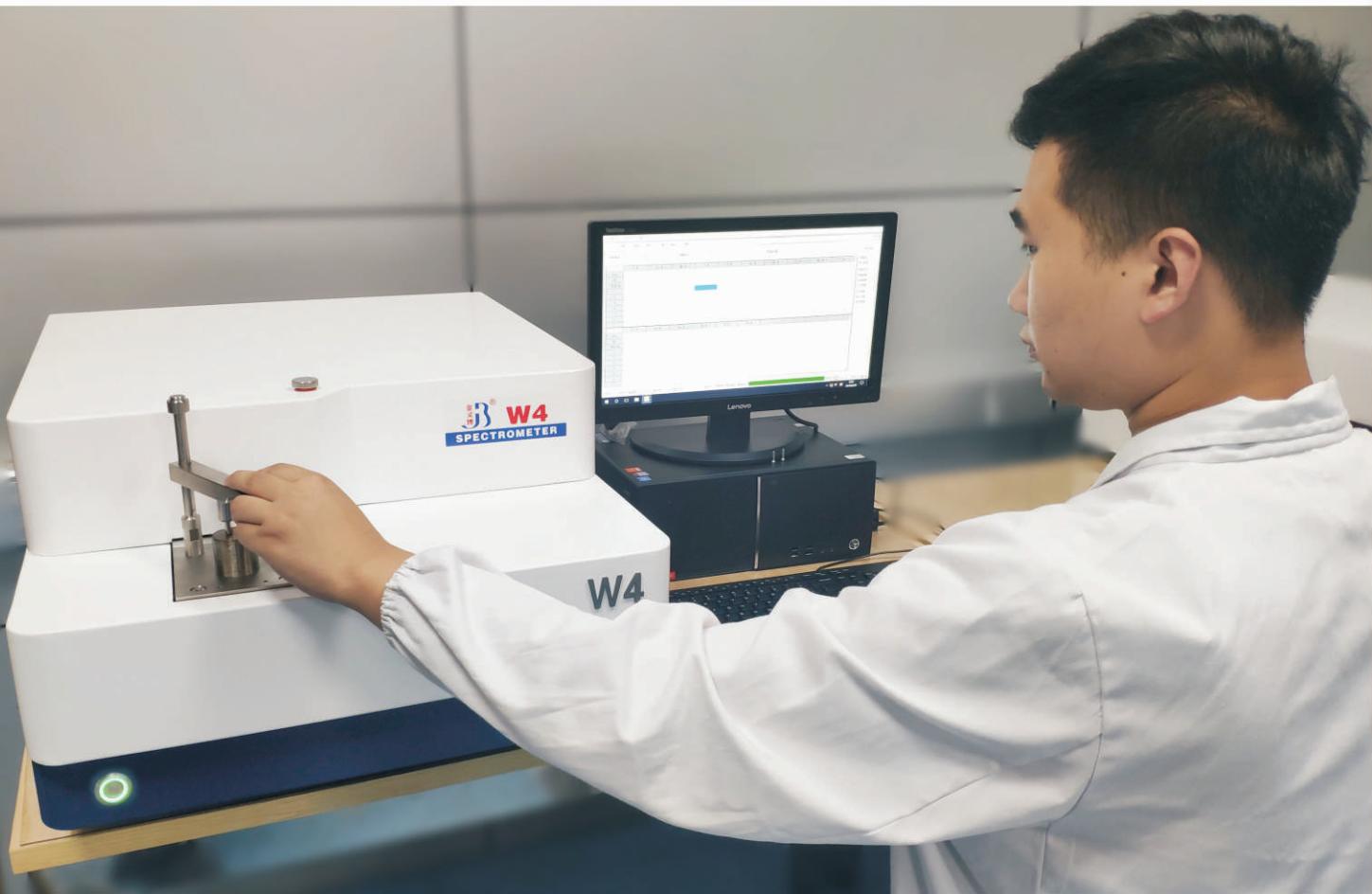
- ◆ High resolution CMOS readout system
- ◆ Low total cost of ownership
- ◆ Vacuum optics enabling fast stabilization
- ◆ Unmatched analytical performance and reliability
- ◆ Excellent long-term stability
- ◆ Intelligent design, Modular design
- ◆ Ferrous and non-ferrous applications
- ◆ Easy to use with full PC control
- ◆ Friendly user interface



