



A Professional Manufacturer

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UV/VIS SPECTROPHOTOMETER

Distributor

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SHANGHAI MAPADA INSTRUMENTS CO., LTD



## >> MAPADA INTRODUCTION

SHANGHAI MAPADA INSTRUMENTS CO., LTD. is a high-tech enterprise who devotes to manufacturing advanced, high quality and full range of UV/VIS Spectrophotometer. In nowadays, Mapada has provided the market with Single beam & Double beam, Fixed Bandwidth & Variable Bandwidth, Quantitative Styles & Qualitative Styles. All the instruments can communicate to the PC and controlled by the software. Qualified professional staff ensures the company's continuous and fast development.



## >> SPECTROPHOTOMETER SELECTION GUIDE



Model	Optical System	Lamp sources	Wavelength Range	Band Width	Comments	
V-1100D	Single Beam	Tungsten Lamp	325-1000 nm	4 nm	For students and teaching labs	
V-1200		Tungsten Lamp	325-1000 nm	4 nm		
UV-1100		Tungsten & Deuterium Lamp	200-1000 nm	4 nm		
UV-1200		Tungsten & Deuterium Lamp	200-1000 nm	4 nm		
V-1600/PC		Single Beam, scanning function	Tungsten Lamp	320-1100 nm	4 nm	Ideal for QC labs
UV-1800/PC			Tungsten & Deuterium Lamp	190-1100 nm	4 nm	
V-1800/PC			Tungsten Lamp	325-1100 nm	2 nm	Laboratory workshop
UV-1800/PC			Tungsten & Deuterium Lamp	190-1100 nm	2 nm	
V-3000/PC	Tungsten Lamp		320-1100 nm	4 nm		
UV-3000/PC	Tungsten & Deuterium Lamp		190-1100 nm	4 nm		
UV-3100/PC	Double Beam	Tungsten & Deuterium Lamp	190-1100 nm	2 nm	Laboratory workshop	
UV-3200/PC		Tungsten & Deuterium Lamp	190-1100 nm	1.8 nm		
UV-3200PCS		Tungsten & Deuterium Lamp	190-1100 nm	0.5, 1, 2, 4, 5 nm		
UV-3300/PC	Double Beam	Tungsten & Deuterium Lamp	190-1100 nm	1 nm	Laboratory workshop	
UV-6100/PC		Tungsten & Deuterium Lamp	190-1100 nm	1.8 nm		
UV-6300/PC		Tungsten & Deuterium Lamp	190-1100 nm	1 nm		
UV-6100PCS	Double Beam	Tungsten & Deuterium Lamp	190-1100 nm	0.5, 1, 2, 4, 5 nm	Laboratory workshop	

Note: 1. "PC" means with PC software. All products have CE certificate. Standard central beam height: 15mm.

2. All products have safety certifications (CE 2006/95/EC Report No.: 15027384 001).

3. All spectrophotometers have products Liability Insurance.

4. M. Wave Professional Software: included in UV-1600/PC, V-1600/PC, UV-1800/PC, V-1800/PC.

5. UV Analyst Software: included in V-3000/PC, UV-3000/PC, UV-3100/PC, UV-3200/PC, UV-3200PCS, UV-3300/PC, UV-6100/PC, UV-6300/PC, UV-6100PCS.



● V-1100D **DISCONTINUED**

V-1100D is the only model of manually setting wavelength, but precise design and high quality components ensures excellent performance. It is widely used in high schools and colleges for general analysis and experiments.

● Specifications

Model	V-1100D
Wavelength Range	325-1000nm
Spectral Bandwidth	4nm
Optical System	Single Beam, Grating 1200 lines/mm
Wavelength Accuracy	±2nm
Wavelength Repeatability	1nm
Photometric Accuracy	±0.5%T or ±0.004A@1A
Photometric Range	0-200%T, -0.3 - 3A, 0-1999Conc
Stray Light	0.2%T
Stability	±0.004A/h @500nm
Display	128*64 LCD
Photometric Mode	T, A, C, F
Detector	Silicon Photodiode
Standard Cell Holder	4-position 10mm cell changer
Sample Compartment	Standard 10mm pathlength cuvette
Light Source	Tungsten lamp
Output	USB Port & Parallel Port (Printer)
Power Requirement	AC 85V-265V 50/60Hz
Dimensions(L*W*H)	440*387*180mm
Weight	8kg

