

- Fluorescence, Phosphorescence, Chemiluminescence and Bioluminescence Modes
- All Reflective Optics with quartz over-coated optics. Schwarzschild Source Optics. Both provide for better sensitivity
- High Sensitivity- Limit of detection
 - 1.0 picoMolar fluorescein using standard cell
 - 10 picoMolar fluorescein using 40 ul microcell
 - 750:1 S/N for Raman band of H₂O, 350 nm excitation, excitation and emission slits 10 nm.
- Instrument purging sample compartment windows & sample compartment
- Xenon Flash Lamp only during acquisition. No continuous sources allowed
- Lamp Pulse width at half peak height »2 us, peak power equivalent to 75 kW
- Can acquire 80 data points/second for single cell kinetics
- Fast scan speed of 24,000nm/min without wavelength shifts versus slower scan speeds
- Limiting Resolution <1.5nm
- Spectral band pass - Excitation: 1.5, 2.5, 5,10,20 nm & Emission: 1.5, 2.5, 5,10, 20 nm
- Wavelength Reproducibility of +/-0.2nm
- Wavelength Accuracy of +/-0.5nm at 541.2nm and +/- 1.0 nm from 200-900 nm
- No degradation of photosensitive or heat-sensitive samples
- Large Sample Compartment for future accessories and access (greater than 675 cubic inches, i.e.. Width x Depth x Height)
- Room light immunity for most fluorescent samples
- Separate monochromator for Excitation
- Separate monochromator for Emission
- Wavelength Range from 200-900nm for both excitation & emission monochromator; zero order selectable
- Red Sensitive Photomultiplier tube is standard for sample path (prefer R928)
- Reference path must have separate R928 Photomultiplier tube for detector
- Able to run 40 microliters of sample volume in a microcuvette
- Able to run <500 microliters of sample volume in a standard 10mm cuvette
- Custom Development Language for user control of hardware & custom applications
- Able to capture one phosphorescence data point every 1 microsecond up to 10 seconds
- Able to capture one fluorescence data point every 12.5 milliseconds up to 999 sec.
- Able to capture one bio/chemiluminescence data point every 40 microseconds up to 10 sec.
- Able to e-mail data unattended right after run completed (PC must be connected to Internet)
- Built-in excitation & emission filters to exclude secondary light
- 384/96 well plate reader
- Bio Software to include Thermal, Concentration, Simple/Advanced Reads, Validation, Kinetics applications
- Internal Grams 3-D plotting software included
- Detector Voltage settings 4 fixed & also completely manual
- Repetitive scanning
 - Maximum number of cycles -1000
 - Maximum cycle time 1000 minutes