



—— A Professional Manufacturer



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UV / VIS SPECTROPHOTOMETER



More Innovation, Better Quality



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 | | Tungsten Lamp | 320-1100 nm | 4 nm | Ideal for QC labs |
| UV-1600/PC | | Tungsten & Deuterium Lamp | 190-1100 nm | 4 nm | |
| V-1800/PC | | Tungsten Lamp | 325-1100 nm | 2 nm | |
| UV-1800/PC | | Tungsten & Deuterium Lamp | 190-1100 nm | 2 nm | |
| V-3000/PC | Single Beam, scanning function | Tungsten Lamp | 320-1100 nm | 4 nm | Laboratory workhouse |
| UV-3000/PC | | Tungsten & Deuterium Lamp | 190-1100 nm | 4 nm | |
| UV-3100/PC | | Tungsten & Deuterium Lamp | 190-1100 nm | 2 nm | |
| UV-3200PC | | 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-3300PC | | Tungsten & Deuterium Lamp | 190-1100 nm | 1 nm | |
| UV-6100PC | Double Beam | Tungsten & Deuterium Lamp | 190-1100 nm | 1.8 nm | |
| UV-6300PC | | Tungsten & Deuterium Lamp | 190-1100 nm | 1 nm | |
| UV-6100PCS | | Tungsten & Deuterium Lamp | 190-1100 nm | 0.5,1,2,4,5 nm | |

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-1600PC, V-1600PC, UV-1800PC, V-1800PC.
5. UV Analyst Software: included in V-3000PC, UV-3000PC, UV-3100PC, UV-3200PC, UV-3200PCS, UV-3300PC, UV-6100PC, UV-6300PC, UV-6100PCS.



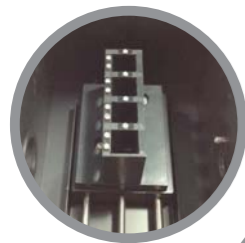
Specifications

| | |
|--------------------------|------------------------------------|
| 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 ±0.003A@1A |
| Photometric Range | 0-200%T, -0.3 - 3A, 0-1999Conc |
| Stray Light | 0.3%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) | 489*387*180mm |
| Weight | 8kg |

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.

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-1100D



Visible Spectrophotometer

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 ±0.003A@1A | | |
| Photometric Range | 0-200%T, -0.3 - 3A, 0-9999Conc | | |
| Stray Light | 0.3%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) | 489*387*180mm | | |
| Weight | 12kg | 14kg | |

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.

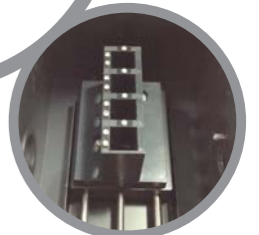
Features

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.



UV / VIS Spectrophotometer

V-1200/UV-1200
UV-1100



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 ±0.003A@1A | | | |
| Photometric Range | 0-200%T, -0.3 - 3A, 0-9999Conc | | | |
| Stray Light | ≤0.05%T@360nm | | ≤0.05%T@220 360nm | |
| Stability | ±0.002A/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) | 470*373*187mm | | | |
| Weight | 12kg | | 14kg | |

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 $C=k*a + b$ 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.



V-1600/UV-1600
V-1800/UV-1800

UV / VIS Spectrophotometer

Mapada 1600/1800 Series Local Control Software

Main Menu

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

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

1. Basic Mode

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

| 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 |

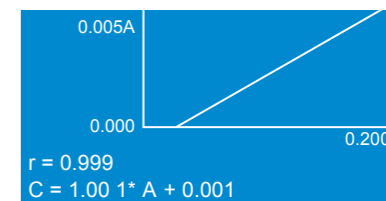
2. Quantitative

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 RAM.

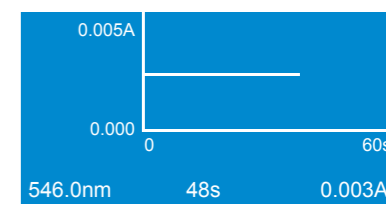
2.2 Coefficient Method

If you have known the coefficient $K*a + b$ 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.

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

New Model!

