

X-Series

UV-Vis Spectrophotometer with Xenon lamp



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

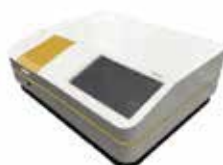
►► Product Description:

the UV-Vis spectrophotometer adopts Xenon flash lamp as light source, which can be used for 3 years. The latest ARM system and long optical system ensure high accuracy and good stability of the instrument. They are the best choice of high quality spectrophotometer. true double beam with Silicon diode detector for sample and reference

►► Feature

- Imported Xenon lamp makes the instrument more fast & convenient. it can be operated immediately after starting without preheating.
- the in-house massive memory is capable of saving up to 1024M for test data & working curves. It supports USB storage. The USB port can be used for data transfer, which is easily exported to Excel for further processing, analysis and storage.
- Powerful functions like Photometric measurement, Quantitative measurement, Kinetics, Spectrum scan, DNA\Protein test, multi-wavelength test, time course measurements etc.
- Large room for samples can hold cuvettes of various specifications.
- Auto 8-cell holder is optional.
- 21 CFR Management software is optional.
- Wavelength Resolution: 0.1 nm

►► Specifications:

Model	3080	3080F	3080TS	3090	3090F	3090TS
Picture						
Optical System	Double beam Grating withCzerny Turner monochromator at least 1200 line/mm, blazed at 240nm, with modified ebert Design.					
Wavelength Range	190-1100 nm					
Spectral Bandwidth	2nm	1nm	0.5/1/2/4/5	2nm	1nm	0.5/1/2/4/5 nm(variable)
Wavelength Accuracy	±0.1nm					
Wavelength Repeatability	<=0.1nm					
Photometric Accuracy	±0.003 Abs (at 0.5 Abs), ±0.004 Abs (at 1.0 Abs)					
Photometric Repeatability	1Abs: ±0.0006 Abs					
Photometric Range	-3 to +3Abs, at 0-300%T;					
Stray Light	<1% at 198nm(KCL) ≤0.05%T, at 220nm(NaI) ≤0.03%T, at 340nm(NaNO ₂)					
Drift	<0.00013A/hr					

Noise	±0.00005Abs@500nm			
Stability	±0.0002A/h@500nm		±0.0003A/h@500nm	
Baseline Flatness	±0.0002A		±0.0003A	±0.001A
Work mode	T, A, C, E			
Data intervals	0.5, 0.1, 0.5, 1, 2, 5,10			
Scanning speed	Fast, Mid, Slow <1 to 4000nm/min			
Wavelength setting	Auto			
Display	7" color LCD		10.1" color touch LCD	
Light Source	Xenon flash lamp, D2 Lamp, Halogen lamp, Tungsten Halogen lamp, LED			
Detector	Silicon Photodiode			
Output	USB/RS232			
Power	AC 220V/50Hz or AC 110V/60Hz			
Dimension	590 x 475 x 250mm	760*560*280mm	590 x 475 x 250mm	760*560*280mm
Net Weight	20kg	28kg	20kg	28kg
Shipping Size	770*630*340mm	950*750*420mm	770*630*340mm	950*750*420mm
Gross Weight	27kg	36kg	27kg	36kg

►► UV SPECTRA TM Control Software:

The Analytical windows based PC application software UV/Vis analyst takes the best features of the standalone 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: Photometric Mode, Quantitative test (standard curve), Wavelength Scan, Kinetics, DNA/Protein, Multi-Wavelength, System Utility

6-Cell turret, operating software with latest configuration, automatic monitor power-off time setting function, Intelligent start function etc. Scale changing, Trace, Statistical calculation, Spectrum overwriting, Peak detection Smoothing, Differentiation, Area calculation, Rate calculating, nucleic acid etc.

File or report output in CSV format Data/measurement condition saving functions, file search function, Wavelength calibration, Lamp usage time monitoring, Sample chamber opening/closing detection, Performance evaluation. Performance evaluation using mercury lamps, Maintenance history storage

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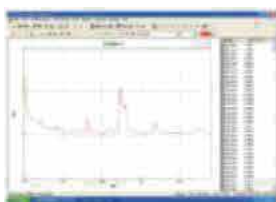
- | | |
|---------------------------------------|---------------------|
| 1. Photometric Mode | 5. DNA/Protein |
| 2. Quantitative tast (standard curve) | 6. Multi-Wavelength |
| 3. Wavelength Scan | 7. System Utility |
| 4. Kinetics | |



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 tast (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



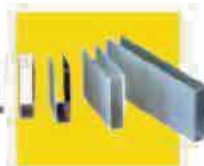
8 - Position Auto Cell Changer



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

Regulatory compliances



Corporate Social Responsibility

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



Analytical
Foundation

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 field 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, Camps etc.

Reach us @



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