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SPECTROPHOTOMETER

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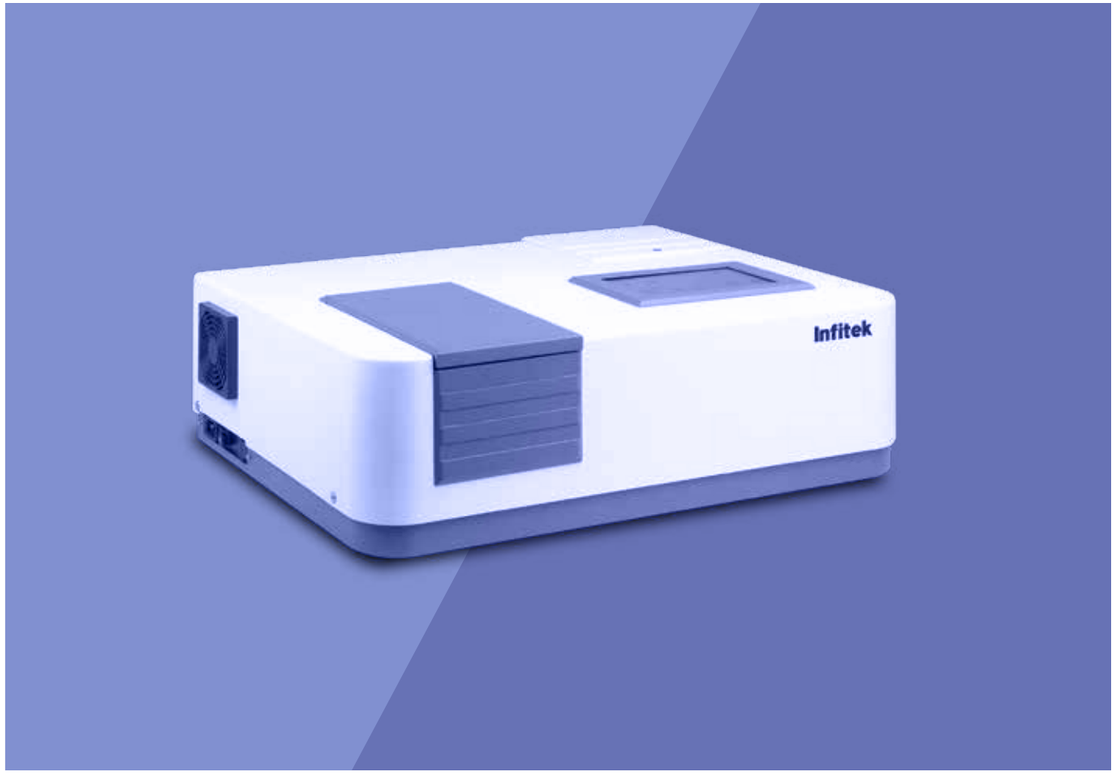


Atomic Absorption Spectrophotometer

SP-IAA320





Common Features



Build-in computer data processing and LCD display:
Stable and reliable with the functions of integral holding, peak height and area, auto zero adjusting, deuterium lamp background correction, multi-linear and nonlinear curves fitting, various parameters and working curves displayed in screen and report printing, etc. It is equipped with interface for externally linking PC.

Quickly:
The cathode lamp needs not be pre-heated for long time and sample can be analyzed immediately. It is the preferable instrument chosen by users to conduct analysis of multiple kinds of elements and fast analysis of samples.



Multi-functional analysis mode:
For methods of flame absorption, flame emission, graphite furnace atomic absorption and hydride generation.



System Features

Double-beam system Stability:
Double-beam system can automatically compensate the light source drift and wave length drift caused by the variation of temperature (with the function of the eliminating the affection of wavelength drift on the base line stability) and electronic circuit drift so as to reach a good basic line stability.

Gas path system High precision of measurement:
Gas path system is equipped with precision pressure stabilizing and current stabilizing devices to reach stable flame and low noise. Specially designed fine light beam passes through the flame to ensure a high precision analytical test and low characteristic concentration.



A total reflection system High energy optical path:
A total reflection system is adopted to eliminate color difference in full range. By means of chemical conversion, a round light spot of the light source becomes a long light spot, which enters into the slit. Therefore the light flux of double beam is enhanced.

Long-life and anti-corrosive atomization system:
The burner is made of new type titanium alloys, anti-corrosive and fast thermal equilibrium. It meets the requirement of measurement sensitivity without water-cooling.

Safe and reliable gas path system:
Special devices of quick gas conversion and safety protection can be used to analyze air-acetylene flame.









Specifications

Model	SP-IAA320
Atomization System	Flame Atomization System
WL range	190-900nm
WL accuracy	≤±0.5nm
WL repeatability	≤0.3nm (single direction)
Spectrum bandwidth	0.2nm, 0.4nm, 0.7nm, 1.4nm, 2.4nm, 5.0nm
Resolution	<40%
Grating	1800 lines/mm
Baseline stability	±0.004Abs/30min
Characteristic concentration	≤0.04μg/ml/1%(Cu)
Detection limit	≤0.008μg/ml(Cu)
Background calibration ability	Greater than 30 times
Output	RS232
Printer	Optional
Power supply	220V 3A, 50Hz
G. W.	138kg (Main instrument)
	56kg (Accessories)
Package size	1260*800*770mm (Main instrument)
	560*460*1400mm (Accessories)

Accessories

Standard Accessories
Oil-free air compressor
Glass Atomizer
Cu Hollow cathode lamp
Atomizer unit
Burner unit
Dust cover
Water-separating gas filter
Titanium burner—10cm

Optional Accessories
Model GRD-3202 graphite furnace system
Hydride generator
Hollow cathode lamp
Graphite tubes
Software
Recirculating cooling water system

Complete set of accessories:

To be supplied with the instrument and ready for use after they are purchased.



Atomic Absorption Spectrophotometer

SP-IAA4530

Description

- The atomic absorption spectrophotometer is completely controlled and operated by PC, with unique optical and mechanical design, safe and convenient flame system, advanced graphite furnace temperature control technology and various convenient functions provided by the



Selling points

Complete automatic controlling system

Advanced graphite furnace temperature controlling technology

Safe, reliable and convenient flame system



Advantages

Complete Automatic Controlling System

With the help of the software, the following can be easily achieved

- Selection of the element lamp
- Up-down-front-rear adjustment of the lifter
- Adjustment of the optical energy
- Selection of the slit
- Determination of wavelength scanning and peak searching
- Selection of the atomizer
- Setting of the background deduction method
- Controlling of the gas flow
- Automatic flaming and flaming out
- Setting of the graphite furnace testing method



Advanced Graphite Furnace Temperature Controlling Technology

- The bringing in of PID technology can effectively overcome the influence on the temperature rising process caused by the voltage fluctuation and the resistance change to make more accurate controlling process. The combination of the 3ms/time fast sampling technique can make more accurate and reliable testing data
- The fast heating capacity can improve the flexibility of the elements further
- Use the ordinary power source of 220V without need of dynamic power of 380V
- The maximum procedure heating capacity setting of 20 levels can make a more convenient and easier test of different samples
- Three grades adjustable gas flow can accustom to more application needs
- Can timely alarm when the gas and water is stopped and insufficient gas and water, can avoid the equipment damage and measuring error



Safe, Reliable and Convenient Flame System

- EPC can control the flow of Acetylene (C2H2) more accurately and it is a kind of system which also can operate easily
- Efficient atomization system enables a higher sensitivity
- The whole operation system has a high security as the fire safety system can alarm whenever the electricity is cut off, abnormal flame occurs, a lack of pressure happens or the burner does not match well. And it will automatically turn off the gas, prohibit tempering. Thus it keeps the operation people and equipment from harm and damage.



Multi-Functional Software Workstation

- A workstation that is supported WINDOWS7
- The rich menu brings great convenience to the use of customer
- Convenient conversion between different menus makes the operation more easily
- Various analytical correction methods provide the users more choices
- Basic default parameter settings enable even the beginners can do the normal operation
- Flexible storage, editing and printing methods give the user largest support

Features

- Completely controlled by PC.
- Integrated floated optical platform design can obviously improve the optical system shock resistance and keep stable though use the optical signal for a long term.
- Eight light stands can be changed automatically and preheat the eight lights meantime as well as optimize the working condition of the hollow cathode lamp.
- Position adjusting: the best height of the flame burner and can automatically set the front and rear positions.
- Fully automated wavelength scanning and peak searching.
- Complete safety chains protection equipment: the function of warning and automatic safety protection towards the wrong burner, leakage of the gas, under voltage of air and the abnormal flame out.
- Deuterium lamp and self-absorption background regulation.
- Data processing: super strong database, possesses more than 500 data self-storage and cut-off storage function, can store the analyzed result with the form of EXCEL and the testing method and the result can be randomly called.
- Measuring method: flame absorption method and emission method.
- Result printing: parameter printing, data result printing and diagram printing.

Accessories

Standard Accessories
PC workstation
Inkjet printer
Oil free air compressor
Acetylene reducing valve
Cu Hollow cathode lamp
Air filter

Optional Accessories
Hollow cathode lamp
Graphite tubes
Recirculating cooling water system
Hydride generator

Specifications

Model	SP-IAA4530
Atomization System	Flame Atomization System
Wavelength range	190-900nm
Spectral bandwidth	0.1, 0.2, 0.4, 1.0 and 2.0 nm
Wavelength Accuracy	±0.15nm
Wavelength Repeatability	≤0.04nm
Baseline stability	≤0.002A/30min (Cu)
Characteristic Concentration	0.02μg/ml/1% (Cu)
Detection limit	0.004μg/ml (Cu)
Preciseness	0.5%
Grating	1800 lines/mm
Inflamer	All-metal titanium burner
Atomizer	Effective glass atomizer
Lamp stand	8
D_2 background correction ability	When the background is 1A, the background ability should be deducted not less than 50 times, self absorption background deduction method
Power supply	220V±22V AC
Package size(mm)	840×700×780(Main instrument) 1170×645×900(Accessories)
	Flame System
Acetylene air burner	100mm
Ignition dynamic baseline drift	≤0.006A/30min
(Cu) Characteristic viscosity	≤0.025μg/ml/1%
Related standard deviation of the accuracy	≤0.5% (Cu, absorbance>0.8A) (detection limit Cu≤0.008μg/ml)
Safety system	Can automatically cut off the gas when the pressure is not enough the power is off flame out and unconformity of the burner
	Graphite Furnace GRD-4510
The highest temperature	3000℃
The largest temperature rising speed	≥2000℃/s
Characteristic quantity	Cd≤0.5×10^{-12}g Cu≤0.5×10^{-11}g
Accuracy	Cu≤3% Cd≤3%
Size and weight	730mm×625mm×700mm 79.3kg
Safety system	Over current protection Low air pressure alarm/protection Low cooling water flow alarm/protection
Power source and power	220V±22V AC 7000W

Graphite Furnace System

GRD-3202

Optional Accessories of SP-IAA320 Atomic Absorption Spectrophotometer



Specification

Model	GRD-3202
Heating Steps	9 steps
Temperature Range (Nominal Temperature)	20℃~3000℃
Slope Heating Time	0~999s
Heating Holding Time	1s~999s (The sum of both time should be less than 999 seconds)
Inert Gas Needed	Argon, pressure of entry larger than 0.3Mpa
Cooling Water	Tap water or cycling water, flow rate no less than 2L/min
Output	LCD
Electricity	220V±22V, 50Hz±1Hz, 3A 220V±22V, 50Hz±1Hz, 30A
Power	5.1kW for 220V on about 2700℃
Ambient Temperature	+10℃~+30℃
Relative Humidity	Less than 85%
Instrument Rating Power	7.2kW
Function	Gas pressure alarm, furnace overheated alarm
	Interface with Atomic absorption spectrophotometer, autosampler and RS232
	High-power temperature heating function (1000℃~2700℃)
	Test sample together with atom absorption equipment. Cd ≤1×10-12g;Cu ≤1×10-10g

Autosampler

AAS4020



Description

The autosampler is an important optional accessory to improve the technical indicators and automation of the atomic absorption spectrophotometer.

Under the control of the graphite furnace system, standard solutions can be prepared automatically. It can be automatic sample preconcentration and dilution,and automatically add matrix improver, automatic cleaning and other functions.

Specification

	AAS4020
Number of Sample Cups	95
Sample Cup Capacity	1.5mL
Number of Reagent Cups	5
Reagent Cup Capacity	5mL
Injection Volume	1 ~ 95μL (1μL increment)
Injection Volume Accuracy	± 2% (20μL)
Injection Volume Precision	≤1% (20μL)



Hydride Generator AAH-1
Cooling Water Circulation Machine AS800

AAH-1 AS800



AAH-1

AAH-1 Hydride Generator is used with atomic absorption spectrophotometer.



AS800

It is an important optional accessory for supporting atomic absorption spectrophotometer and graphite furnace.

