

Accumeter

Visible Spectrophotometer



Provide Accurate Results

SP-800 series



SP-880



SP-870+



SP-830+

Reliable and easy to use visible spectrophotometer

Product description

The SP-800 series single beam visible spectrophotometers are a low-cost, easy-to-use, and reliable general purpose instrument designed for laboratories and educational needs. The SP-800 series visible beam spectrophotometer comes with 2 models. The SP-830+ standalone model measures the traditional absorbance, transmittance and concentration. And the PC enabled SP-880 with enhance measurement features such as spectrum scan, kinetic, quantitative.

The SP-800 series visible spectrophotometers are a compact, low-cost instrument with all the essentials for teaching and routine laboratory use.



Key Features

■ **Reliable optical design to ensure accurate results**

With minimum moving parts there is little maintenance need to be performed on the SP-800 series. The optical system is built in with a grating monochromator to provide a wavelength of 320nm~1100nm .

■ **Simple to read LCD display**

With the 2 line LCD display, users can easily operate and read the result on the instrument.

■ **Versatile sample compartment for flexibility**

The versatile sample compartment allows the SP-800 series to hold a wide range of cuvettes, test tubes, and cells, thus providing the flexibility for teaching laboratories and routine use for accurate and efficient measurements.

■ **Build-in validation tool for trouble shooting**

The built-in validation tool within the SP-800 series can help users check wavelength accuracy and bandwidth without taking the instrument to a technician for verification.

**Reliable accurate and easy to use
for all applications**

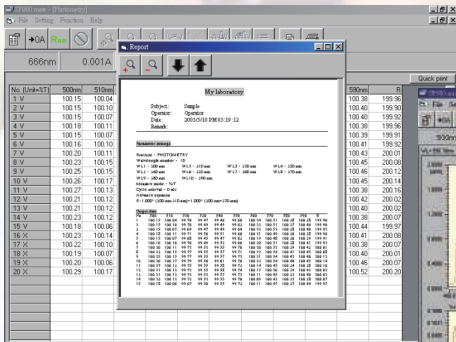
Key Features

■ Advanced measuring features only found in high end instrument (SP-880 only)

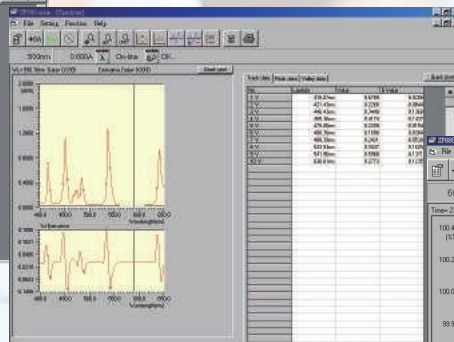
The SP-880 includes advanced measuring features found only in high end instruments such as spectrum, time scan, kinetic, quantitative, and protein analysis to provide researchers with an instrument that meets all their needs.

■ Flexible PC software to enhance measuring method (SP-880 only)

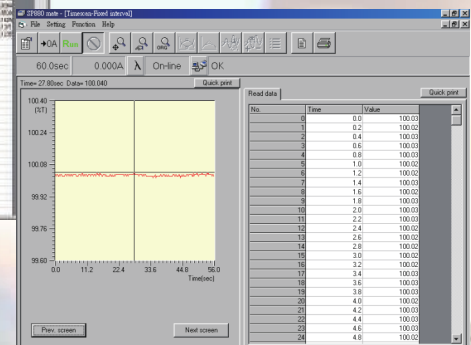
The SP-880 also comes with a PC-Mate software to help users store or export their data onto a PC or to an Excel spreadsheet.



