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*Your Photonics Partner*

## mini-PL/Raman Spectrometer

**Fully Integrated with Excitation Energy Up to 5.0 eV**



**PL / Raman Solution**

### Features:

- Room Temperature PL / Raman
- 5.0 eV (248.6 nm) Laser Excitation
- Highly Portable
- High Resolution 0.2 nm
- Computer Controlled Grating Selection and Calibration
- Digital PMT Controller with Gated Boxcar Integrator
  - Averager for Low Noise Digital PMT Output Measurement
- LabView Interface and Control of Laser, Spectrograph, PMT and Spectral Data
- Analysis Software Including FWHM, Peak, Side Lobe Identification,
  - Spectral Subtraction, Normalization etc.
- X-Y-Z Stage Manual Sample Control 50 mm Standard
  - X-Y Motorized Stage Including Mapping Software Optional

# Specifications:



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## Mini PL/Raman

Portable Deep UV PL/Raman Spectrometer

<b>Laser</b>	Hollow cathode NeCu laser
Laser Wavelength	248.6 nm
Laser Power	> 50 mW
Laser Linewidth	0.0005 nm, 0.1 cm <sup>-1</sup>
Laser Pulse Width	20-120 μs

## Spectrometer

Monochromator	1/8M Monochromator
Optics	CZ-Turner
Gratings	1200 / mm for PL 3600 / mm for Raman measurement (optional)

## Detector

PMT	190 nm - 650 nm
Power	< 20 Watts (90 - 240 VAC) input

## Form Factors

Dimension	15 x 18 x 36 cm
Weight	8 Kg

## Sampling

Sample Stage	50 mm manual stage
Automated Sample Stage	50 mm X-Y motorized staging including mapping software (optional)

The availability of the patented technology of deep UV (DUV) laser has led to the development of this compact, cost-effective DUV PL/Raman spectrometer. DUV laser Raman not only provides resonance enhancement of Raman scattering but also adds specificity and enhanced characterization of materials. In addition, because fluorescence resulting from deep UV excitation occurs in the 280 nm to 370 nm wavelength range, deep UV laser excitation provides the complete separation of Raman and fluorescence emission bands and results in high SNR and low detection limits. DUV Raman is a promising tool, particularly for analysis of biomolecular groups with complicated structures.

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