

# **SINOTEST Equipment Co., Ltd** **Jiangsu Wallong-Hsin**

**Professional and Reliable  
Element Analyzer Integrator**



**SINOMACH**







SINOMACH is a large scaled state owned corporation which is under direct control of State-owned Assets Supervision and Administration Commission of the State Council, and it operates in about 140 countries throughout the world.

SINOMACH is one of the largest contractors and corporations on import & export trading, and the strongest corporation on R&D, industrialization base, reconnaissance and survey, design and construction in China machinery industry.

SINOMACH has been selected by U.S. Engineering News-Record (ENR) as the top 50 international contractors among the largest 225 companies in the world, and the top 100 engineering consultants and designers among the total of 200, for several consecutive years.



# Enterprise affiliation



**SINOMACH GROUP**



**SINOTEST &  
SINOCAPITAL**



**HAIGUANG  
INSTRUMENT**



**JIANGSU WALLONG-HSIN**





# SINOMACH Introduction



China National Machinery Industry Corporation (Sinomach), formerly known as the First Ministry of Machinery Industry, is a major State-owned enterprise directly managed by the central government. Sinomach has built itself on around 70 research and design institutes, equipment manufacturing and industrial and trade enterprises it took over from its predecessor.

Sinomach has more than 130,000 employees, over 28 wholly-owned or majority-owned subsidiaries, and 14 listed companies. It is a Fortune Global 500 enterprise and has ranked first among the top 100 enterprises in China's machinery industry for many years.

Sinomach is an international, diversified, comprehensive industrial equipment company, committed to providing quality services globally and building a world-class enterprise driven by science and technology. It has participated in emerging business development such as energy conservation and environmental protection industry and new energy industry.

With a focus on scientific and technological research and service, advanced equipment manufacturing, engineering contracting and supply chain, the company's business covers industrial basic research and development, high-end heavy equipment, high-end agricultural and forestry geological equipment, high-end textile equipment, design consulting and engineering contracting, supply chain integration services, automobile and exhibition, and industrial-financial investment.



# SINOMACH Introduction



Its services cover such critical national economic fields as machinery, energy, transportation, automobiles, ship building, metallurgy, construction, electronics, environmental engineering, aeronautics and astronautics, and light industry. The company is present in five continents, with more than 300 overseas service agencies in over 100 countries and regions.

The company aspires to become a leader in the machinery industry, a driver of progress for humanity, and a world-class enterprise with global competitiveness, continuing to contribute to the national strategy, national economy and people's livelihood.

For years, Sinomach has promoted further optimization of its resources, rebuilt its core competencies, accelerated its pace to go global and extensively advanced its strategic transformation with continuous technological, managerial and business model innovations. It has become a large comprehensive group with extensive business coverage, research and development strengths, high degree of internationalization and outstanding industrial chain advantages.

**SINOMACH Website:**<http://www.sinomach.com.cn/en/>





# SINOTEST Introduction



Sinotest Equipment Co., Ltd. (Sinotest) was built in 1959.( former name: Changchun Research Institute for Testing Machines Co., Ltd & Changchun Research Institute for Testing Machines ) which is the leading company of testing machines industry. National standards of testing machine and extensometer are mainly drafted by Sinotest.

Sinotest is the professional supplier for the material test and engineering. Testing machines we manufactured are widely used in all kinds of areas such as: quality supervision, research institutes, colleges and universities, aerospace ,machine building ,biomedicine.

Our products scope : electronic universal testing machine, electro-hydraulic servo universal testing machine, high or low frequency fatigue testing machine, creep and rupture testing machine, automatic straightening machine, torsion testing machine ,environmental testing equipment, load cell ,extensometer and other grips.

**SINOTEST Website:**<http://www.ccss.com.cn/sy/>





# SINOCAPITAL Introduction



Established on January 26, 2011, Sinomach Capital Management Co., Ltd. (SINOCAPITAL) is a wholly-owned subsidiary of SINOMACH GROUP. As a major enterprise in the Group's industry, finance and investment sector, SINOCAPITAL always focuses on the overall plan of the Group's reform and development, and takes serving the Group's strategy as the primary task to create a first-class asset management platform.

<http://www.sino-capital.com.cn/>





# JIANGSU WALLONG-HSIN Introduction



Jiangsu Wallong-Hsin Machinery Engineering Co., Ltd., was founded in 1992, is a subsidiary of SINOTEST Equipment Co., Ltd.,

We are the only export platform of SINOTEST and distributor of HAIGUANG Instrument.

Jiangsu Wallong-Hsin Machinery Engineering Co., Ltd. majored in exporting:

- Mechanics performance testing equipment (e.g. electronic and hydraulic universal testing machines, creep testing machines, fatigue testing machines, testing rigs and straightening machines)
- Accessories (e.g. extensometer, hydrostatic cylinder, grips, etc.)
- Element analyzers (e.g. atomic absorption spectrophotometer, atomic fluorescence spectrophotometer, mercury analyzer, accelerated solvent extractor, optical emission spectrometer, mobile metal analyzer etc.)
- Straightening machine
- Automatic assembly line

Jiangsu Wallong-Hsin Machinery Engineering Co., Ltd has built firm cooperation with universities, scientific research institutes and other high-tech research companies.

At present, Jiangsu Wallong-Hsin Machinery Engineering Co., Ltd has passed AEO, ISO9001, ISO14001, ISO45001, ISO50001 and other certifications.

