

## Double Beam Spectrophotometer



- This UV Series are advanced Double Beam design consisting of 3 models.
- The two detectors are used to measure sample and reference respectively and simultaneously for optimizing measurement accuracy.

### Specification of Double Beam UV Series

Model	ST-UV8000	ST-UV8000A	ST-UV8000S
Band Width	1.8 nm	1.0 nm	0.5/1.0/4.0 nm
Wavelength Range	190-1100 nm		
Optical System	Double beam, 1200 lines/ mm Grating		
Wavelength Accuracy	± 0.3 nm		
Wavelength Repeatability	± 0.2 nm		
Detector	Silicone Photodiode		
Photometric Accuracy	± 0.3% T		
Photometric Range	0-200%T, -0.3-3.0A, -0.9999C		
Photometric Repeatability	± 0.2% T		
Stray Light	0.05% T -0.3-3.0A, 0-9999C		
Stability	± 0.001 A/ h @ 500 nm		
Baseline flatness	± 0.010 A/ h @ 500 nm		
Display	LCD (320 x 240 Dots)		
Noise	±0.001A		
Printer Port	Parallel Port		
Lamps	Deuterium Lamp & Tungsten Halogen Lamp		
Data Output Port	USB		
Dimension (W x D x H)	625 x 430 x 206 mm		
Weight	30 kg		

### • PC-Control Software

The windows based PC application software UV/Vis Analyst takes the best features of the stand-alone version plus more powerful data processing and expanded data collecting and storage capability. It comes standard with PC and is optional to stand-alone models.

The PC application software offers:

1. Basic Photometric Mode
2. Kinetics
3. DNA/Protein
4. Multi-wavelength Test
5. Quantitative test (standard curve)
6. Wavelength Scanning
7. System Utility

### • Kinetics(Abs vs. Time)

The Kinetics 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, 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

### • DNA/Protein

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

Other wavelengths and factors may be entered.

### • Multi-wavelength

Up to 32 wavelengths can be selected and multiple samples can be measured. (Auto cell changer is required to run multiple samples automatically)

Quantitative Test (Standard Curve)

Use up to 32 standards to establish standard curve. Four methods for fitting a curve:

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

### • DNA/Protein

Automatically record peaks and valleys. The quantity of channels is unlimited, you can simultaneously store curves as many as you want.

Post-run manipulation and processing includes:

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

### Optional Accessories

1. 3cm, 5cm, 10cm 4-cell Holders
2. Water-jacketed Cell Holder
3. Micro Cell Holder
4. Test Tube Holder
5. 8-position Auto Cell Changer
6. Printer
7. All kinds of constant and micro cells