

Model No:	Description:
PHO-SES 200	<p>Phosphor VUV/UV/VIS Spectral Evaluation System</p> <p>The Resonance Phosphor Evaluation System uses a computer-controlled tunable vacuum ultraviolet light source with design optimized for test of phosphor emission and luminescence. It delivers vacuum ultraviolet (VUV) excitation wavelengths to samples on a target holder and measures their spectral phosphorescence with a fiber optic coupled CCD spectrometer. This is an excellent system for quality control, fundamental research and development of VUV and UV excited emitting materials.</p> <p>Features include:</p> <ul style="list-style-type: none"> • 120 to 400 nm tunable light source with 0.15 to 10 nm spectral bandwidth • Reference VUV solar blind PMT for tunable light source for absolute VUV/UV flux onto sample and transmission of sample • 10 sample positions on standard wheel • Modular design allows change of emission sources and detection optics • Compact footprint less than 1 sq. meter • Turn-key oil free pumping system • Emission spectrometer uses high sensitivity UV/Vis/NIR PMT for a wide spectral range from 200 to 900 nm. • VUV solar blind PMT transmission detector • Order sorter with 2 long pass filters • LabView based software with USB interface

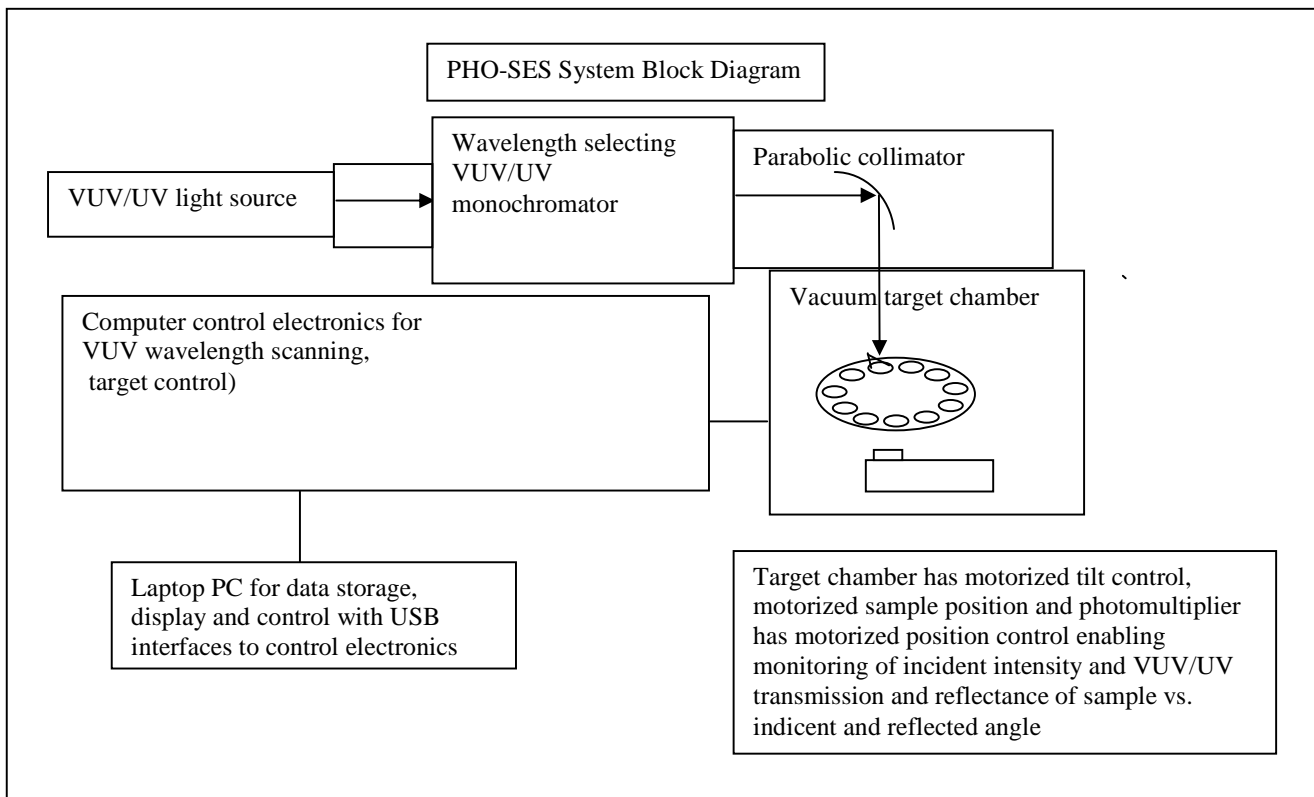
Light Source Specifications:					
Specification	Minimum	Typical	Maximum	units	
Lamp	Deuterium				
Stability:	Long Term	-	1	-	% per hour
	Short Term	-	0.1	-	% per sec
Spectral Output	120	-	400	-	NM
VUV Intensity		2×10^{15}	5×10^{15}		Photons/sec/sr
UV Intensity		3×10^{14}	5×10^{14}		Photons/sec/sr
Certification	NIST Traceable Calibration of Irradiance in Vacuum				
Full angle output cone	30	45	65		Degrees
Input Power	18	25	30		Watts
Input voltage	70	115	260		VAC
Input Line Frequency	50	60	65		Hz
Mounting flange	2 3/4 inch Conflat is standard				
Pulse	Modulation to 1 kHz				

