Biometrics Technologies

Spectrophotometer

Double Beam System

UV 900TD
UV900 VTD

•Easy to Operate •Accurate Result •Cost Effective

Product Description

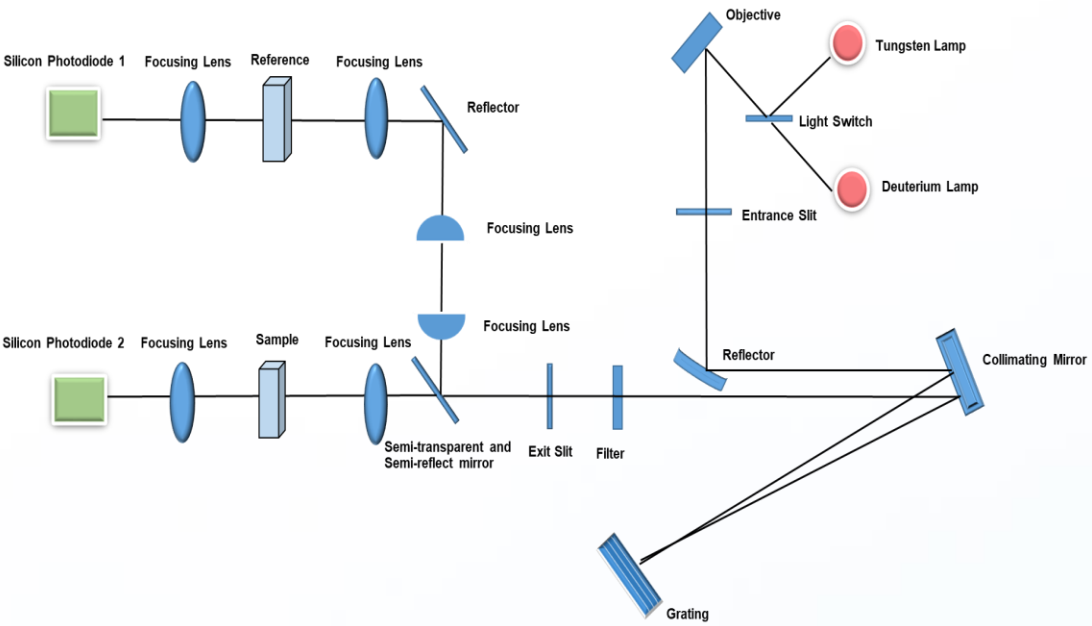
The UV-VIS Spectrophotometer is designed to meet high requirement for precision measurement in the research and development of organic chemistry, biochemistry, medical testing, food testing, pharmaceutical industry, environmental protection, water testing and so on. The latest technology and optical system ensure high accuracy and the best stability of the instrument.