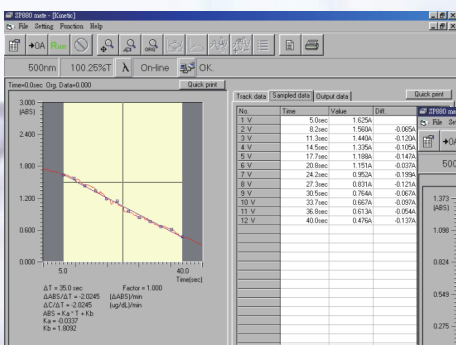
Photometric measurement



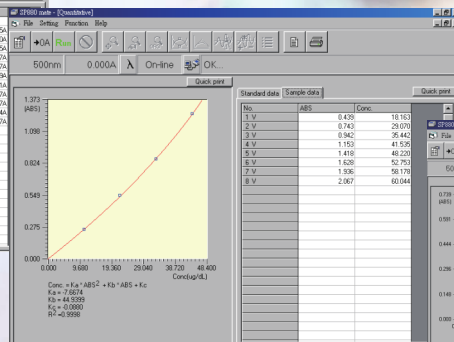
Spectrum measurement



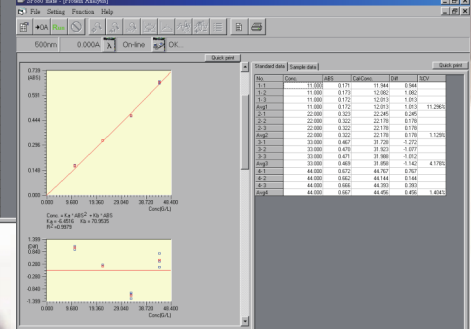
Time scan measurement



Kinetic measurement



Quantitative measurement



Protein analysis

Specification

Model Number	SP-880	SP-870+	SP-830+
Optical Design	Single beam	Single beam	Single beam
Light Source	Halogen lamp	Halogen lamp	Halogen lamp
Detector	Silicon photodiode	Silicon photodiode	Silicon photodiode
Bandwidth	2 nm	5 nm	5 nm
Wavelength Range	330-1100 nm	320-1100 nm	320-1100 nm
Wavelength Accuracy	+/- 0.8 nm	+/- 1 nm	+/- 1 nm
Wavelength Repeatability	+/- 0.35 nm	+/- 0.35 nm	+/- 0.35 nm
Scanning Speed	4500 nm/min	4500 nm/min	4500 nm/min
Photometric Range	-0.300 ~3.500 Abs 0.3 ~ 150 %T 0.02 ~ 34996 C	-0.300 ~3.500 Abs	-0.300 ~3.500 Abs
Measurement mode	A/ %T / C	A/ %T / C	A/%T/ C
Photometric Precision	0 ~ 2.5A 0.0001 2.5 ~ 3.0A 0.001 >3A 0.01	0 ~ 3.0A 0.001 >3A 0.01	0 ~ 2.5A 0.0001 2.0 ~ 3.0A 0.001 >3.0A 0.01
Photometric Accuracy	1.0 % or 0.003 A (from 0.000 to 2.500 A), whichever is greater	1.0 % or 0.003 A (from 0.000 to 2.500 A), whichever is greater	1.0 % or 0.003 A (from 0.000 to 2.500 A), whichever is greater
Factor	0.1 ~ 9,999.9	0.1 ~ 9,999.9	0~9999
Stability	< 0.003 A/hr at 500 nm after one hour warm-up	< 0.003 A/hr at 500 nm after one hour warm-up	< 0.003 A/hr at 500 nm after one hour warm-up
Stray Light	<0.1% at 340 nm	<0.1% at 340 nm	<0.1% at 340 nm
Data storage	100 sets	N/A	N/A
Display	16 x 2 large LCD Display	16 x 2 large LCD Display	10 x 2 LCD Display
Sample holder	10 mm square cuvette 10~13 mm round tube 16 mm round tube 50 mm rectangular cell 1 inch test tube	10 mm square cuvette 10~13 mm round tube 50 mm rectangular cell	10 mm square cuvette 10~13 mm round tube 50 mm rectangular cell
Interface	RS232 and parallel port	Parallel port	Parallel port
PC compatibility	PC-mate software	N/A	N/A
Power	100 ~ 240V at 50/60Hz	100 ~ 240V at 50/60Hz	100 ~ 240V at 50/60Hz
Dimension	400(W) x 300(D) x 145(H) mm	400(W) x 300(D) x 145(H) mm	400(W) x 300(D) x 145(H) mm
Weight	7.5 kg	7.5 kg	7.5 kg

*Metertech reserve the right to alter specifications without notice

Ordering Information

PART NUMBER	DESCRIPTION
SP-830+	Visible Spectrophotometer
SP-870+	Visible Spectrophotometer
SP-880	Visible Spectrophotometer