Specifications

| Model | V-3000 V-3000PC | UV-3000 UV-3000PC | UV-3100 UV-3100PC | UV-3200PC | UV-3200PCS | UV-3300PC |
|--------------------------|---|---|----------------------|---------------|------------------|-----------|
| Wavelength Range(nm) | 320-1100 | | 190-1100 | | | |
| 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 | | 0.2nm | | | |
| Scan Speed | Hi, MED., LOW., MAX. 3000nm/min | | | | | |
| Photometric Accuracy | ±±0.5%T or ±0.005A@1A | | | | | |
| Photometric Range | 0-200%T, -0.3 - 3A, 0-9999Conc | | | | | |
| Stray Light | 0.05%T@220, 340nm | | | | | |
| Stability | ±0.002A/h @500nm | | | | | |
| Display | 5 inches LCD (320*240 dots) | | | | | |
| Baseline Flatness | ±0.002A (200-1000nm) | | | | | |
| Standard Cell Holder | Standard 10mm pathlength cuvette | | | | | |
| Light Source | Tungsten lamp | 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) | 491*365*180mm | | | 579*428*198mm | | |
| Weight | 14kg | | | 20kg | | |

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 lab applications, as well as routine applications such as quantitative analysis, kinetics, Wavelength Scan, Multi-Wavelength, and DNA/Protein analysis. The memory is 32K.

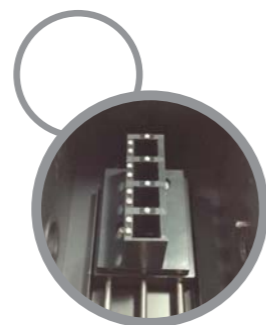
UV-Vis Analyst software Based Microsoft Windows makes these instruments versatile. All instruments provide excellent performance for measurements.

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.

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.



Mapada UV/V-3xxx Scanning Spectrophotometer

UV/V-3xxx Series Local Control Software

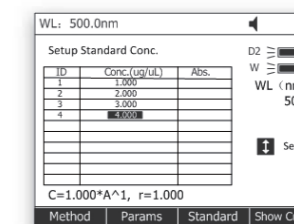
All methods are included as built-in standard; this eliminates the need of software. Online software update via internet.

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



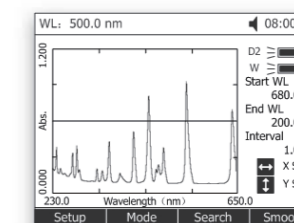
Standard Curve

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.



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.

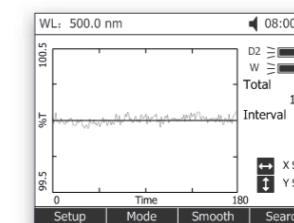


Kinetics

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 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.



Multi-Wavelength

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

| No | WL(nm) | Abs |
|----|--------|-------|
| 1 | 200.0 | 2.292 |
| 2 | 300.0 | 2.125 |
| 3 | 400.0 | 2.024 |

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*A₂₆₀-36.0*A₂₈₀

Or 49.1*A₂₆₀-3.48*A₂₃₀

Protein Concentration=1552*A₂₆₀-757.3*A₂₈₀

Or 183*A₂₆₀-75.8*A₂₃₀

Other wavelengths and factors may be entered.

| No | Items | Result | Unit |
|----|--------|--------|-------|
| 1 | A1 | 0.251 | Abs |
| 2 | A2 | 0.243 | Abs |
| 3 | Aref | 0.005 | Abs |
| 4 | C-DNA | 4.524 | ug/UL |
| 5 | C-Pro | 110.8 | ug/UL |
| 6 | Purity | 1.009 | |

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. 3000nm/min | | |
| Photometric Accuracy | ±±0.5%T or ±0.005A@1A | | |
| Photometric Range | 0-200%T, -0.3 - 3A. | | |
| Stray Light | 0.05%T@220, 340nm | | |
| Stability | ±0.001A/h @500nm | | |
| Display | 5 inches LCD (320*240 dots) | | |
| Baseline Flatness | ±0.001A | | |
| 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 | | |

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.