● Features

1. Large LCD Screen (128\*64 Dots).
2. Wavelength can be read out from the screen directly.
3. Auto Zero and Blank.
4. Parallel port, printed directly.
5. Large sample compartment, it can accommodate 5-100mm path length cuvettes with optional holders.
6. Pre-aligned design ensures the user can change lamp conveniently.
7. Optional PC software M. Wave Basic based on Windows can expand the applications to Standard Curve & Kinetics.
8. High quality silicon photometric diode detector and 1200 lines/mm grating ensure high accuracy and precision.

● V/UV-1200, UV-1100

V/UV-1200, UV-1100 spectrophotometers are the ideal instrument for education and QC laboratories. Using your standard sample solutions, you can get a standard curve on the large LCD screen. They are widely used in colleges and enterprises for general quantitative analysis and experiments.

● Functions

1. Basic Mode: Absorbance, Transmittance, Concentration.
2. Quantitative.

2.1 Standard Curve (Only for V-1200, UV-1200)

Maximum of 9 standard samples can be used to establish a standard curve. The curve equation will display on the screen simultaneously with the curve. You can test your unknown concentration solutions by the curve.

2.2 Coefficient Methods (Only for V-1200, UV-1200)

If you have known the coefficients K&b of the formula C=K\*A+b, you can input the value directly by button, then test your unknown solution.

● Specifications

Model	V-1200	UV-1200	UV-1100
Wavelength Range	325-1000nm	200-1000nm	
Spectral Bandwidth	4nm		
Optical System	Single Beam, Grating 1200 lines/mm		
Wavelength Accuracy	±2nm		
Wavelength Repeatability	0.8nm	1nm	
Photometric Accuracy	±0.5%T or ±0.004A@1A		
Photometric Range	0-200%T, -0.3 - 3A, 0-9999Conc		
Stray Light	0.2%T		
Stability	±0.002A/h @500nm		
Detector	Silicon Photodiode		
Standard Cell Holder	4-position 10mm cell changer		
Sample Compartment	Standard 10mm pathlength cuvette		
Light Source	Tungsten lamp	Tungsten & Deuterium lamp	
Output	USB Port & Parallel Port (Printer)		
Power Requirement	AC 110/220V 50/60Hz		
Dimensions(L*W*H)	440*387*180mm		
Weight	12kg	14kg	

● Features

1. Large LCD screen (128\*64 Dots).
2. Can display total 50 groups of data, 3 groups per screen. Can display standard curve and the curve equation.
3. System can also save the test results. Total 200 groups of data and 200 standard curves can be saved; it is convenient for check and reload.
4. Data can be restored after a sudden power cut.
5. Auto setting wavelength
6. Tungsten lamp & Deuterium lamp can be turned on/off individually to extend lifetime.
7. Pre-aligned design makes it convenient to change lamps.
8. Large sample compartment, it can accommodate 5-100mm path length cuvettes with optional holders. A variety of optional accessories are available.
9. The optional application software *M. Wave Professional* provides complete control of the spectrophotometer through the Built-in USB port. You can achieve the following functions:
  - I. Quantitative; II. Kinetics; III. Wavelength Scan;
  - IV. Multi Wavelength; V. DNA-Protein.





#### ● V-1600/UV-1600/V-1800/UV-1800

1600/1800 Series are simple-to-use instruments with advanced performance, its stray light is only 0.05%T. The local stand-alone software provides functions of Photometry, Quantitative Test, Kinetics and System Utilities functions.

