

LI-2802



## (With Peltier Temperature Controller and Sipper System)

**Double Beam Microprocessor** UV-VIS Spectrophotometer LI-2802 Exclusive Model (Eight Cell Holder) (Original / Premium with Japanese Technology)







## **Applications**

- \* Medicine/Pharmaceutical Industry
- \* Environment Monitoring
- \* Commodity Inspection
- \* Food Inspection
- \* Agricultural Chemistry
- \* Teaching in Colleges & Universities
- \* Metallurgy
- \* Geology
- \* Machine Manufacturing
- \* Petrochemical Industries
- \* Water and Waste water Labs
- \* Food and beverages Labs

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> **Perfection in Laboratory Science**





## (With Peltier Temperature Controller and Sipper System)



Display (Graphic LCD

320 x 240 Dots)

1236 🔊 🏧

Soft touch keypad

**Big Sample Room** 

PELTIER SAMPLE HOLDER

STANDARD CONFIGURATION

: 4 Nos

: 2 Nos

: 1 No.

1 No.

: 1 No.

1 No.

1 No.

1 No.

: 1 No.

Glass Cell

Quartz cells

Software CD

Software key

Perfection in

Flow Cell

USB Cable

Instruments Cover

**Operational Manual** 

Laboratory Science

Software Manual

**Double Beam Microprocessor** UV-VIS Spectrophotometer LI-2802 Exclusive Model (Eight Cell Holder With Peltier Temperature Controller and Sipper System) (Original / Premium with Japanese Technology

: Double Beam (1200 Lines/nm Grating)

: 0-200% T,-0.3 -3.0A, 0 – 9999 C

Graphic LCD ( 320×240 Dots )

Deuterium Lamp & Tungsten Halogen Lamp

< 0.05%@220nm&360nm

Basic/Quantative/Wavelength Scan/DNA Protein Test/Kinetics/Multi Wavelength Mode



DOUBLE BEAM UV-VIS Spectrophotometer with more accuracy and flexible requirements. The two detectors are used to measure sample and reference respectively and simultaneously for optimizing measurement accuracy. It has wide wavelength range satisfying requirement of various fields, such as biochemical research and industry, pharmaceuticals analysis and production, education, environment, protection, food industry etc.

## **TECHNICAL SPECIFICATIONS**

190-1100nm

: 1 nm.

: 0.2nm

: ±0.3nm

: ± 0.001A

: ± 0.001A

Parallet Port

USB

: 26 kg

: Fast/Medium/Low

: 0.001 A/h @500 nm

Silicon Photo diode

860×660×465 nm

- Optical System
- Wavelength Range
- Mode
- Scanning Speed
- Band Width
- Wavelength Accuracy
- Wavelength Repeatability Photometric Accuracy
  - : ± 0.3 % T : 0.2 % T
- Photometric Repeatability
- Photometric Display Range Stability
- Baseline Flatness
- Noise
- Stray Light
- Data Output Port
- Printer Port
- Display
- Lamps
- Detector
- Packing Dimension
- Weight

### Technical specification of peltier/sipper system

- 1. The valid temperature range is from 15°c to 65°c
- 2. The valid sampling time range is from 30s to 10min,
- 3. The valid peristaltic pump speed range is from 1 to 12
- 4. The sampling speed is about 50ml/min.
- 5. Power supply is 220±22V@50±1Hz or 110±11V@60±1Hz.

### Accessories

- 1) Control Unit
- 2) Cell holder with Peltier System. (It's already pre-loaded into the compartment of the Spectrophotometer).
- 3) Control Cable (to connect the Control Unit with the Cell holder with Peltier System).
- 4) Peristaltic pump pipe. (It's already pre-loaded into the pump valve of the Control Unit) 5) Power cord.

### SALIENT FEATURES

- · Wide Wavelength range, satisfying requirements various fields.
- Fully automated design, realizing the simplest measurement & satisfying the requirement of pharmacopeia
- Maximum of 9 Wavelength & 8 Sample can be measured at one time
- Automatic change over Between W lamp & D2 lamp
- · Optimized optics and large scale integrated circuits design, light source and receiver
- From world famous measurement methods alladd up to high performance and reliability. · Rich measurement methods: wavelength scan, time scan, multi wavelength Determination multi - order derivative determination, double-wavelength method and triple wavelength
- methods etc, meet difference measurement requirement Automatic 10 mm 8 - cell holder
- · Data Output can be obtained via a printer port and a USB interface
- Parameters and data can be saved for user's convenience.
- · PC controller measurement can be achieved for more accurate and flexible requirement

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## **Basic Mode**

## **DNA/Protein Test**

Concentration and DNA purity are quickly and easily calculated: Absorbance rations: 260 nm / 280 nm with optional subtracted absorbance at 320 nm. DNA concentration = 62.9XA260-36.0XA280 Protein concentration = 1552xA260-757.3xA 280

## **Wavelength Scan**

1. The wavelength scan intervals are 0.1, 0.2, 0.5, 1, 2, 5 nm 2. High, Medium and low scan speed are available. They vary from 100 to 3600 nm/min 3.Wavelength are scanned from high to low so that the instrument waits at high WL. And it minimizes the degradation of UV sensitive samples.

## **Kinetics**





























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To measure the Absorbance and transmittance



## Quantitative

## 1.Coefficient Method

2.Standard Curve Up to 10 Standard sample 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.

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 interval of 0.5,1,2,5,10,30 seconds and one min. Post-run manipulation includes re-scalling, curve tracking and selection of the part of the curve required for rate calculation. Rate is calculated using a linear regression algorithm before multiplying be the entered factor.

> \*Design & specification are subject to change without any prior notice. \*OEM option available

> > ISO 9001:2015 Certified Company