Specification

Model	AAH-1
Measurement Method	Continuous flow injection
Continuous Flow Injection	NaBH4
Sample Feed Rate	0 ~ 7mL/ min
Reagent Feed Rate	0 ~ 2.5mL/min
Burning Head	Heating quartz tube(Heating with acetylene combustion)
Carrier Gas	Ar, supply pressure:0.32MPa
Electricity	220V,50Hz, 30W
Dimension	290*220*208mm

Model	AS800
Nominal Cooling Capacity	800W
Temperature Control Range	5 ~ 35 ℃
Temperature Control Accuracy	± 0.1 ℃
Pump Head (Max./Rated)	10/8m
Flow (Max / Rated)	15/6L/min
Water Tank Volume	15L
Electricity	AC220V / 50Hz
Dimension	330*500*500mm

Element Lamp

Specification

No.	Part Name	Type	Remarks
1	Element Lamp	Cu	Standard configuration
2	Element Lamp	Ni	
3	Element Lamp	Li	
4	Element Lamp	AL	
5	Element Lamp	Na	
6	Element Lamp	Sn	
7	Element Lamp	Cr	
8	Element Lamp	Mg	
9	Element Lamp	Zn	
10	Element Lamp	Co	
11	Element Lamp	K	
12	Element Lamp	Ca	
13	Element Lamp	Ba	
14	Element Lamp	Hg	
15	Element Lamp	Fe	
16	Element Lamp	Mn	
17	Element Lamp	Bi	
18	Element Lamp	In	
19	Element Lamp	Pb	
20	Element Lamp	Mo	
21	Element Lamp	Sb	
22	Element Lamp	Sr	
23	Element Lamp	Ag	
24	Element Lamp	Cd	
25	Element Lamp	AS	
26	Element Lamp	B	
27	Element Lamp	Se	
28	Element Lamp	Pd	
29	Element Lamp	Au	
30	Element Lamp	Be	
31	Element Lamp	Pt	
32	Element Lamp	Rh	

Flame Photometer, FP-I Series

FP-I6450 FP-I6440 FP-I6431 FP-I6430 FP-I6410 FP-I640



Description

- Push-button ignition, easy to operate.
- 7- inch color touch screen
- 20 sets of standard curves and 20 sets of test data can be stored.Use LPG as gas.
- Direct concentration display (Don't cover FP-I640)
- Automatic calculation of correlation coefficient (Don't cover FP-I640)
- Pre-selection of flame sizes
- Flameout protection device
- Measuring range changing
- Concentration units selectable
- Multilingual user interface
- Built-in Air compressor

Specifications

Model		FP-I6450	FP-I6440	FP-I6431	FP-I6430	FP-I6410	FP-I640
Testable		K, Na, Li, Ca, Ba	K, Na, Li, Ca	K, Na, Ca	K, Na, Li	K, Na	K, Na
Data range		0.000～999.9				000.0～999.9	0000～9999
Range ppm	K	0.15-100					
	Na	0.18-100					
	Li	0.1-30		○	0.1-30	○	○
	Ca	0-1000		0-1000	○	○	○
	Ba	0.1-300	○	○	○	○	○
LOD ppm	K	≤0.156					
	Na	≤0.184					
	Li	≤0.1035		○	≤0.1035	○	○
	Ca	≤2		≤2	○	○	○
	Ba	≤6.028	○	○	○	○	○
Linear error	K	≤0.195					
	Na	≤0.69					
	Li	≤0.1449		○	≤0.1449	○	○
	Ca	≤3		≤3	○	○	○
	Ba	≤9.402	○	○	○	○	○
Operation mode		7- inch color touch- screen					
Display value		Concentration value					Optical power
Response time		<8s					
Sample uptake		<3ml/min					
Stability		< 3% (15s), ≤15%(6min)					
Reproducibility		≤2%					
Curve graph		Display				○	○
Printer		Optional build-in thermal printer					○
Output		USB					○
Fuel		LPG					
Power		AC220V±10% 50Hz±1Hz,30W					
Package Dimension		570*530*400mm 0.12m³					
G.W.		18kg					

Fluorescence Spectrophotometer

SP-LF96P







Specifications

Model	SP-LF96P
Emission monochromator	C-T diffraction grating
Excitation wavelength range	365 nm Filter (Standard Accessory) (200–900 nm available as options)
Emission wavelength range	200~900nm
Emission bandwidth	10nm
Sensitivity	S/N≥150 (P-P)
Linear	≥0.995
Stability	better than 1.5%/10min
Excitation Source	Hamamatsu 150W Xenon lamp
Response time	(0.1-4)s 6 stages adjustable
Fluorescence display value	0.00-600.00
Data Transportation	USB2.0
Power Supply	110-240V AC.50/60Hz

This method has been used in:

- Medical science and clinical analysis Clinical analysis of biological specimen.
- Pharmaceutical science and pharmacology Analysis of natural pharmaceutical products; Quality control of pharmaceuticals and research of pharmaceutical metabolites.
- Biochemistry Analysis of minute quantity of substances in biological body.
- Food industry Analysis of minute quantity of constituents in food.
- Pollution analysis Atmospheric pollution, environmental testing and food contamination analysis.
- Organic and inorganic chemistry, used in the trace analysis in case of those substances cannot be determined by absorption spectrophotometry.

Applications

Fluorescence analysis is a high sensitive and high selective sophisticated analytical method. This method can provide information including excitation and emission spectrum, emission light intensity and measurement of life of emission light and polarization fluorescence etc. This method can provide a wide lineal range of working curve. It has becoming an important analytical method in the region of trace analysis.

Description

Two mode could be chosen: fluorescence intensity and luminous intensity. Fluorescence scanning, kinetideter-mination and quantity analysis could be done under fluorescence intensity mode.

- 365nm exciting wavelength Raman peak of water in 1 cm quartz fluorescence cuvette S/N≥150
  High performance sensitivity simplifies the measurement of low detective sample.

- 10 stages gain adjustment could be chosen for emission spectrum scanning, including high speed low S/N scanning and precise scan-ning.
  Total spectrum scanning could be done in 1 second.
  With the intelligent pre scanning feature, unknown sample's spectrum information could be detected rapidly.
  Auto-omission of the influence of scattering peak and harmonic peaks, it ensure the best measurement parameters and locate the fluorescence emission peak.



Support off-line mode and on-line mode.

- Under off-line mode, instrument's computer system offer the fluores-cence intensity measurement, concentration direct reading, auto 0 adjustment, auto background subtraction and etc.

- Under on-line mode, we could use quality and quantity software to control data acquisition and analysis through USB2.0 interface.

- High stable and long life 150W xenon lamp and power source ensure high stable testing and wide range of spectrum.

- The normalized feature for fluorescence value could make different fluorescence's result comparable.



Optional Accessories

Provide optional with expansible time scanning, wavelength scanning, graphic calculation and storage-access abilities.

Optional accessories for different measurement, including single hole cell holder, fluorescence sample holder for different features, 200μl micro scale centrifuge tube, micro scale capillary sample holder, semi-auto sample introduc-tion accessories, membrane sample accessories, powder sample accessories, jacket sample accessories and etc.



Standard Package

Standard Package	
Main instrument	1 set
365nm filter(Preassembled)	1 pc
Software package	1 set
Power cable	1 pc
USB wire	1 pc
Instruction manual	1 copy
Product quality certificate	1 copy
Fuse（2A）	2 pcs
Fuse（5A）	2 pcs
Quartz fluorescence sample cell10mm	1 pair
Packing list	1 copy

Fluorescence Spectrophotometer

SP-LF96S



High brightness LED

Excitation LED: 250nm ~ 600nm(LED)

Emission wavelength accuracy: ± 1nm

Emission wavelength reproducibility: ≤ 0.5nm



Specifications

Model	SP-LF96S
Emission monochromator	C-T configuration diffraction grating monochromator
EX wavelength standard set	365nm,376nm,392nm,405nm(Em200-650nm is optional)
Emission wavelength range	200nm ~ 650nm
Emission wavelength accuracy	± 1nm
Emission wavelength reproducibility	≤ 0.5nm
Emission Bandwidth:	10nm
S/N ratio	S/N≥90(Using 1cm quartz sample cell, measure the signal noise ratio of Raman spectrum of water)
Detection limit	1 × 10^{-10} g/ml quinine sulfate solution
Excitation light source	High brightness LED
Linearity	γ≥0.995
Repetitive peak intensity	≤1.5%
Zero drift	≤0.3(within 10min)
Upper limit change of indicating value	≤1.5% (Within 10 minutes) (displaying value≥50)
Power Supply	110-240V AC.50/60Hz
Dimensions(mm)	442×392×250
N.W./G.W.(kg)	10/12



Fluorescence Spectrophotometer

SP-LF97 SP-LF97XP SP-LF97PRO







Description

SP-LF97 fluorescence spectrophotometer is a new generation of high performance molecular luminescence analysis instrument.

- The product structure is exquisite, has the characteristics of high detection sensitivity, fast scanning speed, wide spectrum measuring range, high dynamic range, fast 3D scanning, and so on.
- Easily meet the requirements in the field of material research, pharmaceutical analysis, biochemical and clinical testing, water quality analysis and control, food safety testing (dairy products, aquatic products, such as vitamin C, selenium, aflatoxin), and other areas.







Main Features

High sensitivity:
Based on high efficiency optical design and weak signal detection technology, the water Raman peak signal to noise ratio can be greater than 200 (P - P) to the leading domestic and international advanced level.

Wide Spectral measurement range:
Using a double monochromator design, excitation and emission wavelength range covering 200nm to 900nm, meet the needs of most fluorescence analysis.

Excitation light path monitoring system:
Instrument is equipped with excitation light dual beam ratio monitoring system to ensure the fluorescence signal high and stable.

High scanning speed:
The high speed digital signal processing unit provides the world's fastest scanning speed at 48000nm/min. Only 1 second to get classic fluorescence spectra, 1 minute to get high quality of three-dimensional fluorescence spectra.

High quality assurance:
Using Hamamatsu's high quality Xenon light source and photoelectric multiplier tube detectors and instruments to provide sufficient light intensity signal and the detection sensitivity.

Built-in optical gate:
Built-in optical gate, designed for unstable sample.



Optional Parts

Accessories	Functions
Single sample rack	Conventional liquid fluorescence sample
Multi purpose fluorescent sample rack holder	Base holder for other racks
Octave Filters	Remove the interference of frequency doubling
Membrane sample rack	For membrane sample
Powder sample rack	For powder samples
Auto Polarization filter	Adjust the polarization light



Specifications

Model	SP-LF97 SP-LF97XP SP-LF97PRO
Excitation Wavelength	200nm~900nm
Emission Wavelength	200nm~900nm
Excitation Slit	SP-LF97XP/SP-LF97Pro：2nm、5nm、10nm、20nm
	SP-LF97：10nm
Emission Slit	SP-LF97XP/SP-LF97Pro：2nm、5nm、10nm、20nm
	SP-LF97：10nm
Wavelength Accuracy	SP-LF97XP：±0.4nm
	SP-LF97/SP-LF97Pro：±1.0nm
Wavelength Repeatability	SP-LF97XP：≤0.2nm
	SP-LF97/SP-LF97Pro：≤0.5nm
Signal-to-Noise Ratio	SP-LF97XP： S/N≥200 (10nm Slit) (P-P) S/N≥1200 (10nm Slit) (RMS) S/N≥12000 (10nm Slit) (RMSBG)
	SP-LF97/SP-LF97Pro： S/N≥150 (10nm Slit) (P-P) S/N≥1000 (10nm Slit) (RMS) S/N≥10000 (10nm Slit) (RMSBG)
Detection Limit	SP-LF97XP：≤5×10^{-11} g/ml (Quinine Sulfate Solution)
	SP-LF97/SP-LF97Pro：≤1×10^{-10} g/ml (Quinine Sulfate Solution)
Excitation Source	150W xenon lamp (Hamamatsu)
Linearity	γ≥0.995
Peak Repeatability	≤1.5%
Stability(10min)	Zero Drift：±0.3
	Value Limit：±1.5%
Wavelength Scan Speed	Multi-speed Level, Maximum at 48000nm/min
Photometric Quantity Range	0.00-10000.00
Data Transportation	USB2.0
Power	110-240V AC.50/60Hz, 200W
Instrument Dimension(mm)	380×445×310
N.W./G.W.(kg)	12/14

Fluorescence Spectrophotometer

SP-LF98





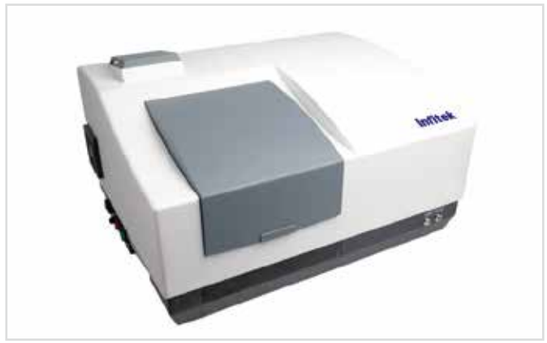


Description

SP-LF98 fluorescence spectrophotometer is a new generation of high-performance molecular luminescence analysis equipment.