#### ● Features

1. Large LCD screen (128\*64 Dots).
2. System can also save the test results, total 200 groups of data 200 standard curves can be saved in the RAM. Convenient for check and reload.
3. Data can be restored after a sudden power cut.
4. Auto setting wavelength.
5. Tungsten lamp & Deuterium lamp can be turned on/off individually to extend lifetime.
6. The optional application software *M. Wave Professional* provides complete control of the spectrophotometer from a computer through the Built-in USB port. It can expand to the following functions: Quantitative, Kinetics, Wavelength Scan, Multi-wavelength & DNA/Protein Test.
7. Pre-aligned design makes it convenient to change lamps.
8. Large sample compartment, it can accommodate 5-100mm path length cuvettes with optional holders. A variety of optional accessories are available.

#### ● Functions

1. Photometry  
Absorbance, Transmittance or Energy measurements. It can display and save 200 groups of data, 5 groups per screen.
2. Quantitative  
2.1. Standard Curve  
At most, 9 standard samples can be used to establish a standard curve. The curve and its equation will be displayed on the screen simultaneously. You can measure your unknown concentration solutions by the curve.  
Total 200 curves can be saved in the Memory.
- 2.2. Coefficient Method  
If the coefficient  $k$  &  $b$  in the formula  $C=k \cdot a + b$  is known, you can input them directly by the button, and then test your unknown solutions.
3. Kinetics  
This mode may be used for time course scanning or reaction rate calculations. Abs. VS Time graphs is displayed on the screen in real time. It can most record 1000 data.
4. System Utilities  
Lamp management, time & date set, obtain dark current, calibrate wavelength, default system, and some other system functions.



#### ● Specifications

Model	V-1600 V-1600PC	V-1800 V-1800PC	UV-1600 UV-1600PC	UV-1800 UV-1800PC
Wavelength Range	320-1100nm		190-1100nm	
Spectral Bandwidth	4nm	2nm	4nm	2nm
Optical System	Single Beam, Grating 1200 lines/mm			
Wavelength Accuracy	±0.5nm			
Wavelength Repeatability	0.3nm			
Photometric Accuracy	±0.5%T or ±0.004A@1A			
Photometric Range	0-200%T, -0.3 - 3A, 0-9999Conc			
Stray Light	0.05%T@360nm		0.05%T@220nm, 360nm	
Stability	±0.001A/h@500nm			
Display	Graphic LCD (128*64 dots)			
Keyboard	22 Membrane keypad			
Standard Cell Holder	Standard 10mm pathlength cuvette			
Sample Compartment	4-position 10mm cell changer			
Light Source	Tungsten lamp		Tungsten & Deuterium lamp	
Output	USB Port & Parallel Port (Printer)			
Power Requirement	AC 110/220V 50/60Hz			
Dimensions(L*W*H)	478*373*187mm			
Weight	12kg		14kg	

#### ● Main Menu

<input checked="" type="radio"/> Basic Mode	
<input type="radio"/> Quantitative	
<input type="radio"/> Kinetics	08:00
<input type="radio"/> Utility	01/01

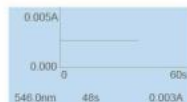
Move the cursor on the function menu you want, then press ENTER key to go into the corresponding interface.

#### ● Basic Mode

546.0nm		0.001A
No.	Wl.	Abs.
1	230.0	0.001
2	340.0	0.000
3	450.0	0.002
4	540.0	0.000
5	620.0	0.003

Absorbance, Transmittance or Concentration measurements. It can display and save 200 groups of data, 5 groups per screen.

#### ● Kinetics



This mode may be used for time course scanning or reaction rate calculations. Abs. VS Time graphs is displayed on the screen in real time. It can most record 1000 data.

#### ● Quantitative



1. Standard Curve  
At most 9 standard samples can be used to establish a standard curve. The curve and its equation will be displayed on the screen simultaneously. You can measure your unknown concentration solutions by the curve. Total 200 curves can be saved in the RAM.
2. Coefficient Method  
If you have known the coefficient  $K \cdot a + b$  is known, you can input them directly by the button, and then test your unknown solutions.

#### ● System Utilities

<input checked="" type="checkbox"/> Utility	
<input checked="" type="radio"/> D2 Lamp	On/Off
<input type="radio"/> W Lamp	On/Off
<input type="radio"/> Printer	

Lamp management, time & date set, obtain dark current, calibrate wavelength, default system, and some other system functions.



