



M5000 Metals Analyzer

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➤ **M5000** is a compact desktop spectrometer for metal analysis based on CCD technology. Its design combines high performance with rugged construction and operational convenience with reliable operation. The programmable digital spark source, optimized optical system, auto spectrum correction, digital controlled and data capturing and durable spark stand enable you to obtain fast, reliable and accurate result for metal analysis.

M5000 not only has established itself well in China but also succeeds in overseas markets of Asia, Europe, the Middle East and America. It offers high performance with minimal operating costs. It covers the wave-length range 140nm~680nm, permitting the analysis of all elements required by the metals industry. Pre-defined calibrations are set up in factory

and can be adjusted to fit special analyzing requirements. M5000 is built under strict manufacturing and quality control procedures with ISO 9001.

➤ M5000 is Ideal Solution to Metal Analysis

- Foundries which need a quick analysis near the furnace
- Manufacturing facilities
- Warehouses material identification



M5000 Features

➤ Features

- High performance and affordable
- Compact designed desktop unit
- Energy saving, standby power 100VA, no vacuum pump
- Full wavelength coverage ,customized factory calibration, adding new element without further hardware configuration
- Wavelength range 140nm~680nm,capacity to analyze more elements required
- Dual optical system design,optimized performance for analysis of C,P,S and N
- Spectrometer temperature control ensuring high precision and stability
- Programmable digitalized spark source, generating optimized discharge waveform for different bases.
- Advanced excitation protection and diagnostic system ensuring operating safety
- Argon purge control protecting entrance lens from contaminating, minimizing maintenance
- Professional and simplified operating software, easy to use
- Intelligent data capture, improved accuracy by reducing background interference
- Global factory calibration with interference correction
- Customized QC function and Grade Identification



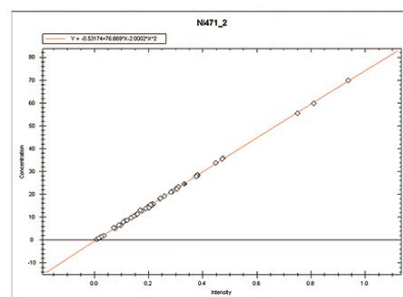
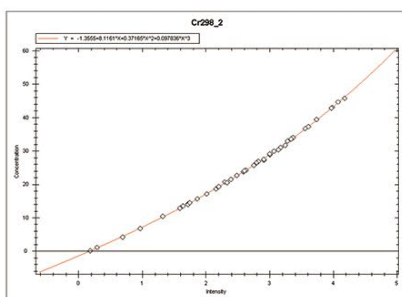
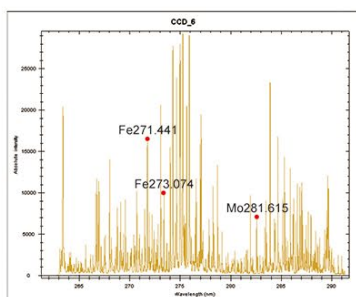
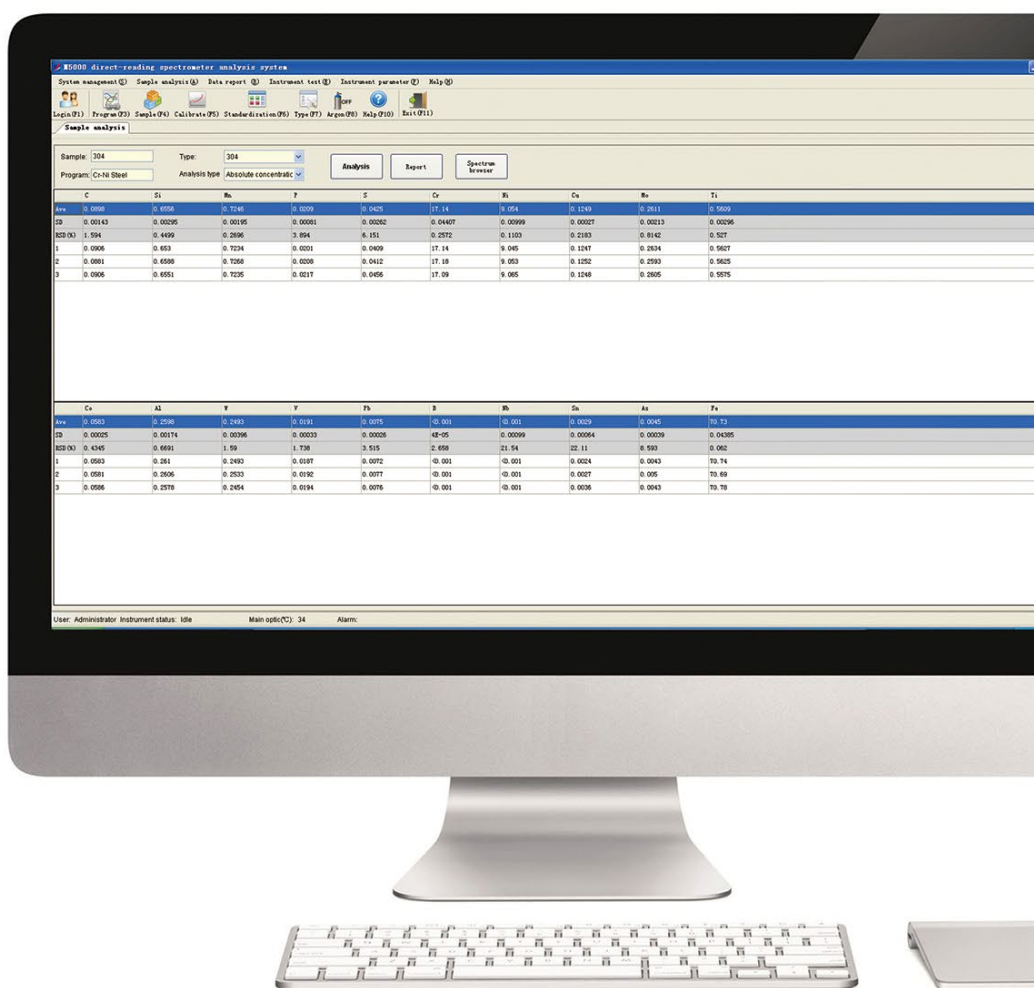
Optional bench and computer desk