- This product is designed for high performance, with high signal to noise ratio, ultra-high scanning speed, ultra-high resolution, ultra-high wavelength accuracy and a variety of accessories.
- This instrument easily meets the requirements in material research, drug analysis, biochemical and clinical testing, water quality control, food safety testing and other areas of qualitative and quantitative analysis and scientific research.
- Quantum yield accessory is available for SP-LF98 fluorescence spectrophotometer.







Main Features

Horizontal slit optical design, with excellent luminous detection efficiency and high signal to noise ratio. Water Raman peak SNR better than 350: 1 (P-P) or 1000: 1 (RMS). The minimum sample volume is 0.5mL when using a standard 10mm square sample cell.

Wavelength scanning speed up to 60000 nm / min.

The software offers functions including fluorescence wavelength scan, time scan, quantitative analysis, 3-D wavelength scan, synchronous wavelength scan, 3-D time scan, phosphor wave scan and phosphor time scan.

Bandwidth 1/2/5/10/20nm adjustable.

Fluorescence Quantum Yield accessory available.

Multi accessories available.

Using Hamamatsu's high quality Xenon light source and photoelectric multiplier tube detectors and instruments to provide sufficient light intensity signal and the detection sensitivity.

Built-in frequency filter. Built-in optical gate, designed for unstable sample.

Specifications

Model	SP-LF98
Excitation Wavelength	200nm~900nm
Emission Wavelength	200nm~900nm
Excitation Slit	1nm/2nm/5nm/10nm/20nm
Emission Slit	1nm/2nm/5nm/10nm/20nm
Wavelength Accuracy	±0.4nm
Wavelength Repeatability	≤0.2nm
Signal-to-Noise Ratio	S/N≥350(P-P) S/N≥1000(RMS)
Detection Limit	≤5×10^{-11} g/ml(Quinine Sulfate Solution)
Linearity	γ≥0.995
Peak Repeatability	≤1.5%
Wavelength Scan Speed	Multi-speed Level, Maximum at 60000nm/min
Minimum sample volume	0.5mL (Using a standard 10mm square sample cell)
Excitation Source	150W xenon lamp(Hamamatsu)
Octave filter	Build in Octave filter
Photometric Quantity Range	-9999 ~ 9999
Response Time	0.02/0.1/0.5/1/2/4/8s, Auto adjust
Data Transportation	USB2.0
Power	110-240V AC.50/60Hz, 200W
Instrument Dimension(mm)	610×460×365
N.W./G.W.(kg)	21/26



Optional Accessories



Membrane sample rack



Powder sample rack



Sample cell jacket



Upconversion fluorescent accessory



Fluorescence Quantum Yield accessory



Multi-function fluorescent sample rack holder:
Base of other sample racks



200uL microcentrifuge tube accessory

Fluorescence Spectrophotometer

SP-LF93 SP-LF93A



Specifications

Model	SP-LF93 SP-LF93A
Monochromator system	C-T diffraction grating
Excitation Wavelength	SP-LF93 365nm(Standard Accessories) SP-LF93A Sets 365nm、376nm、392nm、405nm(Standard Accessories)
Emission wavelength range	360~650nm
Wavelength accuracy	±2nm
Wavelength repeatability	≤1nm
Bandwidth	12nm
Sensitivity	1×10^{-9} g/ml (Standard aqua of the sulfuric acid Quinine)
Linearity	≤±3.0%
Excitation source	LED
Data Transportation	RS232 serial port
Display	4 digits LED
Printer	serial printer/Jet printer (for PC) Selectable Data Processing Software Package
Power Supply	110-240V AC.50/60Hz
Dimension (L×W×H)(mm)	450×420×280
N.W./G.W.(kg)	7/ 9

This method has been used in:

Medical science and clinical analysis:
Clinical analysis of biological specimen.

Pharmaceutical science and pharmacology:
Analysis of natural pharmaceutical products; Quality control of pharmaceuticals and research of pharmaceutical metabolites.

Biochemistry:
Analysis of minute quantity of substances in biological body.

Food industry:
Analysis of minute quantity of constituents in food.

Pollution analysis:
Atmospheric pollution, environmental testing and food contamination analysis.

Organic and inorganic chemistry:
Used in the trace analysis in case of those substances cannot be determined by absorption spectrophotometry.

Applications

Fluorescence analysis is a high sensitive and high selective sophisticated analytical method.
This method can provide information including excitation and emission spectrum, emission light intensity and measurement of life of emission light and polarization fluorescence etc.
This method can provide a wide lineal range of working curve.
It has becoming an important analytical method in the region of trace analysis.

Description

The emission monochromator adopts 1200 line diffraction grating. Its large aperture and non-spherical reflecting mirrors produces extra high sensitivity.

EX light uses LED，match with the central wavelength of 365nm (SP-LF93A set includes 365nm,376nm,392nm,405nm). The system can be replaced by customer，Carry on the maintenance expediently & can satisfy more choices and demand. LED is a cold-light source with longevity、lower background & reliability，prevent from thermo-pollution.





RS-232C serial port interface attached，after option Data Processing Software Package it is convenient to store record & transmit data & draw up a standard operating curve；



Quality fine，less weight & measure，test simply particularly suitable for Education & Lab.

Specifications

Optional accessories and spare parts
Fuses（1A/5A）
360~650nm interference optical filter(ϕ 25mm)
e.g.: SP-LF93A: 365nm、405nm、465nm、515nm
Glass fluorescence cuvette10mm
RS-232C serial port cable

Standard parts	
Main instrument	1 set
Power cord	1 pc
Instruction manual	1 copy
Product quality certificate	1 copy
Fuse(1A)	2 pcs
Fuse(5A)	2 pcs
Glass fluorescence cuvette	10mm 1 pair
Packing list	1 copy
Data processing software package (pack, for PC)	





NIR Spectrophotometer

SP-LIF430



Description

SP-LIF430 NIR spectrophotometer is a spectrophotometer with a grating monochromator.

- This instrument is for rapid non-destructive analysis of oil, alcohol, beverage, and other liquids.
- The wavelength range is 900nm-2500nm.
- The procedure is extremely convenient.
- Fill the cuvette with the sample and place it on the sample platform of the instrument.
- Click in the software to obtain the NIR spectrum data of the sample in about one minute.
- Combining the data with the corresponding NIR data model, various components of the tested sample can be obtained at the same time.



Application



Easy to use. No sample preparation is required, and the sample is not damaged.

Wavelength range is 900nm-2500nm.

The main part of the performance is the international leader.

Built-in high-quality PTFE reference module and polystyrene wave-length standard filter. Automatic reference calibration and monitor-ing wavelengths ensure accurate and stable measurement results.

The instrument monitors the ambient temperature and humidity in real-time and stores it in the spectrum file, which is convenient for users to check and optimize the measurement conditions.

Specifications

Model	SP-LIF430
Measurement Modes	Transmission
Wavelength Range	900nm ~ 2500nm
Bandwidth	8nm
Wavelength Accuracy	±0.2
Wavelength Repeatability	≤0.05
Stray Light	≤0.1%
Noise	≤0.0005 Abs
Analysis time	1 minute or above
Output	USB2.0
Temperature Requirement	5~35 ℃
Humidity Requirement	5~85 %RH
Power Supply	90~250V, 50/60Hz
Dimension	360mm×460mm×240mm
Weight	12kg

Standard Package

Item	Content
Main instrument	1 set
Power cord	1 pc
Data processing software package	1 set
USB cable	1 pc
User manual	1 pc
Packing list	1 copy
Product quality certificate	1 copy
Fuse(2A)	2 pcs
1cm quartz square sample cell	1 pair(2 pcs)
2mm quartz micro sample cell	1 pair(2 pcs)

NIR Spectrophotometer

SP-LIF450







Features

900nm-2500nm ultra-wide spectral range, fast analysis speed. Multiple component indicators can be detected simultaneously within 1 minute, such as moisture, fat, protein, and amino acids.

A variety of sample cups and accessories can be selected to meet the test of particles, powders, liquids and films.

Built-in high-quality PTFE reference module and polystyrene wavelength standard film, automatic reference correction and wavelength monitoring, to ensure accurate and stable measurement results.

Simple operation, intuitive user interface, and the authority management function can meet the needs of different occasions.

Compact instrument structure and open working platform, easy for cleaning.

Equipped with integrating sphere diffuse reflection system, large sampling spot and sample rotating table to ensure the reproduction effect of uneven samples.

Good model transfer can be carried out between multiple instruments. Each instrument is calibrated, identified and verified in strict accordance with industry recommendations. All tests use NIST traceable standards.

The instrument monitors the environmental temperature and humidity in real time and stores it in the spectrum file, which is convenient for users to consult and optimize the measurement conditions.

Simple operation, no sample pre-treatment, no sample destruction.

The core main parts are all international well-known brands.

Convenient and easy to use



Simple operation control

No chemical reagents, no pre-treatment, directly put the sample into the sample cup. Simple operation, with a single tap, the experiment can be completed quickly, which avoid test errors caused by operation. Built-in background, no manual operation, the influence of human interference is eliminated.



Friendly interface software

Simple operation, intuitive interface, and the function is powerful. It contains comprehensive and extensive data collection, preprocessing, evaluation and other functions, and the required installation package can be configured to meet actual needs. The functions of "User Settings" and "User Management" have also been expanded to facilitate users to customize the operator's use authority.



Convenient maintenance

The structure of the instrument is compact and exquisite, and the working platform is easy to clean. The consumables (light source and desiccant) are designed for long-life, but if they need to be replaced, the user can quickly complete the replacement in a short time without opening the instrument.





Specification

Model	SP-LIF450
Measurement Modes	Diffuse reflection sample cell
Wavelength Range(nm)	900~2500
Spectral Bandwidth(nm)	12
Wavelength Accuracy(nm)	±0.2
Wavelength Repeatability(nm)	≤0.05
Stray Light(%)	≤0.1
Absorbance Noise(Abs)	≤0.0005
Analysis Time	1min（adjustable）
Detector	Japan hamamatsu cooled InGaAs
Output	USB2.0
Calibration Technology	MPLS Modified least squares regression calibration technology DPLS Spectrum identification and qualitative analysis technology
Ambient Temperature（℃）	5~35
Ambient Humidity (%RH)	5~85
Instrument Dimension(W*D*H)(mm)	540*380*220
Package Dimension (W*D*H)(mm)	800*680*580
Power Supply	90~250V\50Hz (or 60Hz)
N.W./G.W.(kg)	18/55

NIR Spectrophotometer

SP-LIF460



Specifications

Model	SP-LIF460
Measurement Modes	Integrating sphere
Wavelength Range(nm)	700nm~2500nm
Spectral Bandwidth(nm)	12
Wavelength Accuracy(nm)	±0.2
Wavelength Repeatability(nm)	≤0.05
Stray Light(%)	≤0.1
Absorbance Noise (Abs)	≤0.0005
Analysis Time	1min (adjustable)
Lifetime of Light Source	More than 5000 hours
Sample Volume	The big cup φ90 is about 120g,
	the middle cup φ70 is about 60g,
	the small cup φ30 is about 12g.
Calibration Technology	Quantitative analysis: LPLS local partial least squares
	Qualitative analysis: DPLS digitized partial least squares
N.W./G.W.(kg)	18/21
External Dimensions(W*D*H)(mm)	365*295*157
Package Dimension (W*D*H)(mm)	550*520*400





Features

Simple operation, no sample pre-treatment, no sample destruction.

700nm-2500nm ultra-wide spectral range, fast analysis.Multiple component indicators can be detected simultaneously within 1 minute, such as moisture, fat, protein, and amino acids.

The core main parts are all international well-known brands.

Built-in high-quality PTFE reference module and polystyrene wavelength standard film, automatic reference correction and wavelength monitoring, to ensure accurate and stable measurement results.

Equipped with integrating sphere diffuse reflection system, large sampling spot and sample rotating table to ensure the reproduction effect of uneven samples.

Good model transfer can be carried out between multiple instruments. Each instrument is calibrated, identified and verified in strict accordance with industry recommendations. All tests use NIST traceable standards.

A variety of sample cups and accessories can be selected to meet the test of particles, powders, liquids and films.

The instrument monitors the environmental temperature and humidity in real time and stores it in the spectrum file, which is convenient for users to consult and optimize the measurement conditions.

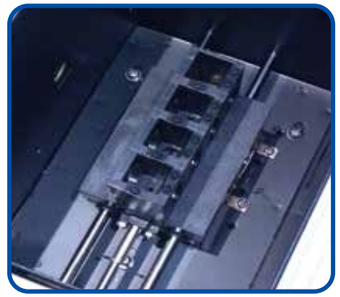
Description

- SP-LIF460 NIR Spectrometer provides calibration models for multi-domain and diversified applications. It can be widely used in agricultural feed, grain and oil food, wine and starch, soy sauce fermentation products.

Visible Spectrophotometer

SP-IV2S





Features

- 7-inch multi color touch-screen and patented technology to achieve simple and effective human-computer
- interaction with a clear display of test data.
- SP-IV2S comes standard with a built-in thermal printer, which can print out test results and facilitate the formation and retention of data reports.
- A USB communication port and UVWIN8 professional data processing software to achieve data processing and mapping functions and storage of massive amounts of data files, and to facilitate the secondary development by customers.
- Automatic wavelength setting, fast and accurate.Functions such as wavelength scanning (S model only), kinetic time scanning, automatic wavelength, linear regression, direct read-out of concentration, peak detection, regular printing and etc.
- Advanced power shut-down protection measures to memorize detected data, regression equation and instrument correction parameters to achieve fast initialization.