• Features

- 1.Fixed or variable slits (Bandwidths).
- 2.Sealed, solvent-resistant tactile keypad with alpha-numeric entry for file names and units.
- 3.Pre-aligned deuterium lamp for easy lamp replacement. The status of the lamps may be monitored.
- 4.Powerful built-in program or PC Windows based software UV-Vis Analyst including sophisticated utility programs.
- 5.Data Download-to-PC software for stand-alone models (Optional).
- 6.Real-time clock for date and time stamping of results.
- 7.Data can be saved by USB memory device directly.



**New Model!**

• Specifications

Model	V-3000 V-3000PC	UV-3000 UV-3100PC	UV-3100 UV-3100PC	UV-3200 UV-3200PC	UV-3300 UV-3300PC
Wavelength Range	320-1100nm	190-1100nm			
Spectral Bandwidth	4nm	2nm	1.8nm	0.5/1/2/4.5nm	1nm
Optical System	Single Beam, Grating 1200 lines/mm				
Wavelength Accuracy	±0.5nm		±0.3nm		
Wavelength Repeatability	0.3nm				
Scan Speed	Hi, MED., LOW., MAX. 3000nm/min				
Photometric Accuracy	±0.5%T or ±0.004A@1A ±0.3%T or ±0.003@1A				
Photometric Range	0-200%T, -0.3 - 3A, 0-9999Conc				
Stray Light	0.05%T@220nm, 340nm				
Stability	0.008A/h @500nm		0.0008A/h @500nm		
Display	5 inches LCD (320*240 dots)				
Baseline Flatness	±0.002A		±0.0015A		
Standard Cell Holder	Standard 10mm pathlength cuvette				
Light Source	Tungsten		Tungsten & Deuterium lamp (Pre-aligned)		
	USB Type A port for USB memory device (Right side)				
Output	USB Type B port for optional computer connectivity (Back)				
	Parallel port for printer				
Power Requirement	AC 110/220V 50/60Hz				
Dimensions(L*W*H)	491*365*180mm		579*428*198mm		
Weight	14kg		20kg		

• Mapada UV/V-3xxx Scanning Spectrophotometer

UV/V-3xxx Series is an advanced single beam design consisting of 9 models. They differ in bandwidth and wavelength accuracy, but provide excellent performance for measurements.

They are suitable for clinical, pharmaceutical and bio-chemical applications, as well as routine applications such as quantitative analysis, kinetics, Wavelength Scan, Multi-Wavelength, and DNA/Protein analysis. The memory is 32K.

UV-Vis Analyst software Based Microsoft Windows makes these instruments versatile. All instruments provide excellent performance for measurements. They are divided into in two types : PC models and stand-alone models.

- 1.In Stand-alone models, all software methods are included as built-in standard, this eliminates the need of software.
- 2.Online software update via internet.
- 3.Data can be downloaded.
- 4.The PC models come standard with Windows based application software UV-Vis Analyst.



Brief Introduction



All methods are included as built-in standard; this eliminates the need of software. Online software update via internet.

The local control software includes functions such as: Photometry, Quantitative, Wavelength Scan, Kinetics, DNA/Protein, Multi-wavelength and System Utilities.

Standard Curve



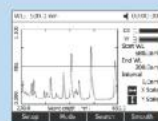
Up to 10 standard solutions may be used to establish calibration equation curve. There is a choice of four methods for fitting a curve through the calibration points: Linear fit, Linear fit through zero, square fit and cubic fit.

Multi-Wavelength



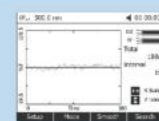
Up to 10 wavelengths may be centered, allowing the measurement of multiple wavelengths on a series of Samples.

Wavelength Scan



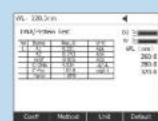
The Wavelength Scan intervals are 0.1, 0.2, 0.5, 1, 2, 5nm, and High, Medium and Low scan speeds are available. Scan speeds vary from 100 to 2000 nm/min. Wavelengths are scanned from high to low so that the instrument stand by at high wavelength. This minimizes the degradation of UV sensitive samples. Precise control of filter and lamp changes means that their effects are not seen on the final scan. Post-run manipulation includes re-scaling axes, curve tracking and peak picking.

