

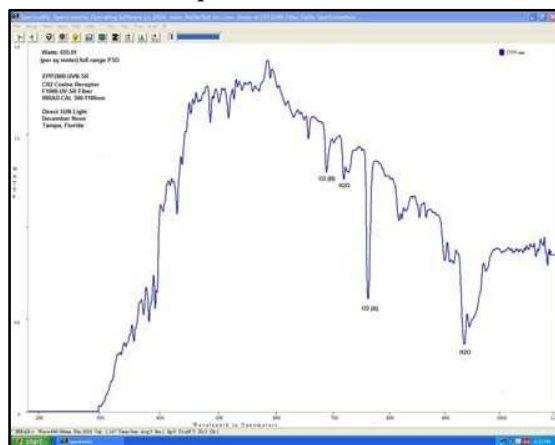
## Analytical Instrumentation

Surf the New Wave in Portable Fiber Optic Spectrometry

### EPP2000-UVN-SR Super Range Spectrometer for UV-VIS-NIR Applications

StellarNets' UVN-SR fiber optic spectrometer covers the 200-1100nm wavelength range and easily performs a variety of spectroscopy measurements with the SpectraWiz software. The optics utilize a UV enhanced CCD or PDA detector array configured with eXtreme grating technology to deliver high efficiency in both UV & NIR spectral extremes. The eXtreme optics include an integrated multi-band order sorting filter and UV enhanced detector array with optical lens to provide maximum sensitivity.

The UVN-SR can be optionally calibrated for use as a SpectroRadiometer when precision measurement of light color and absolute intensity is needed. A 25um slit or larger is recommended for best spectroradiometric performance coupled with a 1000um core diameter fiber input (via standard SMA 905 connector).



Solar spectrum December noon Tampa, FL

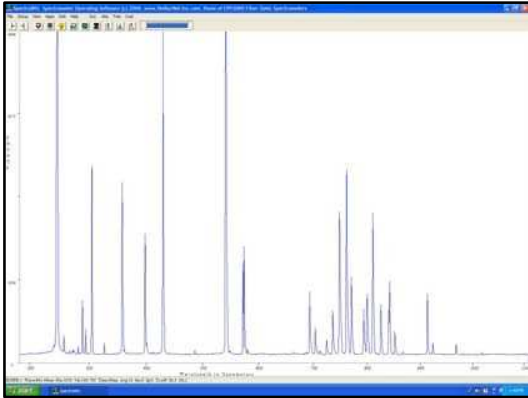
The portable instrument is packaged in a small rugged metal enclosure for use with single strand fiber optic input cable. The electronics interface can be attached directly to a computers high speed USB-2 port or high speed IEEE1284 enhanced parallel port (EPP). The units are vibration tolerant and are exceptionally robust with no internal adjustments or moving parts.

SpectraWiz software is included (free) to enable spectroscopy measurements (reflectance, transmission, absorption, and the many types of light emissions). Applications are included for SpectroColorimetry (CIELAB L\*, a\*, b\*, ΔE\*), SpectroRadiometry (absolute intensities watts m<sup>-2</sup>, lumens m<sup>-2</sup>, xy chromaticity, purity, CCT, moles m<sup>-2</sup> s<sup>-1</sup> etc.), Chemical concentrations, material identification, analysis of UVabc components, event or reaction monitoring data capture & time series analysis.