[www.camcjsw-testmachines.com](http://www.camcjsw-testmachines.com)



## SINOMACH



# JIANGSU WALLONG-HSIN Introduction



## Certificate:

## AEO, ISO9001, ISO14001, ISO45001, ISO50001



### QUALITY MANAGEMENT SYSTEM CERTIFICATE

Registration No. 02121Q1080R39

This is to certify that the quality management system of

JIANGSU WALLONG-HSIN MACHINERY ENGINEERING CORPORATION LTD

Registered Office Address: 001, Tower A, 1000 International Business, No. 88 East Canal Road, West City, Jiangsu, P.R. China

is in conformity with

GB/T 19001-2016/ISO 9001:2015

This certificate is valid for the following scope:

State authorized import and export trade (including constructional machinery, agricultural machinery, complete set of equipment and machinery components, including bearings, rolling elements, fluid components and components, other components parts)

This certificate is valid from July 1, 2021 to June 30, 2024

The scope which needs administrative permission shall be in accordance with valid license. In the case that the organization regularly receives surveillance assessments, the certificate shall be valid when used together with the Notice for Maintenance of Use of Certificates and Logos. Information about the certificate can be queried on the official website of CCCC (www.cccc.gov.cn).

Huazhong Certification Center, Inc.

General Manager:

Date of Issue: July 1, 2021



中国认可  
国际互认  
管理体系  
认证系统  
CNAS C201-M



### ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Registration No. 00060210147608

This is to certify that the environmental management system of

JIANGSU WALLONG-HSIN MACHINERY ENGINEERING CORPORATION LTD

Registered Office Address: 001, Tower A, 1000 International Business, No. 88 East Canal Road, West City, Jiangsu, P.R. China

is in conformity with

ISO 14001:2015

This certificate is valid for the following scope:

State authorized import and export trade (including constructional machinery, agricultural machinery, complete set of equipment and machinery components, including bearings, rolling elements, fluid components and components, other industrial parts) and relative management activities

This certificate is valid from July 1, 2021 to June 30, 2024

The scope which needs administrative permission shall be in accordance with valid license. In the case that the organization regularly receives surveillance assessments, the certificate shall be valid when used together with the Notice for Maintenance of Use of Certificates and Logos. Information about the certificate can be queried on the official website of CCCC (www.cccc.gov.cn).

Huazhong Certification Center, Inc.

General Manager:

Date of Issue: July 1, 2021



### OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

Registration No. 02121S10510R45

This is to certify that the Occupational Health and Safety Management System of

JIANGSU WALLONG-HSIN MACHINERY ENGINEERING CORPORATION LTD

Registered Office Address: 001, Tower A, 1000 International Business, No. 88 East Canal Road, West City, Jiangsu, P.R. China

is in conformity with

GB/T 45001-2020/ISO 45001:2018

This certificate is valid for the following scope:

State authorized import and export trade (including constructional machinery, agricultural machinery, complete set of equipment and machinery components, including bearings, rolling elements, fluid components and components, other industrial parts) and relative management activities

This certificate is valid from July 1, 2021 to June 30, 2024

The scope which needs administrative permission shall be in accordance with valid license. In the case that the organization regularly receives surveillance assessments, the certificate shall be valid when used together with the Notice for Maintenance of Use of Certificates and Logos. Information about the certificate can be queried on the official website of CCCC (www.cccc.gov.cn).

Huazhong Certification Center, Inc.

General Manager:

Date of Issue: July 1, 2021



中国认可  
管理体系  
认证系统  
CNAS C201-M



### ENERGY MANAGEMENT SYSTEM CERTIFICATE

Registration No. 000303E000020005

This is to certify that the energy management system of

JIANGSU WALLONG-HSIN MACHINERY ENGINEERING CORPORATION LTD

Registered Office Address: 001, Tower A, 1000 International Business, No. 88 East Canal Road, West City, Jiangsu, P.R. China

is in conformity with

GB/T 23331-2013/ISO 50001:2018

This certificate is valid for the following scope:

State authorized import and export trade (including constructional machinery, agricultural machinery, complete set of equipment and machinery components, including bearings, rolling elements, fluid components and components, other industrial parts) and relative energy management activities

Comprehensive energy consumption and energy consumption accounting boundaries for self output product in this year under the attached Table

The certificate changed on July 1, 2021

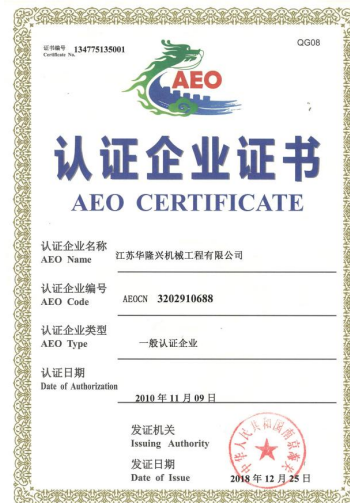
This certificate is valid from September 20, 2020 to September 20, 2023

In the case that the organization regularly receives surveillance assessments, the certificate shall be valid when used together with the Notice for Maintenance of Use of Certificates and Logos. Information about the certificate can be queried on the official website of CCCC (www.cccc.gov.cn).

Huazhong Certification Center, Inc.

General Manager:

