METASH
UV/VIS SPECTROPHOTOMETER

CE MC ISO RoHS

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UV/VIS SPECTROPHOTOMETER

Optional Accessories

5cm,10cm Cell holders
1 or 4 cell water-jacketed cell holder
All kinds of Quartz & Glass Cuvettes
Micro Cuvettes

Test Tube Holder
Auto 8-cell Holder
Printer
Software

Ambient Sipper Unit
Peltier/Sipper System
Film Holder
Micro Cell Holder

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www.metash.com

CE

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ISO9001:2008

RoHS

METASH
UV/VIS SPECTROPHOTOMETER

Company Profile

Shanghai Metash Instruments Co., Ltd. is a professional manufacturer of UV/Vis Spectrophotometers. It can provide the market full range of products which include Visible & UV/Vis, Single Beam & Double Beam, Fixed Bandwidth & Variable bandwidth. Now, Metash's products are widely used in many fields such as Educational. Pharmaceutical. Environmental. Chemical and some other fields.

Metash aims to become the best manufacturer of UV/Vis Spectrophotometers in China, so the product quality is highly attentioned by everyone. All the company is full of energy and liveliness, most of the members have worked in this field for more than 7 years.

Metash's products have been sold to more than 30 ountries till today, and now still trying to exploit more overseas market. Metash has full experience in OEM/ODM production, In the base of mutual benefit, Metash would like to cooperate with any distributor or manufacturer in the future.

METASH

UV/VIS SPECTROPHOTOMETER

Explore The Future

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V5000 (NEW)

V-5000 is a basic model with high cost-performance. High quality silicon photometric diode detector and 1200 lines/mm grating ensure the high accuracy and precision.

Features

- Easy to use, Press one button for easy switching of Transmittance, Absorbance and Concentration modes.
- Auto zero and blank
- LCD display is clear enough to read from any distance, there's no need to search or squint
- Large sample compartment, it can accommodate 5-100mm path length cuvettes with optional holders.
- Pre-aligned design ensures the user to change lamp conveniently
- Optional software based on windows can expand the applications to standard Curve & Kinetics.
- Two-points-method to measure concentration of unknown samples.

Specifications

Optical System:	Single beam, 1200lines/mm grating
Wavelength Range:	320-1000nm
Band width:	4nm
Wavelength Accuracy:	±2nm
Wavelength Repeatability:	1nm
Photometric Accuracy:	±0.5%T
Photometric Repeatability:	0.3%T
Stray Light:	≤0.2%T
Stability:	±0.002A/H
Photometric Range:	-0.3-3A, 0-200%T
Output:	USB Port (PC) Parallel Port (Printer)
Display:	LCD
Light Source:	W Lamp
Detector:	Silicon Photodiode
Photmetric Mode:	T, A, C, F
Dimension:	420*280*180mm
Weight:	8kg
Power Requirements:	AC 85~250V

V5100/UV5100 (NEW)

Features

- Large LCD screen (128*64 Dots).
- Can display and save 50 groups of data, 5 groups per screen.
- Data can be restored after a sudden power cut.
- Auto setting wavelength.
- Automatical WL. Calibration and dark current getting.
- Optional software UV-BASIC can expand the applications to kinetics and Quantitatives.

Specifications

Optical System:	Single beam, 1200lines/mm grating
Wavelength Range:	325-1000nm (V5100) 190-1000nm (UV5100)
Band width:	4nm
Wavelength Accuracy:	±1nm
Wavelength Repeatability:	0.5nm
Photometric Accuracy:	±0.5%T
Photometric Repeatability:	0.3%T
Stray Light:	≤0.3%T
Stability:	±0.002A/h @500nm
Photometric Range:	-0.3-3A, 0-200%T
Output:	USB Port & Parallel Port (Printer)
Wavelength Setting:	Auto
Display:	128*64 Dots LCD
Light Source:	W lamp(V5100) W lamp & D2 Lamp(UV5100)
Detector:	Silicon Photodiode
Standard Cell Holder:	4-position 10nm cell changer
Dimension:	420*280*180mm
Weight:	12kg
Power Requirements:	AC 85~250V

V5100/UV5100 (NEW)

Firmware Functions

T Mode: Continuously measure the Transmittance of samples

A Mode: Continuously measure the Absorbance of samples

C Mode: Standard Curve method, can use at most 9 standard samples to create a new standard curve, and to measure the unknown samples by the new one.

F Mode: Coefficient Method, Input the known K and C to measure the unknown concentration samples.