Instrument Feature

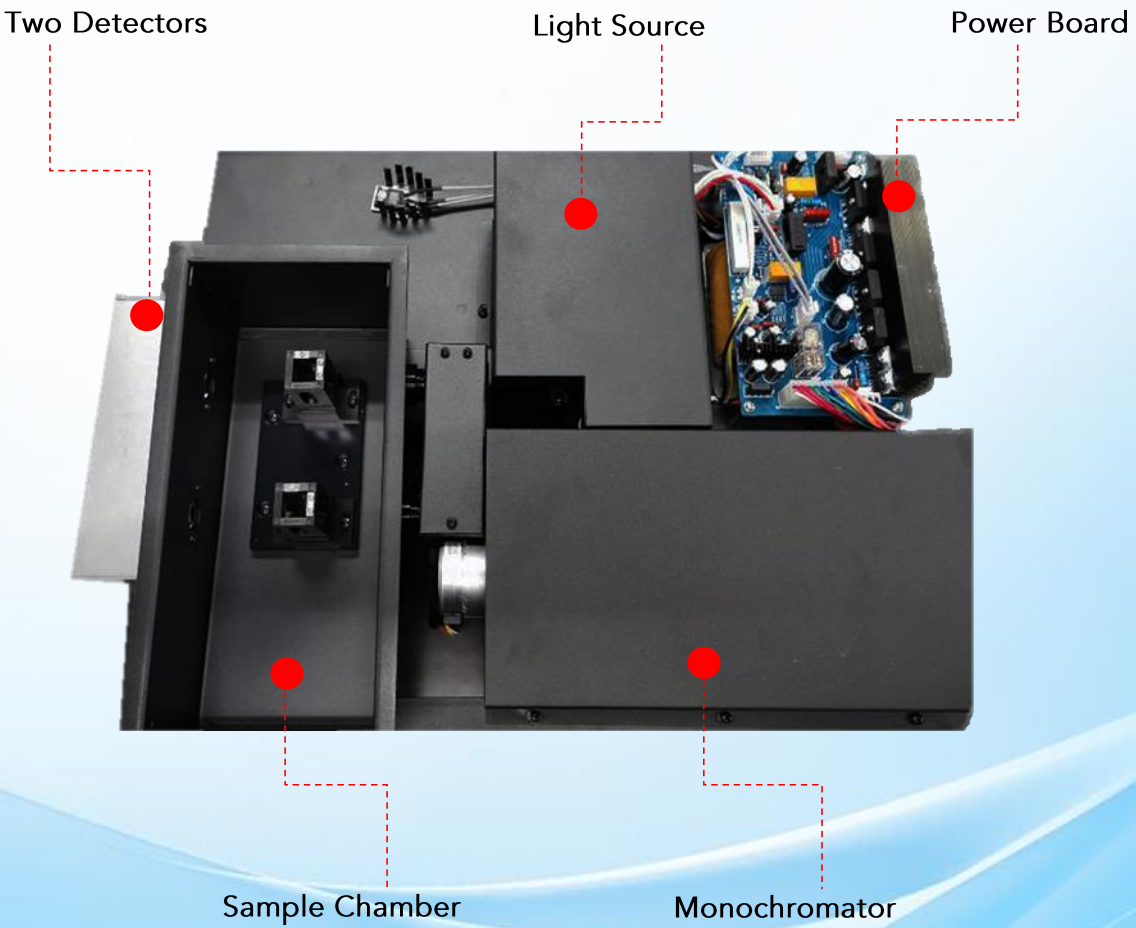
Display	10.1 inches high resolution TFT color touch screen
Internal memory	1024 MB for data results and working curves
Software function	Photometry, Wavelength Scan, Quantitative, Multi Wavelength, Kinetics and DNA/Protein
Data transfer	USB and SD card storage, easily export to Excel format
Light source management	Light source on/off status can be controlled
Light source switching	Automatic change at wavelength 340 nm (can select from 300 - 400 nm)
Instrument control	Standalone and PC software
Printer	Built-in Thermal printer
Validation software	21 CFR Part 11 (option)




Light Path Diagram for Double Beam System



Schematic Diagram of Double Beam System



Standalone Operation

Photometric Mode

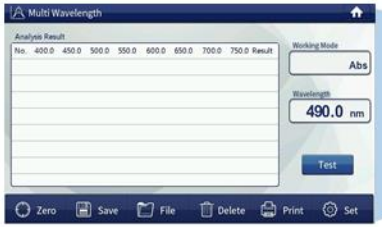
- Measurement mode : absorbance (A) and transmittance (%T)

Wavelength Scan Mode

- Wavelength range : 190-1100 nm
- Interval: 0.1, 0.2, 0.5, 1.0, 2.0 and 5.0 nm
- Scan speed: Fast, Medium, Slow

Multi-wavelength Mode

- Measurement mode: absorbance (A) and transmittance (%T)
- Maximum number of wavelength setting is 8 wavelengths



Quantitative Mode

- The maximum point of the standard curve is 10 points
- Real-time display of standard curve
- The unit concentration: mg/L, ug/mL, ppm, ppb, mg/L, g/L…etc

Kinetics Mode

- Measure absorbance and transmittance change as a function time
- Interval: 0.5, 1, 5, 10, 30 sec and 1 min
- Maximum time: 9999 sec (166 min)

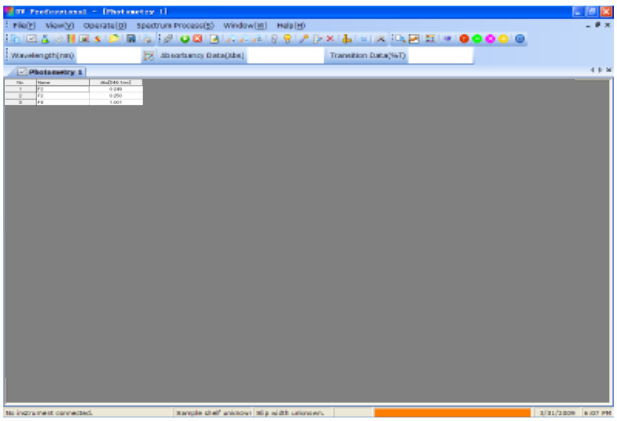
DNA/Protein Mode

- Testing and calculation of DNA and Proteins concentration at wavelength 230, 260, 280 and 320 nm