Date of Issue: September 21, 2020



# SINOMACH

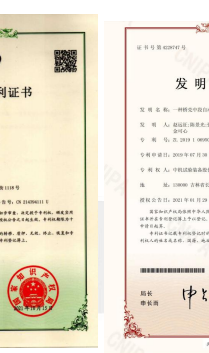
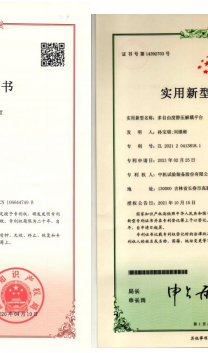
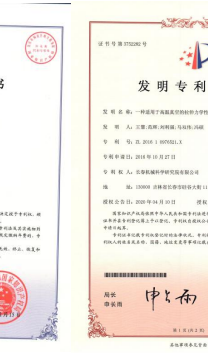
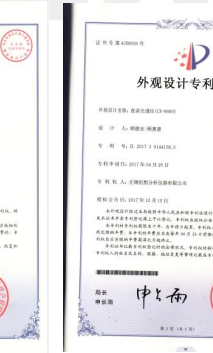
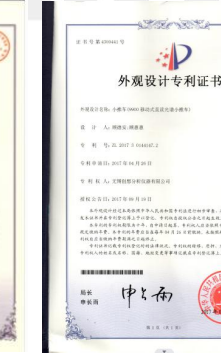
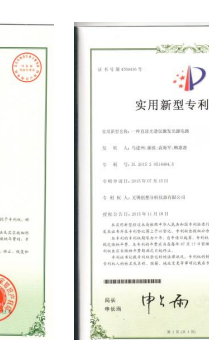
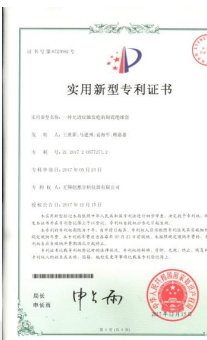
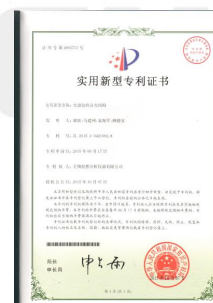
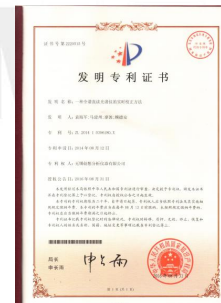


# Patent





# Patent





## 8500 Series Atomic Fluorescence Spectrophotometer



### Product features:

- Suitable for trace analysis of twelve elements such as arsenic, mercury, selenium and antimony in samples.
- Real-time drift correction function.
- Single measurement time is less than 30 seconds.
- The built-in intermittent flow steam generation system, with alternating introduction of samples and carrier current, realizes on-line cleaning, eliminates cross contamination, saves the amount of samples and reagents, and eliminates waste liquid by mechanical power.
- Sample/current-carrying isolation technology to eliminate diffusion effect on measurement results.
- Single point configuration working curve; automatic dilution; automatic measurement.
- The instrument can automatically identify and monitor the service life of high-performance coded hollow cathode lamp.
- The cathode lamp adopts the modes of constant current drive and pulse power supply.
- Shielded quartz furnace low temperature atomizer can reduce fluorescence quenching and gas phase interference and improve atomization efficiency.
- New airtight two-stage gas-liquid separation device without liquid addition and waste discharge.
- The gas circuit system adopts array structure and is equipped with new throttle device to effectively save argon consumption.
- The instrument has the functions of boot self-check, automatic diagnosis and automatic fault alarm.
- Ultra small portable design, with compact structure, can be matched with single peristaltic pump and double peristaltic pump .

ITEM	As\Se\Pb\Bi\Sb\Te\Sn	Hg\Cd	Zn	Ge	Au
Detection Limit/( $\mu\text{g/L}$ )	<0.01	<0.001	<1.0	<0.05	<3.0
Measurement Repeatability(%)	<0.7				
Linear Range	more than three orders of magnitude				





## HGF-V Series Atomic Fluorescence Spectrophotometer



### Product features:

- Adopt multi-channel, multi position and adjustment-free light source system.
- The optical system design based on internal-extinction screw thread, asymmetric diaphragm and special extinction material coating can effectively suppress stray light and significantly improve the signal-to-noise ratio of the detection system.
- The three-dimensional integrated flow path system effectively solves the problems of messy pipeline, easy mercury residue and serious memory effect.
- Micro-upgrade high-performance sequential injection system: maintenance-free, no pump consumption, complete automation and intelligence of analysis and cleaning.
- The mL-level high-precision digital gas mass flow control system composed of carrier gas, auxiliary gas and shielding gas ensures the long-term stability and reliability of the analysis results.
- The three-stage gas-liquid separation system: maintenance-free; water cooled; self-overflow; specially designed for high organic matter samples; inhibit bubble generation; dehumidify efficiently; discharge waste automatically.
- The double-zone temperature-controlled atomizer with independent temperature control for carrier gas and shielding gas ensures long-term stability and reliability of atomization efficiency.
- Million times of maintenance-free ignition technology, which would never need to replace the ignition furnace wire, completely solves the problem of easy fracture of furnace wire.
- The mercury lamp drift calibration system with high stability .

ITEM	As\Se\Pb\Bi\Sb\Te\Sn	Hg\Cd	Zn	Ge	Au
Detection Limit/( $\mu\text{g/L}$ )	<0.01	<0.001	<1.0	<0.05	<3.0
Measurement Repeatability(%)	<0.7				
Linear Range	more than three orders of magnitude				





## AFS-9530 series

### Atomic Fluorescence Spectrophotometer



#### Product features:

- Suitable for trace analysis of twelve elements such as arsenic, mercury, selenium and antimony in samples.
- The instrument can automatically identify elements and monitor the service life of high-performance coded hollow cathode lamp.
- Single point configuration of working curve; automatic dilution; automatic measurement.
- Shielded quartz furnace low temperature atomizer to reduce fluorescence quenching and gas phase interference and improve atomization efficiency.
- Special technology for the combination of syringe pump and peristaltic pump, which has the advantages of the fast speed of peristaltic pump, the accurate injection of syringe pump and online cleaning.
- Membrane separation gas-liquid isolation device.
- The gas circuit system adopts array structure and is equipped with new throttle device to effectively save argon consumption.
- The instrument has the functions of boot self-check, automatic diagnosis and automatic fault alarm.
- The argon-hydrogen flame observation window is designed to monitor the flame state in real time.
- The circuit system adopts the card structure design of highly integrated functional board with strong and weak current separation.
- The software is compatible with windows7/8 system and has a powerful expert online help system.
- Software data can be quickly imported into Excel to realize network resource sharing.

