Guide Line
Spectrophotometer

1.Which field does UV-VIS Spectrophotometer mainly used in ?
It can be widely used in chemical, medicine, biochemistry, metallurgy, light industry, textile, material, environmental protection, medical science testing, teaching and other industry. It is one of the most important quality detecting instrument in analysis testing field and essential instrument in routine laboratory.

2.What index should we pay attention to when choose instruments?
Wavelength range, Wavelength accuracy, Photometric accuracy, Stray light, Stability, Noise level, Single beam or Double beam, Fixed bandwidth or Adjustable bandwidth.

3.How to ensure the optical system more stable?
Hanon UV-VIS Spectrophotometer series, all components of the optical system fixed on the strengthened and thickened bottom plate to eliminate the deformation of plate or vibration of external affecting optical system accuracy. The light source of optical system, detector and core components are all top-level.

4.Why need to configure the PC software?
PC software also called computer control software or workstation, can make user operate the instrument more conveniently. It is convenient for user to store data and analyse experimental curve more detailed. It can achieve more additional functions.

5.What function can implement by PC software?
The main unit and PC software can independently implement functions of Quantitative, Kinetics, Wavelength Scan, Multi Wavelength, DNA/Protein and Data processing.

6.What is differences between single beam and double beam?
Single beam: Centralized energy, high signal to noise ratio, simple structure. Cannot be offset effect on test results by a stray light, fluctuation of the light source, electronic noise.
Double beam: Not only eliminate the error caused by the light source, also offset the error caused by the solvent, offset partial stray light and noise, to make the test results more accurate and stable.

7.What is differences between fixed bandwidth and adjustable bandwidth?
If you need qualitative analysis, adjustable bandwidth will be better.
The bandwidth is narrower, the monochromaticity is better.
However, in the practical application, monochromaticity becomes good, light energy becomes weak, the fluctuation of test result will become larger. So choosing the bandwidth is not the narrower the better. It is according to sample, the maximum bandwidth as bandwidth becoming narrow and absorbance not changing is the best test bandwidth.

8.Is it convenient to change deuterium and tungsten lamp?
Changing deuterium and tungsten lamp is easily, only need to take off the damaged lamp and put on new one, without bothering with adjustment optical system.

i Series UV-VIS Spectrophotometer
i2/i3/i5/i8/i9

i2 Visible Spectrophotometer

1. Standard scanning software can directly complete functions of Quantitative;Kinetics;Wavelength Scan; Multi Wavelength; DNA/Protein and Data processing.
2. Can establish calibration curves and implement associated tests. The instrument internal can be stored with 200 groups of data and 200 standard curves.
3. Suspended posture optical system design, strengthen and thicken the bottom plate to eliminate the vibration or transformation's impact on the optical system.
4. Automatic wavelength calibration and automatic deviation repair.
5. Tungsten and Deuterium lamp can be changed easily, without adjustment.
6.Standard with PC software.

i3 UV-VIS Spectrophotometer

1. Standard quantitative software can directly complete photometric analysis, quantitative test and processing of analytical data.
2. Can establish calibration curves and implement associated tests. The instrument internal can be stored with 200 groups of data and 200 standard curves.
3. With calibration curve method, we can establish multiple-point standard curve directly, on basis of which we can measure the concentration of the unknown sample.
4. With coefficient method, we can implement sample measurement directly after inputting coefficient of the curvilinear equation.
5. Automatic wavelength calibration and automatic deviation repair.
6. Deuterium and tungsten lamp can be changed easily, without adjustment.
7.Standard with PC software

i5 UV-VIS Spectrophotometer

1. The main unit and PC software can independently implement functions of Quantitative;Kinetics;Wavelength Scan; Multi Wavelength; DNA/Protein and Data Printing,PC software can complete the function of data processing.
2. Strong function of data processing makes user editing can be easier and more convenient.
3. Suspended posture optical system design, strengthen and thicken the bottom plate to eliminate the vibration or transformation's impact on the optical system.
4. Adopt synchronous sine institutions, high accuracy of the wavelength, repeatability.
5. Standard with PC software

i8 Double-Beam UV-VIS Spectrophotometer

1. Double beam optical system.
2. The Main unit and PC software can independently implement functions of Quantitative;Kinetics;Wavelength Scan; Multi Wavelength; DNA/Protein and Data Printing,PC software can complete the function of data processing.
3. Suspended posture optical system design, strengthen and thicken the bottom plate to eliminate the vibration or transformation's impact on the optical system.
4. 24-bit high speed and high precision A/D conversion, and improve the sensitivity of the instrument.
5. The core components are imported from Germany and Japan.
6. The best optical system, based on top structure design, top technological requirements and top raw materials.
7. Standard with PC software

Industries

i9 Double-Beam UV-VIS Spectrophotometer

1. Double- beam optical system.
2. The Main unit and PC software can independently implement functions of Quantitative;Kinetics;Wavelength Scan; Multi Wavelength; DNA/Protein and Data Printing,PC software can complete the function of data processing.
3. Suspended posture optical system design, strengthen and thicken the bottom plate to eliminate the vibration or transformation's impact on the optical system.
4. 24-bit high speed and high precision A/D conversion, and improve the sensitivity of the instrument.
5. 0.5/1.0/2.0/4.0/5.0 bandwidth can be adjusted automatically
6. The core components are imported with original packaging.
7.The best optical system, based on top structure design, top technological requirements and top raw materials.
8. Standard with PC software

	i2	i3	i5	i8	i9
Wavelength Range	320-1100nm	190-1000nm	190-1100nm		
Bandwidth	2nm	2nm	1.8nm	1.8nm	0.5/1/2/4/5nm
Wavelength Accuracy	±0.5nm	±1nm	±0.5nm	±0.1nm(D2 656.1nm),±0.3nm	
Wavelength Reproducibility	≤0.2nm	≤0.3nm	≤0.2nm	≤0.1nm	
Photometric Accuracy	±0.3%T	±0.5%T	±0.3%T	±0.2%T	
Photometric Repeatability	≤0.15%T	≤0.2%T	≤0.15%T		
Straylight	≤0.05%T			≤0.03%T	
Stability	±0.001A/h(500nm)			±0.0004A/h(500nm)	
Baseline Flatness	±0.001A/h	—	±0.001A	±0.001A	
Noise	±0.0005A	—	±0.0005A		
Photometric Range	0-200%T, -0.3--3A, 0-9999C				
Wavelength setting mode	Automatic				
Scanning speed	—	—	HI,MED,LOW,Optional		
Output	USB Port				
Printer port	Parallel Port				
Display	Graphic LCD(128*64)		LCD(320*240)		
Light Source	Tungsten Halogen Lamp	Deuterium&Tungsten Halogen Lamp			
Detector	Silicon Photodiode				
Power	AC 220V/50Hz or 110V/60Hz				
Dimension	460x380x180mm	460x380x160mm	460x380x180mm	625*430*210mm	
Weight	15Kg	13Kg	20Kg	28Kg	28Kg