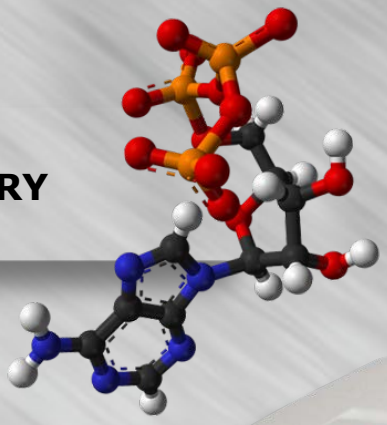
esse 3®

UV-VIS Single Beam Spectrophotometers

LABORATORY

BIOCHEMISTRY



LABORATORY

ES-290

Single beam UV-VIS Spectrophotometer

Cod. ES-290
With 4 cell holder

- It covers 195 to 1000nm
- 4 position cuvettes holder
- RS-232C computer interface
- High wavelength precision
- Compact & good looking shape
- Highly accurate & stable
- Deuterium and tungsten lamps
- Sample chamber that can be placed for 5 ~ 100mm samples
- RS 232 for the computer connection

Display & Key Board

Best Range, Quality Light Source & Detetector

Big Sample Room

Technical features:

Optical System	Single beam (1200 lines/mm Grating)
Wavelength Range	195-1000nm
Spectral Bandwidth	2 nm
Wavelength Accuracy	± 0,5 nm
Wavelength Repeatability	0,3 nm
Resolution	0,1 nm
Photometric Range	0-200% T,- 0.301 -2.000 A,0-1999 C
Photometric Accuracy	± 0,005 Abs at 1.0 Abs ± 0,010 Abs at 1.5 Abs
Stray Light	≤0.3%T @220 nm, 360 nm
Data Readout	Single Line LCD display
Serial Interface	RS 232C Interface
Lamps	Deuterium Lamp & Tungsten Halogen Lamp
Sample Holder	4 position adjustable sample holder
Absorbance Measurements Range	0.000A- 1.999A
Concentration Direct-reading Range	0 - 1999
K factor	0 to 1999
Transmittance Accuracy	≤ 0.5%/3min
Transmittance Reproducibility	0.5%
Transmittance Measurement Range	0.0%- 199.9%
Noise	100% ≤ 0.3%T; 0% ≤ 0.1%
Stability	≤0.002 A/h@500nm
Power	230V ± 10%,50 Hz. AC
Dimensions	540x470x320mm(LxWxH)
Net Weight	9,7 kg

Standard configuration:

- 1 Main Set
- 1 RS232 Cable
- 1 Accessory kit. including a 4 glass cell
- 2 Quarz Cell
- 1 User manual
- 1 Software CD
- 1 Dust cover

Applications:

- Medicine/Pharmaceutical Industry
- Environmental Monitoring
- Commodity Inspection
- Food Inspection
- Agricultural Chemistry
- Teaching in Colleges & Universities
- Metallurgy
- Geology
- Petrochemical Industries
- Water and Waste Water Labs
- Food and Beverage Labs

CE

LABORATORY

ES-295

Single beam UV-VIS Spectrophotometer

Cod. ES-295
With 4 cell holder and wavelength scanning software

- Large LCD display.
- Can display and save 50 groups of data, 5 groups per screen.
- Data can be restored after a sudden power cut.
- Auto setting Wavelength
- Tungsten lamp & deuterium lamp can be turned on/off individually to extend lifetime.
- Automaticai Wavelength Calibration and dark current getting.
- Wavelength Scanning Software

UV-VIS Spectrophotometer single beam ES-295 models are designed for continuous operations

Technical features:

Optical System	Single beam (1200 lines/mm Grating)
Wavelength Range	190-1000nm
Mode	T, A, C, F
Band Width	2 nm
Wavelength Accuracy	± 1 nm
Wavelength Repeatability	0,5 nm
Wavelength Setting	Auto
Photometric Accuracy	± 0,5%T
Photometric Repeatability	0,3%T
Photometric Range	-0.3-3A,0-200%T
Stability	0.002A/h @ 500nm
Stray Light	≤0.3%T
Data Output Port	USB
Printer Port	Parallel Port
Display	Graphic LCD (128x64 Dots)
Lamps	Deuterium Lamp & Tungsten Halogen Lamp
Detector	Silicon Photodiodes
Dimensions	420x280x180mm (LxWxH)
Net Weight	12kg

Standard configuration:

- 1 Main Set
- 1 USB Cable
- 1 Accessory kit. including a 4 glass cell (1 cm)
- 2 Quarz Cell (1 cm)
- 1 Software user manual
- 1 Software CD
- 1 Software key
- 1 Dust cover
- 1 Power Cable

Applications:

- Medicine/Pharmaceutical Industry
- Environmental Monitoring
- Commodity Inspection
- Food Inspection
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Firmware functions (ES-295):

T Mode: Continuously measure the Transmittance of Sample

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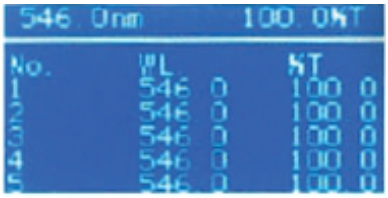
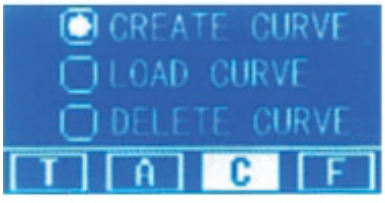


A Mode: Continuously measure the Absorbance of Sample

START

C Mode: Standard Curve method, can use at most 9 standard samples to create a new standard curve, and to measure the unknown samples by the new one



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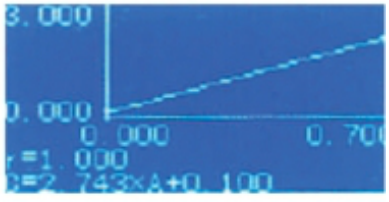
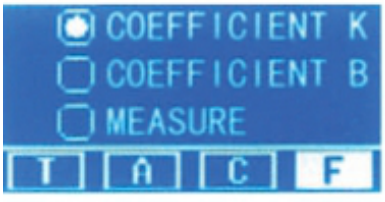


F Mode: Coefficient Method, input the known K and C to measure the unknown concentration samples.



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