



High End model for 3D Confocal Raman & TERS

Nanofinder[®] HE



Stability

Highest mechanical and thermal stability due to granite frame

Accuracy

Self-calibration with built-in hollow cathode spectral lamp

Highest sensitivity

High throughput optics, detector QE>90%

High speed 3D mapping

<3 ms/point (simultaneous with AFM)

Easy operation

Automatical signal-to-pinhole alignment

Microscope

•Up-right •Inverted •Transmission
Microscope types convertible within 1 second

Scanner

•Piezo-stage •Step motors •AFM, etc.
>10 standard configurations

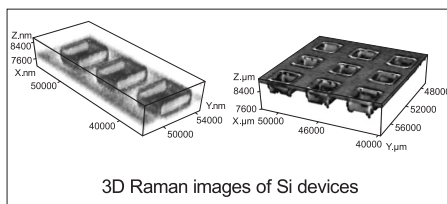
AFM-Raman

One AFM for both:
•Reflection & Transmission Confocal Raman-AFM
combined operations
•TERS imaging: 50 nm spatial resolution

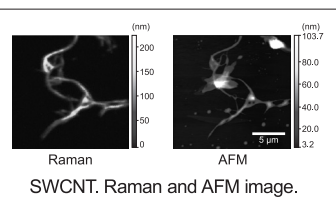
Other features

■ All in one fully automated device with built-in:
3 lasers + external input; motorized exchangeable optics
for UV, VIS, NIR; polarization optics in excitation & detection

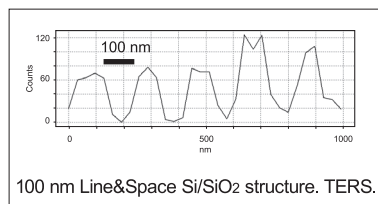
Measurement example



3D Raman images of Si devices



SWCNT. Raman and AFM image.



100 nm Line&Space Si/SiO₂ structure. TERS.

Typical Specification

| | | |
|------------------------------------|--------------------------|----------------------------|
| Confocal resolution (Laser 473 nm) | Objective 100×0.95 (air) | Objective 150×1.25 (water) |
| Lateral (X,Y) | <200 nm | <180 nm |
| Axial (Z) | <500 nm | <400 nm |

| | | |
|----------------------------------|----------------------|-------------------------|
| Spectrometer focal length 550 nm | Grating 1800 G/mm | Echelle Grating 75 G/mm |
| Spectral resolution | 0.77cm ⁻¹ | 0.2cm ⁻¹ |
| Spectral accuracy | 0.43cm ⁻¹ | 0.1cm ⁻¹ |

(at 550nm)

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