

Stock Code: 688600



安徽皖仪科技股份有限公司

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原子吸收分光光度计

ATOMIC ABSORPTION SPECTROPHOTOMETER

TO BE INTERNATIONALLY COMPETITIVE ANALYTICAL AND DETECTING INSTRUMENT
TO BE A RESPONSIBLE AND RESPECTABLE CHINESE ENTERPRISE MODLE.



@Larry
WeChat



@Larry
WhatsApp



Alibaba
Verified Supplier



Made-in China
Gold Supplier



DirectIndustry
Listed Supplier

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QUALITY AT WAYEAL SERVICE ATR WAYEAL

ABOUT US

Anhui Wanyi Science and Technology Co., Ltd.(Wayeal@ , stock code:688600), founded in2003, is a professional manufacturer and supplier of analytical instruments with an international vision and operational standards, whose leading products cover chromatography, spectroscopy, mass spectrometry and varieties of industrial applicationssuch as environment monitoring, leak detection, industrial intelligence, industrial process,medical devices, and etc.The total number of employees is 1400+, including an R&D team of350 people with 20+ Ph.D and 200+ masters.

Wayeal has set up a world-class product R&D platform as per international standards,to form a globally synchronized R&D system on the basis of high quality, strict norms, andcontinuous creation. We were granted "Postdoctoral Research Station" inJanuary 2012,and awarded "National Grade Technology R&D Center" in 2021.

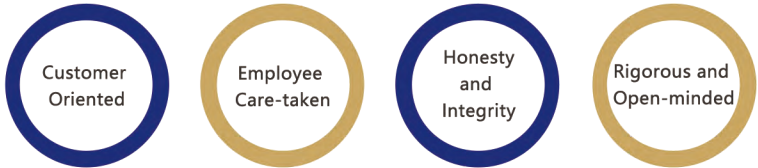
With adherence to the concept of "Perfect Products", Wayeal has integrated the world'sleading manufacturing resources, globalized parts procurement,and socializedmanufacturing, to offer internationally assured quality products to the customers.

Wayeal has also conducted management and operation under an international perspective,and raised profound changes in integrated product development (IPD), integrated supplychain (ISC), human resource management, financial management and quality control, andestablished an IT-based management system actively adapted to internationalcompetitions.

Under the spirit of "Quality at Wayeal, Service at Wayeal", Wayeal is committed to build anenterprise with strong international competitiveness in the field of Analytical &TestingInstruments,and Life &Health; and to become the paragon of a highly responsible andrespectable Chinese enterprise.

Enterprise Spirit: Quality at Wayeal Service at Wayeal

Enteprise Core Value:



Since its establishment,Wayeal has attached great importance to the products R&D to keep the leading position in the industry in terms of technology. We have been strengthening the cooperation with a numberof colleges, universities and research institutes, such as Chinese Academy of Sciences, USTC, HUST, Anhui University and etc., which provide strong intellectual support for the company's technology development.

We have built the National Enterprise Technology Center , National Postdoctoral Research Station, Anhui Academician Workstation, Anhui Industrial Design Center and etc. The company has also cooperated withrelevant entities to host the national major scientific instruments and equipment development projects.

High Performance Liquid Chromatograph, Ultra-High Performance Liquid Chromatograph, Ion Chromatograph, Atomic Absorption Spectrophotometer, Gas Chromatograph, UV-Visible spectrophotometer, Continuous Flow Analyzer and etc.



Atomic Absorption Spectrophotometer

AA2200 Series Atomic Absorption Spectrophotometer

- ▶ High luminous flux total reflection dual beam splitting system with automatic single/dual beam switching
- ▶ Imported photomultiplier for more stable performance
- ▶ Highly automated and optimised adjustment system and reliable safety protection
- ▶ The vertical installed inline six-element lamp supports simultaneous lighting or preheating of all six lamps while maintaining the stability of the light path.
- ▶ Fully self-developed, highly functional, intelligent and user-friendly software provides guarantee for experimental analysis.



01 Very Low Stray Light and High Detection Sensitivity

Optimised 4th generation Czerny-turner type optical path design with 10% reduction in stray light

02 High Luminous Flux

The fourth generation fully reflective dual-beam optical system, and the optical installation and coating technology have been upgraded to provide excellent optical performance with improved optical path stability and a 25% increase to luminous flux

03 Integrated Design

The integrated design of the structure enables rapid automatic switching and positioning of the flame, graphite furnace and hydride generator atomizer without the need for human intervention.

