

PRODUCT MANUAL

VISIBLE SPECTROPHOTOMETER
UV-VIS SPECTROPHOTOMETER
ATOMIC ABSORPTION SPECTROPHOTOMETER
IC-AES/ICP-MS
MICRO-VOLUME SPECTROPHOTOMETER
INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETER



COMPANY PROFILE

Macy(China) Instruments Inc is part of Shanghai Macylab Instrument Inc, is a high-tech enterprise with independent intellectual property rights . Macy hold the pioneering concept "technology - because you change " , and as a business purpose, and constantly explore, bold innovation. Especially in the field of analytical instruments ,Macy constantly develop advanced products that enable Macy to become a high-quality instrument resource supplier and leader.

Macylab Instruments Inc. operates spectroscopic instruments, such as spectrophotometers, UV-visible spectrophotometers, atomic absorption spectrometers, ultra-micro spectrophotometers, atomic fluorescence spectrophotometers, ICP inductively coupled plasma emission spectrometers. Currently, our products have been Widely used in organic chemistry, inorganic chemistry, biochemistry, medicine, environmental protection, metallurgy, petroleum, agriculture and other fields. At the same time, the company has accumulated a wealth of experience in product mechanical structure, optical design, electrical applications and software development, combined with the latest practical needs of the market, will soon launch a number of new analytical instruments.

Along with Macy accelerate the pace and rank among the global brand instruments, Macy increasing demands of our own, and we also hope to get the care and support of the community, Let us work and outlook together.Technology, will change because you and us.



DIRECTORY

01	Visible spectrophotometer
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23	Atomic absorption spectrometer
29	 ICP-AES/ICP-MS
32	Ultra-micro spectrophotometer
34	 Nucleic acid extraction

V-1100 Visible Spectrophotometer



Introduction

- Single-chip microcomputer control, digital display.
- Auto zero, 100% adjustment function.
- Can be directly enter F factor and establish a standard curve for concentration direct-reading.
- Can be directly input standard sample and the corresponding standard concentration value for concentration measurement.
- Equipped with general parallel printer interface, measurement data can be printed.
- With USB interface.
- Can achieve more accurate and flexible measurement requirements via PC control (optional).

Optical Specifications

Wavelength Range	325~1000nm
Band Width	4nm
Wavelength Accuracy	±2.0nm
Wavelength Repeatability	1nm
Photometric Accuracy	±0.5% τ
Photometric Repeatability	0.2% τ
Stray Light	≤0.05% τ (340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T,A,C,E
Wavelength Setting	Manual
Photometric Display Range	-0.3~3A
Display Mode	4 LED display
Detector	Import Silicon Photodiode
Light Source	Import Tungsten Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	360×280×190mm
Weight	9Kg

V-1200 Visible Spectrophotometer



Introduction

- Single-chip microcomputer control, LCD Screen (128*64 Dots).
- Large LCD screen, can display multiple sets of data.
- Large memory space ,can store multiple sets of data and curve.
- Auto zero,100% adjustment function.
- Auto wavelength adjustment.
- Auto filter changing, large sample pool (5mm ~ 100mm).
- With up to ten standard sample for measurement function of standard curve establish.
- Through direct input K, B factor is established for quantitative measurement of standard curve.
- Can be directly input standard sample and the corresponding concentration values to establish the standard curve for quantitative measurement.
- Switch off power save standard curve parameter measuring set.
- Can be done any standard curve editor, convenient for use.
- With general parallel printer interface or printer interface, can print title bar, measurement data, curve of standard sample curve, and the curve.
- With USB interface.
- Can achieve more accurate and flexible measurement with PC control (optional) Technical Specifications.

Optical Specifications

Wavelength Range	325~1000nm
Band Width	2nm
Wavelength Accuracy	±1.0nm
Wavelength Repeatability	0.2nm
Photometric Accuracy	±0.5% τ
Photometric Repeatability	0.2% τ
Stray Light	≤0.05% τ (340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-0.3~3A
Display mode	LCD Screen (128*64 Dots)
Detector	Import Silicon Photodiode Detector
Light Source	Import Tungsten Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	460×330×210mm
Weight	11Kg

V-1300PC Visible Spectrophotometer



Introduction

- Single-chip microcomputer control, LCD Screen (128*64 Dots).
- Large LCD display can display multiple sets of data.
- Large memory space can store multiple sets of data and curve.
- Auto zero,100% adjustment function.
- Auto wavelength adjustment.
- Auto filter changing, large sample pool (5mm ~ 100mm).
- With up to ten standard sample for measurement function of standard curve establish.
- Direct input by K, B factor for quantitative measurement standard curve.
- Can be directly input and the corresponding standard concentration values establish a standard curve for quantitative measurement.
- Switch off power save standard curve parameter measuring set.
- With general purpose parallel printer port, you can print the title bar, the measurement data, curve parameters, standard sample point and the curve.
- With USB interface.
- PC control can be achieved through more accurate and flexible measurement requirements (standard).

Optical Specifications

Wavelength Range	320~1100nm
Band Width	4nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	≤0.2nm
Photometric Accuracy	±0.3% τ
Photometric Repeatability	0.15% τ
Stray Light	≤0.05% τ (340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-0.3~3A
Display mode	LCD Screen (128*64 Dots)
Detector	Import Silicon Photodiode
Light Source	Import Tungsten Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	480×350×220mm
Weight	11Kg

V-1500PC Visible Spectrophotometer



Introduction

- Single-chip microcomputer control, LCD Screen (128*64 Dots).
- Large LCD display can display multiple sets of data.
- Huge memory space to store multiple sets of data and curves.
- Auto zero, 100% adjustment function.
- Auto wavelength adjustment.
- Auto filter changing, large sample pool (5mm ~ 100mm).
- Standard samples having a maximum ten-point standard curve measurement functions built.
- Direct input by K, B factor for quantitative measurement standard curve.
- Can be directly input standard sample and the corresponding standard concentration values and establish a standard curve for quantitative measurement.
- Switch off power save standard curve parameter measuring set.
- General Parallel printer interface with or slightly beat interfaces can print the title bar, the measurement data, curve parameters, the standard curve and the curve sample points.
- With USB interface.
- PC control can be achieved through more accurate and flexible measurement requirements (standard).

Optical Specifications

Wavelength Range	320~1100nm
Band Width	2nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	≤0.2nm
Photometric Accuracy	±0.3% τ
Photometric Repeatability	0.15% τ
Stray Light	≤0.05% τ (340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T, A, C, E
Wavelength Setting	Automatic
Photometric Display Range	-0.3~3A
Display mode	LCD Screen (128*64 Dots)
Detector	Import Silicon Photodiode
Light Source	Import Tungsten Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	480×350×220mm
Weight	11Kg

V-1500CPC Visible Spectrophotometer



Introduction

- Single-chip microcomputer control, Touch LCD Screen (7 inches).
- Large LCD display can display multiple sets of data.
- Huge memory space to store multiple sets of data and curves.
- Auto zero, 100% adjustment function.
- Auto wavelength adjustment.
- Auto filter changing, large sample pool (5mm ~ 100mm).
- Standard samples having a maximum ten-point standard curve measurement functions built.
- Direct input by K, B factor for quantitative measurement standard curve.
- Can be directly input standard sample and the corresponding standard concentration values and establish a standard curve for quantitative measurement.
- Switch off power save standard curve parameter measuring set.
- General Parallel printer interface with or slightly beat interfaces can print the title bar, the measurement data, curve parameters, the standard curve and the curve sample points.
- With USB interface.
- PC control can be achieved through more accurate and flexible measurement requirements (standard) Technical Specifications.