#### Application fields:

It is applicable to the fields of environmental protection, food safety, disease control, medicine and medical treatment, health and epidemic prevention, agriculture, geology and mining, metallurgy, cosmetics, soil, urban water supply and drainage, teaching and research, etc.





## AFS-9560 series Atomic Fluorescence Spectrophotometer



### Application fields:

It is applicable to the fields of environmental protection, food safety, disease control, medicine and medical treatment, health and epidemic prevention, agriculture, geology and mining, metallurgy, cosmetics, soil, urban water supply and drainage, teaching and research, etc.

### Product features:

- Suitable for trace analysis of twelve elements such as arsenic, mercury, selenium and antimony in samples.
- Four lamp positions; dual channel; fully automatic measurement.
- Polar coordinate sampler supports three kinds of sample trays: 69 positions with 25mL, 134 positions with 15mL and 183 positions with 10mL.
- Original imported double syringe pump made of special materials.
- Special technology for the combination of syringe pump and peristaltic pump, which has the advantages of the fast speed of peristaltic pump, the accurate injection of syringe pump and online cleaning.
- Diaphragm valve technology is adopted to replace multi-channel valve, with small dead volume, safety and reliability.
- The application technology of pinch valve replaces the traditional check valve and multichannel valve to avoid reagent contact with the valve body. It has no corrosion, no memory, high reliability and a service life of more than 500,000 times.
- Single point configuration of working curve; automatic dilution; automatic measurement.
- High performance coding supports semi-automatic measurement.
- Sample/current-carrying isolation technology to eliminate diffusion effect on measurement results.
- Shielded quartz furnace low temperature atomizer to reduce fluorescence quenching and gas phase interference and improve atomization efficiency.
- New airtight two-stage gas-liquid separation device without liquid addition and waste discharge.





## AFS-9700 series Atomic Fluorescence Spectrophotometer



### Application fields:

It is applicable to the fields of environmental protection, food safety, disease control, medicine and medical treatment, health and epidemic prevention, agriculture, geology and mining, metallurgy, cosmetics, soil, urban water supply and drainage, teaching and research, etc.

### Product features:

- Suitable for trace analysis of twelve elements such as arsenic, mercury, selenium and antimony in samples.
- AFS-9710/9750 can measure two elements simultaneously while AFS-9770 can measure four, and the measurement time of a single sample is short.
- With ultra quiet and high-speed operation, the polar coordinate sampler can support three kinds of sample trays (69 positions with 25mL, 134 positions with 15mL and 183 positions with 10mL).
- AFS-9750 adopts ten rollers and six channel large peristaltic pump to ensure stable sample injection and effectively reduce pulsation effect.
- The application technology of pinch valve replaces the traditional check valve and multichannel valve to avoid reagent contact with the valve body. It has no corrosion, no memory, high reliability and a service life of more than 500,000 times.
- Special technology for the combination of syringe pump and peristaltic pump, which has the advantages of the fast speed of peristaltic pump, the accurate injection of syringe pump and online cleaning.
- Single point configuration of working curve; automatic dilution; automatic measurement.
- Sample/current-carrying isolation technology to eliminate diffusion effect on measurement results.
- Shielded quartz furnace low temperature atomizer to reduce fluorescence quenching and gas phase interference and improve atomization efficiency.
- New airtight two-stage gas-liquid separation device without liquid addition and waste discharge.





## Other Features

- With flame emission measurement function, it can provide a variety of measurement methods for alkali metals such as potassium, sodium and lithium.
- With complete safety interlock protection device and anti-tempering device, the instrument will automatically cut off the gas when the accidents happen, such as power off or gas cut-off.
- The new all plastic and durable material shell is used to avoid the corrosion of acid gas in the laboratory.
- Unique auxiliary gas design: reduces the influence of sample introduction on flame state and atomization temperature; more suitable for accurate analysis of organ\_x0002\_ic samples and small volume samples. (unique for GGX-610)
- Automatic ignition function. (unique for GGX-610)

## GGX-600/610

### Atomic Absorption Spectrophotometer

Optical system	C-T(Czerny-turner) type optical design	
	Focal length	270mm; short optical path and strong energy
	Plane diffraction grating	1800 scribed lines /mm; high resolution
	Spectral Bandwidth	0.2nm, 0.4nm, 1.0nm, 2.0nm (automatic switching)
	Automatic wavelength scanning to achieve accurate wavelength positioning.	
	Automatic gain, automatic lamp current, automatic energy balance.	
	Adopt reliable and convenient element lamp switching mode, realize element lamp preheating at the same time during measurement.	





## GGX-600/610 Atomic Absorption Spectrophotometer



### Atomization System

#### Burner

high temperature resistant, corrosion-resistant metal titanium alloy; three-dimensional adjustment

High intensity mixing chamber with special treatment technology; corrosion resistance; easy cleaning; no memory effect.

Corrosion resistant, efficient concentric glass atomizer with impact ball

### Flame Atomization System

Working Mode: absorption, background deduction, background and emission.

Automatically deduct the influence of zero drift on the measurement results.

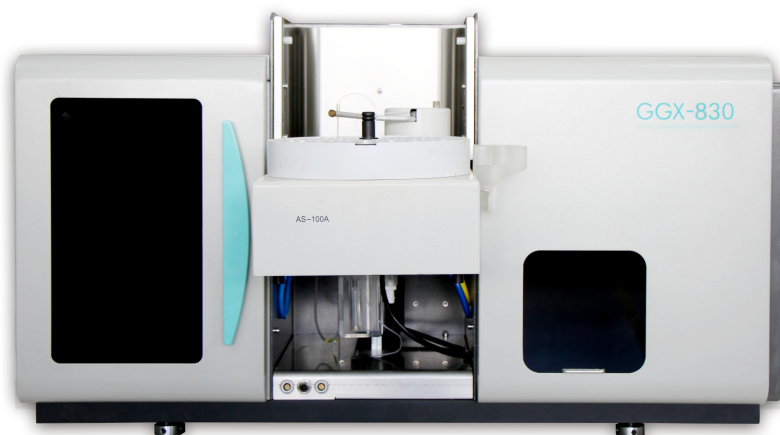
Measurement conditions and test data can be quickly imported into Excel to realize online editing and network resource sharing.