04 Strong Adaptability

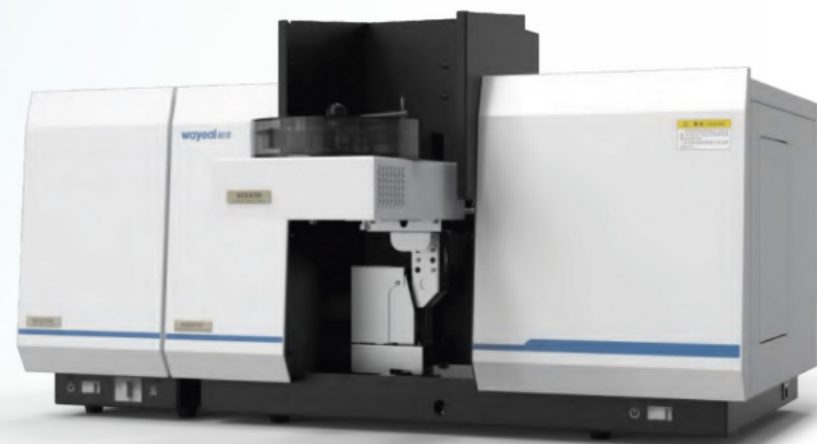
It can be adapted to imported graphite tubes, imported atomizers, and imported element lamps to meet higher testing requirements

05 High Expandability

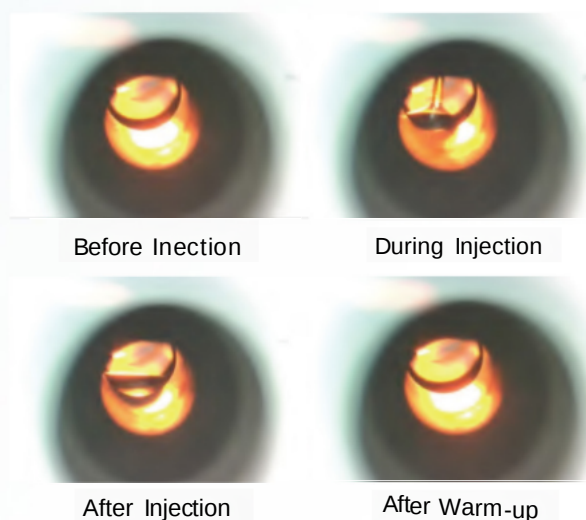
The possibility of equipping a flame and graphite furnace with a dual-use multifunctional autosampler AS2200, which can be switched between the two modes easily and quickly.
Modular design: flame, graphite furnace and HVG-A modules can be configured at will. It is easy to add to the unit without changing the main unit.

AA2300 Series Atomic Absorption Spectrophotometer

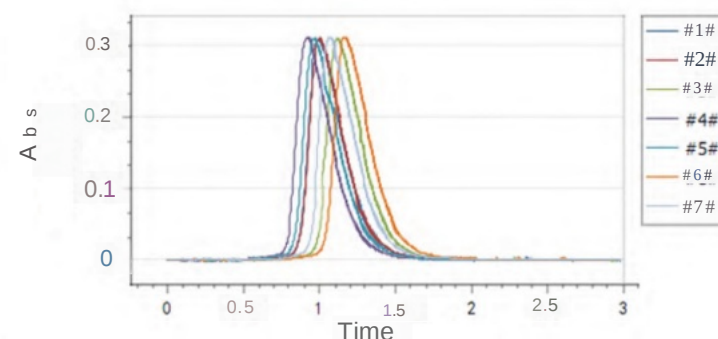
- ▶ 8-position amp holder design for simultaneous lighting or preheating to meet the needs of more customers
- ▶ Newly developed software modules with a simple interface and a high degree of automation for better human-machine interaction;
- ▶ Graphite furnace visualization system - improves ease of autosampler commissioning and simultaneous monitoring of sample changes at each stage of temperature rise
- ▶ Suspended autosampler, design for 3-second removal or installation; 100+8 position design for large numbers of sample
- ▶ Gas-activated graphite furnace control for easy tube replacement, airtight furnace design for high sample sensitivity;
- ▶ Wide linearity range to meet the needs of different industries;
- ▶ Optimized graphite furnace temperature control algorithm for better RSD of high-temperature elements (Al, Mo, V, Ti, ...)



