

## ***NS2 & NS3 NanoSpectralyzer Specifications***

Fluorescence excitation laser $\lambda$	450, 532, 638, 671, and 785 nm (or customized)
Fluorescence geometry	High numerical aperture epifluorescence
Fluorescence spectral range	900-1600 nm
Near-infrared detector type	512 element TE-cooled InGaAs array
Raman excitation laser $\lambda$	532 or 671 nm (select when ordering)
Raman spectral range	150 to 3000 $\text{cm}^{-1}$ shift
Raman spectral resolution	6 $\text{cm}^{-1}$
Raman detector type	2048 pixel TE-cooled Si CCD
Absorption light source	Stabilized tungsten-halogen lamp
Absorption spectral range	410-1600 nm
Absorption spectral resolution	6 nm (NIR), 1 nm (vis)
Absorption ceiling	3 AU (NIR and vis)
Visible detector type	2048 pixel Si CCD
Absorbance noise (rms), NIR	$< 2 \times 10^{-4}$ AU at 0 AU for 10 s integration
Absorbance noise (rms), visible	$< 5 \times 10^{-4}$ AU at 0 AU for 10 s integration
Minimum sample volume	120 $\mu\text{L}$ (or 50 $\mu\text{L}$ , optional)
Data acquisition time (typical)	2 minutes for full set of spectra
Power consumption	75 W (excluding computer)
Main Optical Module dimensions	18.5" W x 22" D x 7" H (470 x 560 x 180 mm)
System weight	50 lbs/23 kg (excluding computer)