**GGX-830 series**

**Atomic Absorption Spectrophotometer**

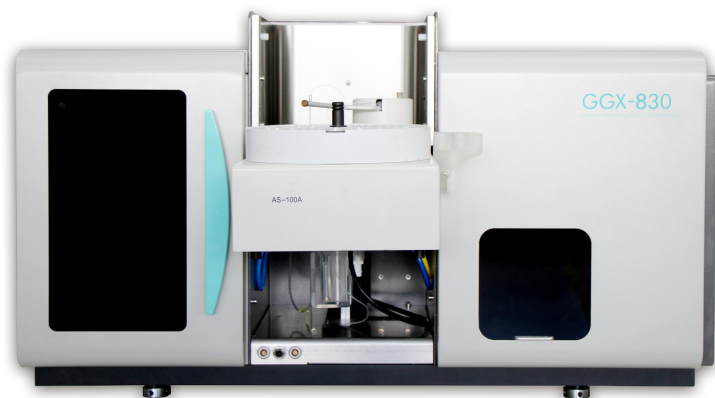


Optical system	Wavelength Range	190nm~900nm
	Wavelength Repeatability	less than 0.1nm
	Wavelength Accuracy	less than $\pm 0.2\text{nm}$
	Spectral Bandwidth	0.2nm, 0.4nm, 1.0nm, 2.0nm (automatic switching)
	Baseline Drift	less than 0.003A/30min
	Grating	C-T(Czerny-turner) type internal optical design; 1800 pieces/mm.
	Resolution	When the spectral bandwidth is 0.2nm, the manganese double lines (279.5nm and 279.8nm) are separated and the peak-to-valley ratio less than 25%





## GGX-830 series Atomic Absorption Spectrophotometer

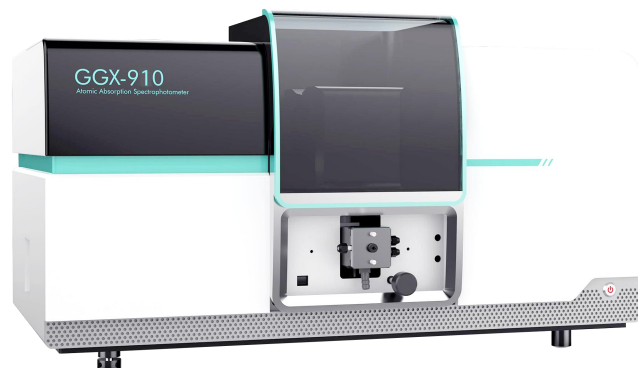


### Product features

- 8 Lamp holders simultaneously light or preheat.
- The main optical components are all imported: photomultiplier tube, grating, deuterium lamp, etc.
- Integrated atomic absorption spectrometer; Czerny-Turner optical path design with 270mm focal length; short optical path; strong energy; simple and convenient one-key converted pneumatic pump.
- Stable and reliable flame atomization system.
- Excellent graphite furnace system.
- Secure monitoring system.
- Powerful data processing system

Graphite Furnace Atomization System	Temperature Range	Room temperature to 3000 °C; temperature self-correction function
	Temperature Control Accuracy	less than 1%
	Temperature Control Program	10 heating procedures(max); 3 heating modes(step, slope and hold).
	Heating Mode	Heating Mode
	Detection Limit(Cd)	less than 0.5pg
	Precision(Cd)	less than 2%
Flame Atomization System	The element switching device of AAS has the advantages of rapid positioning and compact structure.	
	Characteristic Concentration(Cu)	0.02μg/mL/1%
	Precision(RSD)	less than 0.6%
	Detection Limit(Cu)	0.003μg/mL





## GGX-910/920 Atomic Absorption Spectrophotometer

### Product features:

- Zeeman background correction and full band background deduction.
- Transverse zeeman; constant magnetic field; energy saving and consumption reduction.
- Quasi double beam without preheating.
- Eight lights automatically turn to the tower and preheat simultaneously.
- The patented design of slip-ring eight lamp turret overcomes the rotation and winding of lamp cables.
- Wavelength Range: 190nm to 900nm
- Spectral Bandwidth: 0.2, 0.4, 1.0, 2.0nm(automatic switching)
- C-T optical path design; plane diffraction grating with 1800 scribed lines /mm.
- Focal length: 270mm; short optical path and strong energy.
- Automatic peak setting and automatic spectral bandwidth.
- A variety of self-diagnosis functions, fault detection and other safety functions.
- Windows software in both Chinese and English version has powerful data traceability function. Standard curve method and standard addition method can be selected. With slope reset and curve recalibration functions, the correction curve can be edited, allowing the selection of correction curve and sample blank for correction.
- Graphite Furnace Temperature: accuracy is less than 0.5%(2000°C); current and voltage vector control.
- Longitudinal Heating: room temperature to 3000°C; heating rate: more than 2000°C/s.
- The patented 64-unit sampler adopts high-precision sample pump and cleaning pump, and the double injection pumps are used for vertical injection (accuracy $\leq$ 0.5%(20 $\mu$ L)).





## HGA-E series flame & graphite furnace integrated atomic absorption spectrophotometer



### Applicable fields:

Food hygiene, geology, metallurgy, agricultural testing, chemical environmental protection, water quality testing, pharmaceutical commodity inspection, education and research, etc.