Sample Visualization

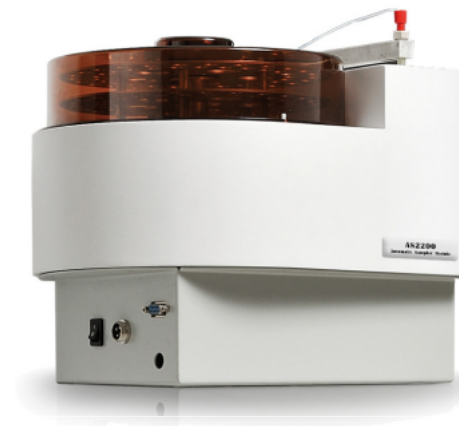


Repeatability



element	Pb						
Abs	0.3092	0.3114	0.3087	0.3101	0.3109	0.3114	0.3071
RSD %	0.51						

AS2300 Flame and Graphite Furnace Dual System Autosampler



▶ Flame-graphite Furnace Dual System

Solvent discharge method (Graphite Furnace), Solvent attraction method (Flame). Multiple liquid supply modes.

▶ Switching without Disassembly

Switching without disassembly, quick positioning, easy needle adjustment

In-line Dilution

Automatic addition of a wide range of matrix modifiers for single point in-line dilution configuration of standard curves;

> Powerful Functions

Single plate up to 50+5 sample positions with a minimum injection volume of 1 μ L. It has the functions of origin detection, automatic cleaning, self-diagnosis, random programming and other operating functions.

HVG-A Hydride Generators

- ▶ Combined with atomic absorption to detect elements that can generate gaseous hydrides, such as arsenic, mercury, selenium, antimony, bismuth, tin, tellurium, etc. High detection limit, good sensitivity and good stability.
- ▶ 10 adjustable sample flow rates, saving standard solution
- ▶ Continuous peristaltic pump injection (compared with pulsed) for signal stability and maximum elimination of memory effects.
- ▶ Compact electric heating quartz absorber tube, simple assembly with stable temperature
- ▶ Independent external design, strong adaptability, and can be used in conjunction with multiple atomic absorption.



Basic Configuration of AAS

Flame Atomic Absorption Spectrophotometer

Flame AAS is suit for the analysis of low and medium temperature elements, atomization temperature at room temperature ~2200°C. The content of elements to be measured in the sample is generally analyzed in the ppm level (e.g. K, Ca, Na, Mg, Zn, Cu,Pb, Cd, Ni, Cr, Fe, Mn, Li, In, pb, pd...) .
PS: K, Ca, Na, Mg, Zn(ppb level)

Main Components	Basic Mainframe
	Flame Atomisation Platform
	Flame Accessories
	Air Compressor
Options	Hollow Cathode Lamp
	Computer
	Printer

Graphite Furnace Atomic Absorption Spectrophotometer

Suitable for the analysis of low and medium temperature elements, atomization temperature at room temperature ~ 3000°C. The content of elements to be measured in the sample is analyzed in the ppb level (e.g. Cu, Pb, Cd, Ni, Cr, Ag, Al, Mo, Ba).

Main Components	Basic Mainframe
	Flame Atomisation Platform
	Flame Accessories
	Graphite Furnace Atomisation Platform
	Graphite Furnaces Accessories
	Autosampler
	Air Compressor
	Cooling Circulating Water
Options	Hollow Cathode Lamp
	Computer
	Printer

HVG-A Atomic Absorption Spectrophotometer

Suitable for the analysis of metal hydrides in some elements that can easily form gaseous states with hydrogen atoms. (e.g. As, Hg (cold atom method), Se, Sn, Bi, Sb).

Main Components	Basic Mainframe
	Flame Atomisation Platform
	Flame Accessories
	Hydride Generators
Options	Air Compressor
	Hollow Cathode Lamp
	Computer
	Printer

Application Cases(Some)

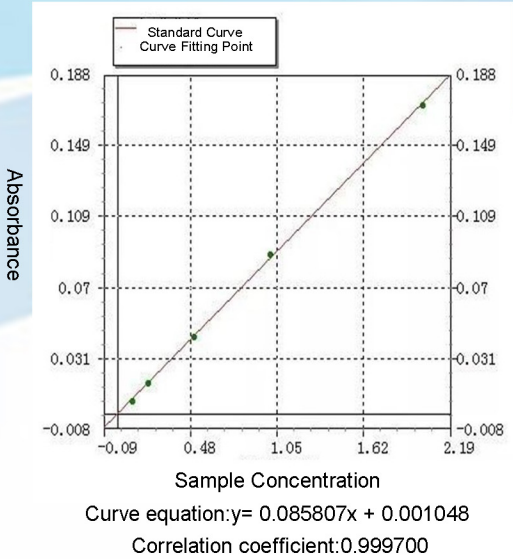
Environmental Industry

Chromium has a wide range of industrial uses, mainly in the metal processing, electroplating and tanning industries, and the wastewater and exhaust gases emitted from these industries are the main sources of pollution in the environment. Among them, hexavalent chromium is the most toxic and easily absorbed by the human body. It can invade the human body through digestion, respiratory tract, skin and mucous membranes, and is a carcinogenic hazard when exposed to or inhaled for a long or short period of time.