Optical Specifications

Wavelength Range	320~1100nm
Optical circuit structure	C-T type
Band Width	2nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	±0.2nm
Photometric Accuracy	±0.3% τ
Photometric Repeatability	0.15% τ
Stray Light	≤0.04% τ (340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T, A, C, E
Wavelength Setting	Automatic
Photometric Display Range	-0.3~3A
Display mode	Touch LCD Screen (7 inches)
Detector	Import Silicon Photodiode
Light Source	Import Tungsten Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	480×350×220mm
Weight	11Kg

UV-1100 UV-V Spectrophotometer



Introduction

- Single-chip microcomputer control, LCD Screen (128*64 Dots).
- Large LCD display can display multiple sets of data.
- Huge memory space to store multiple sets of data and curves.
- Auto zero, 100% adjustment function.
- Wavelength automatic adjustment.
- Wrap lights, automatic filter change, large sample pool (5mm ~ 100mm).
- Standard samples having a maximum ten-point standard curve measurement functions built.
- Direct input by K, B factor for quantitative measurement standard curve.
- Can be directly input and the corresponding standard concentration values establish a standard curve for quantitative measurement.
- Adjustable electric saving standard curve parameter measuring set, can save a plurality of standard curve.
- Can be edited at any time of the standard curve, user-friendly.
- General Parallel printer interface with or slightly beat interfaces can print the title bar, the measurement data, curve parameters, the standard curve and the curve sample points.
- With USB interface.
- Can achieve more accurate and flexible measurement requirements (optional) via PC control.

Optical Specifications

Wavelength Range	200~1000nm
Band Width	4nm
Wavelength Accuracy	±2.0nm
Wavelength Repeatability	0.2nm
Photometric Accuracy	±0.5% τ
Photometric Repeatability	0.2% τ
Stray Light	≤0.05% τ (220nm NaI, 340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T, A, C, E
Wavelength Setting	Automatic
Photometric Display Range	-0.3~3A
Display mode	LCD Screen (128*64 Dots)
Detector	"Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	460×330×210mm
Weight	11Kg

UV-1200 UV-V Spectrophotometer



Introduction

- Single-chip microcomputer control, LCD Screen (128*64 Dots).
- Large LCD display can display multiple sets of data.
- Huge memory space to store multiple sets of data and curves.
- Auto zero,100% adjustment function.
- Wavelength automatic adjustment.
- Wrap lights, automatic filter change, large sample pool (5mm ~ 100mm).
- Standard samples having a maximum ten-point standard curve measurement functions built.
- Direct input by K, B factor for quantitative measurement standard curve.
- Can be directly input and the corresponding standard concentration values establish a standard curve for quantitative measurement.
- Adjustable electric saving standard curve parameter measuring set, can save a plurality of standard curve.
- Can be edited at any time of the standard curve, user-friendly.
- General Parallel printer interface with or slightly beat interfaces can print the title bar, the measurement data, curve parameters, the standard curve and the curve sample points.
- With USB interface.
- Can achieve more accurate and flexible measurement requirements (optional) via PC control.

Optical Specifications

Wavelength Range	200~1000nm
Band Width	2nm
Wavelength Accuracy	±1.0nm
Wavelength Repeatability	0.2nm
Photometric Accuracy	±0.3% T
Photometric Repeatability	0.15% T
Stray Light	≤0.05% T (220nm NaI, 340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-0.3~3A
Display Mode	LCD Screen (128*64 Dots).
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	460×330×210mm
Weight	11Kg

UV-1300PC UV-V Spectrophotometer



Introduction

- Single-chip microcomputer control, LCD Screen (128*64 Dots).
- Large LCD display can display multiple sets of data.
- Huge memory space to store multiple sets of data and curves.
- Auto zero, 100% adjustment function.
- Wavelength automatic adjustment.
- Wrap lights, automatic filter change, large sample pool (5mm ~ 100mm).
- Standard samples having a maximum ten-point standard curve measurement functions built.
- Direct input by K, B factor for quantitative measurement standard curve.
- Can be directly input and the corresponding standard concentration values establish a standard curve for quantitative measurement.
- Adjustable electric saving standard curve parameter measuring set, can save a plurality of standard curve.
- Can be edited at any time of the standard curve, user-friendly.
- General Parallel printer interface with or slightly beat interfaces can print the title bar, the measurement data, curve parameters, the standard curve and the curve sample points.
- With USB interface.
- PC control can be achieved through more accurate and flexible measurement requirements (standard).

Optical Specifications

Wavelength Range	190~1100nm
Band Width	4nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	≤0.2nm
Photometric Accuracy	±0.3% τ
Photometric Repeatability	0.15% τ
Stray Light	≤0.05% τ (220nm NaI, 340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T, A, C, E
Wavelength Setting	Automatic
Photometric Display Range	-0.3~3A
Display Mode	LCD Screen (128*64 Dots)
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	480×350×220mm
Weight	15Kg

UV-1500PC UV-V Spectrophotometer



Introduction

- Single-chip microcomputer control, LCD Screen (128*64 Dots).
- Large LCD display can display multiple sets of data.
- Huge memory space to store multiple sets of data and curves.
- Auto zero,100% adjustment function.
- Wavelength automatic adjustment.
- Wrap lights, automatic filter change , large sample pool (5mm ~ 100mm).
- Standard samples having a maximum ten-point standard curve measurement functions built.
- Direct input by K, B factor for quantitative measurement standard curve.
- Can be directly input and the corresponding standard concentration values establish a standard curve for quantitative measurement.
- Adjustable electric saving standard curve parameter measuring set, can save a plurality of standard curve.
- Can be edited at any time of the standard curve , user-friendly.
- General Parallel printer interface with or slightly beat interfaces can print the title bar, the measurement data , curve parameters , the standard curve and the curve sample points.
- With USB interface.
- PC control can be achieved through more accurate and flexible measurement requirements (standard).

