Performance of ***Nanofinder® FLEX***

Advantages of ***Nanofinder® FLEX***

Point 1

New concept model of Nanofinder series

-Small footprint
-Modular optical system, spectrometer/CCD and laser
-Simple operation and low cost

Point 2

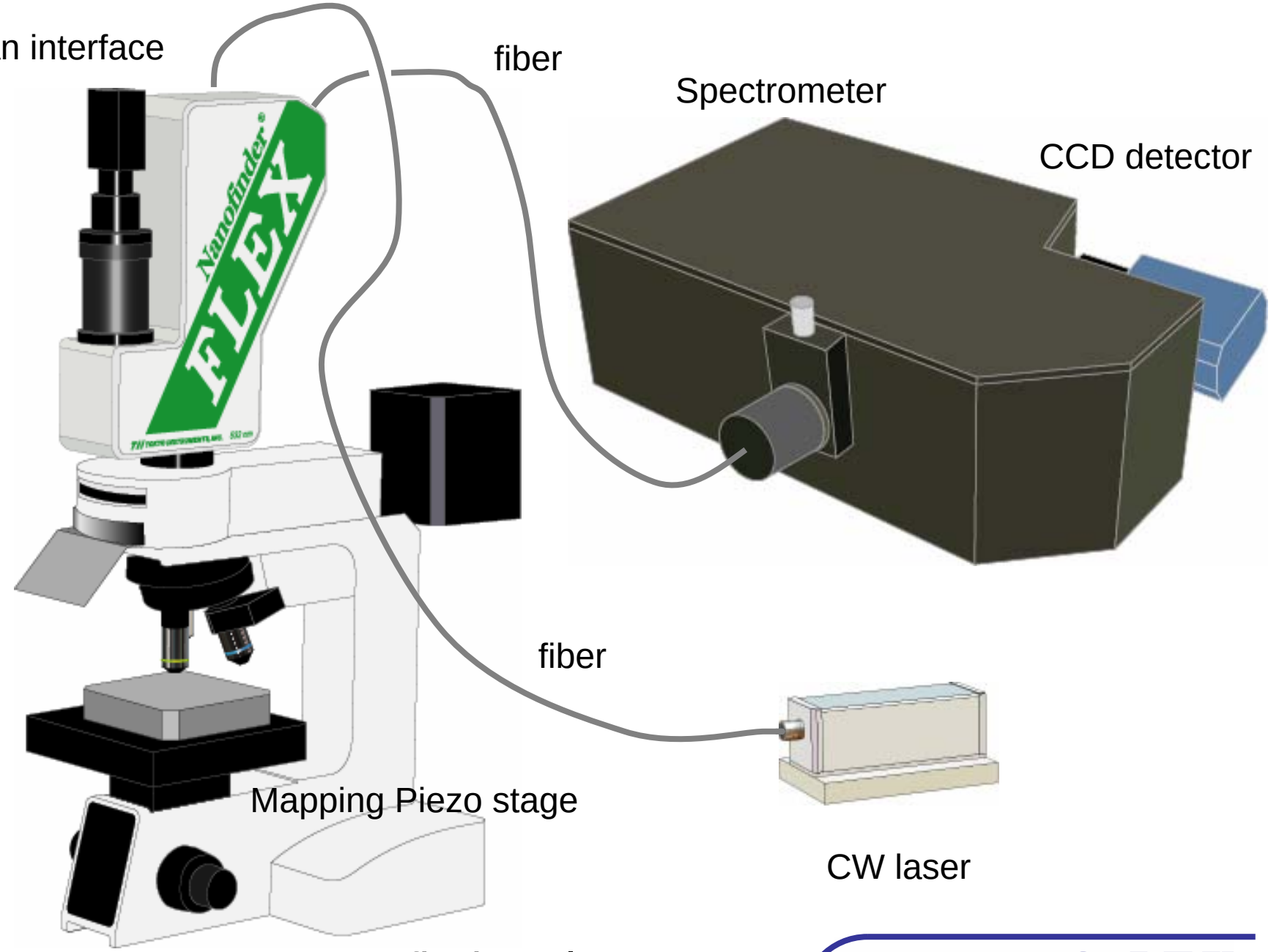
High Sensitivity

-4th order Raman Si peak detected in less than one minute using a low intensity laser

