



SPECTRO™ UV 2080 / UV 2080+ Double Beam

Specifications

Model	Spectro UV 2080	Spectro UV 2080+
Optical system	Double Beam 1200L/mm, Czerny Turner and automatic lamp peaking, holographic grating (Quartz quoted optics)	
wavelength Range	190~1100nm	
Band Width	1 nm (190 to 1100nm)	0.5/1/2.0/4.0/5.0nm with 0.1 nm increment
Wavelength Accuracy	± 0.1 nm (656.1nm) D2 ± 0.3 nm (at all wavelengths)	
wavelength Repeatability	≤ 0.05 nm	
wavelength setting	0.1 nm	
Wavelength Reproducibility	0.02 nm with holmium oxide filter	
Photometric Accuracy	±0.002 Abs (0.5Abs); ±0.004 Abs (1.0Abs); ±0.006 Abs (2.0Abs) (NIST930D/NIST1930)	
Photometric Repeatability	Less than ±0.0002 Abs at 0.5Abs; Less than ±0.0002 Abs at 1.0Abs; Less than ±0.0010 Abs at 2.0Abs	
Photometric Reproducibility	≤ 0.0001 Abs	
Photometric Range	Absorbance:-3 to 3 Abs Transmittance:0% to 400%	
Stability	Less than 0.0003Abs/at 700nm	
Baseline Flatness	±0.0005A (190-1100nm)	
Resolution	± 0.3 nm/>1.6(peak-to-valley ratio;toluene in hexane)	
Noise	0.00004 Abs RMS value (at 700nm)	
Stray Light	Less than 0.50% at (198 nm KCl), Less than 0.02% at (220 nm NaI), Less than 0.02% at (340 nm NaNO2)	
Drift	<0.0005 A/HR	
Measurement Modes	Absorption, Transmission, Reflectance	
Date Output	USB/RS-232C	
Print	Parallel Port	
Wavelength slew rate	Hi,Med,Slow,24,000 nm/min	
Scan Speed	Hi, Med, Slow 0.5nm/min to 6000nm/min	
Light Source	Tungsten Halogen, Deuterium lamp (2000h) (Xenon flash lamp)	
Light source switching	Automatic	
Dimension	600(L) x 450(w) x 200(H)mm	
Weight	28kg	30kg
Detector	Silicon Photodiodes	
Power	230 VAC +/- 10 %, 50/60 HZ	

Spectro UV 2080 Series is an advanced double beam design consisting of six models.

Stand alone model:

UV-2080 with 1 nm fixed bandwidth

UV-2080 + with variable bandwidth: 0.5/1/5nm

Other specifications of the six models are almost the same except bandwidth.

The two detectors measure sample and reference respectively and simultaneously for optimizing measurement accuracy. They provide excellent performance for measurements in range of 190 to 1100 nm. They are suitable for pharmaceutical, bio chemical and clinical lab applications as well as routine applications such as Quantitative analyses, kinetics, wavelength scan, multiple components and DNA/ Protein System fully upgradable to 21 CFR PC Windows application. software make these instruments versatile, Cell compartment easily adjustable and accessible to keep 10 mm (with 1nm increment) cuvettes. Automatic changeover of lamp is possible. Sample compartment contain one reference holder and one sample holder separately.

- Fixed or variable slits(bandwidths)
- Measuring technology: Beam splitters/ optical fiber
- For stand alone models, all software methods are included as built in standard this eliminates the need of software.
- Online software upgrade via internet helps to keep it updated.
- Date download to PC software expands the data storage to unlimited.
- The stand alone models has 5 inch screen and the PC models has UV/VIS Analyst software. Stand alone models have the same functions as UV series, see next page for details GLP/GMP complied.
- Software have spectrum overlay, peak pick up function.
- Display: High resolution LCD display.

UV SPECTRA™ Control Software

The Analytical windows based PC application software UV/Vis analyst takes the best features of the stand alone version plus more powerful data processing, expanded data collection and storage capability. It comes standard with Analytical PC models and is optional to stand alone models.

The PC application software offers:

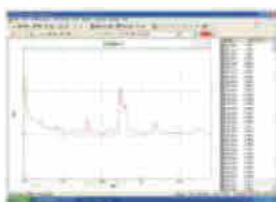
- | | |
|---------------------------------------|---------------------|
| 1. Photometric Mode | 5. DNA/Protein |
| 2. Quantitative taut (standard curve) | 6. Multi-Wavelength |
| 3. Wavelength Scan | 7. System Utility |
| 4. Kinetics | |



Use up to 20 standards to establish standard curve. Four methods for fitting a curve:

1. Linear fit
2. Linear through zero
3. Square fit
4. Cubic fit

Quantitative taut (standard curve)



wavelength scan

Automatically record peaks and valleys. The quantity of channels is unlimited. You can simultaneously store as many as desired. Post run manipulation and processing includes:

1. Re-Scaling axes, curve
2. 1st to 4th derivative
3. Smoothing, combination, zooming, overlap.



KINETICS (ABS VS. TIME)

The kinetic mode may be used for time course scanning or reaction rate calculations. Abs vs. Time graphs are displayed on the screen in real time. Waiting time measurement time and intervals may be entered.

Post run manipulation includes re scaling, curve tracking and selection of the part of the curve required for the rate calculation.

Rate is calculated using a linear regression algorithm before multiplying by the enterd factor.