Applications

- Novel series spectrophotometer, being combined with an ARM processed core, has test speeds and functions possessed by high-end instruments. The instrument can meet the requirement of quantitative analysis for most samples conducted within the visible and ultraviolet-visible spectral range in conventional laboratories and is suitable for use in medicine and health, clinical examination, biochemical, petrochemical, environmental protection, quality control departments, colleges and universities and others.

Specification

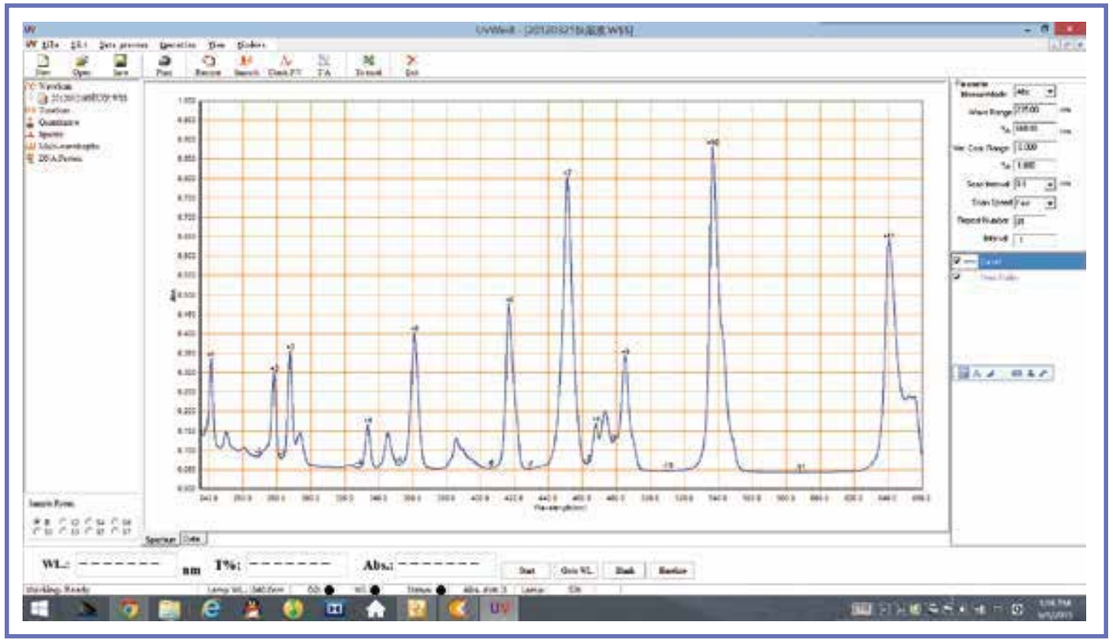
Model	SP-IV2S
Optical System	Single-beam System
Monochromator Type	Czerny-Turner Monochromator
Wavelength Range	325-1100nm
Wavelength Accuracy	±1nm
Wavelength Repeatability	≤0.5nm
Spectrum Bandwidth	2nm
Photometric Accuracy	±0.5% T ±0.004 Abs (0-0.5A) ±0.008 Abs (0.5-1A)
Photometric Repeatability	≤0.2% T 0.002 Abs (0-0.5A) 0.004 Abs (0.5-1A)
Photometric Range	0.0-200.0%T -0.301-4.000A 0.000-9999C
Stray Light	≤0.1%T(at 360nm $NaNO_2$)
Baseline	≤±0.003A (335-1090nm)
Drifting	≤0.003 Abs/h (at 500nm after 2h warm up)
Noise	100% (T) noise≤0.2%(T) 0% (T) noise≤0.1%(T)
Scanning Speed	Fast-Medium-Slow
Grating	1200 lines/mm
Detector	Silicon photocell
Display	7-inch color touch-screen
Power	AC220V±22V 50Hz±1Hz,100W
N.W./G.W.(kg)	18/21.6
Dimension(L*W*H)(mm)	475*365*200
Package Dimension(L*W*H)(mm)	630*535*405

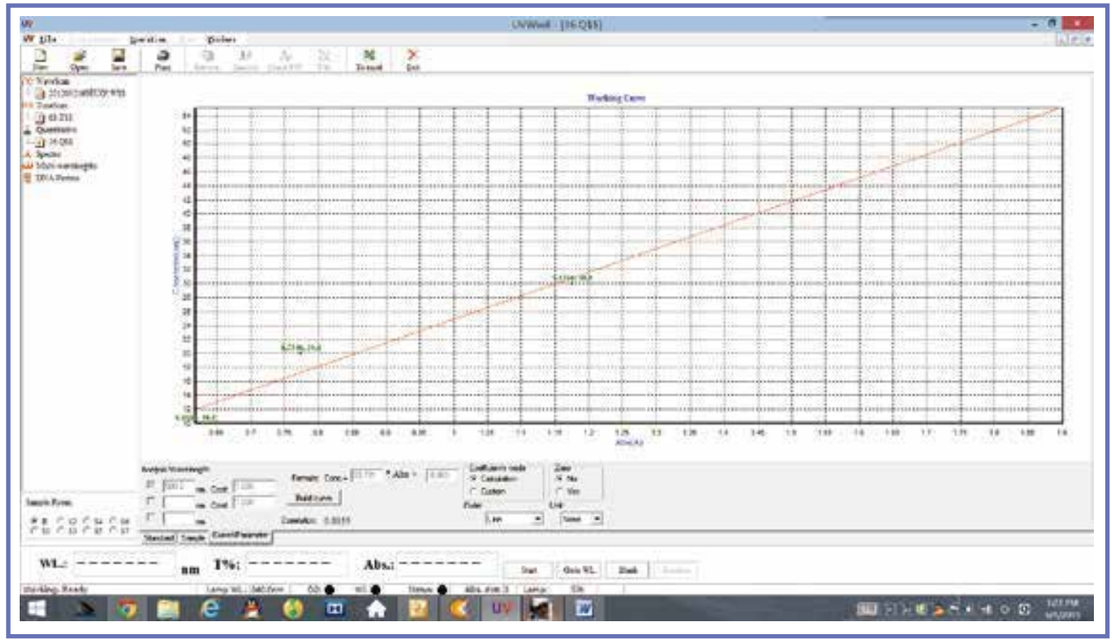
Standard Accessories

Model	SP-IV2S
Software	included
User Manual	1pc.
Glass Cuvette 1cm	4pcs.
Power Cable	1pc.
Fuse	2pcs.

Optional Accessories

Cuvette holder 50mm
Cuvette holder 100mm





Visible Spectrophotometer

SP-LV723S





Specifications

Model	SP-LV723S
Wavelength Range	320nm~1100nm
Wavelength Accuracy	±1nm
Wavelength Repeatability	≤0.5nm
Bandwidth	2nm
Photometric Accuracy	±0.5%T
Photometric Repeatability	≤0.2%T
Photometric Range	0.0~200%(T),-0.3~4(A)
Stray Light	≤0.1%T(220nm, NaI)
Baseline Flatness	±0.002A
Stability	≤0.0008A
Noise	≤0.5%T(100%T), ≤0.2%T(0%T)
Display	128×64 LCD
Output	USB-A(U Disk), USB-B(PC), Serial Port(Printer)
N.W./G.W.(kg)	8/10
Instrument Dimension(W*D*H)(mm)	370×357×220
Package Dimension(W*D*H)(mm)	450×430×320

Features

High Photometric Accuracy:
Ensure the measurement of optical light path to meet the design requirements, improve process efficiency of the Assembly to achieve high precision photometry testing index.

USB ports:
User needn't set any parameter to enable online communication while the RS232 serial port have to set it.

High Wavelength Accuracy:
Ensure the accuracy and long-term stability when the instrument is processing auto wavelength detection and calibration.

High Scanning Speed:
Help user to capture the instantaneous spectrum change of sample and improve the work efficiency.

Wide Wavelength Range:
Meet the needs of most spectrophotometric test

Offline U disk storage:
Nake it easy for user to manage data in the format like Excel and etc.



Various offline quantitative measurement function:
Electronic System use 32 bits ARM core processor system, equipped with 128×64 big screen LCD, offline quantitative measurement could do multi wavelength test, Standard curve fitting and measurement, standard coefficient equation input, save and load standard equation, data storage and printing, quantitative measurement of concentration.

Powerful Software Function:
Software could achieve spectrum scanning, time scanning, dynamic scanning, quantitative measurement, multi wavelength analysis and formula calculation, spectrum processing, find peak and valley, print data, DNA/RNA test, instrument calibration, performance verification and etc. to meet different needs in various analysis fields.



Brief Introduction:

The instrument has the features like delicate structure, high price-quality ratio, various convenient functions and etc.
They could make the qualitative and quantitative test in material research, pharmaceutical analysis, Biochemical and clinical examination, analysis of water quality control, food inspection and the other fields.

Visible Spectrophotometer

SP-LV722S





Applications

SP-LV722S Spectrophotometer is a compact and easy to operate instrument.

- It can be applied in measurement of transmittance, absorbance and direct concentration readout of transparent material.
- They have been versatility employed in the fields of hygiene and medicine, clinical examination, biochemistry, petrol chemical engineering, environmental monitoring and inspections, and quality controls for qualitative and quantitative analysis of concerning samples.

Features

With RS232 serial interface,micro printer can be chosen for printing data directly;data processing package compatible, Transmittance and Absorbance, Standard Curve Mode, Quantitative Analysis Mode are provided;With RS232 parallel I interface.

Spacious sample compartment, 4 position cell rack, adaptable for 1-5 cm optical path rectangular cells.

Simple & clear keyboard operation is convenient to realize auto 0% T &100% T adjustment T/A transformation, factor setting and direct concentration readout function;

Aspherical light source optics, Curny-terner configuration diffraction grating monochromator.;

Specifications

Model	SP-LV722S
Wavelength Range	325-1000nm
Wavelength Accuracy	±2 nm
Wavelength Reproducibility	1 nm
Band width	5 nm
Photometric Accuracy	±0.5%(T)(SRM930D)
Photometric Reproducibility	0.2%(T)
Stray Light	≤0.2%(T)
Noise	±0.5%(T)
Photometric Range	0-199.9%T -0.3-2.999A 0-9999C
Light Source Lamp	Halogen-Tungsten Lamp 20W/12V
Power Requirement	220V/110V10% 50/60 Hz
Interface	RS232 serial & parallel I interface
Print	serial printer/general printer (windows compatible; use software package)
N.W./G.W.(kg)	7/ 9.5
Dimension (L×W×H)	450×420×280





Accessories

Standard Package
Spectrumlab SP-LV722S main unit:: 1 Set
1 cm Rectangular cell: 1 Set (4 PCs)
4 position cell holder: 1 PC.
Power cable: 1 PC.
Operation manual: 1 PC.
Certificate of quality checking: 1 PC.
Fuse (2A): 1 PC.
Spectrophotometer data processing software package for cooperate with PC

Optional Spare Parts and Accessories
Fuse (2A/3A)
Source lamp assembly complete with pre-adjusted lamp holder
Rectangular cells 1 cm, 2 cm, 3 cm, 5 cm cell rack
RS-232C serial cable

Visible Spectrophotometer

SP-IV722N



Applications

- Sample compartment for 5-50mm cuvettes
- Precise automatic T/A changeover
- Automatic zero and full scale adjustment
- 7-inch multi color touch-screen (SP-IUV752N Plus and SP-IV722N)
- Equipped with USB port
- Direct concentration read-out and concentration factor setting function
- Automatic light gate technology to protect photoelectric sensors
- Standard software

Features

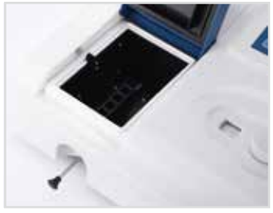
1.The holographic blazed grating monochromator has the advantages of high wavelength accuracy, good monochromaticity and low stray light.

Adopt microcomputer measurement system, with high conversion accuracy of T-A, automatic adjustment of 0% T and 100% T, concentration factor setting and concentration direct reading.

Linear regression method and coefficient method are added to the concentration test method.

USB interface is added, and large capacity memory can store 30 concentration curves.

High accuracy, good reproducibility and stability of measurement readings.