### Detection elements:

It is mainly used for more than 70 elements such as gold, silver, copper, lead, zinc, manganese, potassium, sodium, calcium, magnesium, iron and cadmium in food, surface water, groundwater, drinking water and other samples.

### Product features:

- Flame and graphite furnace integrated machine; double atomizer series integrated design; no switching; users do not need to frequently adjust the position of graphite furnace injector;
- Dual light source design; flame and graphite furnace have independent light sources respectively, which overcomes the disadvantages of long optical path and large energy loss of traditional series all-in-one machine, and ensures that both analysis modes can have better optical design;
- Deuterium lamp background correction technology is adopted for flame and graphite furnace; specially imported deuterium lamp ensures its stable operation in modulation mode; strong energy and stable luminescence;
- With flame emission function, it can measure easily-ionized metal elements by emission method;
- Flame and graphite furnace atomization modes are automatically switched by software; relevant configuration and instrument conditions are automatically matched;
- Two sets of 8-Lamp slip ring rotating lighthouses can realize the simultaneous preheating of eight lights;
- It has the functions of power on self-test, automatic slit switching, automatic peak setting, automatic lamp position, automatic recommendation for analysis conditions, etc.
- Automatic energy balance technology, with D2 energy automatic attenuator, ensures that the cathode lamp is matched within the scope of use, and ensures D2's service life and instrument's working condition;





## HGA-100 Direct Mercury Analyzer

2017 BCEIA Gold Award



### Product features:

- Wide applicability: applicable to solid, liquid and gas samples.
- Easy operation: without chemical digestion pretreatment, the experimenter only needs to weigh the sample and directly inject the sample with one key for measurement.
- Low detection cost: no chemical reagent is consumed during the operation of the instrument to reduce the operation cost of the laboratory.
- High analysis efficiency: the analysis time is less than 5 minutes/time, and 40 sample plates are equipped to improve the detection efficiency.
- No mercury loss and memory effect: direct injection has no mercury loss, and the whole process temperature control design reduces the mercury memory effect.
- Good repeatability and high accuracy; integrated flow path, high-efficiency composite catalytic agent, nano coated-gold amalgam material and other purification processes to ensure stable and accurate test results.
- Environmental protection: green design concept; no harmful chemicals are used in the whole analysis process, and the exhaust gas is highly absorbed by the purification device.
- High catalytic efficiency: high efficiency catalyst and other patented technologies remove matrix interference, improve measurement repeatability and stability, and improve the sensitivity of the instrument test.
- Double beam correction to reduce error: the non-reflective double beam design can correct the drift and fluctuation of the light source in real time. There is no mirror or proportional reflection mirror to avoid the correction error caused by mirror contamination.
- Automatic input of balance weighing: the weighing data can be imported into the software system in real time through the data interface of the electronic balance to avoid operation error.

### Application fields:

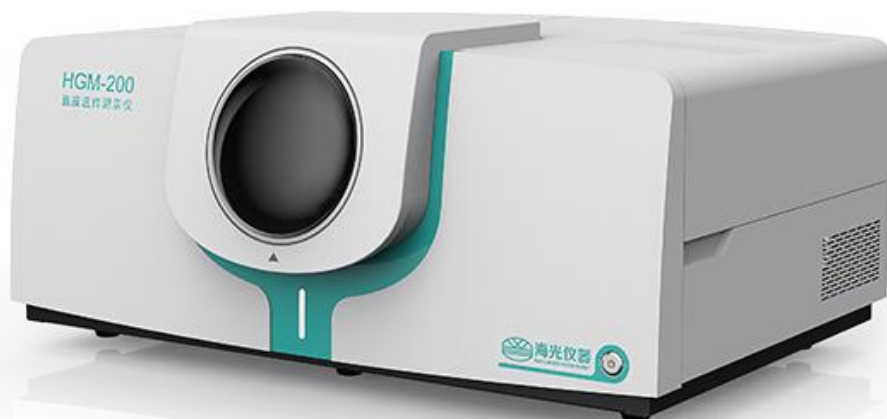
It is applicable to the determination of mercury in samples in the fields of environmental protection, food safety, disease control, medicine and medical treatment, agriculture, geology and mining, metallurgy, coal, petrochemical, cosmetics, soil, urban water supply and drainage, teaching and research.



# HAIGUANG Instrument



## HGA-200 Dual Channel Direct Mercury Analyzer



### Product features:

- Wide applicability: applicable to solid, liquid and gas samples.
- Dual channel detection: based on the dual channel design, two samples can be tested simultaneously within 5min, and the analysis efficiency is improved by 100%.
- Easy operation: without chemical digestion pretreatment, the experimenter only needs to weigh the sample and directly inject the sample with one key for measurement.
- Low detection cost: no chemical reagent is consumed during the operation of the instrument to reduce the operation cost of the laboratory.
- High analysis efficiency: the analysis time is less than 5 minutes/time, and 60 sample plates are equipped to improve the detection efficiency.
- No mercury loss and memory effect: direct injection has no mercury loss, and the whole process temperature control design reduces the mercury memory effect.
- Good repeatability and high accuracy; integrated flow path, high-efficiency composite catalytic agent, nano coated-gold amalgam material and other purification processes to ensure stable and accurate test results.
- Environmental protection: green design concept; no harmful chemicals are used in the whole analysis process, and the exhaust gas is highly absorbed by the purification device.
- High catalytic efficiency: high efficiency catalyst and other patented technologies remove matrix interference, improve measurement repeatability and stability, and improve the sensitivity of the instrument test.

### Application fields:

It is applicable to the determination of mercury in samples in the fields of environmental protection, food safety, disease control, medicine and medical treatment, agriculture, geology and mining, metallurgy, coal, petrochemical, cosmetics, soil, urban water supply and drainage, teaching and research.