UV-VIS Professional Software

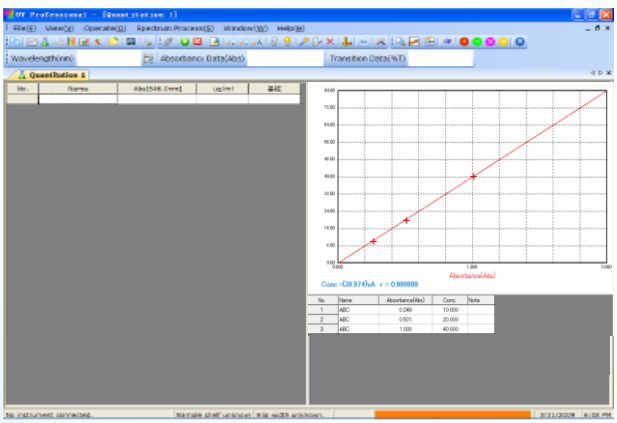
A diversity of Measurement Modes

1) Photometric Mode



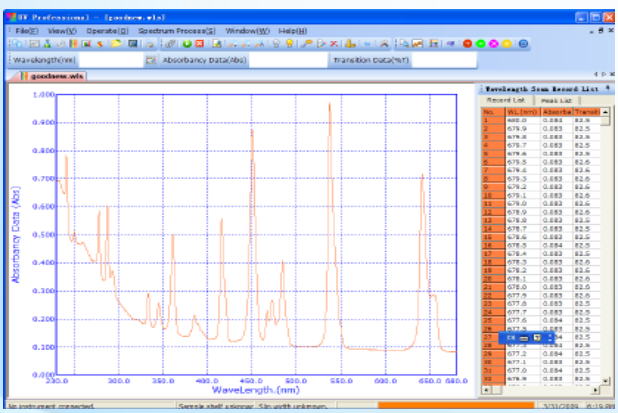
- Measurement mode absorbance (A) and transmittance (%T)

2) Quantitative Mode



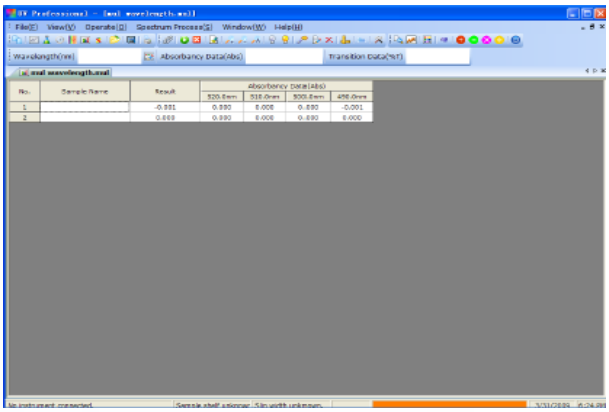
- The maximum point of the standard curve is 20 points
- The software can calculate sample concentration automatically
- Real-time display of standard point and standard curve
- The unit concentration: mg/L, ug/mL, ppm, ppb, mg/L, g/L…etc

3) Wavelength Scan Mode



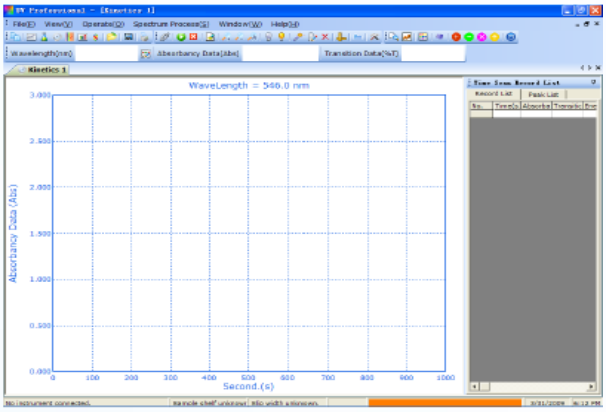
- Wavelength scan range: 190-1100 nm
- Interval scan setting: 0.1, 0.2, 0.5, 1.0, 2.0 and 5.0 nm
- Scan speed: Quick, Medium, Slow
- User can use the search peak/valley function to label maxima and minima of a sample spectrum data