Specifications

Model	SP-IV722N
Optical System	Single-Beam System
Monochromator Type	Czerny-Turner Monochromator
Wavelength Range	325-1000nm
Wavelength Accuracy	±2nm
Wavelength Repeatability	≤1nm
Spectrum Bandwidth	2nm
Photometric Accuracy	±0.5%T
Photometric Repeatability	≤0.2%T
Photometric Range	0-100.0%T 0-1.999A 0-1999C
Stray Light	≤0.1%T (at 220nm NaI, 360nm $NaNo_2$)
Noise	100%(T) noise≤0.3%(T), 0%(T)noise≤0.2%(T)
Grating	1200 lines/mm
Detector	Silicon Photocell
Wavelength Setting	Manual Turn Knob
Cuvette Holder Size	10mm
Power	AC220V±22V 50Hz±1Hz,120W
G.W.(kg)	13.5
Package Dimension(W*D*H) (mm)	600*490*350

Accessories

Standard Accessories
User manual 1pc
Glass cuvette 1cm 4pcs
Quartz cuvette 1cm 2pcs (SP-IUV752N Plus only)
Power cable 1pc
Fuse 2pcs

Optional Accessories
Cuvette holder 50mm

Visible Spectrophotometer

SP-IV721G



Applications

G series economic spectrophotometer been widely used in colleges and enterprises for general quantitative analysis and experiments based in absorbance measurements.

Features



Sample compartment for 5-100mm cuvettes
Large sample compartment, for 5 - 100mm path length cuvettes with optional holders.



High quality silicon photometric diode detector and 1200 lines/mm diffraction grating ensure the high quality accuracy and precision.
Equipped with RS232 port



Backlit LCD display for an easy readout.
Automatic 0A and 100%T.

Easy switching of transmittance, absorbance and concentration modes, just by pressing one key.

Direct concentration read-out and concentration factor setting function
Standard software(SP-IV721G-100)
Dedicated printer optional(SP-IV721G)

Easy to change the halogen lamp or deuterium lamp by the user himself.

Specifications

Model	SP-IV721G
Optical System	Single-Beam System
Monochromator Type	Czerny-Turner Monochromator
Wavelength Range	340-1000nm
Wavelength Accuracy	±2nm
Wavelength Repeatability	≤1nm
Spectrum Bandwidth	5nm
Photometric Accuracy	±0.5%T
Photometric Repeatability	≤0.2%T
Photometric Range	0-100.0%T 0-1.999A 0-1999C
Stray Light	≤0.5%T(at 360nm $NaNo_2$)
Drifting	±0.5 %T/30min
Noise	100%(T) noise≤0.3%(T) , 0%(T) noise≤0.2%(T)
Detector	Silicon Photocell
Wavelength Setting	Manual Turn Knob
Cuvette Holder Size	50mm
Power	AC220V±22V 50Hz±1Hz, 50W
G.W.(kg)	14
Packaging Dimension (W*D*H)(mm)	560×490×285 0.08M^3

Accessories

Standard Accessories
User manual 1pc
Glass cuvette 1cm 4pcs (SP-IV721G/SP-IV721G-100/SP-IV722G only)
Quartz cuvette 1cm 2pcs
Power cable 1pc
Fuse 2pcs
UV WIN7 software(SP-IV721G SP-IV722)
50mm cuvette holder(SP-IV721G SP-IV722)
100mm cuvette holder(SP-IV721G-100)

Visible Spectrophotometer

SP-LV721



Applications

- SP-LV721 visible spectrophotometer is a compact, easy-to-use equipment.
- It can be used to measure transmission, absorption and concentration direct-reading at wavelengths from 360nm to 1000nm.
- It can be widely applied to departments related to medical health, clinical examination, biochemistry, petro-chemistry, environmental monitoring and quality control as qualitative and quantitative analyses.

Specification

Model	SP-LV721
Optical system	Single-beam system
Monochromator	C-T monochromator
Wavelength range	360nm～1000nm
Wavelength accuracy	±3.0nm
Wavelength repeatability	≤1.5nm
Spectrum bandwidth	≤6nm
Transmittance accuracy	±0.8 %T (SRM930D)
Transmittance repeatability	≤0.3 %T
Stray light	≤1.0 %T(360nm, $NaNO_2$)
Source lamp	halogen lamp 10W/8V
(F)	1～9999
(C)	0～9999
Power	90～250V, 50/60Hz, 40W
N.W./G.W.(kg)	4/7
Instrument Dimension (W*D*H)(mm)	350*300*220
Package Dimension (W*D*H)(mm)	450*430*320

Features

Special precision pre-adjustment lamps and lamp holder fittings. Not necessary to re-adjust optical path for installation which is convenient for users without any professional maintenance skills.

4-digit LED display
Automatic zero and 100%T adjustment
Concentration factor setting and concentration direct-reading functions

Reasonable structure with advanced optical system, using precision machining high-quality CT monochromator and sealed grating, the optical properties of which are superior to the traditional LITTROW monochromator, with obvious advantages in the indicators such as resolution, photometric accuracy, stray light and stability. And its size is smaller.

Sample cells made of special engineering plastics, resistant to solvent as well as strong acid/alkali, which enhances its anti-corrosion properties. Effusion dish and liquid storage container, which can be removed and cleaned, are mounted on the bottom to increase the service life.

Precision-linkage cutoff filter system automatically switching to appropriate wavelength filters, further reducing stray light

4-position cell holder, with optional rectangular optical path colorimetric dish with diameter from 1 cm to 5cm.

Accessories

Packing List	
Main device	1pc
Power cord	1pc
Operating manual	1pc
Product Quality Certificate	1pc
Fuse (2A)	2pcs
1cm rectangular colorimetric dish (glass)	4pcs
1cm optical path colorimetric dish shelf	1pc
Packing list	1pc

Optional spare parts
Fuse (2A/3A)
Illuminant light components with a pre-calibration
lamp bracket
Rectangular colorimetric dish: 1cm, 2cm, 3cm, 5cm
5cm optical path colorimetric dish shelf
Pr-Nd filters
Holmium trioxide filters

Visible Spectrophotometer

SP-MV5000



Brief Introduction:

SP-MV5000 is a single beam visible spectrophotometer with manual wavelength setting. It is a basic model and ideal choice for routine analysis and general experiments.
The specially designed model is a low-cost spectrophotometer which offers high performance, easy operation and wide application.

Specifications

Model	SP-MV5000
Optical System	Single-Beam System
Wavelength Range	325-1000nm
Wavelength Accuracy	±2nm
Wavelength Repeatability	1nm
Spectral Bandwidth	4nm
Photometric Accuracy	±0.5%T
Photometric Repeatability	≤0.2%T
Photometric Range	-0.3-3A,0-200%T,0-9999C
Stray Light	≤0.2%T
Stability	±0.002A/h @ 500nm
Grating	1200 lines/mm
Detector	Silicon Photodiode
Display	LCD
Light Source	Tungsten Halogen Lamp
Photometric Mode	T, A, C, F
Output	USB Port & Parallel Port(Printer)
Power Requirements	AC 85~250V
G.W.(kg)	11
Instrument Dimension (W*D*H)(mm)	420*280*180
Package Dimension (W*D*H)(mm)	600*470*320

Features

Microprocessor controlled

With microprocessor controlled, SP-MV5000-can realize auto Zero and auto 100%T adjustment with one push-button.SP-MV5000 has a LCD display instead of LED display for direct readout of Transmittance, Absorption, and Concentration.

Compact design, easy to carry

The compact design of V-5000 saves bench space while all components function remain performed like 120mm wide sample compartment and long optical pat-h monochromator.

Grating monochromator

SP-MV5000 uses 1200 line grating which ensures high resolution, low stray light and high parameters accuracy.

Data output

SP-MV5000 is equipped with USB port which can be connected to PC to edit date through specific software.Date can also be printed through a parallel port when connected to a micro printer

Four Display Mode

SP-MV5000 can display absorption, transmittance, concentration and coefficient directly by different mode switching.

Standard Accessories

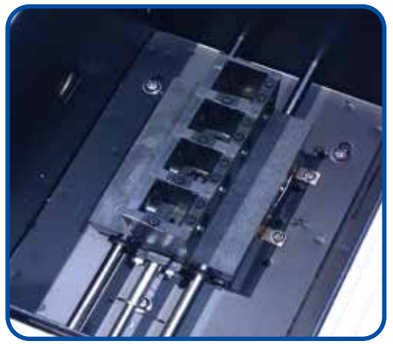
Description	Quantity	Unit
Spectrophotometer	1	set
1cm Glass cuvette	4	pcs
Power cord	1	pcs
User's Manual	1	pcs
Black block	1	pcs
Dust Cover	1	pcs





UV VIS Spectrophotometer Single Beam

SP-IUV4S





Features

7-inch multi color touch-screen and patented technology to achieve simple and effective human-computer

interaction with a clear display of test data.

SP-IUV4S comes standard with a built-in thermal printer, which can print out test results and facilitate the formation and retention of data reports.

A USB communication port and UVWIN8 professional data processing software to achieve data processing and mapping functions and storage of massive amounts of data files, and to facilitate the secondary development by customers.

Automatic wavelength setting, fast and accurate.Functions such as wavelength scanning (S model only), kinetic time scanning, automatic wavelength, linear regression, direct read-out of concentration, peak detection, regular printing and etc.

Advanced power shut-down protection measures to memorize detected data, regression equation and instrument correction parameters to achieve fast initialization.

Tungsten lamp and deuterium lamp with lifetime protection.

Applications

- Novel series spectrophotometer, being combined with an ARM processed core, has test speeds and functions possessed by high-end instruments. The instrument can meet the requirement of quantitative analysis for most samples conducted within the visible and ultraviolet-visible spectral range in conventional laboratories and is suitable for use in medicine and health, clinical examination, biochemical, petrochemical, environmental protection, quality control departments, colleges and universities and others.

Specification

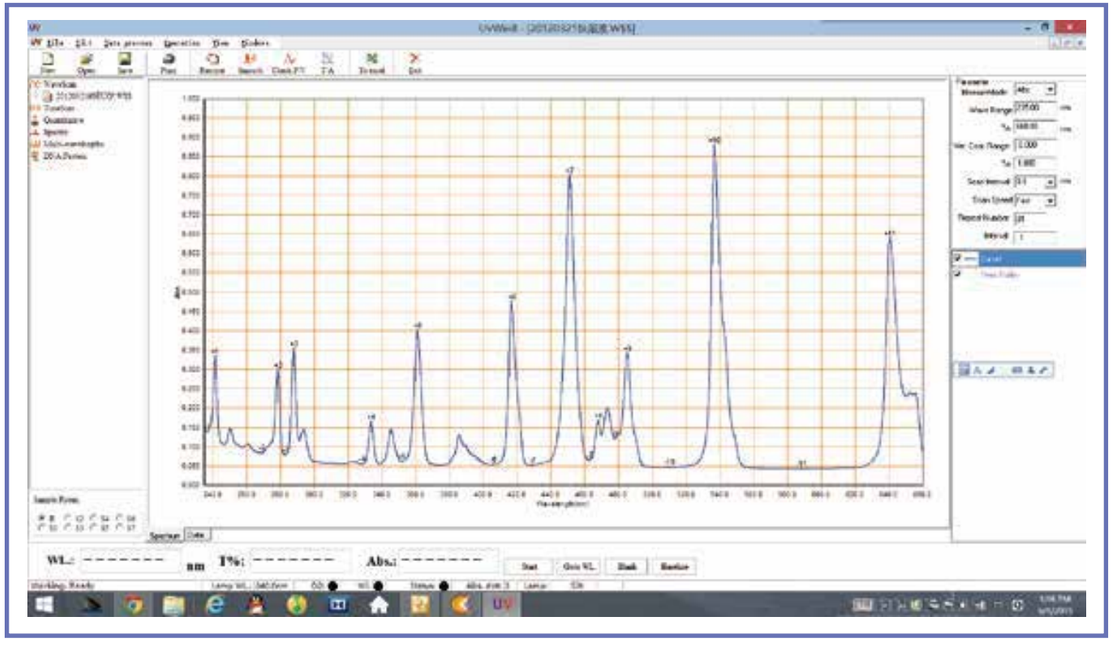
Model	SP-IUV4S
Optical System	Single-beam System
Monochromator Type	Czerny-Turner Monochromator
Wavelength Range	190-1100nm
Wavelength Accuracy	±1nm
Wavelength Repeatability	≤0.5nm
Spectrum Bandwidth	2nm
Photometric Accuracy	±0.3%T ±0.002Abs (0-0.5A) ±0.004 Abs (0.5-1A)
Photometric Repeatability	≤0.15%T 0.001 Abs (0-0.5A) 0.002 Abs (0.5-1A)
Photometric Range	0.0-200.0%T -0.301-4.000A 0.000-9999C
Stray Light	≤0.1%T (at 220nm NaI, 360nm $NaNO_2$)
Baseline	≤±0.003A (200-1090nm)
Drifting	±0.002 Abs/30min (at 250nm and 500nm after 2h warm up)
Noise	100% (T) Noise≤0.5%(T), 0% (T) Noise≤0.2%(T)
Scanning Speed	Fast-Medium-Slow
Grating	1200 lines/mm
Detector	Silicon photocell
Display	7-inch color touch-screen
Power	AC220V±22V 50Hz±1Hz, 180W
G.W.(kg)	17.2
Dimension(L*W*H)(mm)	475*365*200
Package Dimension (W*D*H)(mm)	640*550*420

