

# Wuxi Jiebo Instrument Technology Co.,Ltd.

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# **Global Client Map**

# **One-Stop Service**

For Metal Analysis





# Company

# Profile

**Wuxi Jiebo Instrument Technology Co.,Ltd.** is located in the city of Wuxi, Jiangsu Province, China. For many years, we engaged in the production, sales and customer service of chemical analysis instruments and related products. We not only have the advantages of scale of products and personalized service but also have the advantages in the process of technological innovation. The market share has been ranked counterparts and equipment exported to the Middle East, Africa, Southeast Asia, West Asia, Eastern Europe, South America and other countries.



Our products are mainly for the elements analysis in the metals and other materials. The main products are spark optical emission spectrometer, high-frequency infrared carbon sulfur analyzer and fluorescence sulfur analyzer. The products combine the advantages of similar foreign products and upgrade the design and innovation. Our products are in a leading position in the domestic industry and win the trust and praise from thousands of users.



Wuxi Jiebo Instrument Technology Co.,Ltd. is a high-tech enterprise with independent intellectual property rights. We have a lot of patented technologies. The headquarters is located in Wuxi Jinshan North Photoelectric New Material Industrial Park.

Wuxi Jiebo Instrument Technology Co.,Ltd. is focus on technology and products innovation. Adhering to the "International Quality, Domestic Price, Personal Service" business philosophy in order to help customers improve the manufacturing level and product quality. Our target is to contribute to the promotion of the core competitiveness of Chinese manufacturing industry and make technical contributions to the human analysis industry. To win the recognition and trust of users is our eternal pursuit.

Innovation is the life of enterprise.









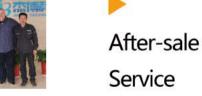


Company Image





















>> Product Introduction

#### JB-750 Optical Emission Spectrometer



#### Product Introduction

JB-750 has condensed PMT that's 20 years of proven spectral analysis techniques, Fused JIEBO company's high quality design experience, as well as popular contemporary design concepts, is a highend spectrometer in domestic and foreign markets. For solid metal sample analysis,PMT(photomultiplier tube)technology has the characteristics of high sensitivity, high accuracy and long life ect.

 It can analyze the matrix of Fe、Ai、Cu、Ni、Zn、 Mq、Pb etc.

#### Application

- Casting
- Metallurgy
- Mechanical treatment
- Extinguishing and protection
- Aerospace
- Metal processing
- Quality evaluation of metal materials
- Development of new materials

#### **Product Features**

- The whole machine, computer, vacuum pump are built-in, no need to equipped with the operating table.
- Multi channel photoelectric sampling system, each channel corresponds to a element, can accurately collect the corresponding voltage signal, improve the accuracy of the analysis result.
- GDS digital light source, all solid state circuit, no auxiliary electrode, excitation frequency up to 1000Hz, according to different samples, choose the corresponding excitation parameters, to achieve the best analysis result.
- Multi layer electrical isolation design, ensure the whole system no any interference, without the magnetic ring and other external isolation components, no special requirements for the ground wire (can work without interference to the ground wire).

#### **Important Features**

#### PMT Optical System

The photomultiplier tube (PMT) has the advantages of high sensitivity, small dark current, large signal to noise ratio and fast resoonse speed.

In the ultraviolet visible spectrum range, almost all the precision spectral analysis instruments use PMT to detect weak optical signals.

#### Argon Gas System

The argon gas flow is controlled by computer. Argongas flow optimization is carried out at each stage ofanalysis sequence (flushing, precombustion, integration). Thus, the optimal performance is obtained withthe minimum consumption of argon gas. Improve argon gas circuit in order to reduce pollution of the lens to the lowest state. It only needs to cleanthe lens one time every year.

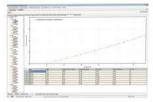
#### Integrated optical chamber: vacuum design ,constant temperature

750mm focal length, Paschen Runge device, Aluminum Alloy optical chamber, ensuring the long-term sealing. Optical chamber including air flow passage, strong ventilation device, temperature sensor, heating element to keep constant temperature (38 + 0.1), to prevent the uneven temperature gradient in each part of optical chamber.