METASH
UV/VIS SPECTROPHOTOMETER

V5800/UV5800 (NEW)

Features

- Large LCD screen(128*64Dots).Can display total 200 groups of data, 5 groups per screen. Can display standard curve and the curve equation.
- Can save 200 groups of curve equation. Convenient for check and reload.
- Data can be restored after a sudden power cut.
- Auto setting wavelength. Auto zero and blank.
- Tungsten lamp & deuterium lamp can be turned on/off individually to extend lifetime.
- The Metash application software Meta-Spec provides complete control of the spectrophotometer from a computer through the USB port. The following functions can be easily achieved: Quantitative, Kinetics, Wavelength Scan, DNA/ Protein Test and Multi-wavelength Test.
- The flange of the D2 lamp makes it become true (Pre-aligned design) that there's no need to adjust the lamp when replace it.
- Large sample compartment, It can accommodate 5-100mm path length cuvettes with optional holders. A variety of optional accessories are under your choice.

Low Stray Light

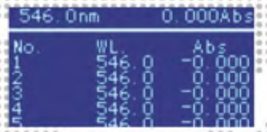
The stray light of V5800/UV5800 is below 0.05%T. The monochromator is totally sealed and the optical surfaces are protected with a silicon dioxide membrane. The excellent optical system and electric circuit design ensures the very low stray light.

Functions

1、**Basic Mode**

To measure the Absorbance or Transmittance of the samples.

Main Menu

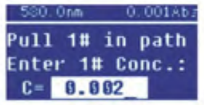


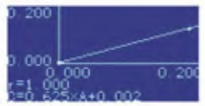
Data Record

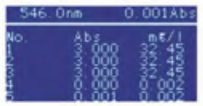
2、**Quantitative**

1) **Standard Curve**

At most 9 standard samples can be used to establish a standard curve, the curve and the curve equation will display on the screen simultaneously. You can measure your unknown concentration solutions by the new curve.







2) **Coefficient Method**

If you have known the coefficient k&b of the formula C=kA+b, just input the value directly by the keypad, then test the unknown solutions.

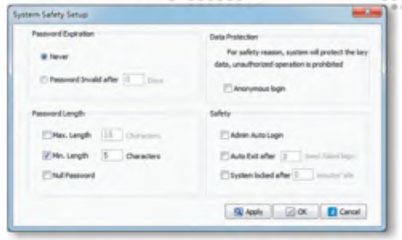
Specifications

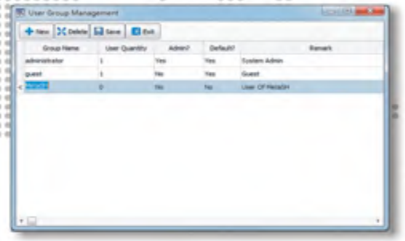
Optical System:	Single beam, 1200lines/mm grating	**Photometric Range:**	0-200%T, -0.3-3.0A, 0-9999C
Wavelength Range:	320-1100nm(V5800) 190-1100nm(UV5800)	**Baseline Flatness:**	±0.0015A
Band width:	2nm	**Output:**	USB
Wavelength Accuracy:	±0.5nm	**Printer Port:**	Parallel Port
Wavelength Repeatability:	0.2nm	**Display:**	128*64 Dots LCD
Photometric Accuracy:	±0.3%T	**Light Source:**	W lamp(V5800) W lamp & D2 Lamp(UV5800)
Photometric Repeatability:	0.2%T	**Detector:**	Silicon Photodiode
Stray Light:	≤0.05%T	**Dimension:**	420*280*180mm
Stability:	±0.002A/h@500nm	**Weight:**	18kg
		Power Requirements:	AC 110V or AC220V

Powerful PC Software for UV/V5800 New

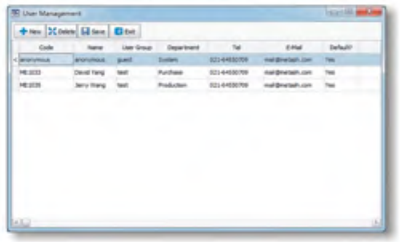
Metash developed quitely new software Meta-Spec, it has powerful management system, full compliance with GLP/GMP norms

1) Safety Control function



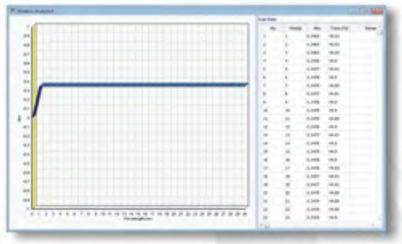


2) User and Group Management System

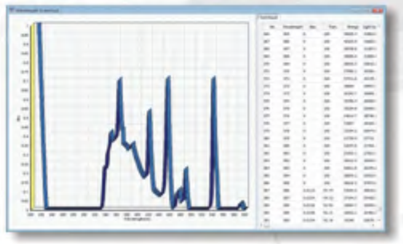


Standard Curve, Multi wavelength available

Kinetics



Wavelength Scan, 3D effect available



Other functions: Multi-wavelength Measurement, DNA/Protein Test.

Note:The software of Meta-Spec is optional.

B500

BIOPHOTOMETER

B-500 is a new designed model, suit for quick test of DNA, RNA, and Protein.