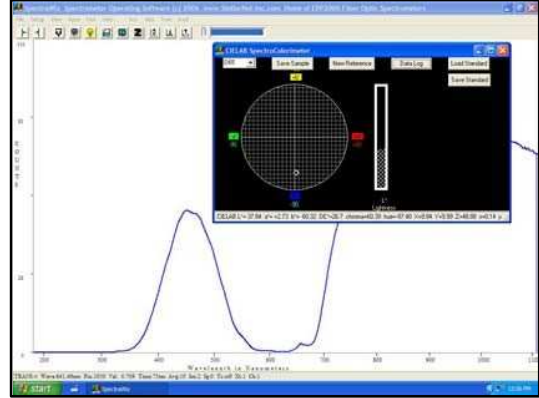
Specifications		EPP2000-UVN-SR Spectrometer	
Dynamic range:	2000:1 with 6 decades	Dimensions:	6 x 17 x 20.5 cm
Optical resolution:	1nm - 14um slit & CCD	Power consumption:	100 mA @ 5 VDC
Detector type:	2048 pixel CCD	Interface:	USB-2.0 and/or EPP Parallel
Detector array:	200-1100nm with DLENS	Data transfer speed:	1ms - 40x faster than USB-1
Pixel size:	14um x 200um	Detector Integration:	1ms to 65s
eXtreme Grating:	Dual blaze @ 250+1000nm	Slit size options:	7, 14, 25, 50, 100, 200um
Grating type:	Holographic, 600 line	Stray light:	0.1% > 435nm .15% at 200nm
Spectrograph:	f/4, HR Czerny-Turner	Fiber optic input:	SMA905 0.22na single fiber
Order sorting filter:	Integrated multi-band	Operating systems:	Win9x/XP/Vista/Win7
Signal to noise:	1000:1 CCD	Software included:	SpectraWiz program & apps
Digitizer:	16bit or 14-bit	Also free programs for:	LabView/VC/Excel/Delphi



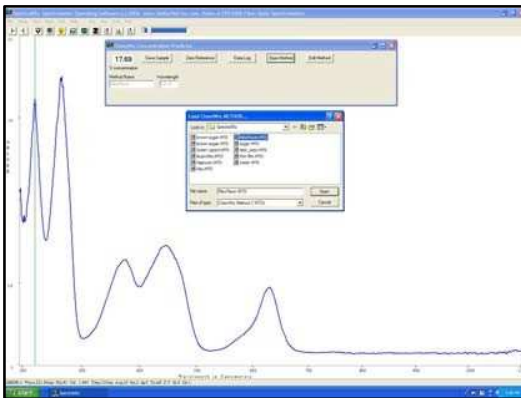
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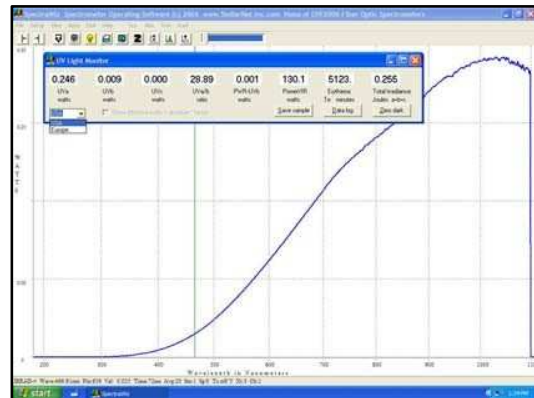
Emission Spectra of Mercury and Argon gas using SL2 WaveCal Lamp



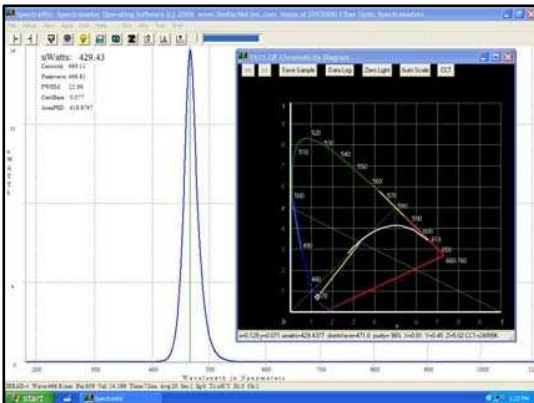
Reflectance Spectra of Blue Paper  
» CIELAB color measure & compare



Absorbance Spectra of RiboFlavin  
» ChemWiz concentration Methods



Irradiance Spectra of White Light  
» UV Monitors UVA, UVB, UVC, Te..



Emission Spectra of 470nm Blue LED  
» 1931 xy Chromaticity Diagram



Reference Spectra of Deuterium + Halogen lamps using SL5-DH source