Each channel is provided with an independent slit, which is adjusted with a refracting plate to ensure the accuracy of each element.

Using vacuum differential pressure regulator, ensure the vacuum chamber is completely isolated from the vacuum pump when no working, Avoid optical chamber pollution.







#### **Product Parameters**

#### Il System Excitation I

Patrick type Runge rowland full spectrum optical vacuum system Many pcs high resolution CMOS/CCD Detectors Focal Length:401.mm Wavelength:40-680nm Integrated optical chamber Optical Room Vacuum Design. Programmable pulse full digital light source High combustion technology Maximum Discharge Current:400A Maximum Discharge Frequency:100-1000Hz Ignition pulse:1-14KV Spark excitation pulse:20-230V Arc excited pulse:20-60V

#### Power and Environment Requirement

Working Power: (220±20) V AC,(50±1)Hz Single power supply for protective earthing Maximum power during spark excitation:400VA Standby average power:50VA Working temperature:0-45°C Working Humidity:20-809KH

#### Sample excitation

Open type Meet all kinds of sample fixture Optimized argon gas path design Easy to clean and maintain Purity Requirement:99.999% Entrance Pressure:0.5MPa

Flow Rate:Exciting flow about3.5L/min

#### **Dimension and Weight**

Dimension: 780\*565\*360mm

Weight: 78Kg

#### Innovate T5 Optical Emission Spectrometer

#### Product Introduction

Innovate T5 adopts international standard design and manufacturing technology. It uses the most advanced CMOS signal acquisition components from Japan Hamamatsu Corp. The design of vacuum chamber and full digital excitation light source which is synchronized with the international spectrometer technology. The CMOS spectrometer is not only contain the full spectrum characteristics of CCD spectrometer but also the extremely low detection limit for non-metallic elements such as C, S, P, B, As, N etc. The design of whole machine is reasonable. The operation is simple and easy to learn. The test result is stable and accuracy.



Innovate T5 full spectrum direct reading spectrometer adopts international standard design and manufacturing technology. It uses the most advanced CMOS signal acquisition components from Janpan Hamamaysu Corp.

#### **Application**

- Foundry
- Metallurgy
- Mechanical Treatment
- ire Control
- Aerospace
- Metal Treatment
- Metal Materials Quality Identify
- New Materials Research

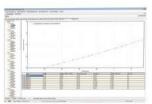
#### **CMOS Full Spectrum Analysis Technology**

- Rich full spectrum curves information.
- Intelligent choose the most suitable sensitive curve.
- Through multi-spectrum curve combine technology, it can meet the test requirement of content range from low value to high value.
- Based on the test data of full spectrum, it can correctly distinct the background and spectrum curve. Then it will effectively improve the test accuracy.
- Humanized : one key start, one key stop.

One button sample loading excitation, effectively improve work efficiency.

Emergency one stop, security protection.







#### Original real time intelligent drift correction technology

- During the analysis process, spectral drift correction is carried out in real time to enhance the stability of the instrument.
- Reduce the number of standardized correction in order to extend the calibration cycle.

#### **Product Feature**

- The first CMOS full spectrum receiving technology.
- Humanized one click trigger and one key emergency stop.
- Design of integrated optical system for optical chamber.
- Programmable pulse full digital light source technology.
- It can analyze many matrix such as Fe, Al, Cu, Zn, Ni, Ti, Mg, Pb etc.
- Wavelength is 140-680nm. It can meet more elements analysis requirement.

#### **Product Parameters**

#### Optical System

Patrick type Runge rowland full spectrum optical vacuum system Many pcs high resolution CMOS/CCD Detectors Focal Length:401mm Wavelength:140-680nm

Wavelength:140-680nm Integrated optical chamber Optical Room Vacuum Design.

#### **Excitation Light**

Programmable pulse full digital light source High combustion technology Maximum Discharge Current400A Maximum Discharge Frequency:100-1000Hz Ignition pulse:1-14KV Spark excitation pulse:20-230V Arc excited pulse:20-60V

#### Power and Environment Requirement

Working Power:(220±20)VAC.(50±1)Hz Single power supply for protective earthing Maximum power during spark excitation:400VA Standby average power:50VA working temperature:10-30°C Storage Temperature:0-45°C Working Humidity:20-8096RH

#### Sample excitation

Patrick type Runge rowland full spectrum optical vacuum system Many pcs high resolution CMOS/CCD Detectors Focal Length:401.mm Wawelength:140-680nm Integrated optical chamber Optical Room Vacuum Design.