4) Multi-wavelength Mode



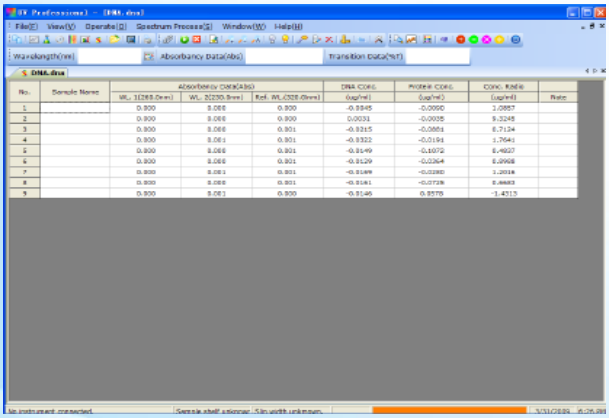
- Measurement mode: absorbance (A) and transmittance (%T)
- Maximum number of wavelength setting is 15 wavelengths
- Receive the whole of the data test at the same time

5) Kinetics Mode



- Measure absorbance and transmittance change as a function time
- Interval: 0.1, 0.2, 1, 2, 5, 10, 20, 30 sec and 1 min
- Maximum time: 999,999,999 sec ($2.7x10^5$ hrs.)

6) DNA/Protein Mode



- Testing and calculation of DNA and Proteins concentration at wavelength 230, 260, 280 and 320 nm
- DNA/Protein quantitation using the absorbance at 260/230 nm or 260/280 nm

Product Specification

Model	UV 900TD	UV 900VTD
Optics system	Double beam	
Wavelength range	190 - 1100 nm	
Spectral Bandwidth	1 nm	0.5, 1, 2, 4, 5 nm
Wavelength accuracy	±0.3 nm	
Wavelength repeatability	±0.1 nm	
Photometric accuracy	±0.2%T(0-100%T), ±0.002A(0-0.5A), ±0.004A(0.5-1A)	
Photometric repeatability	±0.15%T (0-100%T), ±0.001A(0-0.5A), ±0.002A(0.5-1A)	
Photometric range	0-200%T, -3 to 3A, 0-9999C	
Stray light	≤0.02%T at 220 nm NaI, 340 nm $NaNO_2$	
Baseline stability	±0.0003A/h at 500 nm after lamp turn on for 1 hour	
Baseline flatness	±0.0006A (200 to 1100 nm)	
Noise	≤0.0005A at 500 nm	
Work mode	T, A, C, E	
Scanning speed	Fast, Medium, Slow	
Light Source	Deuterium and Tungsten-Halogen lamp	
Detector	2 Silicon Photodiodes	
Power	AC 110-230 V / 50-60 Hz	
Dimension & Net weight	590(W) x 475(D) x 250(H) mm, 20 kg	760(W) x 560(D) x 280(H) mm, 28 kg
Shipping size	770(W) x 630(D) x 340(H) mm, 27 kg	889(W) x 690(D) x 420(H) mm, 40 kg

Scope of Supply

- Spectrophotometer 1 set
- 10 mm glass cuvette 1 set (4 pcs)
- 10 mm quartz cuvette 1 set (2 pcs)
- USB connection and power cable
- User manual
- Software and dongle key

Product Information

P/N	Product Description
AI-08018-140	UV 900TD Spectrophotometer
AI-08018-150	UV 900VTD Spectrophotometer

Accessories for Various Application

Manual four Long-path cell holder

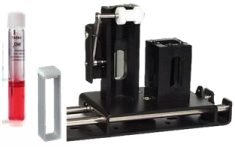
Single hole film holder

Test tube holder

Long-path cell holder

Automatic eight cell holder

Adjustable XY micro cell holder



Multi-purpose cell holder

Manual four position film holder

Integrating sphere

Sipper flow system /
Sipper flow system with Peltier

Biometrics

ISO 9001 CE

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