Kinetics



This mode may be used for scanning time course or reacting rate calculations. Abs. vs. time graphs is displayed on the screen in real time. Wait time and measurement time up to 12 hours may be entered with time intervals of 0.5, 1, 2, 5, 10, 30 seconds and 1 min. Post-run manipulation includes re-scaling, curve raking and selection of the part of the curve required for the rate calculation. Rate is calculated using a linear regression algorithm before multiplying by the entered factor.

DNA/Protein Test (Only for UV-3xxx)



Concentration and DNA purity are calculated by Absorbance ratios 260nm/280nm or 260nm/230nm with optional subtracted absorbance at 320nm DNA Concentration=62.9\*A<sub>260</sub>-36.0\*A<sub>280</sub> Or 49.1\*A<sub>260</sub>-3.48\*A<sub>280</sub> Protein Concentration =1552\*A<sub>260</sub>-757.3\*A<sub>280</sub> Or 183\*A<sub>260</sub>-75.8\*A<sub>280</sub> Other wavelengths and factors may be entered.



• Features

- 1 Fixed or variable slits (Bandwidths)
- 2 For Stand-alone models, all software methods are included as built-in standard; this eliminates the need of software.
- 3 Online software upgrading via internet helps to keep it updated.
- 4 Data Download-to-PC software expands the data storage to unlimited.
- 5 The stand-alone model has 5 inch screen and the PC model has UV-Vis Analyst software.
- 6 Data can be saved by USB memory device directly.

Stand-alone models of UV-6 Series have the same functions as UV-3 series, see next page for details.

• Specifications

Model	UV-6100PC	UV-6300PC	UV-6100PCS
Wavelength Range	190-1100nm		
Spectral Bandwidth	1.8nm	1nm	0.5/1/2/4/5nm
Optical System	Double Beam, Grating 1200 lines/mm		
Wavelength Accuracy	±0.3nm		
Wavelength Repeatability	0.2nm		
Scan Speed	Hi, MED., LOW., MAX., 300nm/min		
Photometric Accuracy	±0.3%T or ±0.003A@1A		
Photometric Range	0-200%T, -0.3 - 3A		
Stray Light	0.04% @320nm, 360nm		
Stability	0.0003A/h @500nm		
Display	5 inches LCD (320*240 dots)		
Baseline Flatness	±0.0005A		
Standard Cell Holder	Standard 10mm single cell holder (2 pcs)		
Sample Compartment	Standard 10mm pathlength cuvette		
Light Source	Tungsten & Deuterium lamp (Pre-aligned)		
Output	USB Type A port for USB memory device (Right side) USB Type B port for optional computer connectivity (Back) Parallel port for printer		
Power Requirement	AC 110/220V 50/60Hz		
Dimensions(L*W*H)	589*428*200mm		
Weight	22kg		

• Mapada UV-6xxx Double Beam Spectrophotometer

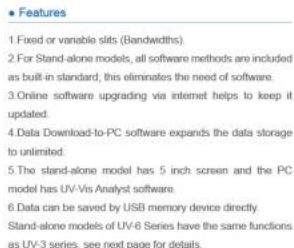
UV-6 Series is an advanced double beam design consisting of 3 models.

UV-6100PC with 1.8nm fixed bandwidth.

UV-6300PC with 1.0 fixed bandwidth.

UV-6100PCS with variable bandwidth: 0.5/1/2/4/5nm.

The two detectors measure sample and reference respectively and simultaneously for optimizing measurement accuracy. They provide excellent performance for measurements in the range of 190 to 1100nm, the memory is 32K. They are suitable for pharmaceutical, biochemical and clinical lab applications as well as routine applications such as quantitative analysis, kinetics, wavelength scan, multiple components and DNA/Protein. PC Windows application software make these instruments versatile. All instruments provide excellent performance for measurements.