Optical Specifications

Wavelength Range	190~1100nm
Band Width	2nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	≤0.2nm
Photometric Accuracy	±0.3% τ
Photometric Repeatability	0.15% τ
Stray Light	≤0.05% τ (220nm NaI, 340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-0.3~3A
Display Mode	LCD Screen (128*64 Dots).
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	480×350×220mm
Weight	15Kg

UV-1500CPC UV-V Spectrophotometer



Introduction

- Single-chip microcomputer control, Touch LCD Screen (7 inches).
- Large LCD display can display multiple sets of data.
- Huge memory space to store multiple sets of data and curves.
- Auto zero, 100% adjustment function.
- Wavelength automatic adjustment.
- Wrap lights, automatic filter change, large sample pool (5mm ~ 100mm).
- Standard samples having a maximum ten-point standard curve measurement functions built.
- Direct input by K, B factor for quantitative measurement standard curve.
- Can be directly input and the corresponding standard concentration values establish a standard curve for quantitative measurement.
- Adjustable electric saving standard curve parameter measuring set, can save a plurality of standard curve.
- Can be edited at any time of the standard curve, user-friendly.
- General Parallel printer interface with or slightly beat interfaces can print the title bar, the measurement data, curve parameters, the standard curve and the curve sample points.
- With USB interface.
- PC control can be achieved through more accurate and flexible measurement requirements (standard).

Optical Specifications

Wavelength Range	190~1100nm
Optical circuit structure	C-T type
Band Width	2nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	≤0.2nm
Photometric Accuracy	±0.3% τ
Photometric Repeatability	0.15% τ
Stray Light	≤0.04% τ (220nm NaI, 340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T, A, C, E
Wavelength Setting	Automatic
Photometric Display Range	-0.3~3A
Display Mode	Touch LCD Screen (7 inches).
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	480×350×220mm
Weight	15Kg

UV-1500CSPC UV-V Spectrophotometer



Introduction

- Single-chip microcomputer control, Touch LCD Screen (7 inches).
- Large LCD display can display multiple sets of data.
- Huge memory space to store multiple sets of data and curves.
- Auto zero,100% adjustment function.
- Wavelength automatic adjustment.
- Wrap lights, automatic filter change , large sample pool (5mm ~ 100mm).
- Standard samples having a maximum ten-point standard curve measurement functions built.
- Direct input by K, B factor for quantitative measurement standard curve.
- Can be directly input and the corresponding standard concentration values establish a standard curve for quantitative measurement.
- Adjustable electric saving standard curve parameter measuring set, can save a plurality of standard curve.
- Can be edited at any time of the standard curve , user-friendly.
- General Parallel printer interface with or slightly beat interfaces can print the title bar, the measurement data , curve parameters , the standard curve and the curve sample points.
- With USB interface.
- PC control can be achieved through more accurate and flexible measurement requirements (standard).

Optical Specifications

Wavelength Range	190~1100nm
Optical circuit structure	C-T type Parallel double beam
Band Width	2nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	≤0.2nm
Photometric Accuracy	±0.3% τ
Photometric Repeatability	0.15% τ
Stray Light	≤0.04% τ (220nm NaI, 340nm NaNO ₂)
Stability	0.001A/h@500nm
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-0.3~3A
Display Mode	Touch LCD Screen (7 inches).
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	480×350×220mm
Weight	15Kg

UV-1600PC UV-V Spectrophotometer



Introduction

- UV-1600PC successful implementation of the stringent requirements of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical, teaching and research, environmental protection, food hygiene, clinical examination, health and epidemic prevention and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 6-inch screen.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.
- Can achieve more accurate and flexible measurement via PC control, which can meet the needs of different users.

Optical Specifications

Wavelength Range	190~1100nm
Band Width	1.8nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	±0.3% T (0-100%T) ±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.15% T (0-100%T) ±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.03% T (220nm NaI, 340nm NaNO ₂)
Stability	0.0005A/h@500nm
Noise	± 0.0002A @500nm
Baseline Flatness	± 0.001A
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-4~4A
Display Mode	6 inches high brightness blue LCD
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	480×350×220mm
Weight	20Kg

UV-1700PC UV-V Spectrophotometer



Introduction

- UV-1700PC successful implementation of the stringent requirements of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical, teaching and research, environmental protection, food hygiene, clinical examination, health and epidemic prevention and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 6-inch screen.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.
- Can achieve more accurate and flexible measurement via PC control, which can meet the needs of different users.

Optical Specifications

Wavelength Range	190~1100nm
Band Width	1.8nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	±0.3% T (0-100%T) ±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.15% T (0-100%T) ±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.03% T (220nm NaI, 340nm NaNO ₂)
Stability	0.0005A/h@500nm
Noise	± 0.0002A @500nm
Baseline Flatness	± 0.001A
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-4~4A
Display Mode	6 inches high brightness blue LCD
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	560×450×230mm
Weight	28Kg

UV-1700APC UV-V Spectrophotometer



Introduction

- UV-1700APC successful implementation of the stringent requirements of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical, teaching and research, environmental protection, food hygiene, clinical examination, health and epidemic prevention and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 6-inch screen.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.
- Can achieve more accurate and flexible measurement via PC control, which can meet the needs of different users.

Optical Specifications

Wavelength Range	190~1100nm
Band Width	1.0nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	±0.3% T (0-100%T) ±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.15% T (0-100%T) ±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.03% T (220nm NaI, 340nm NaNO ₂)
Stability	0.0005A/h@500nm
Noise	± 0.0002A @500nm
Baseline Flatness	± 0.001A
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-4~4A
Display Mode	6 inches high brightness blue LCD
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	560×450×230mm
Weight	28Kg

UV-1700SPC UV-V Spectrophotometer



Introduction

- UV-1700SPC successful implementation of the stringent requirements of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical, teaching and research, environmental protection, food hygiene, clinical examination, health and epidemic prevention and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- 4nm, 2nm, 1nm, 0.5nm spectral bandwidth of five custom installation according to user requirements, to meet the stringent requirements of the Pharmacopoeia.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 6-inch screen.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.
- Can achieve more accurate and flexible measurement via PC control, which can meet the needs of different users.

Optical Specifications

Wavelength Range	190~1100nm
Band Width	0.5, 1, 2, 4nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	±0.3% T (0-100%T) ±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.15% T (0-100%T) ±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.03% T (220nm NaI, 340nm NaNO ₂)
Stability	0.0005A/h@500nm
Noise	± 0.0002A @500nm
Baseline Flatness	± 0.001A
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-4~4A
Display Mode	6 inches touch screen LCD
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	560×450×230mm
Weight	28Kg

UV-1700CPC UV-V Spectrophotometer



Introduction

- Host Chinese operating system, 10 inches touch screen LCD.
- UV-1700CPC successful implementation of the stringent requirements of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical, teaching and research, environmental protection, food hygiene, clinical examination, health and epidemic prevention and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 10-inch screen.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Support external U disk storage and transmission of experimental data.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.
- Can achieve more accurate and flexible measurement via PC control, which can meet the needs of different users.

Optical Specifications

Wavelength Range	190~1100nm
Band Width	1.8nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	±0.3% T (0~100%T) ±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.15% T (0~100%T) ±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.03% T (220nm NaI, 340nm NaNO ₂)
Stability	0.0005A/h@500nm
Noise	± 0.0002A @500nm
Baseline Flatness	± 0.001A
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-4~4A
Display Mode	10 inches touch screen LCD
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	560×450×230mm
Weight	28Kg

*Double Beam***UV-1800PC UV-V
Spectrophotometer****Introduction**

- UV-1800PC successful implementation of the stringent requirements of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical, teaching and research, environmental protection, food hygiene, clinical examination, health and epidemic prevention, and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 6-inch screen.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.
- Can achieve more accurate and flexible measurement via PC control, which can meet the needs of different users.