#### Argon Gas Requirement

Purity Requirement: 99.999% Entrance Pressure: 0.5MPa

Flow Rate: Exciting flow about 3.5L/min

## Dimension and Weight Dimension: 780\*565\*360mm

Weight: 78Kg

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#### Noble T7 Optical Emission Spectrometer



#### Product Introduction

Noble T7 Full Spectrum Optical Emission Spectrometer adopts the international standard of design and manufacturing technology. It uses the most advanced CMOS signal acquisition device from Japan Hamamatsu Co. Each CMOS can set the number of sparks separately. It adopts vacuum light chamber design and full digital excitation light source.. This CMOS Spectrometer is not only contain the feature of full spectrum of CCD spectrometer but also have the advantages of PMT spectrometer which has very low detection limit for nonmetallic elements. The design of the whole machine is reasonable. It also has many advantages such as easy operation, high accuracy test result, longterm stability etc.

It can analyze the matrix of Fe, Al, Cu, Zn, Ni, Mg, Pb etc.

#### Application

- Foundry
- Metallurgy
- Aerospace
- Metal Materials Quality Identify
- New Materials Research
- Scientific Research

#### **Product Features**

- CMOS integrates the A/D converter into the chip which directly outputs the digital signal.
- The circuit design is simple and it reduces the power consumption of the whole circuit.
  - CMOS adopts a new noise reduction technology which has high quality of output graphics signal, low readout noise, low power consumption, small background and low noise.
- All are greatly improved the repeat ability of spectrometer analysis of low-content elements.

#### Important Features

#### High Performance Optical System

The arc flame generated by the excitation of optical system is directly introduced into the vacuum optical chamber by the lenswhich realizes the optical path through and effectively reduces the loss of the optical path.

High precision CMOS detector can accurately measure the nonmetallic elements such as C, P, S, As, B, N and all kinds of metal elements.

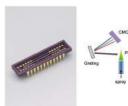
#### Automatic Optical Path Calibration

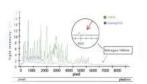
Automatic optical path calibration. Optical system automatic spectral line scanning to ensure the correctness of the receiving and eliminating the tedious peak scanning work.

The instrument automatically identifies a particular spectral line and compares it with the original storage line, determines the drift position, and finds out the current pixel position of the analytical line for measurement.

#### Design of Plugged Lens

The vacuum optical system adopts unique incident window and vacuum isolationwhich can be operated in the working state of the vacuum system. The optical lens adopts a plugged lens structurewhich is convenient for daily cleaning and maintenance.







#### **Product Parameters**

Optical System	Excitation Light	Power and Environment Requirement	
Para-Runge-Roland Circular Full-Spectral vacuum optical system Focal Length:401mm Wavelength:120-800nm High performance CMOS array Digital light source. High energy precombustion technology.	Maximum Discharge Current:Max 400A Maximum Discharge Frequency:Max 1000 Hz Ignition pulse:1-14KV Spark excitation pulse:20-230V Arc excited pulse:20-60V	Working Power:AC220V 50/60Hz 1200W Single power supply for protective earthing Maximum power during spark excitation:400V/Standby average power:50VA Working temperature:10-30n Storage Temperature:0-45n Working Humidity:20-80%RH	
Sample excitation	Argon Gas Requirement	Dimension and Weight	
Vacuum,temperature,software automatic control pressure communication monitoring	Purity Requirement:99.999% Entrance Pressure:0.5MPa Flow Rate:Excitation flow rate 3.5L/min	Dimension:760*610*1130mm Weight:168kg	
	Maintain flow rate 0.4L/min Standby flow rate 0.1L/min.		

