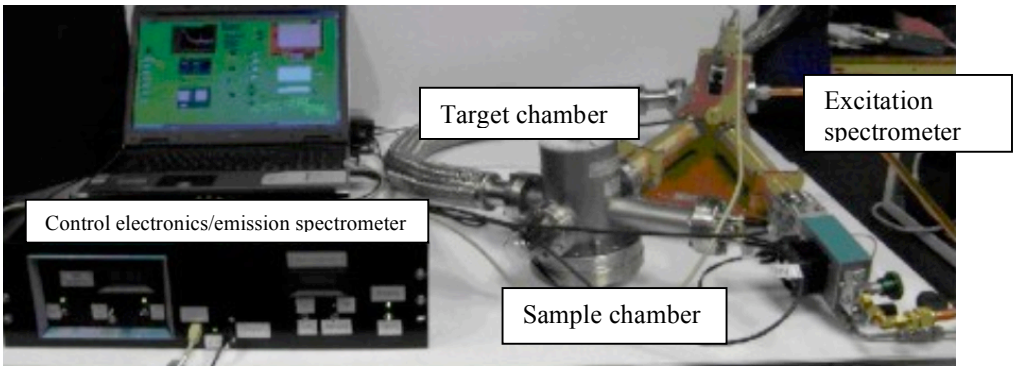
Model No:	Description:
PHO-SES 300	**Phosphor VUV/UV/VIS Spectral Evaluation System** **The Resonance Phosphor Evaluation System uses a computer-controlled tunable vacuum ultraviolet light source with design optimized for test of phosphor emission and luminescence.** It delivers vacuum ultraviolet (VUV) 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. Features include: • 115 to 400 nm tunable light source with 0.15 to 10 nm spectral bandwidth • Reference PMT for tunable light source for absolute VUV/UV flux onto sample, reflectance and transmission of sample • 10 sample positions on standard wheel • Bi-Directional control of excitation and emission angles • Modular design allows change of emission sources and detection optics • Compact foot print less than 1 sq. meter • Turn-key oil free pumping system • Emission spectrometer uses high sensitivity back thinned CCD for a wide spectral range from 180 to 1,000 nm



PHO-SES Key components

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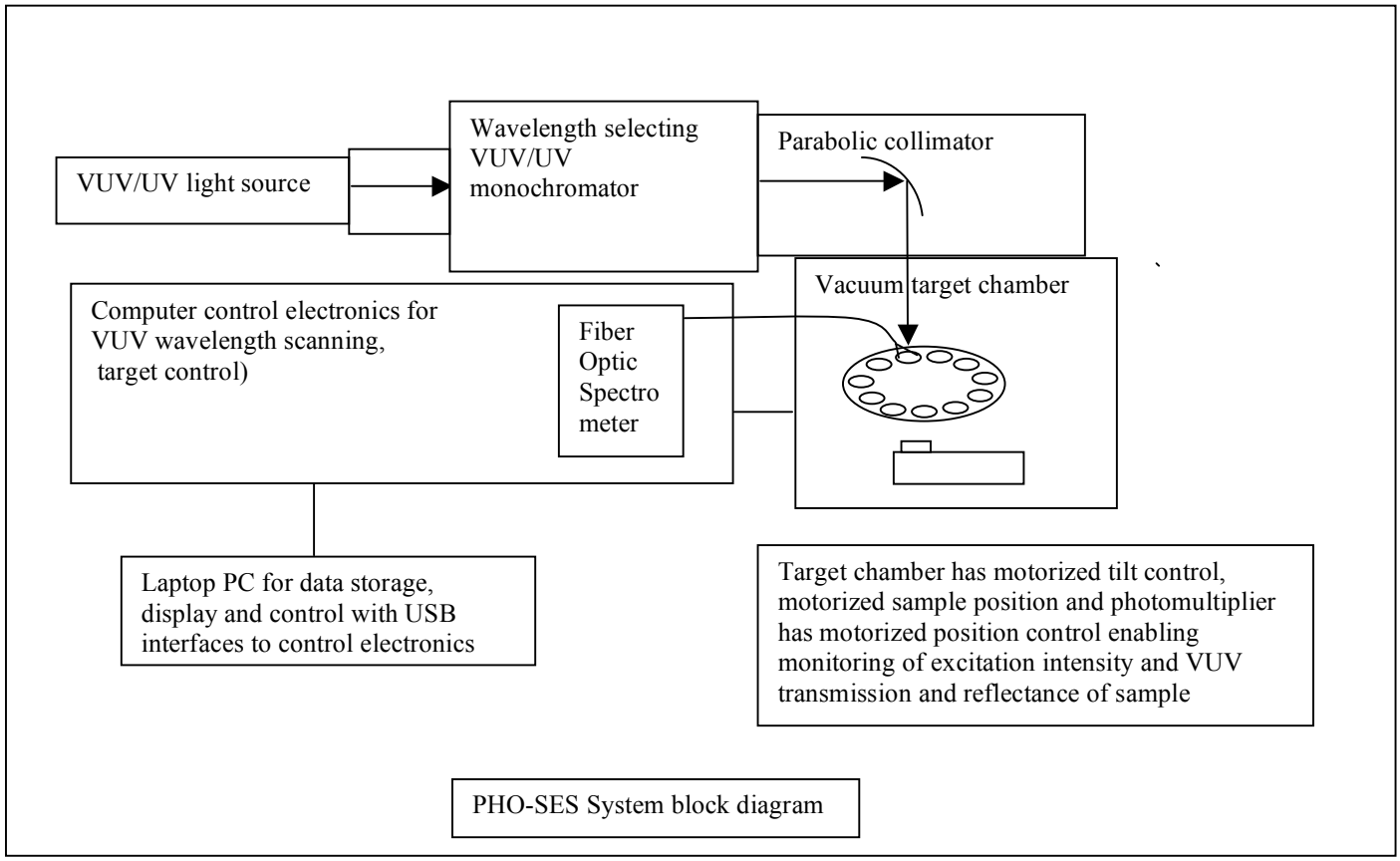
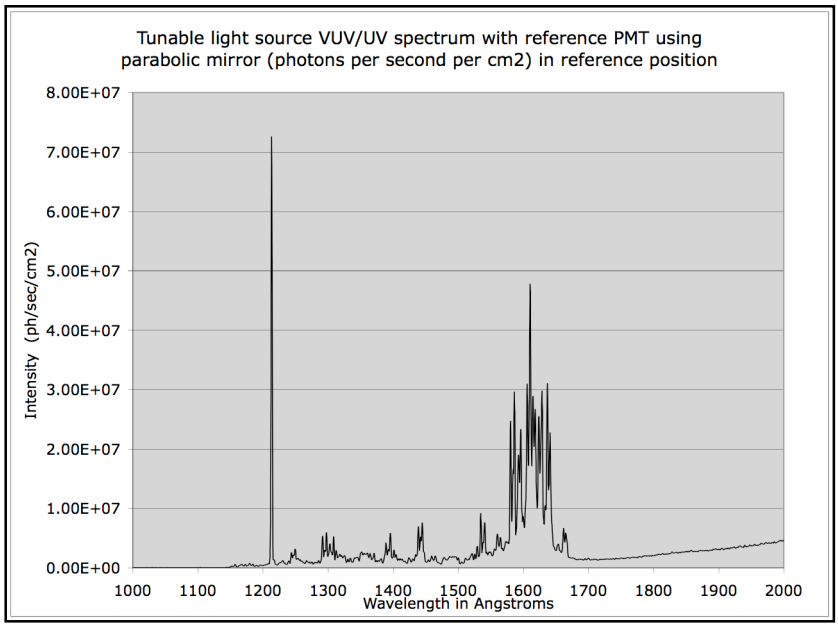
Web site: http://www.resonance.on.ca Email: info@resonance.on.ca