Brief Introduction	Standard Curve	Multi-Wavelength
<p>All methods are included as built-in standard; this eliminates the need of software. Online software update via internet.</p> <p>The local control software includes functions such as: Photometry, Quantitative, Wavelength Scan, Kinetics, DNA/Protein, Multi-wavelength Test and System Utilities.</p>	<p>Up to 10 standard solutions may be used to establish calibration equation curve. There is a choice of four methods for fitting curve through the calibration points: Linear fit, Linear fit through zero, square fit and cubic fit.</p>	<p>Up to 10 wavelengths may be centered, allowing the measurement of multiple wavelengths on a series of Samples.</p>
Wavelength Scan	Kinetics	DNA/Protein Test
<p>The Wavelength Scan intervals are 0.1, 0.2, 0.5, 1, 2, 5nm, and High, Medium and Low scan speeds are available. Scan speeds vary from 100 to 300 nm/min. Wavelengths are scanned from high to low so that the instrument stand-by at high wavelength. This minimizes the degradation of UV sensitive samples. Precise control of filter and lamp changes means that their effects are not seen on the final scan. Post-run manipulation includes re-scaling axes, curve tracking and peak picking.</p>	<p>This mode may be used for scanning time course or reading rate calculations. Abs. VS Time graphs is displayed on the screen in real time.</p> <p>Wait time and measurement time up to 12 hours may be entered with time intervals of 0.5, 1, 2, 5, 10, 30 seconds and 1 min.</p> <p>Post-run manipulation includes re-scaling, curve tracking and selection of the part of the curve required for the rate calculation. Rate is calculated using a linear regression algorithm before multiplying by the entered factor.</p>	<p>Concentration and DNA purity are calculated by Absorbance ratios: 260nm/280nm or 260nm/230nm with optional subtracted absorbance at 320nm. DNA Concentration = <math>62.9A_{260}/36.0A_{280}</math> Or <math>49.1A_{260}/3.48A_{230}</math>. Protein Concentration = <math>1552A_{260}/757.3A_{280}</math> Or <math>183A_{260}/75.8A_{230}</math>. Other wavelengths and factors may be entered.</p>

• UV-1150/V1150

UV-1150/V1150 is the only model with manual wavelength setting, but its precise design and high quality components ensure excellent performance. It is widely used in high schools and colleges for general analysis and experiments.



• Features

- 1.1200 l/mm grating and 16 bit high resolution A/D converter ensure higher accuracy;
- 2.Self-calibration upon start-up;
- 3.Automatic wavelength setting, automatic blanking;
- 4.High resolution TFT color LCD screen;
- 5.Combination of rotary encoder and membrane keyboard, easy to switch mode and set parameters;
- 6.Wide sample room, suitable for 5 ~ 100 mm sample cell holder and other accessories;
- 7.Connect printers to output measurement results directly;
- 8.Connect PC via USB, and perform spectrum scanning;
- 9.USB firmware upgrade online

• Functions

- 1.Absorbance (A) : Measure absorbance and print results.
- 2.Transmittance (T) : Measure transmittance and print result.
- 3.Factor (F) : Input Factor K,B to measure concentration and print results.
- 4.Energy (E) : Measure energy and set amplifier gain.
- 5.Concentration (C) : Use standard samples to measure concentration and print results.

• Specifications

Model	V-1150	UV-1150
Optical System	Single beam	
Light source	Tungsten lamp	Tungsten lamp, Deuterium lamp
Bandwidth	4 nm	
Wavelength range	325 ~ 1050 nm	198~1050nm
Wavelength accuracy	±1.5 nm	
Wavelength reproducibility	±0.5 nm	
Wavelength display	0.5 nm	
Wavelength shift mode	Auto	
Photometric range	-0.3 ~ 3A, 0 ~ 200 %T, 0 ~ 9999 C	
Photometric accuracy	±0.5 %T or ±0.006 A @ 1A	
Photometric reproducibility	±0.2 %T or ±0.003 A @ 1A	
Noise	±0.002 A @ 500 nm	
Drift	±0.004 A/h @ 500 nm, after warming up for 2 hours	
Stray light	±0.2%T @ 340 nm ±0.2%T @ 220, 340nm	
Measurement mode	Absorbance (A), Transmittance (T), Concentration (C), Factor (F), Energy (E)	
Detector	Silicon Photodiode	
Cell holder	10 mm 4-cell holder	
Keyboard	Membrane keyboard, rotary encoder	
Display	3.5 inch TFT LCD (resolution: 480*320)	
Interface	RS-232 (serial port) *1 (printer) USB-B*1 (PC)	
Power supply	100 ~ 240 V AC, 50/60 Hz, 55 W	100 ~ 240 V AC, 50/60 Hz, 90 W
Dimensions	470 (W) *345 (D) *180 (H) mm	
Weight	8 kg	9 kg