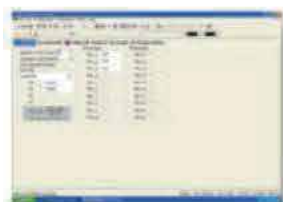
DNA / PROTEIN

Concentration and DNA purity are quickly and easily calculated: absorbance ratios 260nm/280nm with optional subtracted absorbance at 320nm

DNA Concentration = $62.9 \times A_{260} - 36.0 \times A_{280}$

Protein Concentration = $1552 \times A_{260} - 757.3 \times A_{280}$

Other wavelengths and factors may be entered.



Multi-Wavelength

Up to 20 wavelengths can be selected and multiple samples can be measured. (Auto cell changer is required to run multiple samples automatically)

Optional Accessories



4-Cell Holder For 10mm Swu.Cuvette



4-Cell Holder For 50mm Swu.Cuvette



4-Cell Holder For 100mm Swu.Cuvette



Cylindrical Cell Holder



Water jacketed Cell Holder



Micro Cell Holder



Test Tube Holder



8 - Position Auto Cell Changer



Solid Sample Holder (single Cell)



10mm Water jacketed 4 Cell Holder



Square Cuvettes Glass
10mm, 20mm, 30mm, 50mm, 100mm,
Square Cuvettes Quarts
10mm, 20mm, 30mm, 50mm, 100mm



Micro Cell Quartz
100ul, 200ul, 500ul



Self Masking Cont. Flow Through G.cell
5mm, 10mm, 20mm, 30mm,
Self Masking Cont. Flow Through Q.cell
5mm, 10mm, 20mm, 30mm



Halogen Lamp
6V10w
12V20w



12V20W HALOGEN LAMP
6V10W, 12V20W



Constant temperature Sipper System



Constant temperature System



Sipper System



Thermal Printer

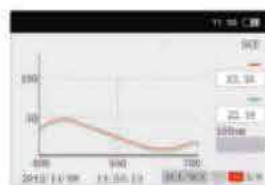


Deuterium Lamp

Color Spectro CS 3600

High performance-price ratio among similar international products;

- CS 3600 integrates multiple innovative characteristics, and extends the boundary of on-site quality control during production:



- It can be applied to laboratories, factories and on-site operations, and can achieve the best color management across all application fields' quality control;
- Allows medium and small companies to obtain high performance color management system with relatively low price;
- The software contains all necessary color equations, standard light sources, and a large number of standards for specific industries and applications;
- Operation system supports both English and Chinese Interfaces, and CHN Spec offers to design the interface in other languages based on the needs of our customers;

- Allows quick comparison between two color samples. and shows clear results in numbers or in graphs.

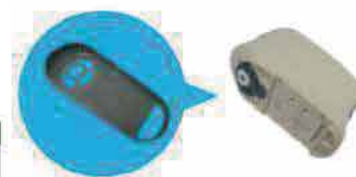
Professional design and powerful instrument functions



- Professional horizontal design, and it does not have any moving parts. which avoids the shaking of the instrument during measurement process. This makes the measurement more accurate;

- PC software for easy measurement data management;

- Pre-locating panel design for easy instrument calibration;



- Can measure both SCI and SCE at the same time.

- Large data storage space: can store up to 100 sets of standard samples. with up to 200 measurement records for each standard sample;

Specifications

Model	CS-3600
illumination/observation system	D/8 (diffused light, 8" reception, SCE/SCI)
Sensor	Photoelectric diode array
Integrating sphere diameter	40mm
Wavelength range	400nm - 700nm
Wavelength interval	10nm
Half bandwidth	≤14nm
Range of reflectance	0-175%, resolution 0.1%
Light source	Composite LEDs
Measuring time	About 1.5 seconds
Measuring caliber	8mm
Repeatability	The standard deviation within ΔE^*_{ab} 0.08, the standard deviation within 0.2%
Inter instrument agreement	Within ΔE^*_{ab} 0.4 / standard color boards.
Languages	English (optional language of your choice)
Standard observer	2° and 10°
Observation light source	A, C, D50, D65, F2, F6, F7, F8, F10, F11, F12 (can select two light sources for display at the same time)
Displayed contents	Spectral data, spectral chart chromatic values chromatic aberration value, pass / fail color simulation.
color space / standards	L* a* b*, L* C* h, ΔE^*_{ab} (CIE 1976) ΔE^*_{94} (CIE1994) ΔE^*_{00} (CIE2000), CMC (1.1) CMC (2.1) Yxy, Xyz, WI (ASTM E 313/CIE YI (ASTM E313/ ASTM D1925), ISQ brightness (iso 2470), Density status A/T, CIE00, WI/Tint
Data storage	100 x 200 (100 sets of standard samples, up to 200 measurement records under each standard sample)
Port	USB
Power source	Detachable lithium-ion battery pack, DC adapter
Operation temperature and humidity range	5 to 40°C, relative humidity 80% or less (at 35°C) with no condensation
Storage temperature and humidity range	0 to 40°C, relative humidity 80% or less (at 35°C) with no condensation
Display	2.8-inch TFT color screen
Accessories	Black and white calibration box, pre-locating panel
Optional accessories	Mini-printer
UV fluorescent	Without UV

▶▶▶ Regulatory compliances



▶▶▶ Corporate Social Responsibility



Analytical Foundation is a nonprofit organization (NGO) founded for the purpose of:

1. Research & Innovation Scientist's awards / QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various fields of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops / Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds, souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Comps etc.

▶▶▶ Reach us @



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