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.**



Mapada UV-6xxx
Double Beam Spectrophotometer

UV-6xxx Series Local Control Software

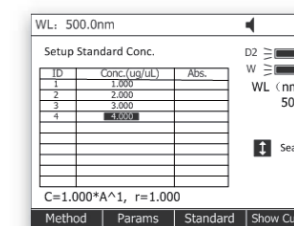
All methods are included as built-in standard; this eliminates the need of software. Online software update via internet.

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



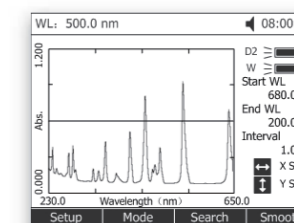
Standard Curve

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



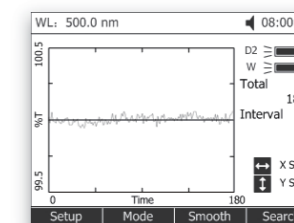
Wavelength Scan

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 3000 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 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.



Multi-Wavelength

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

| No | WL(nm) | Abs |
|----|--------|-------|
| 1 | 200.0 | 2.292 |
| 2 | 300.0 | 2.125 |
| 3 | 400.0 | 2.034 |

DNA/Protein Test

Concentration and DNA purity are calculated by Absorbance ratios 260nm/280nm or 260nm/230nm with optional subtracted absorbance at 320nm

DNA Concentration= $62.9 \cdot A_{260} - 36.0 \cdot A_{280}$
 Or $49.1 \cdot A_{260} - 3.48 \cdot A_{230}$
 Protein Concentration= $1552 \cdot A_{260} - 757.3 \cdot A_{280}$
 Or $183 \cdot A_{260} - 75.8 \cdot A_{230}$
 Other wavelengths and factors may be entered.

| No | Items | Result | Unit |
|----|--------|--------|-------|
| 1 | A1 | 0.251 | Abs |
| 2 | A2 | 0.243 | Abs |
| 3 | A3 | 0.065 | Abs |
| 4 | C-DNA | 4.524 | ug/ul |
| 5 | C-Pro | 110.8 | ug/ul |
| 6 | Purity | 1.097 | |

M. Wave Professional PC-Control Software

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.

Quantitative

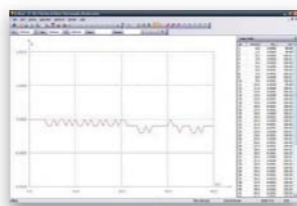
Use up to 20 standards to establish standard curve. Three methods for fitting a curve:

1. Linear fit.
2. Linear through zero.
3. Square fit.



Kinetics

The Kinetics mode may be used for scanning time course or reacting rate calculations. Abs. Vs. Time graphs is displayed.

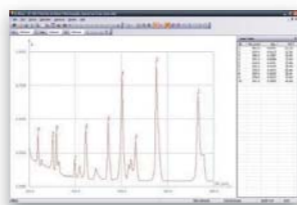


Wavelength Scan

Automatically records peaks and valleys. The quantity of the curves stored is unlimited.

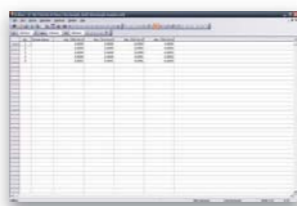
Post-run manipulation and processing includes.

1. Re-scaling axes, curve.
2. Smoothing, combination, zooming, overlap...
3. 1st to 4th derivative.



Multi-wavelength Test

You can set up to 20 wavelengths to measure a sample.



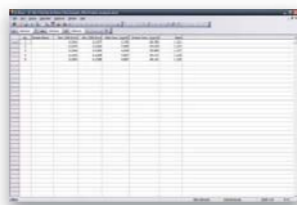
DNA/Protein Test

Optional two formulas:

$$\text{DNA Concentration} = 62.9 \cdot A_{260} - 36.0 \cdot A_{280}$$

$$\text{Or } 49.1 \cdot A_{260} - 75.8 \cdot A_{230}$$

You can also enter other wavelengths and factors to calculate.



UV-Vis Analyst for UV/V-3 & 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.