Optical Specifications

Optical System	Double beam
Wavelength Range	190~1100nm
Band Width	1.8nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	±0.3% τ (0-100%) ±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.15% τ (0-100%) ±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.03% τ (220nm NaI, 340nm NaNO ₂)
Stability	0.0005A/h@500nm
Noise	±0.0002A @500nm
Baseline Flatness	±0.001A
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-4~4A
Display Mode	6 inches high brightness blue LCD
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	560×450×230mm
Weight	28Kg

*Double Beam***UV-1800APC UV-V Spectrophotometer****Introduction**

- UV-1800APC successful implementation of the stringent requirements of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical, teaching and research, environmental protection, food hygiene, clinical examination, health and epidemic prevention, and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 6-inch screen.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.
- Can achieve more accurate and flexible measurement via PC control, which can meet the needs of different users.

Optical Specifications

Optical System	Double beam	
Wavelength Range	190~1100nm	
Band Width	1.0nm	
Wavelength Accuracy	±0.3nm	
Wavelength Repeatability	≤0.1nm	
Photometric Accuracy	±0.3% T (0-100%T)	±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.15% T (0-100%T)	±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.03% T (220nm NaI, 340nm NaNO ₂)	
Stability	0.0005A/h@500nm	
Noise	± 0.0002A @500nm	
Baseline Flatness	± 0.001A	
Photometric Mode	T,A,C,E	
Wavelength Setting	Automatic	
Photometric Display Range	-4~4A	
Display Mode	6 inches high brightness blue LCD	
Detector	Import Silicon Photodiode	
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp	
Power Requirement	AC 220V/50Hz 110V/60Hz	
Power	120W	
Dimensions(W*D*H)	560×450×230mm	
Weight	28Kg	

*Double Beam***UV-1800SPC UV-V
Spectrophotometer****Introduction**

- UV-1800SPC successful implementation of the stringent requirements of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical, teaching and research, environmental protection, food hygiene, clinical examination, health and epidemic prevention, and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- 4nm, 2nm, 1nm, 0.5nm spectral bandwidth of four customized according to user requirements can be installed to meet the stringent requirements of the Pharmacopoeia.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 6-inch screen.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.
- Can achieve more accurate and flexible measurement via PC control, which can meet the needs of different users.

Optical Specifications

Optical System	Double beam
Wavelength Range	190~1100nm
Band Width	0.5, 1, 2, 4nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	±0.3% T (0-100%T) ±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.15% T (0-100%T) ±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.03% T (220nm NaI, 340nm NaNO ₂)
Stability	0.0005A/h@500nm
Noise	±0.0002A @500nm
Baseline Flatness	±0.001A
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-4~4A
Display Mode	6 inches high brightness blue LCD
Detector	Import Silicon Photodiode
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	560×450×230mm
Weight	28Kg

*Double Beam***UV-1800CPC UV-V Spectrophotometer****Introduction**

- UV-1800CPC successfully achieved the stringent requirements of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical, teaching and research, environmental protection, food hygiene, clinical examination, health and epidemic prevention and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 10 inches touch screen LCD.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.

Optical Specifications

Optical System	Double beam	
Optical circuit structure	C-T Type Parallel double beam	
Wavelength Range	190~1100nm	
Band Width	1.8nm	
Wavelength Accuracy	±0.3nm	
Wavelength Repeatability	≤0.1nm	
Photometric Accuracy	±0.3% T (0-100%T)	±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.15% T (0-100%T)	±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.003% T (220nm NaI, 340nm NaNO ₂)	
Stability	0.0005A/h@500nm	
Noise	± 0.0002A @500nm	
Baseline Flatness	± 0.001A	
Photometric Mode	T,A,C,E	
Wavelength Setting	Automatic	
Photometric Display Range	-4~4A	
Display Mode	10 inches touch screen LCD	
Detector	Import Silicon Photodiode	
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp	
Power Requirement	AC 220V/50Hz 110V/60Hz	
Power	120W	
Dimensions(W*D*H)	560×450×230mm	
Weight	28Kg	

*Double Beam***UV-1800CSPC UV-V
Spectrophotometer****Introduction**

- UV-1800CSPC successfully achieved the stringent requirements of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical, teaching and research, environmental protection, food hygiene, clinical examination, health and epidemic prevention and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- 4nm, 2nm, 1nm, 0.5nm spectral bandwidth of four customized according to user requirements can be installed to meet the stringent requirements of the Pharmacopoeia.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 10 inches touch screen LCD.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.

Optical Specifications

Optical System	Double beam	
Optical circuit structure	C-T Type Parallel double beam	
Wavelength Range	190~1100nm	
Band Width	0.5, 1, 2, 4nm	
Wavelength Accuracy	±0.3nm	
Wavelength Repeatability	≤0.1nm	
Photometric Accuracy	±0.3% τ (0-100%τ)	±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.15% τ (0-100%τ)	±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.03% τ (220nm NaI, 340nm NaNO ₂)	
Stability	0.0005A/h@500nm	
Noise	± 0.0002A @500nm	
Baseline Flatness	± 0.001A	
Photometric Mode	T,A,C,E	
Wavelength Setting	Automatic	
Photometric Display Range	-4~4A	
Display Mode	10 inches touch screen LCD	
Detector	Import Silicon Photodiode	
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp	
Power Requirement	AC 220V/50Hz 110V/60Hz	
Power	120W	
Dimensions(W*D*H)	560×450×230mm	
Weight	28Kg	

*Double Beam***UV-1900PC UV-V
Spectrophotometer****Introduction**

- UV-1900PC dual-beam optical system, successfully achieved the perfect combination of high accuracy and reliability measurement to meet the requirements of various applications that can be used in biological research, bio-industry, pharmaceutical analysis, pharmaceutical teaching and research, environmental protection, food hygiene, clinical testing, health and epidemic prevention, and other fields.
- A wide wavelength range, the wavelength range to meet the various requirements of the field.
- 4nm, 2nm, 1nm, 0.5nm, 0.2nm, 0.1nm spectral bandwidth of the six countries to meet the stringent requirements of different users and pharmacopoeia.
- Automatic design to achieve the most simple means of measurement.
- LSI design greatly improves the stability and reliability of the system.
- Improved optimization of the optical design, import source and receiver system created a high performance and high reliability.
- Rich measurement methods, with a wavelength scan, time scan, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional) DNA protein measurements (optional), and other measurement methods to meet different measurement requirements, and can be displayed directly on a 6-inch screen.
- Based on user requirements optional hole rack, manual four with stand, manual Eighth rack, automatic Eighth frame, glass stand, test tube rack, 1cm colorimetric frame, 5cm colorimetric frame, 10cm colorimetric racks.
- Measurement data can be output through the printer with USB interface.
- Can be powered down to save the measurement parameters and data, user-friendly.
- Can achieve more accurate and flexible measurement via PC control, which can meet the needs of different users.