Point 3

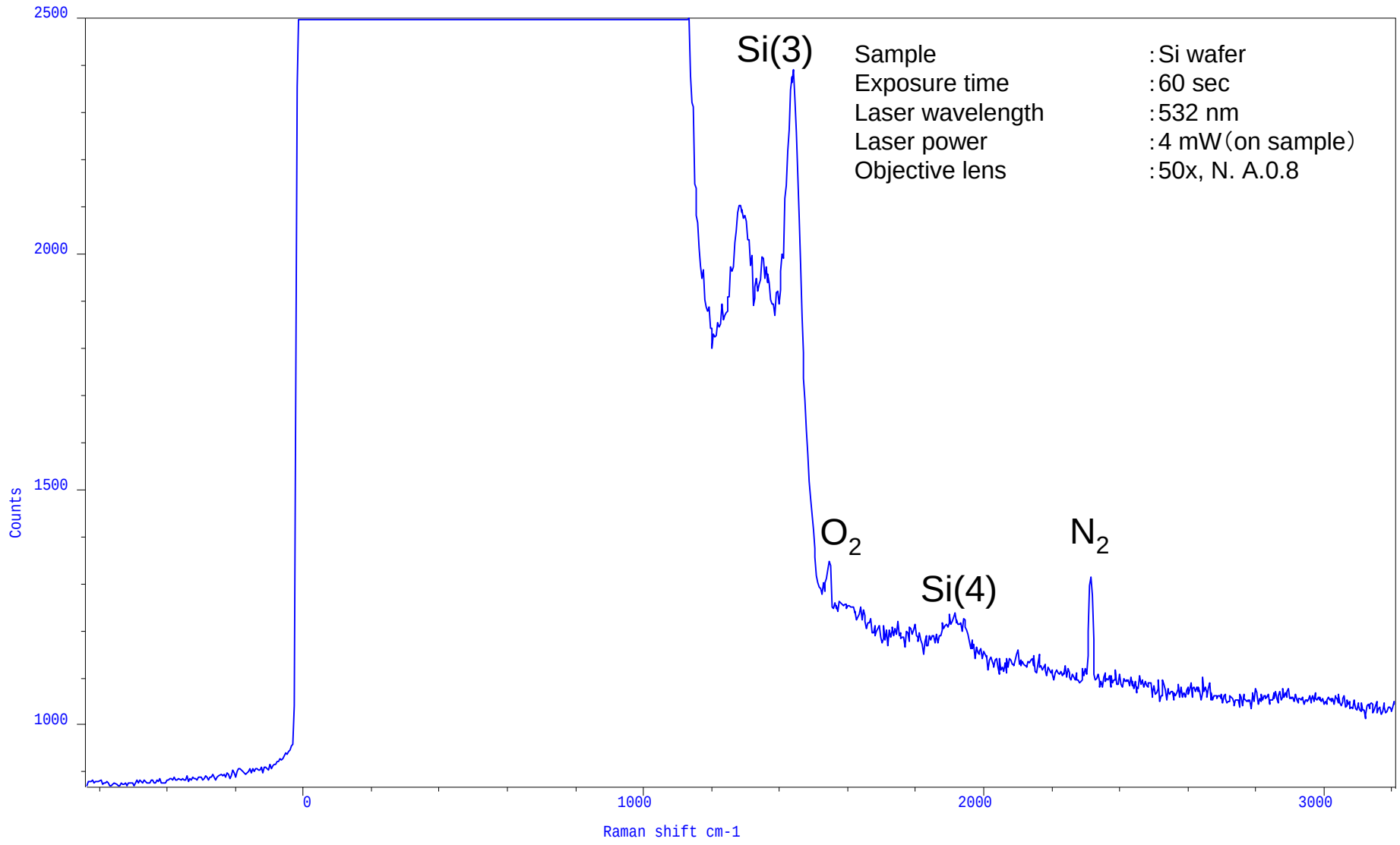
High 3D Spatial Resolution

-Raman imaging with 300 nm spatial resolution
-Depth Analysis by Confocal Raman spectroscopy



