

UV-Visible Spectrophotometer



Brand : JASCO  
 Model : V-530  
 Custodian : Sirichai Kositarat

Description and Specification:

Optical system:	Double beam, single monochromator with a 1200 grooves/mm concave grating and modified Rowland mount
Spectral bandwidth:	2 nm
Wavelength range:	190 - 1100 nm
Light sources:	Deuterium lamp for UV range (190 - 350 nm), Halogen lamp for VIS range (330 - 1100 nm)
Light source switching:	Selectable within a range of 330 to 350 nm
Wavelength repeatability:	± 0.1 nm
wavelength accuracy:	± 0.5 nm
Photometric modes:	Abs, %T, %R
Photometric range:	-2 - 3 Abs
Photometric reproducibility:	± 0.001 Abs (0 - 0.5 Abs) ± 0.002 Abs (0.5 - 1 Abs) ± 0.15 %T
Photometric accuracy:	± 0.002 Abs (0 - 0.5 Abs)

	<p>± 0.004 Abs (0.5 - 1 Abs)</p> <p>± 0.3 %T</p> <p>(Above figures obtained using NIST SRM 930D)</p>
Stray light:	<p>0.04 %T</p> <p>both at 220 nm with NaI 10 g/l solution and at</p> <p>340 nm with NaNO<sub>2</sub> 50 g/l solution</p>
Wavelength scan speed:	4000, 2000, 1000, 400, 200, 100, 40 nm/min
Wavelength slew speed:	8000 nm/min
Sampling interval:	<p>0.1, 0.2, 0.5, 1, 2 nm/data (spectral scan mode)</p> <p>0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10 sec/data (time scan mode)</p>
Baseline stability:	<p>± 0.001 Abs/hour</p> <p>Response: Slow (250 nm, lamp on longer than 60 min, temperature variation ± 5°C)</p>
Baseline flatness:	<p>± 0.001 Abs</p> <p>within 200 - 1000 nm range after baseline correction</p> <p>Response: Medium</p> <p>Scan speed: 100 nm/min</p>
Response:	Quick, Fast, Medium, Slow
Detector:	Silicon photo-diode (S1337)