Optical Specifications

Optical System	Double beam
Wavelength Range	190~900nm
Band Width	0.1、0.2、0.5、1.0、2.0、4nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	≤0.1nm
Photometric Accuracy	±0.3% T (0-100%T) ±0.002A(0~0.5A) ±0.003A(0.5A~1A)
Photometric Repeatability	±0.1% T (0-100%T) ±0.001A(0~0.5A) ±0.0015A(0.5A~1A)
Stray Light	≤0.008% T (220nm NaI, 340nm NaNO ₂)
Stability	0.0005A/h@500nm
Noise	±0.0002A @500nm
Baseline Flatness	±0.001A
Photometric Mode	T,A,C,E
Wavelength Setting	Automatic
Photometric Display Range	-4~4A
Display Mode	6 inches high brightness blue LCD
Detector	Import photomultiplier tube
Light Source	Import Deuterium Lamp & Tungsten Halogen Lamp
Power Requirement	AC 220V/50Hz 110V/60Hz
Power	120W
Dimensions(W*D*H)	560×450×230mm
Weight	28Kg

AA-1800F

Atomic Absorption Spectrophotometer

Three lamp flame method



Working conditions

- Power requirements: 220V (+5% ~ -10%), 50/60 Hz; 5000VA
- Environment temperature: +15°C ~ +35°C
- relative humidity: 20 ~ 80%

Technical indicators

- Grating: 1800/mm
- Wavelength range: 190-900nm
- Spectral bandwidth :0.1、0.2、0.4、1.0、2.0nm (automatic adjustable)
- Wavelength accuracy: $\leq 0.15\text{nm}$ Wavelength repeatability: $\pm 0.1\text{nm}$
- Baseline stability: $\leq \pm 0.002\text{A}/30\text{ minutes}$ (static) $\leq \pm 0.005\text{A}/30\text{ minutes}$ (dynamic)
- Light source: ≤ 3 lamps manual set turret, automatic alignment
- Power: double cathode power built-in high performance lamps

Flame atomizer

- Characteristic concentration (Cu) : $0.015\mu\text{g}/\text{mL}/1\%$.
- Detection limits (Cu) : $0.002\mu\text{g}/\text{mL}$
- Precision: $\text{RSD} \leq 0.5\%$
- Combustion head: metal titanium combustion head
- Atomizer: efficient glass atomizer
- Atomizing chamber: explosion proof corrosion resistant material spray chamber
- Control system: automatic PC control three light brick, automatic alignment, automatic optimization and automatic ignition
- Safety protection: with automatic safety protection function, anti tempering automatic gas path protection, acetylene gas leakage alarm, automatic shutdown system, abnormal automatic power-off
- Background correction: deuterium background correction: correction of the 1A background

Data processing

- Measurement methods: flame method, hydride method
- Concentration calculation method: standard curve method (1 ~ 3 times curve), automatic matching, the standard addition method
- Repetition survey frequency: 1-99 times, calculating the average value, standard deviation and relative standard deviations are given
- Results print: parameters print, data and graphics print, you can also export WORD, EXCEL document
- Simple and convenient operation, lamp position rotating, automatic ignition through software operating
- Communication interface: computer and USB interface communication

AA-1800C

Atomic Absorption Spectrophotometer

Six lamp flame method



Working conditions

- Power requirements: 220V (+5% ~ -10%), 50/60 Hz; 5000VA
- Environment temperature: +15℃~+35℃
- relative humidity: 20 ~ 80%

Technical indicators

- Grating: 1800/mm
- Wavelength range: 190-900nm
- Spectral bandwidth :0.1、 0.2、 0.4、 1.0、 2.0nm (automatic adjustable)
- Wavelength accuracy: ≤0.15nm Wavelength repeatability: ±0.1nm
- Baseline stability: ≤±0.002A/30 minutes(static) ≤±0.005A/30 minutes.(dynamic)
- Light source: ≤6 lamps automatic turret, automatic alignment
- Power: double cathode power built-in high performance lamps

Flame atomizer

- Characteristic concentration (Cu) : 0.015μg/mL/1%.
- Detection limits (Cu) : 0.002μg/mL
- Precision: RSD≤0.5%
- Combustion head: metal titanium combustion head
- Atomizer: efficient glass atomizer
- Atomizing chamber: explosion proof corrosion resistant material spray chamber
- Control system: automatic PC control three light brick, automatic alignment, automatic optimization and automatic ignition
- Safety protection: with automatic safety protection function, anti tempering automatic gas path protection, acetylene gas leakage alarm, automatic shutdown system, abnormal automatic power-off
- Background correction: deuterium background correction: correction of the 1A background

Data processing

- Measurement methods: flame method, hydride method
- Concentration calculation method: standard curve method (1 ~ 3 times curve), automatic matching, the standard addition method
- Repetition survey frequency: 1-99 times, calculating the average value, standard deviation and relative standard deviations are given
- Results print: parameters print, data and graphics print, you can also export WORD, EXCEL document
- Simple and convenient operation, lamp position rotating, automatic ignition through software operating
- Communication interface: computer and USB interface communication

AA-1800H

Atomic Absorption Spectrophotometer

Six lamp flame/graphite furnace integrated machine



Working conditions

- Power requirements: 220V (+5% ~ -10%), 50/60 Hz; 5000VA
- Environment temperature: +15°C ~ +35°C
- relative humidity: 20 ~ 80%

Technical indicators

- Grating: 1800/mm
- Wavelength range: 190-900nm
- Spectral bandwidth :0.1、0.2、0.4、1.0、2.0nm (automatic adjustable)
- Wavelength accuracy: $\leq 0.15\text{nm}$ Wavelength repeatability: $\pm 0.1\text{nm}$
- Baseline stability: $\leq \pm 0.002\text{A}/30\text{ minutes}$ (static) $\leq \pm 0.005\text{A}/30\text{ minutes}$.(dynamic)
- Light source: ≤ 6 lamps automatic turret, automatic alignment
- Power: double cathode power built-in high performance lamps

Flame atomizer

- Characteristic concentration (Cu) : $0.015\mu\text{g}/\text{mL}/1\%$.
- Detection limits (Cu) : $0.002\mu\text{g}/\text{mL}$
- Precision: $\text{RSD} \leq 0.5\%$
- Combustion head: metal titanium combustion head
- Atomizer: efficient glass atomizer
- Atomizing chamber: explosion proof corrosion resistant material spray chamber
- Control system: automatic PC control three light brick, automatic alignment, automatic optimization and automatic ignition
- Safety protection: with automatic safety protection function, anti tempering automatic gas path protection, acetylene gas leakage alarm, automatic shutdown system, abnormal automatic power-off
- Background correction: deuterium background correction: correction of the 1A background

Data processing

- Measurement methods: flame method, hydride method
- Concentration calculation method: standard curve method (1 ~ 3 times curve), automatic matching, the standard addition method
- Repetition survey frequency: 1-99 times, calculating the average value, standard deviation and relative standard deviations are given
- Results print: parameters print, data and graphics print, you can also export WORD, EXCEL document
- Simple and convenient operation, lamp position rotating, automatic ignition through software operating
- Communication interface: computer and USB interface communication