## HGE-300 Fast Solvent Extractor



### Application

It is used for the extraction of toxic and harmful substances and active natural products such as polychlorinated biphenyls, polycyclic aromatic hydrocarbons, organophosphorus pesticides, organochlorine pesticides, pesticides, phenoxy herbicides, triazine herbicides, diesel oil, total petroleum hydrocarbons, dioxins, furans, explosives in soil, sludge, sediment, dust, food, animal and plant tissues and other samples in organic pollutant residue detection.

### Product features:

- Extraction mode: Continuous extraction mode and vertical positioning mode are adopted for the extraction cell. The extraction solvent flows from top to bottom of the extraction cell for extraction. It can extract 24 samples automatically and continuously. Automatic cleaning can be completed between samples to avoid cross pollution and realize unattended.
- Extraction cell turntable: 24 sample positions and 2 cleaning positions, which can be compatible with 1mL, 5mL, 10mL, 22mL, 34mL, 66mL and 100mL extraction cells. 24 samples can be placed in all specifications of extraction cells.
- Collection bottle turntable: It is required to have a 26-position collection plate design. One sample plate can be compatible with 26 collection bottles of 250mL and 26 collection bottles of 60mL at the same time. There is no need to replace the collection bottle sample plate during use. The collection bottles of two specifications can be switched freely, and the 60mL collection bottle can be expanded to 50 positions by using the vial insert.
- Solvent controller: the built-in standard quaternary gradient solvent control system has four special fixed positions for solvent bottles, which can realize the automatic switching of four solvents and the automatic mixing of different solvents in different proportions. There is no need to prepare mixed reagents manually, which will save labor and reduce the infringement of chemical reagents





Graphite-Digesting Robot



Microwave Digestion System



Inductively Coupled Plasma Mass Spectrometer



Flow Injection Analyzer (FIA)



Continuous Flow Analyzer (CFA)





## JS-6800 Optical Emission Spectrometer



Benchtop Spectrometer

### Product features:

- Complete analysis within a few seconds
- Extreme sensitivity due to latest CCD technology and software
- Technology support and software update for free
- Wavelength coverage 130nm~800nm, permitting simultaneous analysis for up to 31 elements
- Available for routine analysis of small sample diameter is 1 mm.



Floor Model Spectrometer

Optical system	Optical Structure	Paschen-Runge Mount
	Rowland Circle of Diameter	350mm
	Wavelength Range	130nm~800nm
	Detector	Multi high resolution CDD detectors
	Degree of Vacuum	Auto control within 6-15 Pa
	Pixel Resolution	30 pm
	Full Spectrum	
	Light Room temperature is controlled automatically	
Spark Source	Type	Digital arc and spark source/New plasma generator
	Spark Frequency	100-1000 Hz
	Plasma Current	1-80 A
	Ignition Voltage	>8000V
Spark Stand	Argon flushed with minimal consumption of Argon	
	Spray discharge electrode technology	
	Adjustable sample clamp	





## JS-6800 Optical Emission Spectrometer

Optical system	Measurable Elements	Fe base, Al base, Cu base, Zn base, ect
	Dimension	830mm(L)*700mm(W)*460mm(H) (Benchtop) 830mm(L)*700mm(W)*1230mm(H) (Floor Module)
	Weight	80kg (Benchtop) 120kg (Floor Module)
	Storage Temperature	0° C~45° C
	Operating Temperature	10° C-30° C, 23±2° C is recommended
	Power	AC220V/50Hz
	Power Consumption	Excitation:700W/Stand by:100W
	Argon Quality	99.999%, Argon Pressure > 4MPa
	Argon Consumption	5L/min during spark mode

### Applications:

This process is widely used in the metal making industries, including primary producers, foundries, diecasters and manufacturing



# SINOMACH



## JS-6500 Mobile Metal Analyzer



### Applications:

In the fields of Metallurgy, casting, machining, automobile manufacture, aerospace, weapons, metal processing, production technology control, furnace tests, laboratory inspection.

Optical system	Optical Structure	Paschen-Runge Mount
	Rowland Circle of Diameter	350mm
	Wavelength Range	170nm~650nm
	Detector	CCD(charge-coupled device)
	Pixel Resolution	30 pm
	Full Spectrum	Cover the whole element analysis
Light Source System	Type	HEPS digital spark light source
	Spark Frequency	100-1000 Hz
	Plasma Current	1-80 A
	Ignition Voltage	> 8000V
Excitation Stand	Jet electrode technology reduces the argon gas consumption, increasing the use efficiency of the argon gas	
	Good heat dissipation, Excitation temperation increase was less than 5° C for 100 times excitation continually	
	Ensure the accuracy of the analysis under the condition of heavy load data	





## JS-6500 Mobile Metal Analyzer

### Features:

- Europe Technology was introduced, first manufacturer of mobile metal analyzer in China, Break the technological monopoly, small volume, light-weight.
- Applied with CCE optical technology and modern microelectronic components; it is the best choice for the analysis of non-metallic elements such as C, P, S, B, Sn. As in those large metal components which are not easy to cut.
- Can analyze all kinds of metal materials.
- Improve optical system makes it suitable for analysis need under various circumstance, no matter outside or high altitude. High accuracy and stability.
- Integrated design, portable, can be divided for transportation Battery pack can be used for CCD, hundreds of excitation for once charge.
- Typical Paschen-Runge Structure. Core parts are from top global suppliers, ensure the optical performance.
- HEPS digital spark light source improves the stability of discharging, ensures the analysis accuracy.
- High-end ARM processor, high-speed data collection and process synchronously, only 20 seconds is needed for one analysis Optimized data stability and good data consistency for analysis in different periods.
- It is free to extend curves, change or add channel in same matrix. Hard configuration is not needed for adding new matrix, free technical support and software update.
- Simple and elegant outlook design, optimized property, cost-effective, low energy consumption.
- Focus on customer requirements, offer in-time after-sale service.