Main Menu



Rotate the knob to select the icon on the screen.

Absorbance



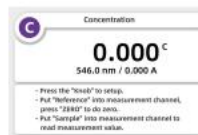
Absorbance measurement. Measure the absorbance value of the sample.

Transmittance



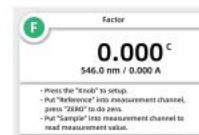
Transmittance measurement. Measure the transmittance of the sample.

Concentration



The calibration standard sample measures the unknown sample concentration. By measuring the absorbance value of a standard sample and entering the corresponding concentration, a standard curve is established with the origin, and the concentration of the unknown sample is measured using the standard curve.

Factor



Enter the equation coefficient to measure the concentration. A standard curve is established by inputting the coefficients K and B of the standard curve equation C=K\*A+B, and the standard curve is used to measure the concentration of the unknown sample.

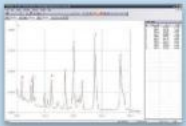
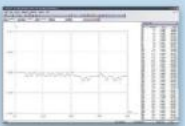
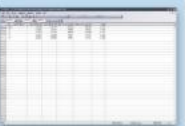
Energy



The calibration standard sample measures the unknown sample concentration. By measuring the absorbance value of a standard sample and entering the corresponding concentration, a standard curve is established with the origin, and the concentration of the unknown sample is measured using



• M. Wave Professional PC-Control Software

Brief Introduction	Quantitative	Multi-wavelength Test
<p>M. Wave Professional application software is based Microsoft Windows, the instrument can be controlled by PC software through the built-in USB communication port, which makes the UV/Vis Series with more functions and easy to control.</p> <p>Wavelength Scan</p>  <p>Automatically records peaks and valleys. The quantity of the curves stored is unlimited. Post-run manipulation and processing includes:</p> <ol style="list-style-type: none"> <li>1. Re-scaling axes, curve.</li> <li>2. Smoothing, combination, zooming, overlap...</li> <li>3. 1 to 4 derivative.</li> </ol>	<p>Use up to 20 standards to establish standard curve. Three methods for fitting a curve:</p> <ol style="list-style-type: none"> <li>1. Linear fit.</li> <li>2. Linear through zero.</li> <li>3. Square fit.</li> </ol> <p>Kinetics</p>  <p>The Kinetics mode may be used for scanning time course or reacting rate calculations. Abs. Vs. Time graphs is displayed.</p>	<p>You can set up to 20 wavelengths to measure a sample.</p> <p>DNA/Protein Test</p>  <p>Optional two formulas:            DNA Concentration=<math>62.9 \cdot A_{260} - 36.0 \cdot A_{280}</math> Or <math>49.1 \cdot A_{260} - 75.6 \cdot A_{280}</math>            You can also enter other wavelengths and factors to calculate.</p>

