



- New optical system with greater than 10X increase in sensitivity over our previous generation instrument.
 - Previously undetectable signals are now visible. Higher sensitivity allows faster analysis and the use of low power (sub-mW) lasers for nondestructive analysis.
- Rugged and highly stable mechanical and optical mounting.

By combining technology from analytical instrumentation and laser resonators, 3D optical nanometer scale measurements are made with negligible mechanical drift.

 Applicable to SERS and near field optical microscopy

> In cooperation with the Kawada Research Laboratory at Osaka University we are developing a system targeting 30 nm spatial resolution (currently 80 nm). Confocal microscopy spatial resolution of 150 nm using 633 nm HeNe laser.

 3D Raman and AFM: concurrent, congruent. This revolutionary technique allows 3D optical nano-scale spectroscopy and without relocating The Nanofinder ® 30:

A 3-D Raman Microscopy System Micro/Nano Scale Microspectroscopy

3-dimensional imaging and chemical analysis—*simultaneously*

The world's most advanced nanotechnology instrument—high sensitivity, high spatial resolution, easy to operate.

More than 10 x improvement in sensitivity Enhanced mechanical and optical stability

the sample. Complete physical and spectral characterization in only a few minutes.

- **Polarization microscopy** Equipped with polarizers in both excitation and detection channels.
- Fully automated

Simplified, reproducible setup with all functions under computer control. Automated laser output control, automated confocal pinhole setup.

Multiple laser input

The standard configuration allows two different laser inputs, with optional hardware for up to five different excitation lasers.

 Modular design with user selectable spectrometers/spectrographs

The standard 520 mm spectrometer can be installed with 4 grating turret. Double monochromators, echelles or user supplied spectrometers can be installed.

Multifunction

Raman, fluorescence, confocal microscopy, AFM topography, SERS (surface enhanced raman), imaging.

This instrument was commercialized under the Japan Science and Technology Corporation 1998 Promotion Program for Creative Technology.

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