UV-8000/8000A/8000S/8500

Double Beam

UV-8000/8000A/8000S SPECTROPHOTOMETER

UV−8500 SPECTROPHOTOMETER

UV-8 Series are advanced Double Beam design consisting of 4 models: UV-8000, UV-8000A , UV-8000S and UV−8500. All the 4 models are Stand-alone models : UV8000 with 1.8nm fixed bandwidth, UV8000A with 1.0nm fixed bandwidth, UV-8000S with 0.5nm/1.0nm/2.0nm/4.0nm variable bandwidth and UV−8500 with optional bandwidth(0.5nm,1nm,2nm,4nm) Except bandwidth, other specifications of the 4 models are almost the same , but UV−8500 has its own new designed cover.

The two detectors are used to measure sample and reference respectively and simultaneously for optimizing measurement accuracy.

Functions

Basic Mode, Quantitative,Kinetics,Multi-wavelength,Wavelength Scan,DNA/Protein Test,Utility.
(Please Ref. Page 13 & 14 for details)

Specifications

Model	UV-8000	UV-8000A	UV-8000S	UV-8500
Optical System	Double Beam (1200 Lines/mm Grating)			
Wavelength Range	190-1100nm			
Band Width	1.8nm	1nm	0.5/1.0/2.0/4.0nm Variable	0.5/1.0/2.0/4.0nm Optional
Wavelength Accuracy	±0.3nm			
Wavelength Repeatability	0.2nm			
Photometric Accuracy	±0.3%T			
Photometric Repeatability	0.2%T			
Photometric Display Range	0-200%T, -0.3-3.0A, 0-9999C			
Stability	0.001A/h @ 500nm			
Baseline Flatness	±0.001A			
Noise	±0.001A			
Stray Light	≤0.05%T @220nm, 360nm			
Data Output Port	USB			
Printer Port	Parallel Port			
Display	LCD (320*240 Dots)			
Lamps	Deuterium Lamp & Tungsten Halogen Lamp			
Detector	Silicon Photodiode			
Dimension (L*W*H)	625*430*206mm			
Weight	30kg			

Basic Mode
To measure the Absorbance and Transmittance

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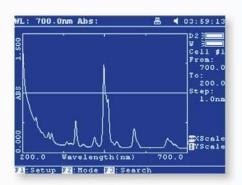1. Coefficient Method
2. Standard Curve
Up to 10 standard samples may be used
to establish a curve. Four methods for
fitting a curve through the calibration
points: Linear fit, Linear fit through zero,
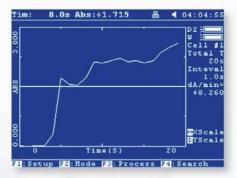Square fit and Cubic fit.

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.