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# W4 Metal Analyzer



## Summary

**W4** Spectrometer is most suitable instrument for the determination of various elements in different matrices(Fe, Cu, Al, Ni, Co, Mg, Ti, Zn, Pb, Sn, Ag, etc). It is an economical and easy solution to quick analysis near the furnace, metal material quality analysis, research laboratories and metal grade identification. This also gives the user a truly economical spectrometer that's both easy to use and easy to space saved. The optical system uses a CMOS detector with a spectral range covering all typical materials. It can accurately and reliably analyze from low-level elements to high-content elements.



## Applications

- ◆ Steel Plants Where needs are at around 100 PPM levels or elements like C, Cr, S, P etc
- ◆ Rolling mills, foundries, workshops: Rapid analysis; test several 100s of samples daily
- ◆ Alloy manufacturers: Any number of bases / matrices; highly stable and precise
- ◆ Testing Laboratories: Commercial testing laboratories, Universities and colleges
- ◆ Foundries which need a quick analysis near the furnace
- ◆ Warehouse material identification
- ◆ Base: Fe, Cu, Al, Ni, Co, Mg, Ti, Zn, Pb, Sn, Ag,etc



# W4 Features



## 👉 Features

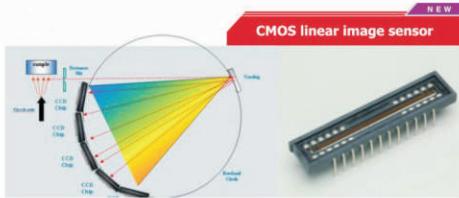
- ◆ Precise reliable, fast, versatile and affordable
- ◆ Compact designed desktop unit
- ◆ Energy saving, standby power 50VA
- ◆ Achieves more accurate data by modifying standardized parameter
- ◆ Full wavelength coverage, customized factory calibration, adding new element without further hardware configuration
- ◆ Wavelength range 165nm~589nm(extendable),spectral lines can cover all important elements
- ◆ Spectrometer temperature control ensuring high precision and stability
- ◆ Customized reports and quick diagnosis software
- ◆ Programmable digitalized spark source, generating optimized discharge waveform for different bases
- ◆ Advanced excitation protection and diagnostic system ensuring operating safety
- ◆ Argonpurge control protecting entrance lens from contaminating, minimizing maintenance
- ◆ Professional data capture, improved accuracy by reducing background interference
- ◆ Global factory calibration with interference correction
- ◆ Technology support and software update for free

## Base

- ◆ Available for the relevant bases such as Fe, Cu, Al, Ni, Co, Mg, Ti, Zn, Pb, Sn, Ag, etc

## Optical System

- ◆ Vacuum pump style
- ◆ Raster focal length 350mm
- ◆ Paschen-Runge optical system with full wavelength coverage
- ◆ Effective wavelength range 165nm~589nm (extendable)
- ◆ Multi-CMOS detectors with high resolution



## Calibration

- ◆ Standard factory calibrated programs
- ◆ Freely selected analysis programs
- ◆ Customized calibrated programs according to individual requirements

## Spark Stand

- ◆ Argon flushed and optimized argon flow
- ◆ Easily operated sample clamp adapted to different sample geometrics
- ◆ Durable electrode and easy maintenance
- ◆ Easy operated small sample clamp



## Readout system

- ◆ High performance DSP and FPGA processor with super high speed
- ◆ External PC optional
- ◆ Ethernet data transmission
- ◆ Internet network technology and data cloud storage

## Spark Source

- ◆ Programmable pulse DDD digital spark source
- ◆ Optimized electronics and complete excitation protection
- ◆ Available spark, arc and combined discharge waveform for different bases
- ◆ High-energy pre-spark
- ◆ Frequency: 100Hz~100Hz
- ◆ Maximum discharge current: 400A

## Software

- ◆ Easy used and graphic interface based on Windows
- ◆ Automatic diagnosis system
- ◆ Database management
- ◆ Microsoft Windows operating system
- ◆ The perfect database management function can easy to inquire and summary data
- ◆ Intelligent correction algorithm can keep the instrument stable and reliable

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# Standard spectroscopy laboratory configuration





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