AA-1800E

Atomic Absorption Spectrophotometer

Eight lamp flame/graphite furnace intergrated machine



Working conditions

- Power requirements: 220V (+5% ~ -10%), 50/60 Hz; 5000VA
- Environment temperature: +15°C ~ +35°C
- relative humidity: 20 ~ 80%

Technical indicators

- Grating: 1800/mm
- Wavelength range: 190-900nm
- Spectral bandwidth :0.1、0.2、0.4、1.0、2.0nm (automatic adjustable)
- Wavelength accuracy: $\leq 0.15\text{nm}$ Wavelength repeatability: $\pm 0.1\text{nm}$
- Baseline stability: $\leq \pm 0.002\text{A}/30\text{ minutes}$ (static) $\leq \pm 0.005\text{A}/30\text{ minutes}$ (dynamic)
- Light source: ≤ 8 lamps automatic turret, automatic alignment
- Power: double cathode power built-in high performance lamps

Flame atomizer

- Characteristic concentration (Cu) : $0.015\mu\text{g}/\text{mL}/1\%$.
- Detection limits (Cu) : $0.002\mu\text{g}/\text{mL}$
- Precision: $\text{RSD} \leq 0.5\%$
- Combustion head: metal titanium combustion head
- Atomizer: efficient glass atomizer
- Atomizing chamber: explosion proof corrosion resistant material spray chamber
- Control system: automatic PC control three light brick, automatic alignment, automatic optimization and automatic ignition
- Safety protection: with automatic safety protection function, anti tempering automatic gas path protection, acetylene gas leakage alarm, automatic shutdown system, abnormal automatic power-off
- Background correction: deuterium background correction: correction of the 1A background

Data processing

- Measurement methods: flame method, hydride method
- Concentration calculation method: standard curve method (1 ~ 3 times curve), automatic matching, the standard addition method
- Repetition survey frequency: 1-99 times, calculating the average value, standard deviation and relative standard deviations are given
- Results print: parameters print, data and graphics print, you can also export WORD, EXCEL document
- Simple and convenient operation, lamp position rotating, automatic ignition through software operating
- Communication interface: computer and USB interface communication

AA-1800DL

Atomic Absorption Spectrophotometer

Eight lamp flame method



Main features

- Polymer spray chamber**
 - Polymer materials corrosion spray chamber, acid and alkali resistance, including hydrofluoric acid, either organic or inorganic solution can be the highest sensitivity and stability
- Titanium burner**
 - Titanium burner, the optional 50mm and 100mm burner, air cooling pre mixed type, corrosion resistant, resistant to high salt, greatly improve the analysis efficiency and accuracy of the flame
- Automatic analysis**
 - It can automatically accomplish safety ignition, extinction and switching, reliable structure, low fault rate, thus ensuring the sensitivity and reproducibility of the flame method.
 - The light source system eight lamp automatic conversion, can be directly used high performance hollow cathode lamp, improve the sensitivity analysis of the flame, the automatic adjustment of the power supply parameters and the beam position, automatic wavelength scanning and searching peak
- Software function**
 - High intelligent software, powerful function, friendly interface English operation. Automatic instruments and additional control, flame, graphite furnace operating mode can be switched automatically, automatic optimization, automatic dilution; mouse operation, automatic setup menu data and correction method

Technical parameters

- Light Source: ≤ 8 lamps automatic turret, automatic alignment
- Power Supply: 110/220V (+5% ~ -10%), 60/50Hz; 5000VA
- Lamp Current: pulsed power supply
- Optical System: large 1800 /mm grating ruling, full closed optical system
- Wavelength Range: 185nm-900nm Automatically peak find, a key optical optimization function
- Wavelength Accuracy: ± 0.15 nm
- Wavelength Repeatability: < 0.10 nm
- Spectral Bandwidth: 0.1、0.2、0.4、0.7、1.0、1.4、2.0nm (7 steps with automatic changeover)
- Baseline Stability: $\leq \pm 0.002A/30$ min (Static) $\leq \pm 0.004A/30$ min (Dynamic)
- Absorbance Range: 0-4A

Flame Analytical System

- Detector: imported photomultiplier tube
- Burner Head: full titanium combustion head, 50mm or 100mm general combustion head
- Atomization Chamber: polymer explosion-proof spray chamber
- Nebulizer: atomizer efficient glass atomizer, can also be customized
- Ignition Type: microcomputer control, automatic ignition
- Gas Control: automatic gas control system
- Detection Limits (Cu): $0.002 \mu\text{g/mL}$
- Precision: $\text{RSD} \leq 0.5\%$

AA-1800EL

Atomic Absorption Spectrophotometer

Eight lamp flame/graphite furnace intergrated machine



Technical parameters

- Light Source: ≤8 lamps automatic turret, automatic alignment
- Power Supply: 110/220V (+5% ~ -10%), 60/50Hz; 5000VA
- Lamp Current: pulsed power supply
- Optical System: large 1800 /mm grating ruling, full closed optical system
- Wavelength Range: 185nm-900nm, Automatically peak find, a key optical optimization function
- Wavelength Accuracy: ±0.15nm
- Wavelength Repeatability: <0.1nm
- Spectral Bandwidth: 0.1、0.2、0.4、0.7、1.0、1.4、2.0nm (7 steps with automatic changeover)
- Baseline Stability: ≤±0.002A/30 min (Static) ≤±0.004A/30min (Dynamic)
- Absorbance Range: 0-4A

Flame Analytical System

- Detector: imported photomultiplier tube
- Burner Head: full titanium combustion head, 50mm or 100mm general combustion head
- Atomization Chamber: polymer explosion-proof spray chamber
- Nebulizer: atomizer efficient glass atomizer, can also be customized
- Ignition Type: microcomputer control, automatic ignition
- Gas Control: automatic gas control system
- Detection Limits (Cu): 0.002μg/mL
- Precision: RSD ≤0.5%

Graphite Furnace Analytical System

- Heating Mode: vertical heating
- Temperature Control Method: vertical optical temperature monitoring graphite tube wall temperature
- Temperature Range: room temperature to 3000°C
- The Program: automatic temperature control up to 20 order
- Temperature Control: the furnace enriched up to 20 times
- Characteristics Volume: 0.4×10^{-12} g (Cd)
- Detection Limit: 0.4×10^{-12} g (Cd)
- Precision: RSD ≤2%
- The Cooling Water: can choose cooling water circulation system
- Safety: the graphite tube damage, water flow air pressure and other alarm temperature overheating protection

ICP-6800

Inductively Coupled Plasma Optical Emission Spectrometer

standard



RF Power technical parameter

- RF Power technical parameter
- Circuit type: solid-state RF power supply, with function of automatch
- Frequency: 27.12MHz $\pm$ 0.05%
- Frequency Stability: <0.1%
- Power Output: 800W—1200W
- Power Output Stability: <0.3%
- Escaped RF radiation: 30cm away from the instrument, electric field: $E < 2V/m$