A large industrial scene showing a molten metal ladle being poured into a mold. The scene is filled with bright orange and yellow light from the molten metal, with thick white smoke rising from the process. In the foreground, the silhouettes of three workers are visible, looking towards the casting area. The background shows industrial structures and equipment.

Ideal Solution to Metal Analysis

Professional and Simplified Operating Software

Easy used and graphic interface based on Windows



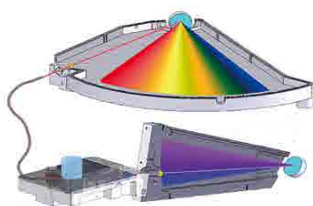
➤ M5000 Specification

Base

- Available for the relevant bases such as Fe, Al, Cu, Zn, Ni, Ti, Mg and Co.

Optical System

- Paschen-Runge optical system with full wavelength coverage
- Effective wavelength range 140nm-680nm
- Multi-CCD detectors with high resolution
- Dual optical system design, optional UV optics



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

Excitation Source

- Programmable pulse digital source
- Optimized electronics and complete excitation protection
- Available spark, arc and combined discharge waveform for different bases
- High-energy pre-spark
- Frequency: 100Hz~1000Hz
- Maximum discharge current: 400 A

Software

- Easy used and graphic interface based on Windows
- Automatic diagnosis system
- Database management
- Microsoft Windows operating system

Electrical and Environmental Requirement

- AC220V±20V, 50Hz
- Max 400VA in sparking
- Average standby power 50VA
- Room temperature: 10°C~30°C
- Relative humidity: 20%~80%

Dimension

- L x W x H: 726 x 622 x 546 mm
- Net weight: 80kg

➤ M5000 Models

Model	Wavelength	Description
M5000 F	140-680 nm	Optimized performance for C,P,S,N analysis. Dual optical system design. Available for bases such as Fe, Al, Cu, Zn, Ni, Ti, Mg, Co.
M5000 N	170-680 nm	Optimized performance for C,P,S analysis. Dual optical system design. Available for bases such as Fe, Al, Cu, Zn, Ni, Ti, Mg, Co.
M5000 S	200-680 nm	Available for bases of Al, Mg, Cu, Zn, Ni, Ti.



Focused Photonics Inc.(FPI) is a high-tech enterprise created in 2002 by Mr. Wang Jian, PhD of Stanford University and Mr. Max Yao, MBA of UC Berkley. FPI is located in Hangzhou high-tech district, Zhejiang province with more than 2000 staff. FPI is dedicated to the R&D of photoelectric measurement technology, processes analysis technology and laboratory analysis technology. Its products are well known in China and distributed worldwide.

In the past ten years, FPI has become the pioneer of scientific instrument suppliers in China and completed IPO in April, 2011 in Shenzhen Stock Exchange.



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