Test Standard: HJ 1082-2019
Test Elements:Determination of hexavalent chromium in soil sediments
Test Instruments:Flame Atomic Absorption Spcetrophotometer



NO	Standard Solutions (mg/L)		
	0.2	0.5	1.0
1	0.2004	0.5064	1.0453
2	0.2008	0.5048	1.0517
3	0.2002	0.5026	1.0468
4	0.2001	0.5029	1.0411
5	0.2006	0.4998	1.052
6	0.1998	0.5011	1.0517
Average Value	0.2003	0.5029	1.0481
SD	0.0004	0.0024	0.0045
RSD	0.18	0.48	0.43



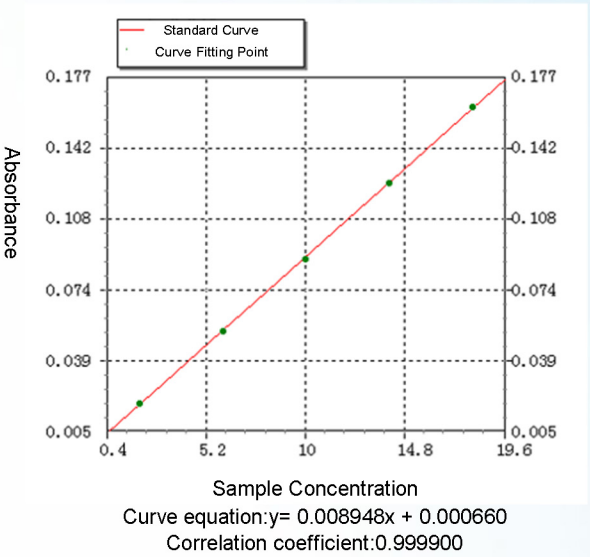
Pharmaceutical Industry



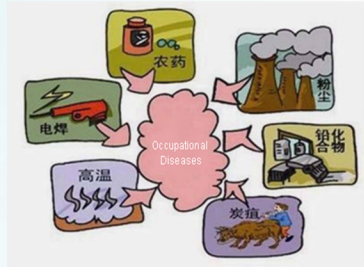
Due to factors such as production process, concoction process and environment of origin, there will be Chinese herbs with excessive heavy metal content. When the heavy metals in herbs are super high, it will not only affect the medicinal value of the herbs, but also may cause some diseases, such as lead can damage human central nervous system, heart, brain and blood system; cadmium can be carcinogenic and teratogenic to human body; mercury can hurt its kidney or even fail; arsenic causes liver, kidney and heart function damage.

Test Standard: Pharmacopoeia of the People's Republic of China
Test Elements: Chinese Herbs-Determination of Hg in Astragalus
Instruments: HVG-A Atomic AbsorptionSpectrophotometer

Elements	Hg
Lamp Number	6
Current	2 (mA)
Voltage	489 (V)
Spectral Bandwidth	0.4nm
Wavelength	253.7nm
Lighting Method	AA
Heating Method	HVG
Operation Method	Manual
Method Description	Hg_Astragalus2
Measurement Method	Standard Curve



CDC Industry



The sources of cadmium are food, water and air, so the pollution of soil and water by cadmium-containing waste can be harmful to human health. After being absorbed by mouth or respiratory tract and transferred to blood, most of it is concentrated in kidney and liver, and a small part is distributed in pancreas, thyroid, bile, testis and bone. Acute cadmium poisoning has symptoms such as acute gastroenteritis or acute chemical pneumonia and pulmonary edema.

Test Standard: GBZ/T 307.1-2018
Test Elements: Determination of cadmium in urine
Instruments: Graphite Furnace Atomic AbsorptionSpectrophotometer

NO	Standard Solutions (ug/L)	
	5	10
1	5.2567	10.1071
2	5.2326	10.1357
3	5.1780	10.0893
4	5.1488	9.9453
5	5.1221	9.9211
6	5.2110	9.8834
Average Value	5.1915	10.0137
SD	0.0513	0.1091
RSD (%)	0.9875	1.0899