Others	Analysis Matrix	Fe base, Al base, Cu base, Ni base, Mg base, Pb base
	Host dimension	600mm(L)*345mm(W)*345mm(H)
	Lorry dimension	1400mm(L)*640mm(W)*250mm(H)
	Excitation gun dimension	400mm(L)*350mm(W)*150mm(H)
	Weight	Host:25kg, Lorry:20kg, Excitation gun:2.5kg
	Running Temperature	10° C~30° C
	Relative humidity	≤85%
	Power	AC22V/50Hz
	Power Consumption	Excitation:300W, Stand by:100W
	Argon Quality	99.999%, Argon Pressure > 4MPa
	Argon Consumption	6L/min during spark mode





## JS-6000 SPECTROMETER



### Features:

- High accuracy and affordable
- Lower price, optimization through cost reduction, conserving necessary resources
- Complete analysis within a few seconds
- Optimized to customer requirements and optimal advisory services
- Extreme sensitivity due to latest CCD technology and software
- Adding additional analysis modules without any change of hardware
- Technology support and software update for free

Optical system	Optical Structure	Paschen-Runge Mount
	Rowland Circle of Diameter	300mm
	Wavelength Range	170nm~800nm
	Detector	Multi high resolution CDD detectors
	Degree of Vacuum	Auto control within 6-15 Pa
	Pixel Resolution	30 pm
	Full Spectrum	
Light Room temperature is controlled automatically		
Spark Source	Type	Digital arc and spark source/New plasma generator
	Spark Frequency	100-1000 Hz
	Plasma Current	1-80 A
	Ignition Voltage	>8000V
Spark Stand	Argon flushed with minimal consumption of Argon	
	Spray discharge electrode technology	
	Adjustable sample clamp	





## JS-6000 SPECTROMETER

- Wavelength coverage 170nm~180nm, permitting simultaneous analysis for up to 31 elements.
- Available for routine analysis of small sample, minimum sample diameter is 1mm.
- Configuring as a bench top and humanized design is convenient for moving.

Others	Measurable Elements	Fe base, Al base, Cu base, Zn base, ect
	Dimension	657mm(L)*670mm(W)*340mm(H)
	Weight	45kg
	Storage Temperature	0° C~45° C
	Operating Temperature	10° C-30° C, 23±2° C is recommended
	Power	AC220V/50Hz
	Power Consumption	Excitation:300W/Stand by:100W
	Argon Quality	99.999%, Argon Pressure > 4MPa
	Argon Consumption	5L/min during spark mode, stand by 0.5L/min

## JS-9000 Aluminum Alloy Analyzer

### Features:

- Portable, intuitive and user friendly.
- Optimized to customer requirements.
- Complete analysis within a few seconds.
- Extreme sensitivity due to latest CCD technology and software.
- Available for routine analysis of small sample, diameter from 1mm to 8mm.
- Technology support and software update for free.
- Optimal advisory services, because we are free to give you the advice best suited to your needs.







## JS-9000 Aluminum Alloy Analyzer

Optical system	Optical Structure	Flat Field Optical
	Grating Focus	350mm
	Wavelength Range	200nm~500nm
	Detector	High resolution CCD Multi detectors
	Pixel Resolution	30 pm
	Spectrum Width	25.4 mm
	Full Spectrum	
Spark Source	Light room temperature is controlled automatically	
	Type	Digital arc and spark source/New plasma generator
	Spark Frequency	100-1000 Hz
	Plasma Current	1-80 A
	Ignition Voltage	>8000V

Spark Stand	Argon flushed with minimal consumption of Argon	
	Spray discharge electrode technology	
	Adjustable sample clamp	
Others	Measurable Elements	Al base
	Dimension	500mm(L)*450mm(W)*300mm(H)
	Weight	20kg
	Storage Temperature	0° C~45° C
	Operating Temperature	10° C-30° C, 23±2° C is recommended
	Power	AC220V/50Hz
	Power Consumption	Excitation:700W/Stand by:100W
	Argon Quality	99.999%, Argon Pressure > 4MPa
	Argon Consumption	5L/min during spark mode



# CX Instrument



## CSA-610 Carbon and Sulfur Analyzer



### Applications:

CSA-610 high-frequency infrared carbon and sulfur analyzer is used for the determination of iron and steel, nonferrous metals, cement, minerals, glass, ceramics and other metals, non-metallic materials of carbon and sulfur content of the two elements. This instrument uses a high-frequency induction heating burner sample, the infrared absorption method in the test sample two elements carbon and sulfur content.

Measured Elements	Carbon(C) 0.0001%-15.0000% Sulfur(S) 0.0001%-5.0000%
Samples	Inorganic
Electronic Balance	Weighing Range: 0-100g(Resolution 0.0001g)
Furnace Alignment	Vertical
Sample Carrier	Ceramic Crucibles
Field of Application	Construction materials/ Engineering/ Electronics, Geology/ Mining, Glass /Ceramics, Steel /Metallurgy
Furnace	High frequency furnace, 3.5kVA 20MHz
Detection Method	Solid state infrared absorption
Typical Analysis Time	26-60 s,Average: 35 s
Gas Required	industry Oxygen 99.2%
Power Requirement	AC220 V, $\pm 5\%$ 50Hz $\pm 2\%$
Dimensions	600mm(L)*540mm(W)*780mm(H)
Weight	80kg
Required Equipment	Electronic balance, monitor, PC
Operating Temperature	0-30° C RH<75%
Optional Accessories	Printer, PC





# Thank you for your watching!

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