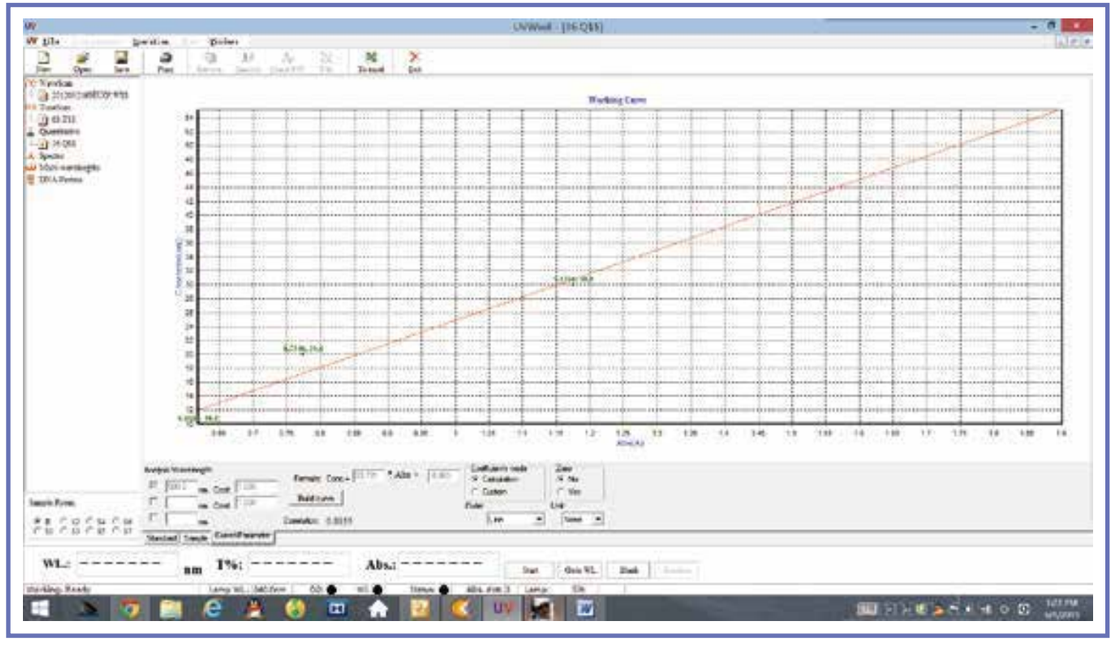
Standard Accessories

Model	SP-IUV4S
Software	Included
User Manual	1pc.
Glass Cuvette 1cm	4pcs.
Quartz Cuvette 1cm	2pcs.
Power Cable	1pc.
Fuse	2pcs.

Optional Accessories

Cuvette holder 50mm
Cuvette holder 100mm





UV VIS Spectrophotometer Single Beam

SP-LUV759



Description

- The instrument has the features like delicate structure, high performance specification, long-life light source, various convenient functions and etc.
- They could make the qualitative and quantitative test in material research, pharmaceutical analysis, Biochemical and clinical examination, analysis of water quality control, food inspection and the other fields.



Main Features

Long-life Light Source:
Dramatically reduce the cost of light source replacement and the frequency of maintenance.

Low Stray Light:
Ensure the stray light lower than 0.05% to meet clients' need when they want to test high absorbance sample.

High Wavelength Accuracy:
Ensure the accuracy and long-term stability.

Wide Wavelength Range:
Meet the needs of most spectrophotometric test.

High-speed Scanning:
Eelp user to capture the instantaneous spectrum change of sample and improve the work efficiency.

USB ports:
User needn't set any parameter to enable online communication while the RS232 serial port have to set it.

Flash disk storage:
Make it easy for user to manage data in the format like Excel and etc.



Main Features



Auto-matching Function of Cuvettes:
Decrease the deviation occurred by the difference of cuvettes when process quantity measurement.

High Photometric Accuracy:
Ensure that the measurement of optical light path to meet the design requirements, improve process efficiency of the Assembly to achieve high precision photometry testing index.



Various offline quantitative measurement function:
Electronic System use 32 bits ARM core processor system, equipped with 128*64 big screen LCD, offline quantitative measurement could do multi wavelength test, Standard curve fitting and measurement, standard coefficient equation input, save and load standard equation, data storage and printing, quantitative measurement of concentration.



Powerful Software Function:
Software could achieve spectrum scanning, time scanning, dynamic scanning, quantitative measurement, multi-wavelength analysis and formula calculation, spectrum processing, find peak and valley, print data, DNA/RNA test, instrument calibration, performance verification and etc. to meet different needs in various analysis fields.

Specifications

Model	SP-LUV759
Wavelength Range	190nm~1100nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	≤0.2nm
Spectrum Bandwidth	2nm
Photometric Accuracy	±0.3%T
Photometric Repeatability	≤0.15%T
Photometric Range	0.0~200%(T),-0.3~4(A)
Stray Light	≤0.05%T(220nm, NaI)
Baseline Flatness	±0.002A
Baseline Stability	≤0.0008A
Noise	≤0.3%T(100%T), ≤0.1%T(0%T)
Display	128*64 LCD
Light source	Hamamatzu Deuterium Lamp，Osram halogen tungsten lamp
N.W./G.W.(kg)	9/ 12.5
Output	USB-A(U Disk), USB-B(PC), Serial Port(Printer)
Instrument Dimension(W*D*H)(mm)	370*440*220
Package Dimension (W*D*H)(mm)	560*530*400



UV VIS Spectrophotometer Single Beam

SP-IUV752N Plus



Features

Linear regression method and coefficient method are added to the concentration test method.

The holographic blazed grating monochromator has the advantages of high wavelength accuracy, good monochromaticity and low stray light.

USB interface is added, and large capacity memory can store 30 concentration curves.

Adopt microcomputer measurement system, with high conversion accuracy of T-A, automatic adjustment of 0% T and 100% T, concentration factor setting and concentration direct reading.

High accuracy, Good Reproducibility and Stability of Measurement Readings.

7-inch multi color touch-screen, good human-computer interface. (SP-IUV752N Plus and SP-IV722N)

Automatic light gate technology, No need blackbody, to protect the photoelectric sensor.

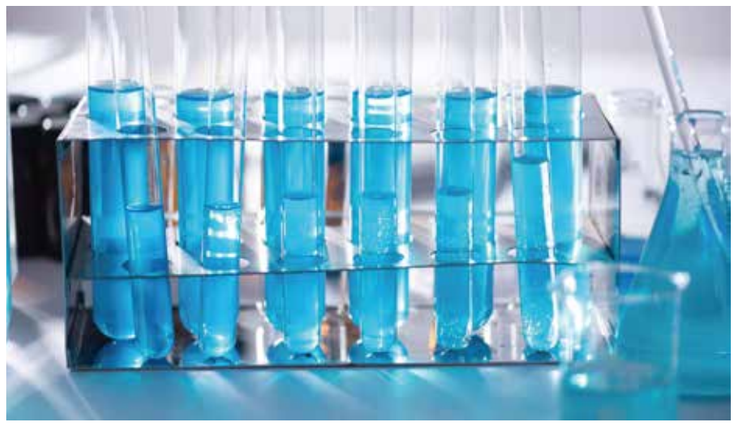
Accessories

Standard Accessories
User manual 1pc
Glass cuvette 1cm 4pcs
Quartz cuvette 1cm 2pcs (SP-IUV752N Plus only)
Power cable 1pc
Fuse 2pcs

Optional Accessories
Cuvette holder 50mm

Specifications

Model	SP-IUV752N Plus
Optical System	Single-Beam System
Monochromator Type	Czerny-Turner Monochromator
Wavelength Range	200-1000nm
Wavelength Accuracy	±2nm
Wavelength Repeatability	≤1nm
Spectrum Bandwidth	2nm
Photometric Accuracy	±0.5%T
Photometric Repeatability	≤0.2%T
Photometric Range	0-100.0%T 0-1.999A 0-1999C
Stray Light	≤0.1%T (at 220nm NaI, 360nm $NaNo_2$)
Noise	100%(T) noise≤0.3%(T), 0%(T)noise≤0.2%(T)
Grating	1200 lines/mm
Detector	Silicon Photocell
Wavelength Setting	Manual Turn Knob
Cuvette Holder Size	10mm
Power	AC220V±22V 50Hz±1Hz,120W
G.W.(kg)	13.5
Package Dimension (W*D*H) (mm)	600*490*350



Sample compartment for 5-50mm cuvettes

Equipped with USB port

Precise automatic T/A changeover

Automatic zero and full scale adjustment

Direct concentration read-out and concentration factor setting function

7-inch multi color touch-screen (SP-IUV752N Plus and SP-IV722N)

Automatic light gate technology to protect photoelectric sensors

Standard software

UV VIS Spectrophotometer Single Beam

SP-LUV752P





Description

- The instrument could set factor and directly read the transmittance, absorbance and concentration from 190nm to 1100nm.
- It also could set wavelength manually. 2nm bandwidth could meet the needs of most quantitative measurement requirements.
- They could make the qualitative and quantitative test in material research, pharmaceutical analysis, Biochemical and clinical examination, analysis of water quality control, food inspection and the other fields.



Description Light Weight and Small Size

Wide Wavelength Range:
The wavelength range covers from 190nm to 1100nm. The widest wavelength range of the similar products is offered to meet the needs of most spectrophotometric test.

Low Stray Light:
Precision optical design ensure the stray light lower than 0.05% to meet clients' need when they want to test high absorbance sample.

Convenient light source replacement:
Deuterium lamp adopt universal flange fixing, deuterium lamp replacement could be completed by operation of two screws, no need to adjust light path make maintenance easier and reliable.

High Wavelength Accuracy:
Built-in spectral characteristics work for the auto wavelength detection and calibration to ensure the accuracy and long-term stability.

Specifications

Model	SP-LUV752P
Optical System	Single-beam System
Monochromator Type	Czerny-Turner monochromator
Wavelength Range	190-1100nm
Wavelength Accuracy	±2nm
Wavelength Repeatability	≤0.5nm
Spectrum Bandwidth	2nm
Photometric Accuracy	±0.5%T
Photometric Repeatability	±0.2%T
Transmittance Range	0.0-199.9%T
Absorbance Range	-0.3-2.999A
Stray Light	≤0.2%T
Noise	0% Noise ≤0.2%T 100% Noise≤0.5%T
Grating	1200 lines/mm
Light Source	Normal lamp
Display	4 digits LED
Output	RS232 Serial Port
G.W./N.W.(kg)	10/7.5
Instrument Measurement(L*W*H)(mm)	370×320×240

UV VIS Spectrophotometer Single Beam

SP-MUV5100









Specifications

Model	SP-MUV5100
Optical System	Single-beam System
Wavelength Range	190-1000nm
Wavelength Accuracy	±2nm
Wavelength Repeatability	0.5nm
Spectrum Bandwidth	2nm
Photometric Accuracy	±0.5%T
Photometric Repeatability	≤0.2%T
Photometric Range	-0.3-3A,0-200%T,0-9999C
Stray Light	≤0.1%T
Stability	± 0.002A/h @ 500nm
Grating	1200 lines/mm
Detector	Silicon Photodiode
Display	128*64 LCD
Photometric Mode	T,A,C,F
Wavelength Setting	Auto
Light Source	Tungsten Lamp&Deuterium Lamp
Output	USB & Parallel Port(Printer)
Power	AC 85~250V
Weight	12kg
Dimension (W*D*H)(mm)	420*280*180







Description

2.5 inches LCD screen

Equipped with a 2.5 inches LCD screen to give a clear display of standard curves and groups of results.

Standard curve

Can set up various standard curves according to customer ‘s solutions and find the concentration of unknown solutions.

Imported deuterium lamp

SP-MUV5100 is equipped with imported deuterium lamp which ensures low stray light, photometericaccuracy and is easy to be replaced.

Data output

Equipped with USB port to connected with a PC to display spectrum scanning,kinetics and Multi wavelength testing results on the screen.The software is

optional

Multiple results readout

Can display wavelength,absorption and transmittance with 5 results per screen.It also has a memory store of up to 200 results.

Auto setting wavelength

Users set wavelength automatically through arrow keys to avoid operation errors.

Standard Accessories

Description	Quantity	Unit
Spectrophotometer	1	set
1cm Glass cuvette	4	pcs
Power cord	1	pcs
User’s Manual	1	pcs
1cm quartz cuvette	2	pcs
Dust Cover	1	pcs



UV Visible Spectrophotometer Double Beam

SP-IUV7



Main Features



SP-IUV7 double beam UV-VIS spectrophotometers adopt double beam optical system, and blazed holographic

G They have outstanding test precision and very competitive prices.

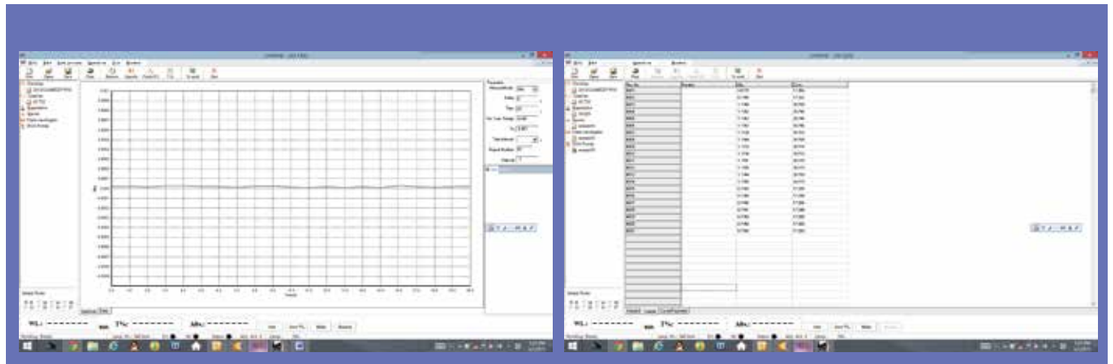
8-inch color touch-screen, cutting-edge user interface, powerful functions, and easy operation.