#### Exquis T4 Optical Emission Spectrometer

#### Product Introduction

Exquis T4 Full Spectrum Optical Emission Spectrometer adopts the international standard of design and manufacturing technology. It uses the most advanced CMOS signal acquisition device from Japan Hamamatsu Co. Each CMOS can set the number of sparks separately. It adopts vacuum light chamber design and full digital excitation light source.. This CMOS Spectrometer is not only contain the feature of full spectrum of CCD spectrometer but also have the advantages of PMT spectrometer which has very low detection limit for nonmetallic elements. The design of the whole machine is reasonable. It also has many advantages such as easy operation, high accuracy test result, long-term stability etc.



#### Application

- Metallurgy
- Foundry
- Machinery
- Scientific Research
- Commodity Inspection
- Automobile
- Petrochemical
- Shipbuilding
- Electric power
- Aviation
- Nuclear power

#### **CMOS Full Spectrum Analysis Technology**

- CMOS has a separate ultra-high-speed data acquisition and analysis function, and can automatically monitor and control the operating status of modules such as light chamber temperature, vacuum, argon pressure, light source, and excitation chamber.
- Adopt advanced spray electrode technology. using tungsten material electrode, in the excited state, an argon gas jet will be formed around the electrode, so that the excitation point will not contact the outside air around the exdtation process, which improves the stability of exdtation.
- The instrument operating software is fully compatible with Windows 7/8/10 systems.

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### Product Feature

High Performance Optical System

**High Performance Optical System** 

- The first CMOS full spectrum receiving technology
- Humanized one click trigger and one key emergency stop

through and effectively reduces the loss of the optical path.

The test results are accurate, reproducible and long-term stable.

such as C, P, S, As, B, N and all kinds of metal elements.

- Design of integrated optical system for optical chamber
- Programmable pulse full digital light source technology
- it can analyze many matrix such as Fe, Al, Cu, Zn, Ni, Ti, Mg, Pb etc.
  Wavelength is 160-580nm. It can meet more elements analysis requirement.

The arc flame generated by the excitation of optical system is directly introduced

High precision CMOS detector can accurately measure the nonmetallic elements

into the vacuum optical chamber by the lenswhich realizes the optical path



#### **Product Parameters**

#### ptical System

Full spectrum optical system with Ipa-Runge structure Wavelength Range: 160~580nm

Multiple high performance CMOS detectors Resistance to environmental temperature change Integrated optical chamber design. CMOS detector ensures short wave to achieve the best performance Constant temperature control of optical room. Temperature is 36°C

#### Excitation Ligh

Digital excitation light source adopts the most advanced plasma excitation light source in the world The super stable energy is released in argon environment to stimulate the sample.

The full digital excitation pulse is used to ensure the ultra-high resolution and high stability output of the sample plasma.

#### Power and Environment

Working Power: (220±20)VAC, (50±1)Hz Single-phase power supply with protective grounding. Maximum Excitation: 400VA

Standby average power:100VA working temperature:10-30°C Storage Temperature:0-45°C Working Humidity:20-80%RH

#### sample excitation

Open type Meet all kinds of sample fixture Optimized argon gas path design Easy to clean and maintain

#### Argon Gas Requiremen

Purity Requirement: ≤99.999% Entrance Pressurex0.5MPa Argon gas flow:stand by flow approx 0.1L/min,Maintain flow approx (0.4-0.5) L/min, Exciting flow approx 3.5L/min

### Dimension and Weight Dimension: 620\*500\*580mm

Weight: 50Kg

>> Product Introduction

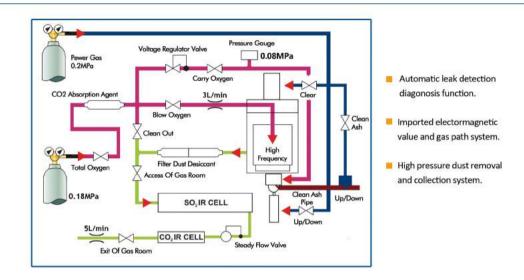
# CS995/CS996 High-frequency Infrared Carbon & Sulfur Analyzer



#### **General Instruction**

CS995/CS996 High-frequency Infrared Carbon & Sulfur Analyzer can determine the percentage of Carbon and Sulfur in steel, iron, alloy, non-ferrous metals, cement, mineral, glass and other materials.

CS995/CS996 has wide measuring range and high analysis accuracy which are ideal equipments in different industries for determining Carbon and Sulfur.