• UV Analyst PC-Control Software

The PC application software offers	Quantitative Test (Standard curve)	Multi-wavelength
<p>1. Photometric Mode            2. Quantitative test (Standard curve)            3. Wavelength Scan            4. Kinetics            5. DNA/Protein            6. Multi-Wavelength            7. System Utility</p> <p>UV-Vis Analyst for UV/V-3 &amp; UV-6 Series            The PC application software UV-Vis Analyst takes the best features of the stand-alone version plus more powerful data processing, expanded data collecting, and storage capability. It comes standard with UV3/6 series PC models and is optional to stand-alone models.</p> <p>Wavelength Scan</p>  <p>Automatically record peaks and valleys. The quantity of channels is unlimited, you can simultaneously store as many as desired. Post-run manipulation and processing includes:</p> <ol style="list-style-type: none"> <li>1. Re-scaling axes, curve.</li> <li>2. 1 to 4 derivative.</li> <li>3. Smoothing, combination, zooming, overlap.</li> </ol>	<p>Use up to 20 standards to establish standard curve. Four methods for fitting a curve:</p> <ol style="list-style-type: none"> <li>1. Linear fit.</li> <li>2. Linear through zero.</li> <li>3. Power fit.</li> <li>4. Cubic fit.</li> </ol> <p>Kinetics (Abs. VS Time)</p>  <p>The Kinetics mode may be used for scanning time course or reacting rate calculations. Abs. VS Time graphs are displayed on the screen in real time. Wait time, measurement time and time intervals may be entered. Post-run manipulation includes re-scaling, curve tracking and selection of the part of the curve required for the rate calculation. Rate is calculated using a linear regression algorithm before multiplying by the entered factor.</p>	<p>Up to 20 wavelengths can be selected and multiple samples can be measured. (Auto coil changer is required to run multiple samples automatically)</p> <p>DNA/Protein (Only for UV/V-3xxx, UV-6xxx)</p>  <p>Concentration and DNA purity are quickly and easily calculated. Absorbance ratios 260nm/280nm with optional subtracted absorbance at 320nm.            DNA Concentration=<math>62.9 \cdot A_{260} - 36.0 \cdot A_{280}</math>            Protein Concentration=<math>1552 \cdot A_{260} - 757.3 \cdot A_{280}</math>            Other wavelengths and factors may be entered.</p>

## >> OPTIONAL ACCESSORIES



<p>MICRO CELL HOLDER</p> 	<p>8-POSITION AUTO CELL CHANGER</p> 	<p>4-CELL HOLDER FOR 10mm SQ. CUVETTE</p> 	<p>4-CELL HOLDER FOR UP TO 50mm SQ. CUVETTE</p> 	<p>4-CELL HOLDER FOR UP TO 100mm SQ. CUVETTE</p> 
<p>900240 (Beam height: 15mm)</p>	<p>900310</p>	<p>900410</p>	<p>900420</p>	<p>900430</p>

<p>SQUARE CUVETTES. GLASS SQUARE CUVETTES. QUARTZ</p> 	<p>MICRO CELL, QUARTZ (Beam height: 15mm)</p> 	<p>SIPPER SYSTEM</p> 	<p>CONSTANT-TEMPERATURE SYSTEM</p> 	<p>CONSTANT-TEMPERATURE SIPPER SYSTEM</p> 
<p>GLASS: 10mm 916101 20mm 916102 30mm 916103 50mm 916104 100mm 916105 QUARTZ: 10mm 916111 20mm 916112 30mm 916113 50mm 916114 100mm 916115</p>	<p>100UL 916126 200UL 916127 500UL 916123</p>	<p>900140</p>	<p>900150</p>	<p>900160</p>

<p>TEST TUBE HOLDER</p> 	<p>CYLINDRICAL CELL HOLDER</p> 	<p>SOLID SAMPLE HOLDER (SINGLE CELL)</p> 	<p>WATER-JACKETED CELL HOLDER</p> 	<p>10mm WATER-JACKETED 4-CELL HOLDER</p> 
<p>900530</p>	<p>900540</p>	<p>900550</p>	<p>900610</p>	<p>900620</p>

<p>MILAS DEUTERIUM LAMP</p> 	<p>HALOGEN LAMP (PHILIPS)</p>  <p>6V10W: 911634</p>	<p>12V20W HALOGEN LAMP (OSRAM)</p> 	<p>SELF MASKING CONT. FLOWTHROUGH G. CELL/ Q. CELL (Beam height: 15mm)</p> 	<p>THERMAL PRINTER</p> 
<p>916633</p>	<p>12V20W: 916634</p> 	<p>961634</p>	<p>G. CELL: 5mm 916135 10mm 916136 20mm 916137 30mm 916138 Q. CELL: 5mm 916145 10mm 916146 20mm 916147 30mm 916148</p>	<p>920910</p>