With powerful functions, the equipment shows great performance in qualitative and quantitative testing, such as:

- Full-spectrum scanning
- Linear regression
- Detailed spectrum scanning
- Concentration direct reading
- Time-based kinetics determination
- Peak/Valley detecting
- GOTO λ
- Multi-wavelength measurement

Description

- Double beam optical system
- Automatic zero and full-scale adjustment
- UV WIN8 Spectrum Data Processing Software
- 8-inch color touchscreen
- Automatic wavelength settings
- Equipped with the USB COM port
- Thermal plotter optional



Main Features



The equipment is designed with a sophisticated power protection system. With a high capacity of internal memory, it can store testing results, scanned images, regression equations, and correction data. Therefore, it follows a fast initialization when power is on.



The instrument can be connected with a dedicated printer, which can print testing results, or draw curves from spectral scanning, fixed wavelength time-based scanning, and linear regression.

With a USB COM port the device can be connected to a PC, which can not only enhance the performance in data testing and spectrum scanning but also expand the memory to save more testing results.

Standard Accessories

Description	
Operation manual	1
Glass cuvette	1cm 4pcs
Quartz cuvette	1cm 2pcs
Power cable	1
Fuse	2pcs
UV WIN8 Spectrum data processing software	

Specifications

Model	SP-IUV7
Optical System	Double-Beam System
Monochromator Type	Czerny-Turner
Wavelength Range	190-1100nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	≤0.2nm
Spectrum Bandwidth	1.8nm
Photometric Accuracy	±0.3%T ±0.002Abs (0-0.5A) ±0.004 Abs (0.5-1A)
Photometric Repeatability	≤0.15%T 0.001 Abs (0-0.5A) 0.002 Abs (0.5-1A)
Photometric Range	0.0-200.0%T -0.301-4.000A 0.000-9999C
Stray Light	≤0.03%T (at 220nm NaI, 360nm $NaNo_2$)
Baseline	≤±0.002A (200-1090nm)
Drifting	≤0.0009 Abs/30min (250nm and 500nm after 2h warm up)
Noise	100%（T）noise≤0.15%(T), 0%（T）noise≤0.1%(T)
Scanning Speed	Fast-Medium-Slow
Grating	1200 lines/mm
Detector	Silicon Photocell
Display	8-inch color touch-screen
Power	AC220V±22V 50Hz±1Hz, 200W
Packaging Size (W*D*H)	710mm×590mm×505mm 0.21M^3 36kg

UV Visible Spectrophotometer Double Beam

SP-IUV8 SP-IUV9

Features

New optical platform

Enable the host machine with excellent optical properties, metering performance, low stray light and noise, high metering accuracy and stability.



Easy operation&Reliable performance

USB communication port.

8-inch color touch-screen, with a good user-machine interface, easy to operate.

Imported long-life deuterium lamp, imported OSRAM tungsten lamp.



Unique system of deuterium and tungsten lamp installation

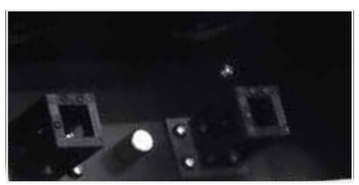
Facilitate the light source to automatically switch to the best position, and allow users to operate the instrument, replace the light source and maintain the instrument more conveniently, accurately and safely.

Powerful spectral data processing and storage capabilities

Sophisticated hardware and software design.

Automatic scanning measurement spectrum, multi-wavelength (1 ~ 3λ) measurement, kinetic measurement, 1-3 curve fitting, 1-4 derivative spectra.

Spectra printing and storage and data analysis.



Description

SP-IUV8 and SP--IUV9 Double Beam UV Visible Spectrophotometer serve as the basic equipment for quality control, technical evaluation and scientific research, and can be widely used in susceptibility testing, medicine and health, biochemistry, environmental monitoring, commodity inspection, petrochemical and other fields.

Specifications

Model	SP-IUV8	SP-IUV9
Optical System	Double-Beam System	
Monochromator Type	Czerny-Turner	
Wavelength Range	190-1100nm	
Wavelength Accuracy	±0.3nm	
Wavelength Repeatability	≤0.1nm	
Spectrum Bandwidth	2nm or 1nm	0.5nm,1nm,2nm,4nm,5nm
Photometric Accuracy	±0.3%T ±0.002Abs (0-0.5A) ±0.004 Abs (0.5-1A)	
Photometric Repeatability	≤0.15%T 0.001 Abs (0-0.5A) 0.002 Abs (0.5-1A)	
Photometric Range	0.0-200.0%T -0.301-4.000A 0.000-9999C	
Stray Light	≤0.02%T(at 220nm NaI, 360nm $NaNo_2$)	
Baseline	≤±0.0008 A(200-1090nm)	
Drifting	≤0.004 Abs/h (250nm and 500nm after 2h warm up)	
Noise	100% (T) Noise ≤0.1%(T) , 0% (T) Noise ≤0.02%(T)	
Scanning Speed	Fast-Medium-Slow	
Grating	1600 lines/mm	
Detector	Silicon photocell	
Display	8-inch color touch-screen	
Light Source	Hamamatsu D2 lamp，Osram halogen tungsten lamp	
Output	USB	
Power	AC220V±22V, 50Hz±1Hz, 200W	
N.W./G.W	34/42.5kg	
Dimension(L*W*H)	584*504*360mm	
Package Dimension(L*W*H)	750*640*460mm	

Double Beam UV Visible Spectrophotometer

SP-MUV25



- Wavelength Range: 190-1100 nm
- Spectral Bandwidth: 2.0 nm
- Photometric Mode: T, A, C, E
- LSI design significantly improves system scalability and reliability

Applications

It meets stringent requirements for high accuracy and reliable measurements, making it suitable for diverse applications in biological research, biotechnology, pharmaceutical analysis, education, environmental protection, food safety, clinical testing, public health, and other fields.



Features



The main unit features an English operating system and a 7-inch color touchscreen display.

Versatile measurement modes, including wavelength scanning, time scanning, multi-wavelength determination, multi-order derivative determination (optional), dual-wavelength, three-wavelength (optional), and DNA/protein analysis (optional), to meet different testing requirements with direct display on the 7-inch screen.



Offers a complete range of expansion accessories. Users can freely select from dozens of peripherals—including micro cuvette holders, long path-length cell holders, temperature-controlled injection systems, or thermal printers—to instantly upgrade a basic testing unit into an all-around laboratory workstation.

Optimized optical design, along with imported light sources and receiver, ensures high performance and reliability.

LSI design significantly improves system scalability and reliability.

Wide wavelength range to satisfy diverse application requirements.

Supports PC control for more precise and flexible measurements, satisfying diverse user requirements.

Features power-off data protection to automatically save measurement parameters and data.

Supports data storage and transfer via an external USB flash drive.

Specifications

Model	SP-MUV25
Wavelength Range	190-1100 nm
Wavelength Accuracy	±0.5 nm
Wavelength Repeatability	0.2 nm
Spectral Bandwidth	2.0 nm
Photometric Accuracy	±0.3% T
Photometric Repeatability	0.2% T
Stray Light	≤0.03% T
Baseline Stability	0.001 A/h @ 500 nm
Photometric Range	-4~4A
Detector	Imported Silicon Photodiode
Display	7-inch touchscreen LCD
Light Source	Imported Deuterium & Tungsten Halogen Lamps
Photometric Mode	T, A, C, E
Power	AC 220 V/50 Hz or 110 V/60 Hz,120 W
N.W.(kg)	16
External Dimensions (W*D*H)	510*390*220 mm

Standard Configuration

Model	SP-MUV25
Spectrophotometer Main Unit	1 set
1 cm Glass Cuvettes	4 pcs
1 cm Quartz Cuvettes	2 pcs
Dust Cover	1 pc
Power Cord (1 m)	1 pc
User Manual	1 pc
Software Suite	1 set

Optional Accessories



8-Position Automatic Cuvette Changer



5-Position Automatic Cuvette Changer



Film Holder Accessory



Rotating Film Holder



Thermal Printer



Water Bath Cuvette Holder



Micro Cuvette Holder



4-Position Adjustable Holder for 50 Mm Pathlength Cuvettes



Circular Tube Holder



Temperature-Controlled Injection System



Specular Reflection Accessory

UV VIS Spectrophotometer Double Beam

SP-LUV1910 SP-LUV1920







Features

Instrument is rich in functions:
The instrument is equipped with a 7-inch large-screen color touch LCD screen, which can perform wavelength scanning, time scanning, multi-wavelength analysis, quantitative analysis, etc., and supports the storage of methods and data files. View and print the map. Easy to use, flexible and efficient.

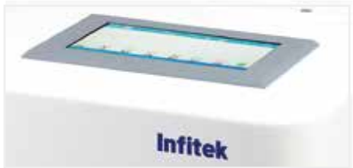
Spectral bandwidth:
The spectral bandwidth of the instrument is 1nm / 2nm, which ensures excellent spectral resolution and accuracy required for analysis.



Features

Long-term stability and reliability:
The design of the optical dual-beam optical system, coupled with real-time digital proportional feedback signal processing, effectively offsets the signal drift of light sources and other devices, ensuring the long-term stability of the instrument baseline.

Ultra-low stray light:
Excellent C-T monochromator optical system, advanced electronic system, to ensure ultra-low stray light level better than 0.03%, to meet the user's measurement needs of high absorbance samples.



High wavelength accuracy:
The high-level wavelength scanning mechanical system ensures the accuracy of wavelengths better than 0.3nm and the repeatability of wavelengths better than 0.1nm. The instrument uses the built-in spectral characteristic wavelengths to automatically perform wavelength detection and correction to ensure long-term wavelength accuracy stability.







Features

Light source replacement is convenient:

The instrument can be replaced without removing the shell. The light source switching mirror supports the function of automatically finding the best position. The in-line deuterium tungsten lamp design does not require optical debugging when replacing the light source.

High-quality devices:

The core devices are made of high-quality imported parts to ensure the stability and longevity of the instrument. For example, the core light source device is derived from the long-life deuterium lamp of Hamamatsu in Japan, which guarantees a working life of more than 2000 hours, greatly reducing the maintenance frequency and cost of daily replacement of the light source of the instrument.

Powerful PC software:

The instrument is connected to the computer via USB. The software supports multiple functions such as wavelength scanning, time scanning, kinetic testing, quantitative analysis, multi-wavelength analysis, etc. There is an optional audit tracking version software provides user authority management, operation traceability, and meet various requirements in different analysis fields such as pharmaceutical companies.



Specifications

Model	SP-LUV1910/SP-LUV1920
Optical System	Double-beam System
Monochromator system	Czerny-Turner monochromator
Wavelength range	190nm~1100nm
Wavelength Accuracy	±0.3nm
Wavelength Reproducibility	≤0.1nm
Spectral bandwidth	1nm(SP-LUV1910) / 2nm(SP-LUV1920)
Photometric Accuracy	±0.002Abs(0~0.5Abs) ±0.004Abs(0.5~1.0Abs) ±0.3%T(0~100%T)
Photometric Reproducibility	≤0.001Abs(0~0.5Abs) ≤0.002Abs(0.5~1.0Abs) ≤0.1%T(0~100%T)
Photometric Range	-0.00~200.0(%T) -4.0~4.0(A)
Stray Light	≤0.03%T (220nm,NaI;360nm,$NaNO_2$)
Baseline Flatness	±0.0008A
Baseline Stability	≤0.0005Abs/h
Noise	≤0.1%T(100%T), ≤0.05%T(0%T), ≤±0.0005A/h(500nm,0Abs,2nmbandwidth)
Baseline Dark Noise	±0.1%T
Scaning speed	High / medium / low / very low
WL scan interval	0.05/0.1/0.2/0.5/1/2 nm
Grating	1200 lines/mm
Detector	Photocell
Display	7-inch large-screen color touch LCD screen
Light source	Hamamatzu Deuterium Lamp，Osram halogen tungsten lamp
Photometric Mode	T/A/Energy
Output	USB-A/USB-B
Power	AC90V~250V，50H/ 60Hz
N.W./G.W.(kg)	24/45
Instrument Dimension(W*D*H)(mm)	600*470*220
Package Dimension (W*D*H)(mm)	800*690*580



UV VIS Spectrophotometer Double Beam

SP-LUV7600





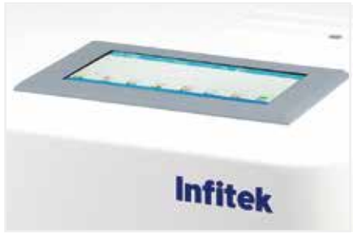


Features

Instrument is rich in functions:
SP-LUV7600 is equipped with a 7-inch large-screen color touch LCD screen, which can perform wavelength scanning, time scanning, multi-wavelength analysis, quantitative analysis, and supports the storage of methods and data files. View and print the map. Easy to use, flexible and efficient. SP-LUV7500 is not equipped with a screen and is only used for computer operation.