Features

- Can measure 0.5~2ul samples.
- Quick measure without pre-warm.
- There's no need to dilute the samples
- Quick Scan, you can get the scanning curve in only 0.2 seconds
- Long life lamps, more than 2000 hours lifetime
- Software comes standard with the instruments

Specifications

Wavelength Range:	190nm~850nm
Wavelength Accuracy:	1nm
Wavelength Resolution:	1nm
Optical Accuracy:	0.002Abs
Measure Speed:	2~5 Seconds

UV9000

DOUBLE BEAM SPECTROPHOTOMETER

Metash UV-9000 is an advanced Double Beam design, the two detectors are used to measure sample and reference respectively and simultaneously for optimizing measurement accuracy. It is suitable for clinical lab applications, pharmaceutical and bio-chemical as well as routine applications such as quantitative analyses, kinetics, wavelength scanning, multiple components and DNA/Protein analysis.
The comprehensive features, sophisticated powerful software, variety of accessories and model configurations will meet or exceed your expectations for performance and value.

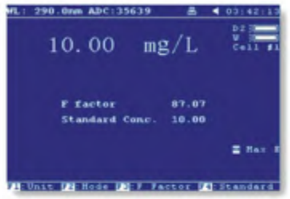
Features

- The innovative optical layout and state of art mono-chromator with high grade blazed holographic grating ensure accuracy. Its integrated design assures long term stability and durability.
- The precisely aligned detector and quality deuterium and halogen lamps enhance the precision across the UV/Vis spectrum starting from 190nm and into the near-infrared 1100nm.
- Online software upgrade capability via Internet.
- Full A4 print-out of graphs and tables of results with popular printers such as HP or Epson Deskjet.
- Real-time clock for date and time stamping of results.
- Large LCD display(320*240 Dots Matrix)

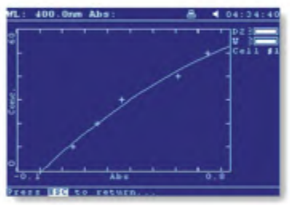
Specifications

Optical System:	Double Beam, 1200lines/mm grating	**Photometric Range:**	0-200%T, -0.3-3.0A, 0-9999C
Wavelength Range:	190-1100nm	**Output:**	USB
Band width:	0.5 or 1.0 or 2.0 or 4.0nm	**Printer Port:**	Parallel Port
Wavelength Accuracy:	±0.3nm	**Display:**	320*240 Dots LCD
Wavelength Repeatability:	0.2nm	**Noise:**	±0.001A
Photometric Accuracy:	±0.3%T	**Detector:**	Silicon Photodiode
Photometric Repeatability:	0.2%T	**Lamps:**	W & D2 Lamp
Stray Light:	≤0.05%T@220nm,360nm	**Dimension:**	625*430*206mm
Stability:	±0.002A/h@500nm	**Weight:**	30kg
		Power Requirements:	AC 110V or AC220V

Local Control Software of UV9000

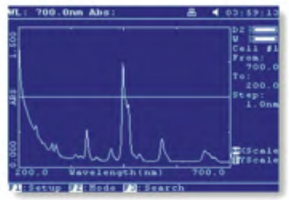


Basic Mode
To measure the Absorbance and Transmittance

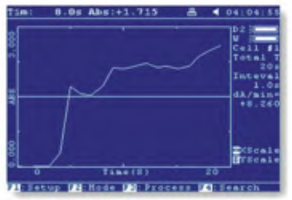


Quantitative
1. Coefficient Method
2. Standard Curve
Up to 10 standard samples may be used to establish a curve. Four methods for fitting a curve through the calibration points: Linear fit, Linear fit through zero, Square fit and Cubic fit.

DNA/Protein Test
Concentration and DNA purity are quickly and easily calculated:
Absorbance ratios 260nm/280nm with optional subtracted absorbance at 320nm.
DNA concentration= 62.9 x A260 - 36.0 x A280
Protein concentration=1552 x A260 - 757.3 x A280



Wavelength Scan
1)The wavelength scan intervals are 0.1,0.2, 0.5, 1, 2,5nm.
2) Hi, Medium and Low scan speeds are available. They vary from 100 to 3000 nm/min.
3)Wavelengths are scanned from high to low so that the instrument waits at high WL. and it minimizes the degradation of UV sensitive samples.



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.
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.

Metash PC-Control Software: UV/VIS-ANALYST

The PC control software comes standard with the model of Vu9000, It offers the following functions:

Multi-Wavelength
Up to 32 wavelengths can be selected and multiple samples can be measured.

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2. Standard Curve
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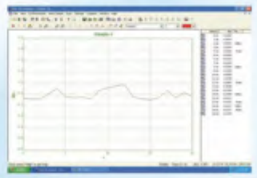

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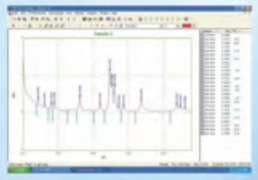

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