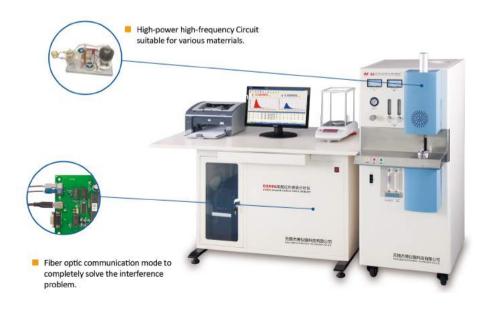


#### **Main Technical Parameters**

Working Principle	Sample Weight (Solid Steel)	Analysis Standard	Accuracy(Min)	Analysis Time	Working Cycle	Working Environment
High-frequency inductive combustion and infrared absorption system	Standard 0.5g	ISO9556 ISO4935	C/S:0.1ppm	20-100s adjustable (noemally 35s)	24 Hours	Temperature 10-30℃ Humidity≤75%

#### Differences Between CS995 and CS996

Туре	C5995	CS996
Appearance	Separate work station with vertiacal high-frequency	Save space by desktop detecor and desktop
	furnace and beautiful design	high-frequency furnace
Analysis Range	C:0.0001%-10.0000%	C:0.0005%-6.0000%
	(Can be ectended to 99.99%)	(Can be ectended to 99,99%)
	S:0.0001%-2.0000%	S:0.0005%-0.3500%
	(Can be ectended to 99.99%)	(Can be ectended to 99,99%)
Furnace Power	2500W	2200W
Detecting Pool	One carbon pool and one sulfur pool (can extend low carbon pool and high sulfur pool)	Only one carbon and one sulfur pool



#### JB-TS6 Intelligent Carbon Silicon Analyzer



#### Product Introduction

JB-TS6 Intelligent Carbon Silicon Analyzer iswidely used in online measurement of gray iron,malleable cast iron, ductile iron, vermicular ironor alloy cast iron for some key index such as carbon equivalent, carbon content, silicon content, sample temperature (TM), liquid cu rve(TL), solidus line (TE) etc. It's an indispensabletool for quality control in the casting industry.

#### **Function & Feature**

- Guide content adjustment before furnace. It can calculate the adding quantity
  of carburant, ferrosilicon or steel scrap compared with the target composition,
  weightof molten iron and yield base on the test results.
- Nodularity measurements by measuring molten iron for carbon saturation degreeand super cooling degree.

#### JB-4C Argon Purifier



#### Product Introduction

JB-4C uses catalytic agent to remove the traces of 02 in theargon gas and produce CO2. Then it uses absorbent to removeH20 and CO2.

JB-4C is dual structure. One set is working and another is for renewable spare. So it can supply long term continuous gas.

#### **Main Technical Parameters**

Argon	Impurity Percentages	
Bottled pure liquid argon or controlled argon gas pipeline	O <sub>2</sub> <0.5ppm H:O<1ppm(Dew point<-76°C) CO+CO <sub>2</sub> <0.1ppm S. POXides<0.1ppm Number of dust particles(>0.3um)3-5 s/L	O <sub>2</sub> ≤ 1000ppm H <sub>2</sub> O ≤ 1000ppm
Putity	Working Pressure	Air Flow
99.9998%	0.4-1.5MPa	4m3/h

#### W660 Wireless Smelting Thermometer

#### Product Introduction

W660 Wireless Smelting Thermometer is widely used in thesmelt and casting industries for production guidance. It can give a quick measuring of the molten metal temperature and show iton a big screen through wireless method.



#### MPJ-1A Sample Grinder

#### Product Introduction

MPJ-1A Sample Grinder is used for surface preparation of the sample for optical emission spectrometer. It has a impact structure and the two kinds of speed disk matches different sandpapers of different fineness and hardness.

Grinding is a major step of preparing the sample. MPJ-1A runs steadily and quietly with easy operation and high efficiency. It has a dust collecting device which can automatically remove metal fragments.

#### Main Technical Parameters

	Speed	
ø400mm	1400r/min,2800r/min	AC380V 50Hz
Putity	Working Pressure	
99.9998%	0.4-1.5MPa	4m3/h