Ultra-low stray light:
Excellent C-T monochromator optical system, advanced electronic system, to ensure ultra-low stray light level better than 0.03%, to meet the user's measurement needs of high absorbance samples.





Features

Continuously variable spectral bandwidth

The instrument's spectral bandwidth is continuously variable from 0.5nm to 6nm, the minimum bandwidth is 0.5nm, and the variable interval is 0.1nm, which not only ensures excellent spectral resolution, but also provides a variety of bandwidth options, which can better match the analysis and test targets.

High-quality devices

The core devices are made of high-quality imported parts to ensure the stability and longevity of the instrument. For example, the core light source device is derived from the long-life deuterium lamp of Hamamatsu in Japan, which guarantees a working life of more than 2000 hours, greatly reducing the maintenance frequency and cost of daily replacement of the light source of the instrument.

Long-term stability and reliability

The design of the optical dual-beam optical system, coupled with real-time digital proportional feedback signal processing, effectively offsets the signal drift of light sources and other devices, ensuring the long-term stability of the instrument baseline.





Features

High wavelength accuracy

The high-level wavelength scanning mechanical system ensures the accuracy of wavelengths better than 0.3nm and the repeatability of wavelengths better than 0.1nm. The instrument uses the built-in spectral characteristic wavelengths to automatically perform wavelength detection and correction to ensure long-term wavelength accuracy stability.

Light source replacement is convenient

The instrument can be replaced without removing the shell. The light source switching mirror supports the function of automatically finding the best position. The in-line deuterium tungsten lamp design does not require optical debugging when replacing the light source.

Powerful PC software:

The instrument is connected to the computer via USB. The software supports multiple functions such as wavelength scanning, time scanning, kinetic testing, quantitative analysis, multi-wavelength analysis, etc. There is an optional audit tracking version software provides user authority management, operation traceability, and meet various requirements in different analysis fields such as pharmaceutical companies.

Specifications

Model	SP-LUV7600
Optical system	Double-beam System
Monochromator system	Czerny-Turner monochromator
Wavelength range	190nm~1100nm
Wavelength accuracy	±0.3nm
Wavelength reproducibility	≤0.1nm
Spectral bandwidth	0.5~6.0nm
Photometric accuracy	±0.002Abs(0~0.5Abs)、±0.004Abs(0.5~1.0Abs)、±0.3%T(0~100%T)
Photometric reproducibility	≤0.001Abs(0~0.5Abs)、≤0.002Abs(0.5~1.0Abs)、≤0.1%T(0~100%T)
Photometric range	-0.00~200.0(%T) -4.0~4.0(A)
Stray light	≤0.03%T(220nm,NaI;360nm,$NaNO_2$)
Baseline flatness	±0.0008A
Baseline stability	≤0.0005Abs/h
Noise	≤0.1%T(100%T),≤0.05%T(0%T),≤±0.0005A/h(500nm,0Abs,2nm bandwidth)
Baseline Dark Noise	±0.1%T
Scaning speed	High / medium / low / very low
WL scan interval	0.05/0.1/0.2/0.5/1/2 nm
Grating	1200 lines / mm
Detector	Photocell
Display	7-inch large-screen color touch LCD screen
Light source	Hamamatsu long-life deuterium lamp and long-life halogen tungsten lamp
Photometric Mode	T/A/Energy
Output	USB-A/USB-B
Power	AC90V~250V, 50H/ 60Hz
N.W./G.W.(kg)	24/50
Instrument Dimension (W*D*H)(mm)	600*470*220
Package Dimension (W*D*H) (mm)	800*670*570





UV VIS Spectrophotometer Double Beam

SP-MUV9000S





Features

Lightpath design: double beam

SP-MUV9000 series' double light path design can prevent circuit fluctuation and stray light to ensure the stability of the instrument.

Long path light design

SP-MUV9000 series' unique 520mm long light path design greatly improved resolution and the bandwidth can reach 0.5nm.

Multi functions on Spectrophotometer

Multi functions operated directly on the spectrophotometer and display the test results' curve and data: wavelength scanning, standard curve, kinetics, multi-wavelength scanning, DNA/Protein test.

Perfect calibration system

All baseline, wavelength, dark current can be calibrated automatically to keep good running conditions.

Description

- SP-MUV9000 series are widescreen double beam spectrophotometers.
- They adopt a double beam long light path design to ensure stability and accuracy; They are the best choice of high-quality spectrophotometers.





6 inches LCD display

SP-MUV9000 series have a 6 inches LCD display to show results and curves directly on the screen.

16mm optical base

SP-MUV9000 series use a rigid 16mm diecast aluminim base as their optical mount to ensure the stability and reliability.

Data output

SP-MUV9000 series are equipped with USB port to connect with a PC, the softwore comes standard with the instrument.

Powerful software functions

Multi-functions like spectrum scanning, standard curve, kinetics, multi-wavelength scanning, DNA/Protein testing can be operated directly on the PC.



Specifications

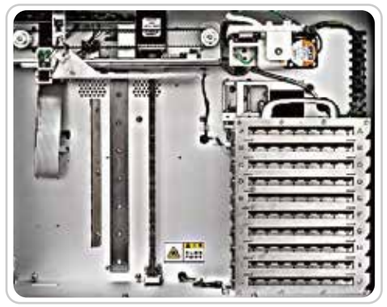
Model	SP-MUV9000S
Optical System	Double-Beam System
Wavelength Range	190-1100nm
Wavelength Accuracy	±0.1nm(D2 656.1nm),±0.3nm@all
Wavelength Repeatability	≤0.1nm
Bandwidth	0.5, 1.0, 2.0, 4.0 nm
Photometric Accuracy	±0.2%T(0-100%T)
Photometric Repeatability	≤0.1%T(0-100%T)
Photometric Range	-0.3-3A
	0-200%T
	0-9999C
Stray Light	≤0.03%T @ 220nm,360nm
Baseline Flatness	± 0.001A/h
Stability	± 0.0003A/h @ 500nm
Drifting	± 0.0005A/h
Grating	1200 Lines/mm
Detector	Silicon Photodiode
Display	320*240 Dots LCD
Light Source	Tungsten Lamp&deuterium Lamp
Output	USB
Printer Port	Parallel Port
Power	AC 220V/50Hz or 110V/60Hz
Weight(kg)	32/32/34
Dimension(L*W*H)(mm)	625*430*206

Standard Accessories

Description	Quantity	Unit
Spectrophotometer	1	set
1cm Glass cuvette	4	pcs
Power cord	1	pcs
User's Manual	1	pcs
1cm quartz cuvette	2	pcs
Dust Cover	1	pcs

Direct Mercury Analyzer

DMA-5 DMA-5P



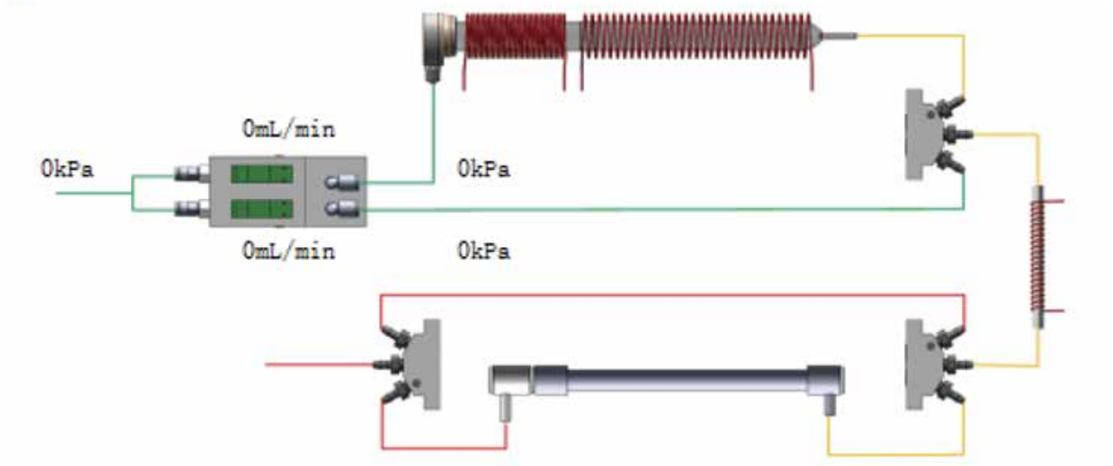


Description

- The DMA-5 Series Direct Mercury Analyzer is suitable for the analysis and detection of mercury content in various types of solid, liquid and gas samples; The instrument uses the principle of electrothermal evaporation, gold amalgam enrichment, and cold vapor atomic absorption spectroscopy (CVAAS). There is no need for tedious and complex sample pretreatment steps, and it effectively avoids problems such as cross contamination, memory effects, and environmental impacts that occur in traditional mercury element analysis processes.

Technical Principle

In an oxygen atmosphere, the instrument completes automatic sampling, and performs drying and thermal decomposition in an ashing furnace. The decomposed products are further carried into the catalytic combustion tube by oxygen, and the mercury ions are catalytically reduced to mercury atoms, which are then selectively captured by the amalgamation tube to form gold amalgam. As the amalgamation module heats up rapidly, elemental mercury (Hg) is released and carried by the carrier gas to a cold atomic absorption detector with a single wavelength (253.7nm) for analysis and detection. The amalgamation tube, a highly selective atomic trap, effectively separates the complex matrix in the sample from the elements to be analyzed, thereby completing the direct detection of mercury in the sample. The cold atomic absorption detector uses a measurement method in which multiple specifications of absorption cells are connected in series to obtain a wider detection range.



Applications



Suitable for laboratories in food, environment, medicine, agriculture, petrochemical, mining, nuclear power plants, coal-fired power plants, energy, etc.

Features and Advantages

High repeatability, stability, and sensitivity

The ashing furnace and catalytic combustion furnace are both high-precision PID temperature control systems, which can ensure the consistency of sample pretreatment and eliminate signal drift caused by fluctuations in ambient temperature;

With advanced pre-enrichment function, it can achieve more than 40 times enrichment capacity for ultra-low content samples;

High-efficiency amalgamation tube, using nano-gold-plated quartz sand, has high efficiency in capturing trace amounts of mercury, can achieve multiple captures of samples, greatly improves the sensitivity of the instrument, and ensures rapid absorption and release of mercury;

The detection system automatically switches the calibration curve according to the sample concentration to ensure the accuracy of the calculation results;

Double beam light source correction system, dynamic drift correction and reference beam are used to eliminate the influence of light source fluctuations on measurement results;

Effectively avoid cross contamination and memory effect

Amalgamation system with constant power heating can quickly and accurately reach the required temperature, avoiding cross contamination and memory effect;

The detection cell temperature range is from room temperature to 150°C, which effectively removes water vapor interference and avoids data errors caused by the memory effect of mercury;

Equipped with high mercury protection function, the system automatically and quickly cleans after high-content samples detection to avoid cross contamination;

Low cost and good user experience

Independently designed catalytic combustion tube and amalgamation tube can be replaced separately to reduce the cost of use;

No water removal consumables, reducing usage costs while the analysis results are not affected by changes in consumable performance;

Flexible and convenient to use

The sample tray is easy to switch and adjust, and no power-off is required. Emergency samples can be inserted for analysis at any time;

The three-dimensional injection structure can realize automatic injection of 100-position samples, truly realizing unattended operation for more than 8 hours;

Strong scalability to accommodate multiple application scenarios

Optional sample pretreatment systems include electrothermal decomposition, stannous chloride reduction, gas capture sampling, direct gas sampling, etc.;

Supports different liquid sample sampling volumes (5mL~250mL);

Supports high and low concentration switching (mercury trap module);

Upgradable gaseous mercury detection function, supporting gas bag and adsorption tube sample injection;

Can be connected to a standard interface balance to automatically import weighing results with one click, avoiding manual recording errors;

Specifications

Model	DMA-5	DMA-5P
Measurement Range	Long cell: 0~40ng, Short cell: 40~1000ng	Ultra-long cell: 0~10ng, Long cell: 0~40ng, Short cell: 40~1000ng
Detection Limit	0.005ng	0.001ng
Analysis Time	5mins/sample	
Light Source	Low pressure mercury lamp	
Wavelength	253.7nm	
Detector	Silicon-UV Photodetector	
Repeatability	RSD＜1.0%@1ng	
Sample Injection Volume	1500mg (solid), 1500μL(liquid)	
Temp. Range of Catalytic Combustion Furnace	RT.~1000℃	
Power Range of Mercury Trap	0~100W	
Temp. Range of Detection Cell	RT.~150℃	
Autosampler Capacity	100 positions (10*10)	
Sample Boat Material	Quartz boat/Nickel boat	