

The quotation should be supported with available printed brochure of the required item and authorized dealer certificate of the manufacturers. The quotation must reach the PI, Prof. Shanthy Sundaram (email ID: shanthy.cbt@gmail.com), Centre of Biotechnology, University of Allahabad, Allahabad on or before 15th September, 2017.

S. Shanthy

Prof. Shanthy Sundaram

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Development of Biogenic 3D
Nanoporous Silica-based Sensor
Centre of Biotechnology
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SYSTRONICS Type 2202, PC Based double Beam UV-VIS Spectrophotometer (200nm-1100nm) With 2 nm B/W including operating software, but w/o PC)

SPECIFICATIONS:-

OPTICS

Modified Czerny-Turner Monochromator geometry for better aberration correction. Holographic diffraction grating with 1200 lines/mm blazed at 250nm, and advanced split Beam Technology with PC controlled settings.

WAVELENGTH

Range	:	200 to 1100nm
Accuracy	:	± 0.5nm
Repeatability	:	±0.2nm
Resolution	:	0.1nm (200 to 1100nm)
Bandwidth	:	2.0 nm

PHOTOMETRIC

Range	:	-2.5 to 2.5 Abs (±4.0 Abs)
Accuracy	:	± 0.005 Abs at 1.0Abs
Repeatability	:	± 0.002 Abs at 1.0 Abs

STRAY LIGHT

Less than 0.05% T at 220nm and 370nm

BASELINE CORRECTION

Automatic Baseline Correction, using Advanced Digital Signal Processing (DSP) techniques.

BASELINE FLATNESS

Within ± 0.003 Abs from 200nm to 1100nm (excluding noises) after baseline calibration.

SCAN SPEED

Slow, Medium & Fast

DATA INTERVAL

Depends on wavelength scan range and scan speed

SAMPLE HOLDER

Five position automatic positioning for 10mm cuvette for samples & one fixed position for reference cuvette

SOURCE

Tungsten-Halogen lamp (320nm to 1100nm)
Deuterium lamp (200nm to 340 nm)

DETECTOR

Two Si-Photodiode

ORDER CUT -OFF FILTER

Four glass filters, automatically positioned to eliminate grating special order interfaces

MINIMUM VOLUME

1. With cell riser 250 μ l in 1ml cuvette, 1ml in 4 ml cuvette
2. Without cell riser 500 μ l in 1 ml cuvettes, 2ml in 4ml cuvette

OPERATING MODES

1. Single Wavelength
2. Multi Wavelength(Max. 15 Wavelengths)
3. Scan (with multi-scan facility)
4. Time/Kinetic Scan (with Derivative facility)

MEASURING MODES

1. Absorbance
2. %Transmittance
3. Concentration (K-factor, Multi Standard)
4. Multi-Component Analysis (Max. 10 components)

AUTOMATIC CALIBRATIONS/OPTIMISATIONS (GLP/GMP)

1. Baseline Calibration
2. Source optimisation
3. Cell Optimisation
4. Wavelength Calibration
5. Electronic Calibration
6. Self-diagnosis

DATA PROCESSING

1. Peak Pick/Point Pick/Valley pick
2. Expansion/Compression of spectra
3. 1st, 2nd, 3rd, and 4th Derivative
4. Averaging of Scans
5. Subtraction of first two scans
6. Three level of smoothing of Spectra
7. Ratio, Corrected ratio, 2 point and 3 point Net Abs (The facilities can be used for DNA & Protein Analysis)
8. Comparison of concentration

DATA PRESENTATION :

Display of graphic and tabular data on computer Monitor, permanent data storage on hard disk or floppy disk; hard copy of graphic and tabular data on printer.

COMPUTER SYSTEM

PENTIUM-IV or higher version with Colour Monitor
RS-232 port or USB port with WIN-XP Operating System or above

RS 232 PORT

PC Control (RS-232 or USB to serial)

POWER

230V, \pm 10% , 50 Hz

DIMENSION :

520 (W) x 500(D) x 190(H)mm

WEIGHT

23 kg (Approx)

ACCESSORIES :

Matched 10mm Quartz Cuvettes

OPTIONAL ACCESSORIES :

- Holders for 50mm or 100 mm Cylindrical and rectangular cuvettes
- Personal Computer / Laptop / Windows compatible printer
- For Kinetic Scan, use External Control Dry Bath / Incubator