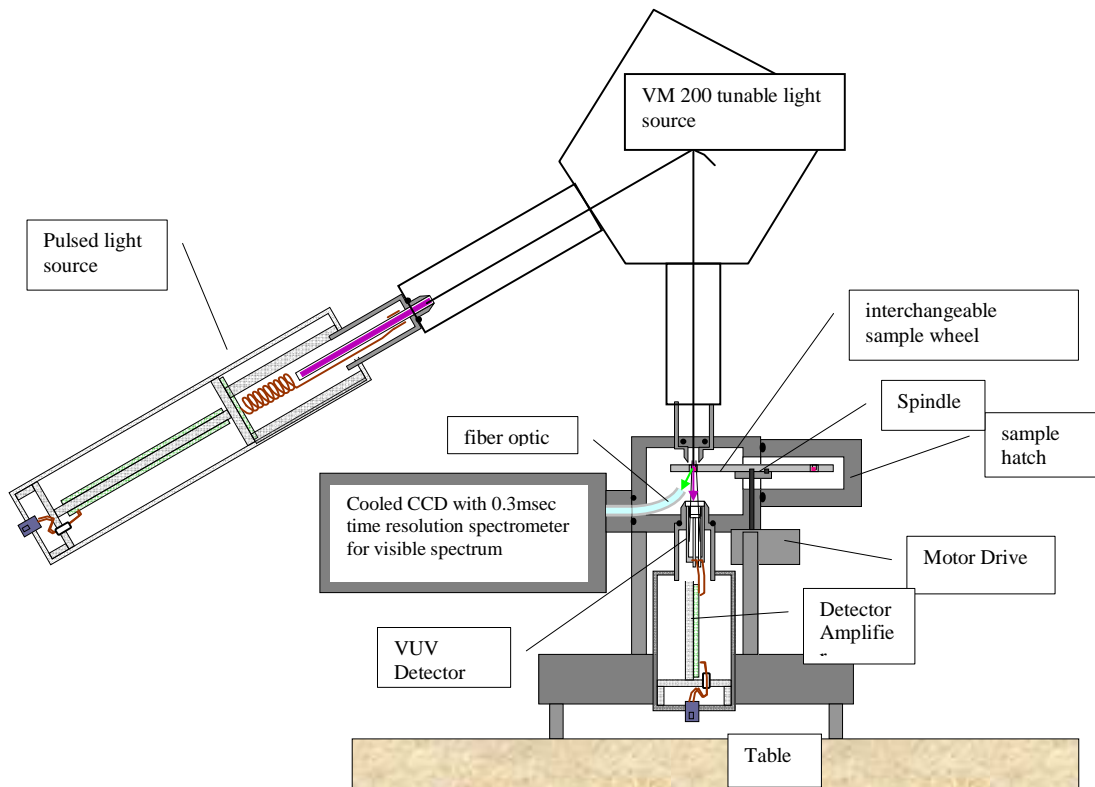
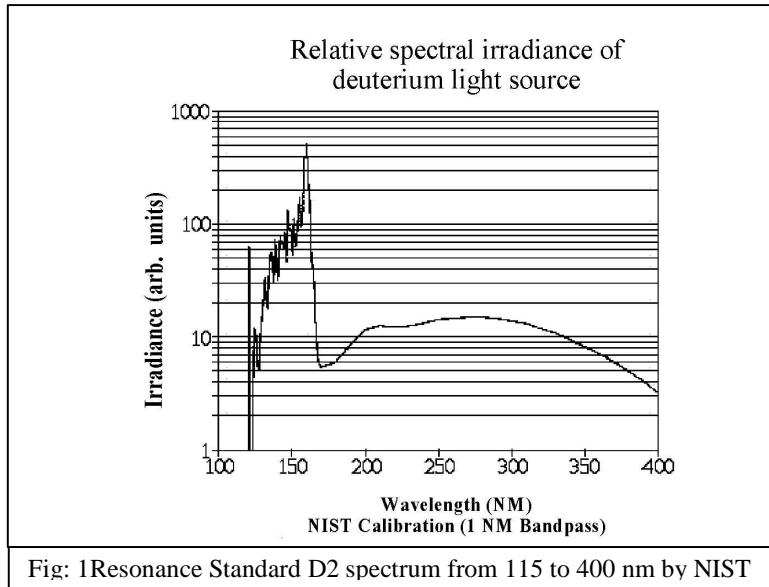
Tunable Monochromator Specifications:

Specification	Minimum	Typical	Maximum	units
Slits adjustable to	10	-	4000	μm
Focal Length	-	200	-	mm
Standard Grating	-	1200	-	g/mm
Grating Size	-	42 × 42	-	mm
Resolution	-	0.1	-	nm
Dispersion	-	3.45	-	nm/mm
Efficiency (@ 150nm)	-	> 50	-	%
Wavelength Repeatability	-	0.2	-	nm
Stray light		$< 2 \times 10^{-4}$		
Vacuum		$< 1 \times 10^{-6}$		torr

Sample Analysis System Specifications:

Specification	Minimum	Typical	Maximum	units
No of Samples	-	10	20	
Visible spectrometer resolution	-	1	-	nm
Range	200	-	900	nm
F No.	-	3	-	
Vacuum	-	$< 1 \times 10^{-6}$	-	torr
Pumping speed (to 10^{-5} torr)		< 15		mins





Schematic Drawing of the Resonance Ltd. Phosphor Spectral Evaluation System (PHO-SES)