



# ExamineR™

High Performance Raman Microscope System



Raman microscopy is an information rich way to characterize your samples in life sciences, geology, nanotechnology, semiconductor, forensic science and any other application where accurate chemical identification is needed.

DeltaNu offers a high performance Raman microscope at an affordable price. The **ExamineR™** combines the quality of Olympus microscopy with the performance of DeltaNu's Raman spectroscopy. This combination creates a Raman microscope with outstanding imaging and spectral characteristics.

DeltaNu is the price/performance leader in Raman microscopy. Our **ExamineR** system comes with your choice of wavelength modules—532, 785, or 1064nm. Our patent pending design puts the Raman module on top of the microscope and changing wavelengths is as simple as switching modules - no more tedious laser, filter, grating, and fiber optic changes like other microscopes. And with the Raman module on top, the **ExamineR's** footprint is the smallest in the industry.

## Features and Specifications

### Raman Architecture

- 532, 785, and/or 1064 laser Raman modules
- Laser power control
- Excellent spectral resolution
- 1064 Spectral range 200  $\text{cm}^{-1}$  to 2000  $\text{cm}^{-1}$
- 785 Spectral range 200  $\text{cm}^{-1}$  to 2000  $\text{cm}^{-1}$   
- 100 to 2000  $\text{cm}^{-1}$  optional
- 532 Spectral range 200  $\text{cm}^{-1}$  to 3400  $\text{cm}^{-1}$
- No fiber optics

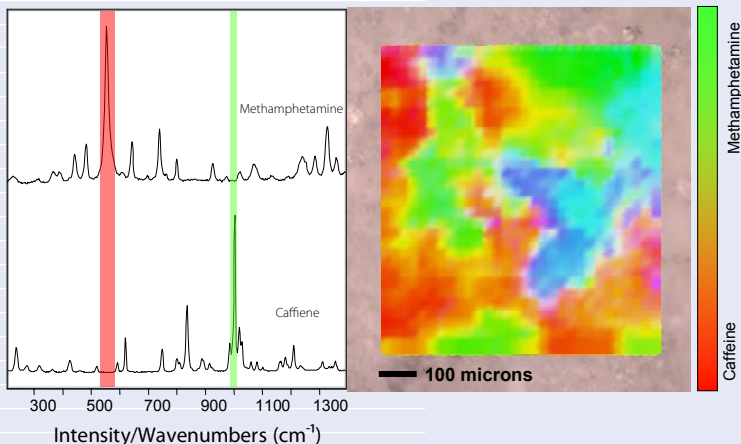
### Microscope Features

- Solid research microscope platform - the Olympus BX51
- Diffraction-limited imaging and spectroscopy
- Automated XYZ stage for confocal performance and mapping
- Digital imaging with 5 megapixel digital camera
- 3D reconstruction imaging option

### Software and Options

- NuSpec™ instrument control software for data acquisition and library development
- DeltaNu spectral library
- Simple Raman microscopy/light microscopy switch-over
- Class I safety option
- Grams AI

## Chemical Mapping of Controlled Substances



Methamphetamine is dosed in nearly equal proportion with a Nodoz cutting agent. The Nodoz is nearly 60% caffeine, with the remainder excipient. Raman spectra for methamphetamine and caffeine are shown above, and the peaks selected for methamphetamine and caffeine are highlighted in red and green, respectively. A spectral map was obtained in 25- $\mu\text{m}$  steps of a 750 x 750- $\mu\text{m}$  area. The inset map highlights the distribution of methamphetamine in the sample. The green and red locations represent methamphetamine and caffeine, respectively, to create a chemical map.