Sampling System Technical Parameter

- Output working coil inner diameter : 25mm
- Torque tube: Three concentric, external diameter 20mm
- Coaxial nebulizer: Outer diameter 6mm
- Double barrel atomizing chamber: Outer diameter 34mm

Gas Flow Controls

- Plasma Argon Flowmeter: (100-1000) L/h (1.6-16L/min)
- Auxiliary Argon Flowmeter: (10-100) L/h (0.16-1.66L/min)
- Carrier Argon Flowmeter (10-100) L/h (0.16-1.66L/min)
- Pressure Maintaining Valve (0-0.4MPa)
- Cooling Water: Temperature: 20-25 $^{\circ}C$, Rate of Flow>5L/min, Hydraulic Pressure>0.1MPa

Spectrometer

- Optics: Czerny-Turner type
- Focal length: 1000 mm
- Grating: Ion Beam Etching Holographic Grating, 3600L/mm or 2400L/mm
- Reciprocal linear dispersion: 0.26nm/mm
- Resolution: $\leq 0.007nm$ (3600 line grating); $\leq 0.015nm$ (2400line grating)
- Wavelength range: 3600 line grating:(190nm~500) nm; 2400 line grating: (190nm~800) nm
- Minimum pace of stepping motor: ≤ 0.0006 nm
- Exit Slit: 12 μm ; Entrance Slit: 10 μm

Photoelectric Converter Performance

- Photomultiplier tube specification: R293/R928
- Negative HV on PMT: 0-1000V; Stability: <0.05%

ICP-6800S

Inductively Coupled Plasma Optical Emission Spectrometer

Petrochemical



RF Power technical parameter

- RF Power technical parameter
- Circuit type: solid-state RF power supply, with function of automatch
- Frequency: 27.12MHz $\pm$ 0.05%
- Frequency Stability: <0.1%
- Power Output: 800W—1200W
- Power Output Stability: <0.3%
- Escaped RF radiation: 30cm away from the instrument, electric field: $E < 2V/m$

Sampling System Technical Parameter

- Output working coil inner diameter : 25mm
- Torque tube: Three concentric, external diameter 20mm
- Coaxial nebulizer: Outer diameter 6mm
- Double barrel atomizing chamber: Outer diameter 34mm

Gas Flow Controls

- Plasma Argon Flowmeter: (100-1000) L/h (1.6-16L/min)
- Auxiliary Argon Flowmeter: (10-100) L/h (0.16-1.66L/min)
- Carrier Argon Flowmeter (10-100) L/h (0.16-1.66L/min)
- Pressure Maintaining Valve (0-0.4MPa)
- Cooling Water: Temperature: 20-25°C, Rate of Flow>5L/min, Hydraulic Pressure>0.1MPa

Spectrometer

- Optics: Czerny-Turner type
- Focal length: 1000 mm
- Grating: Ion Beam Etching Holographic Grating, 3600L/mm or 2400L/mm
- Reciprocal linear dispersion: 0.26nm/mm
- Resolution: $\leq 0.007nm$ (3600 line grating); $\leq 0.015nm$ (2400line grating)
- Wavelength range: 3600 line grating: (190nm~500) nm; 2400 line grating: (190nm~800) nm
- Minimum pace of stepping motor: $\leq 0.0006 nm$
- Exit Slit: 12 μm ; Entrance Slit: 10 μm

Photoelectric Converter Performance

- Photomultiplier tube specification: R293/R928
- Negative HV on PMT: 0-1000V; Stability: <0.05%

ICP-6810

Inductively coupled plasma emission spectrometer

Full spectrum direct reading



RF Power technical parameter

- RF Power technical parameter
- circuit type:solid-state RF Power supply, with function of automatch
- Frequency:27.12MHz $\pm$ 0.05%
- Frequency Stability:<0.1%
- Power Output:800W-1500W
- Power Output Stability:<0.3%
- Escaped RF radiation :30cm away from the instrument, electric field: E<2V/m

Sampling System Technical Parameter

- Output working coil inner diameter:25mm
- Torque tube:Three concentric, external diameter 20mm
- Coaxial nebulizer:Outer diameter 6mm
- Double barrel atomizing chamber:Outer diameter 34mm

Gas Flow Controls

- Plasma Argon Flowmeter:(100-1000)L/h(1.6-16L/min)
- Auxiliary Argon Flowmeter:(100-1000)L/h(0.16-1.6L/min)
- Auxiliary Carrier Argon Flowmeter:(100-1000)L/h(0.16-1.6L/min)
- Pressure Maintaining Value:(0-0.4MPa)
- Cooling Water:Temperature:20-25°C,Rate of Flow>5L/min,Hydraulic Pressure>0.1MPa

Technical index of spectrometer

- Grating:Middle step grating,52.67 lp/mm,64 sparkle angle
- Wavelength range:160-1000 nm.
- Numerical aperture:F $\leq$ 8, ultra-high luminous flux to ensure the detection limit and sensitivity of the instrument
- Resolution:< 0.0065nm@200nm
- Astigmatism: Equivalent background concentration of 10000 ppm Ca solution at As189.042 nm <2 ppm
- Light chamber:Precision constant temperature,35 $\pm$ 0.1°C,Distributed nitrogen purging, normal purging 1.8L/min, fast purging 3.8L/min

Testing device technical specifications

- Detector:CID
- Target Size:27.6mm $\times$ 27.6mm,1024 $\times$ 1024 addressing detection units
- Reading mode:Non-destructive read (NDRO), full reading (FF) and arbitrary read integral (RAI)

UL-1000

Micro-Volume UV/VIS Spectrophotometer



Spectrophotometer is an important analysis instrument widely applied in research of physics, chemistry, biology, medicine, material, environment and modern production management of chemistry, medicine, environment test, metallurgy. Spectrophotometer is the instrument for quantitative and qualitative analysis by spectrophotometry. It is usually used in qualitative research of nucleic acid, proteins and bacterial concentration.

Feature

- Microscale sample test, minimum 0.5ul
- Widely test area, 100 times of the traditional spectrophotometer
- No need to dilute for most samples
- Test directly, no need to warm-up, container test and daily consumption test
- Whole wavelength 190-1100nm, accuracy 1nm, auto scanning wavelength 190-850nm
- Compact size and portable package suitable for on-site test
- More accurate and flexible test is realized by PC control

Specification

Minimum Sample Size	0.5ul
Wavelength Range	190-850nm
Optical Distance	1mm/0.2mm
Wavelength Accuracy	1nm
Wavelength Resolution	≤0.3nm(FWHM at Hg 253.7nm)
Absorbance Accuracy	2%(0.76 at 257nm)
Absorbance Resolution	0.002Abs(at 1mm optical distance)
Absorbance Range	0.02-300A (10mm equivalent)
Detection Range	Lower limit 2ng/ul (dsDNA); Upper limit 15000ng/ul (dsDNA)
Sample Pedestal Material	304 Stainless Steel and Quartz
Measurement Time	<5S
Detector	3648CCD
Light Source	Xenon flash lamp
Absorbance Test Range	0.1~5Abs. ±0.1Abs 5~80Abs.±2% (can extend to 300Abs)
Dimensions (W x D x H)mm	200*130*136
Weight	≤2.0KG
Operating Power	24W
Voltage	AC100-240V;50-60Hz
Display Language	English and Chinese

UL-2000 Micro-Volume UV/VIS Spectrophotometer



Spectrophotometer is an important analysis instrument widely applied in research of physics, chemistry, biology, medicine, material, environment and modern production management of chemistry, medicine, environment test, metallurgy. Spectrophotometer is the instrument for quantitative and qualitative analysis by spectrophotometry. It is usually used in qualitative research of nucleic acid, proteins and bacterial concentration.

