Microprocessor UV-VIS Double Beam Spectrophotometer LI-2704

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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Double Beam UV/VIS Spectrophotometer

spectrophotometer is double beam optical system can restrain drift, compensates for blank changes, Suitable for long time test. It is simple to fit a curve by using your standard with single or dual WL. It have wavelength scanning function using PC software. It is widely used in colleges and QC labs.
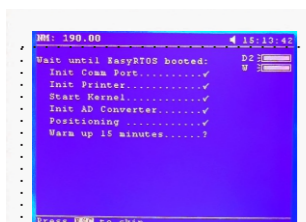
Display (Graphic LCD 320 x 240 Dots)

Soft touch keypad

STANDARD CONFIGURATION

Glass Cell	: 4 Nos.
Quartz cells	: 2 Nos.
Instruments Cover	: 1 No.
Software CD	: 1 No.
USB Cable	: 1 No.
Operational Manual	: 1 No.
Software Manual	: 1 No.
Software key	: 1 No.

TECHNICAL SPECIFICATIONS

• **Model**	:	**LI-2704**
• Wavelength Range	:	190-1100nm
• Spectral Bandwidth	:	1nm
• Optical System	:	Double Beam, Blazed Holographic Grating (1200 lines/mm)
• Wavelength Accuracy	:	±0.5nm
• Wavelength Repeatability	:	≤0.2nm
• Wavelength Setting	:	Auto, Resolution 0.1nm
• Photometric Range	:	**0~200%T, -4~4A, 0~9999C**
• Photometric Accuracy	:	±0.002 A (0~0.5A), ±0.003A (0.5~1A), ±0.3%T (0~100%T)
• Photometric Repeatability	:	≤0.001 A (0~0.5A), ≤0.002A (0.5~1A), ≤0.2%T (0~100%T)
• Stray Light	:	≤0.05%T(220/360nm)
• Scan Speed	:	High, Medium, Low. Max.2000nm/minute
• Baseline Flatness	:	±0.0015A
• Stability	:	±0.001A/h (500nm,0A)
• Noise	:	≤0.2%T/3min (250/500nm,0%T); ≤0.5%T/3min (250/500nm,100%T)
• Sample Compartment	:	10mm Pathlength Cuvette
• Detector	:	Silicon Photodiode
• Lamps	:	Tungsten Lamp & Deuterium Lamp (Pre-aligned)
• Display	:	Graphic LCD (320*240 Dots)
• Keypad	:	30-key Alphanumeric Membrance Keypad
• Output Port	:	USB Port
• Printer	:	Mini Serial Printer; PC Printer
• PC Software	:	UV Analyst Scanning Software
• Power Requirements	:	AC 90-250V, 50/60Hz
• Dimension	:	545x468x245mm
• Weight	:	18kg

SALIENT FEATURES

- Double beam optical system
- Low noise and Low stray light
- Large LCD display, can display curve
- High quality grating, detector and lamps
- Data and Curve can be stored in real-time
- Auto setting WL, auto Blank
- Lamps can be turned on/off individually
- Easy to change Pri-aligned lamps
- Reinforced baseboard and bracket assures durability

Function:

- Photometric: T%, Abs
- Quantitative: Standard Curve
- System Utility
- WL Scan (Spectrum Scan)
- Time Scan (Kinetics)
- DNA/Protein Test

Basic Mode

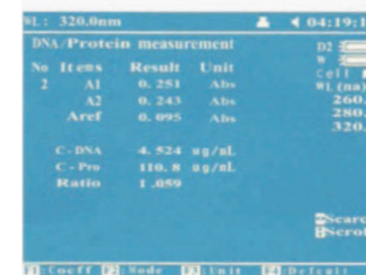**To measure the Absorbance and transmittance**
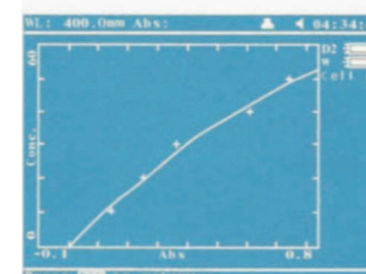
Quantitative

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.

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 = $62.9 X A_{260} - 36.0 X A_{280}$ Protein concentration = $1552 x A_{260} - 757.3 x A_{280}$
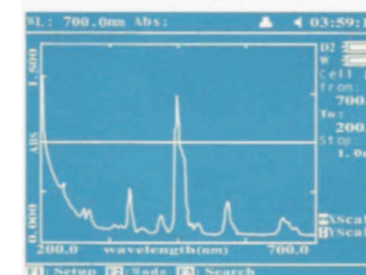
Wavelength Scan

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.
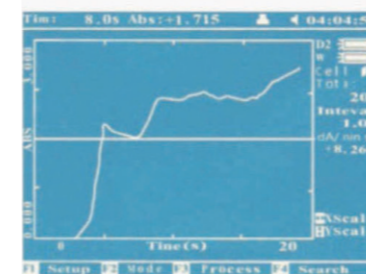
Kinetics

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

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