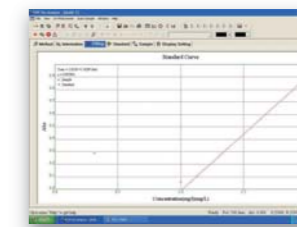
The PC application software offers:

1. Photometric Mode
2. Quantitative test (Standard curve)
3. Wavelength Scan
4. Kinetics
5. DNA/Protein
6. Multi-Wavelength
7. System Utility

• Quantitative Test (Standard curve)

Use up to 20 standards to establish standard curve. Four methods for fitting a curve:

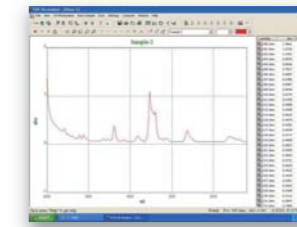
1. Linear fit.
2. Linear through zero.
3. Square fit.
4. Cubic fit.



• Wavelength Scan

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:

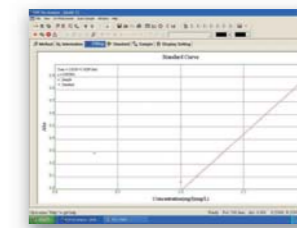
1. Re-scaling axes, curve.
2. 1st to 4th derivative.
3. Smoothing, combination, zooming, overlap.



• Kinetics (Abs. VS Time)

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.



• DNA/Protein (Only for UV-3xxx, UV-6xxx)

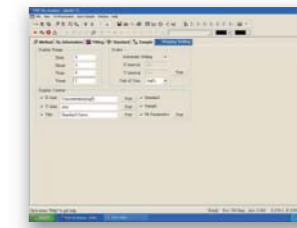
Concentration and DNA purity are quickly and easily calculated:

Absorbance ratios 260nm/280nm with optional subtracted absorbance at 320nm.

$$\text{DNA Concentration} = 62.9 \cdot A_{260} - 36.0 \cdot A_{280}$$

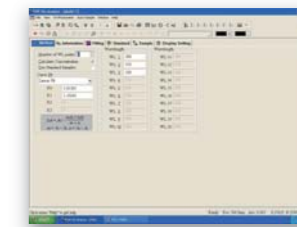
$$\text{Protein Concentration} = 1552 \cdot A_{260} - 757.3 \cdot A_{280}$$

Other wavelengths and factors may be entered.



• Multi-wavelength

Up to 20 wavelengths can be selected and multiple samples can be measured. (Auto cell changer is required to run multiple samples automatically)





4-CELL HOLDER FOR 10mm SQU. CUVETTE
900410



MICRO CELL HOLDER
900240 (Beam height: 15mm)



4-CELL HOLDER FOR UP TO 50mm SQU. CUVETTE
900420



TEST TUBE HOLDER
900530



4-CELL HOLDER FOR UP TO 100mm SQU. CUVETTE
900430



8-POSITION AUTO CELL CHANGER
900310



CYLINDRICAL CELL HOLDER
900540



SOLID SAMPLE HOLDER (SINGLE CELL)
900550



WATER-JACKETED CELL HOLDER
900610



10mm WATER-JACKETED 4-CELL HOLDER
900620

SQUARE CUVETTES. GLASS

10mm 916101 20mm 916102
30mm 916103 50mm 916104
100mm 916105



SQUARE CUETTES. QUARTZ

10mm 916111 20mm 916112
30mm 916113 50mm 916114
100mm 916115



CONSTANT-TEMPERATURE SIPPER SYSTEM
900160



MICRO CELL, QUARTZ

(Beam height: 15mm)

100UL 916126
200UL 916127
500UL 916123



CONSTANT-TEMPERATURE SYSTEM
900150



SEIF MASKING CONT. FLOWTHROUGH G. CELL

(Beam height: 15mm)

5mm 916135 10mm 916136
20mm 916137 30mm 916138

SEIF MASKING CONT. FLOWTHROUGH Q. CELL

(Beam height: 15mm)

5mm 916145 10mm 916146
20mm 916147 30mm 916148



SIPPER SYSTEM
900140



6V10W: 911634



12V20W: 916634

HALOGEN LAMP (PHILIPS)



THERMAL PRINTER
920910



12V20W HALOGEN LAMP (OSRAM)
961634



MILAS DEUTERIUM LAMP
916633