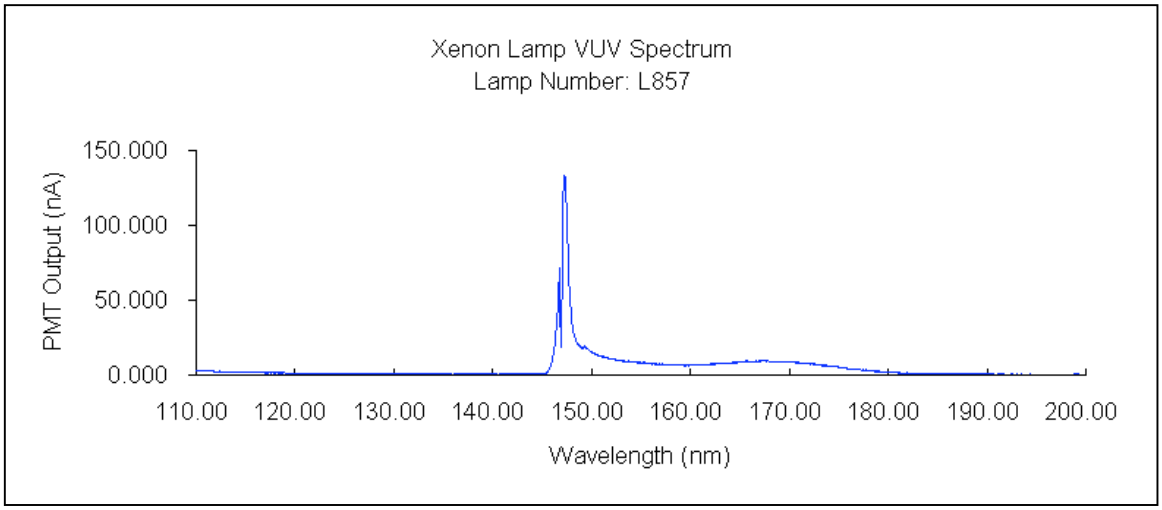
Electrical /Optical Specifications/General:				
Specification	Minimum	Typical	Maximum	units
Excitation Lamps	Deuterium (115-400 NM) standard or optional Xenon 146-190 nm, Kr 115-170 nm or windowless 58 nm			
Excitation Monochromator	320 mm focal length f 6 concave holographic grating spectrometer			
Excitation wavelength range	115 to 400 standard, below 115 as an option			
Excitation wavelength resolution	0.15 to 10 nm selectable with slit size			
Output beam collimator	2 cm collimated beam			
Target holder	10 25 mm samples, variable tilt, PMT for VUV transmission and intensity			
Emission spectrometer	Fiber Optic coupled 190 to 1000 nm (depending on gratings selected.) 0.4 to 2 nm resolution (depending on slit/grating combinations)			
Certification	NIST Traceable Calibration of Irradiance in Vacuum			
System	Complete system includes power supply, EMI shielded enclosure, Vacuum flange and NIST Traceable calibration			



PHO-SES System block diagram



Standard D2 source scan with excitation monochromator onto reference photomultiplier (75 micron slits 2 Angstrom resolution)



Optional intermediate pressure Xenon source scan at 10-Angstrom resolution