

# SPECTROMETERS

# RAMAN MICROSCOPE



The Emerald spectrometer provides a significant advantage in acquisition time and spatial integrity in demanding Raman spectroscopy imaging applications.

### Models

- C25R10
- C0R10
- C25R20
- C0R20

### Applications

- Transmittance & Reflection
- Raman
- Fluorescence
- Luminescence
- Near IR
- Absorbance
- LIBS

Optimizing the Emerald Spectrometers for Your Application

### 02 | Detector Type

- Linear CCD Array
- 3648 Pixel

### 01 | Design

- Czerny-Turner

### 03 | Wavelength range

- 200 – 3300  $\text{cm}^{-1}$

### 04 | Spectral resolution

- 10-20  $\text{cm}^{-1}$

### 05 | Slit

- 25  $\mu\text{m}$  wide



### Applications

- ✓ Nanotechnology
- ✓ Geological
- ✓ Pharmaceuticals
- ✓ Polymers
- ✓ Forensics

Laser	Type	DPSS Nd:YAG (cw)
	Wavelength nm	532 nm
	Laser Power (mW)	100
Detector	Power Control	10 Positions (from 10% to 100%) – PC Controlled
	Type	Hamamatsu (High Sensitive and low noise)
	Cooling	Up to -15 °C
	Signal-to-Noise Ratio	1000:1
Resolution & Range	Integration Time	15 ms – 10 min
	Spatial Resolution On Samples ( $\mu\text{m}$ )	$\approx 12$
	Spectral Resolution ( $\text{cm}^{-1}$ )	10
	Spectral Range ( $\text{cm}^{-1}$ )	150 - 4600
Power Requirements		200 – 240 V AC, 50/60 Hz, Single Phase
Chamber	Weight (kg)	$\approx 25$
	Size (WxHxD)	57.5 cm x 45 cm (without eyepiece) x 59.5 cm

Specifications

### Sample Formats

- Powders in plastic packages
- Liquids in clear and brown glass bottles
- Powders, liquids, slurries in multi-well plates
- Samples in tubes, vials, cuvettes
- Tablets
- Samples in blister-packs