Feature

- Microscale sample test, minimum 0.5ul, ultramicro and cuvette are possible
- Widely test area, 100 times of the traditional spectrophotometer
- No need to dilute for most samples
- Test directly, no need to warm-up, container test and daily consumption test
- Whole wavelength 190-1100nm, accuracy 1nm, auto scanning wavelength 190-850nm
- Compact size and portable package suitable for on-site test
- More accurate and flexible test is realized by PC control

Specification

Minimum Sample Size	0.5ul
Wavelength Range	190-850nm
Optical Distance	1mm/0.2mm/0.05mm
Cuvette Optical Distance	10mm/5mm/2mm/1mm
Wavelength Accuracy	1nm
Wavelength Resolution	≤0.3nm(FWHM at Hg 253.7nm)
Absorbance Accuracy	2%(0.76 at 257nm)
Absorbance Resolution	0.002Abs(at 1mm optical distance)
Absorbance Range	0.005-300A (10mm equivalent)
Detection Range	Lower limit 2ng/ul (dsDNA); Upper limit 15000ng/ul (dsDNA)
Sample Pedestal Material	304 Stainless Steel and Quartz
Measurement Time	<5S
Detector	3648CCD
Light Source	Xenon flash lamp
Absorbance Test Range	0.01~0.5Abs. ±0.01Abs 0.5~80Abs. ±2% (can extend to 300Abs)
Dimensions (W x D x H)mm	200*130*136
Weight	≤2.5KG
Operating Power	24W
Voltage	AC100-240V;50-60Hz
Display Language	English and Chinese

H32

Nucleic Acid Automatic Extraction System



The fully automatic nucleic acid extractor

based on the principle of magnetic bead extraction and purification of nucleic acids, adopts an oscillating nucleic acid extraction and purification method to achieve rapid and efficient preparation and purification of a large number of sample nucleic acids.

With corresponding nucleic acid extraction reagents, it can process serum, plasma, whole blood, swabs, amniotic fluid, feces, tissue lavage, tissue, paraffin sections, bacteria, fungi and other sample types. It is widely used in inspection, disease prevention and control, Animal quarantine, entry-exit inspection and quarantine, food safety, forensic trace inspection, science, teaching and research, etc.

The extracted high-quality nucleic acids (DNA and RNA) can be used for highly sensitive downstream analysis, such as quantitative PCR, clinical molecular diagnosis, gene expression analysis, gene analysis, forensic and infectious disease research, etc.; the purified nucleic acid can be directly applied The next step of enzyme digestion, identification, disease diagnosis and treatment, etc.

Specification

Samples per Batch	1-32 samples
Block formats	96 wells (50-1000)μL
Sample Volume	30μL-1000μL
Heating Temperature	Room Temperature to 80°C (Cell Lysis & nucleic acid Elution)
Processing mode	Multispeed Available
Operating Interface	English-Chinese, 10-inch touch screen
Reagents	Reagents suitable for magnetic particle method
Protocol management	Free setup, can store up to 100 users' setups
Sterilization method	UV sterilization (Programmable)

H48 Nucleic Acid Automatic Extraction System



The fully automatic nucleic acid extractor

based on the principle of magnetic bead extraction and purification of nucleic acids, adopts an oscillating nucleic acid extraction and purification method to achieve rapid and efficient preparation and purification of a large number of sample nucleic acids. With corresponding nucleic acid extraction reagents, it can process serum, plasma, whole blood, swabs, amniotic fluid, feces, tissue lavage, tissue, paraffin sections, bacteria, fungi and other sample types. It is widely used in inspection, disease prevention and control. , Animal quarantine, entry-exit inspection and quarantine, food safety, forensic trace inspection, science, teaching and research, etc.

The extracted high-quality nucleic acids (DNA and RNA) can be used for highly sensitive downstream analysis, such as quantitative PCR, clinical molecular diagnosis, gene expression analysis, gene analysis, forensic and infectious disease research, etc.; the purified nucleic acid can be directly applied The next step of enzyme digestion, identification, disease diagnosis and treatment, etc.

Specification

Samples per Batch	1-48 samples
Block formats	96 wells (50-1000 μ L)
Sample Volume	30 μ L-1000 μ L
Heating Temperature	Room Temperature to 80 °C (Cell Lysis & nucleic acid Elution)
Processing mode	Multispeed Available
Operating Interface	English-Chinese, 10 inch touch screen
Reagents	Reagents suitable for magnetic particle method
Protocol management	Free setup, can store up to 200 users' setups
Sterilization method	UV sterilization (Programmable)

AH48 Fully Automated Nucleic Acid Work Station



AH48 Automatic nucleic acid extraction workstation

based on the principle of magnetic bead extraction and purification of nucleic acid, integrates the combination of oscillating nucleic acid extraction and purification and pipetting arm to realize the rapid and efficient preparation and purification of a large number of sample nucleic acids. The workstation integrates many functions such as automatic loading of reagent samples, nucleic acid extraction, and PCR system construction, realizing the automatic operation of the whole process. No manual intervention is required during the whole work process. With corresponding nucleic acid extraction reagents, it can process serum, plasma, whole blood, swabs, amniotic fluid, feces, tissue lavage, tissue, paraffin sections, bacteria, fungi and other sample types. It is widely used in inspection, disease prevention and control, Animal quarantine, entry-exit inspection and quarantine, food safety, forensic trace inspection, science, teaching and research, etc.

Specification

Samples per Batch	1-48 samples
Mechanical Arms	One Transfer and one Extraction arm
Position precision	positioning accuracy of the pipette manipulator arm X-Y-Z 0.1mm Positioning accuracy of the extraction arm X-Z-M 0.1mm
Suction heads sizes	200 μ L, 1000 μ L
Pipetting Accuracy	200 μ L suction head liquid displacement: 200 μ L CV: 2% 1000 μ L suction head liquid displacement: 1000 μ L CV: 1%
Microtiter plate	96 wells (20-1000 μ L)
Heating Temperature	Room Temperature to 80°C (Cell Lysis & nucleic acid Elution)
Processing mode	Multispeed Available
Operating Interface	English-Chinese graphical interface, 10-inch touch screen
Reagents	Reagents suitable for magnetic particle method
Protocol management	Free setup, can store up to 200 users' setups
Sterilization method	UV sterilization (Programmable)
Dimension L*W*H	1100mm*700mm*730mm

FOCUS ON LABORATORY ANALYTICAL INSTRUMENTS



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