

## Empowers your existing Upright Microscope with Raman Spectroscopy Capability

### uRaman-Module Series

The uRaman is the state-of-the-art flexible Raman spectroscopy system. It offers high performance, ease of use and yet remains cost effective for tight budget users.

The uRaman-Module can be easily integrated with most upright microscopes from the following brands: Nikon, Olympus, Leica, Carl Zeiss.

It can be easily integrated with existing imaging setup, such as fluorescence microscopy, without affecting overall microscopy performance. Multiple modules can also be stacked for dual or triple wavelength measurements.

It is available in 532nm, 633nm or 785nm frequency stabilized laser and a high sensitivity linear array detector, the module includes power attenuation with laser safety interlock and user friendly software.

### Features

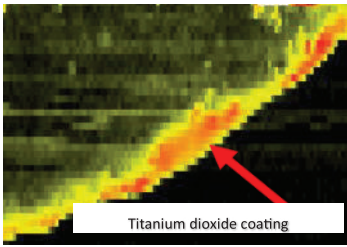
- Compact
- Affordable
- Research-grade sensitivity
- Raman chemical mapping options available
- User controllable laser power
- Options for cooled or non-cooled detectors
- SERS capable
- Available in various wavelength 532nm/633nm/785nm.

\*\* Applications : Ideal for SERS, Pharmaceutical, Agriculture, Biomedical, Semiconductor, Gemology, etc



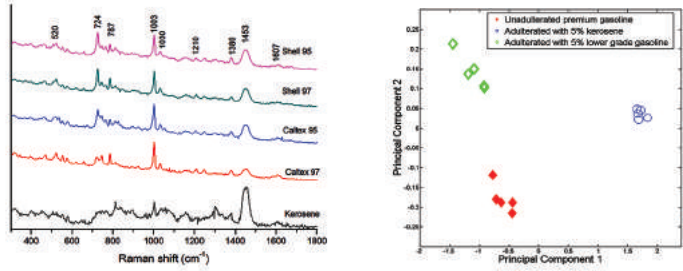
# APPLICATIONS

## 2D Raman Chemical Mapping



Mapping of the pharmaceutical tablet revealing the external titanium dioxide coating

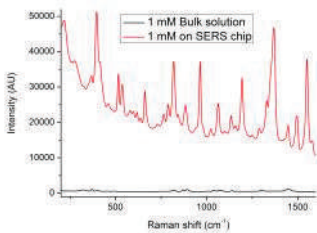
## Adulteration detection



Raman spectroscopy coupled with Chemometrics help to detect petrol adulteration with kerosene or lower grade petrol.

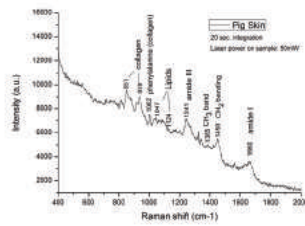
KM Tan et al., Analytical Chemistry, 2013, 85(3), pp1846-1851

## Surface Enhanced Raman Scattering (SERS)



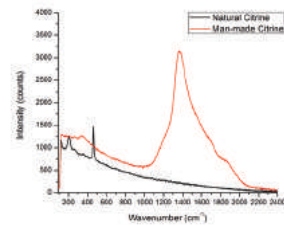
SERS enhancement of weak Raman signal by 10<sup>6</sup> times is very useful in applications involving low concentration detection.

## Biological



Raman spectroscopy of skin sample with the uRaman-785-Ci reveals wealth of information.

## Gemology



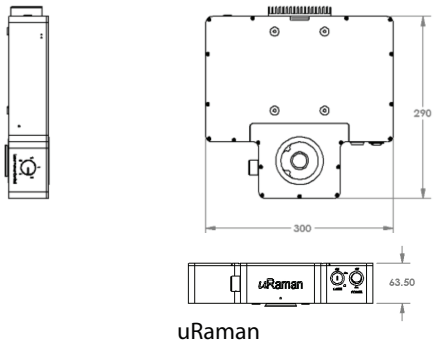
Raman spectroscopy provides information on minerals content as well as to detect counterfeit gems.

## uRaman Module

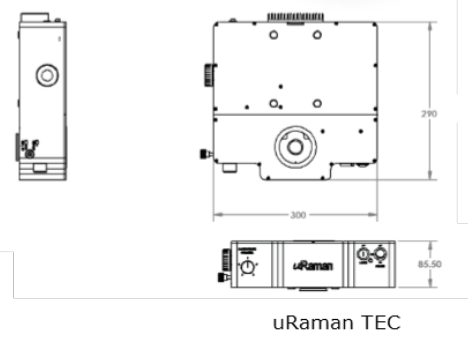
Laser	532 nm	633 nm	785 nm
Laser Type	Single Mode Frequency-Stabilized		
Laser Power	70 mW	70 mW	100 mW
Laser FWHM Bandwidth	~100 MHz	~150 MHz	~105 MHz
Detector	Cooled and Non-Cooled 2048 pixel CCD array		
Spectral Resolution	4-12 cm <sup>-1</sup>		
Spectral Range	100-2400 cm <sup>-1</sup> / 100-3600 cm <sup>-1</sup>		
Integration Time	2 ms to 10 mins		
Software	uSoft or uSoft-Map		
Power Supply	5 Vdc		
Dimensions	Length x Breadth x Height 30 x 31 x 6.5 (cm)		

Specification

uRaman module integrated with NIKON Ci Upright Microscope



uRaman



uRaman TEC

Contact us for free sample evaluation today!