Nanofinder Flex system

Nanofinder® FLEX



Measurement of 4th order peak of Si Raman

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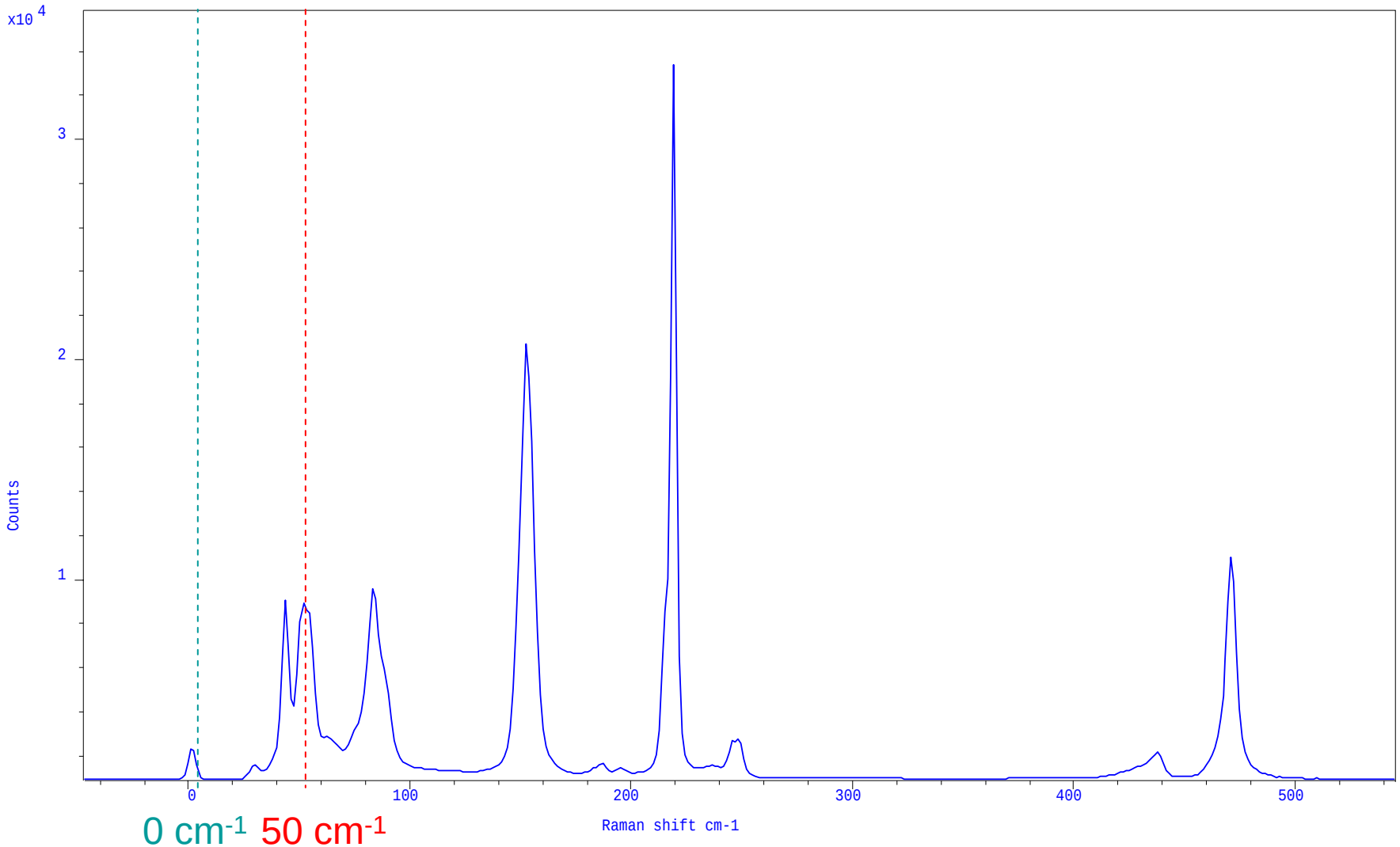


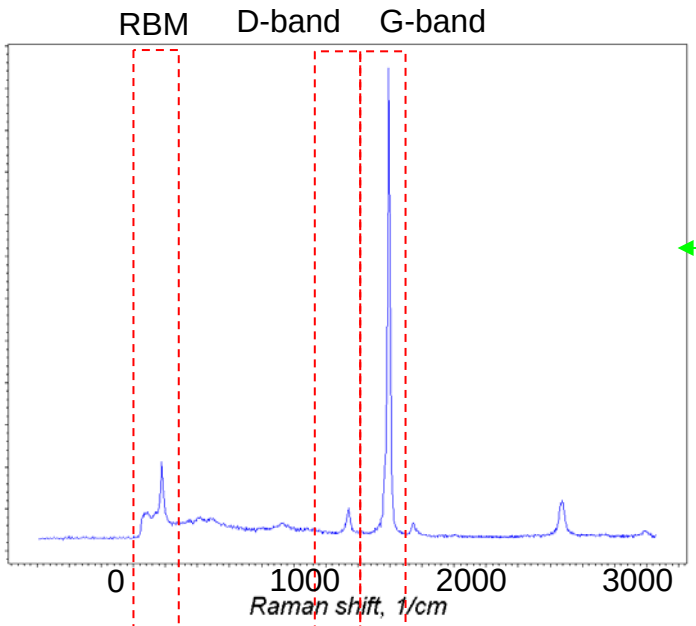
0 cm^{-1} 50 cm^{-1}

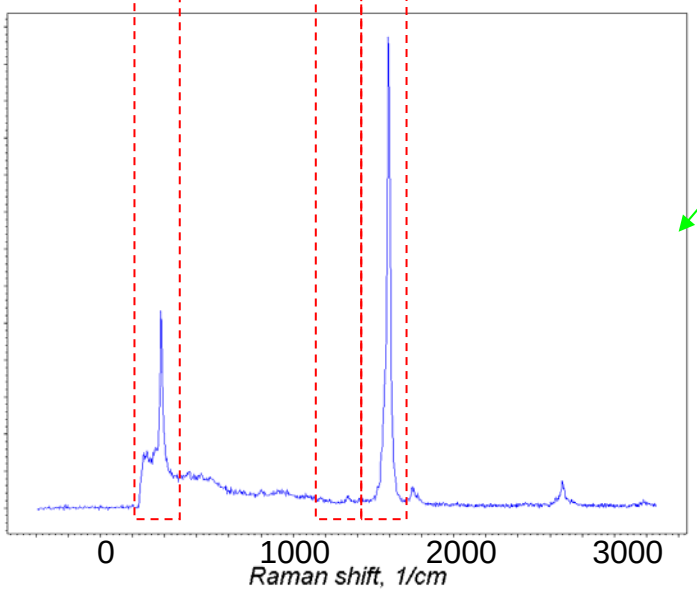
（Rayleigh scattering line）

Sample	:Sulfur
exposure time	:0.1 sec
Laser	:532 nm, 20 mW（sample position）
Objective lens	:x50, N.A. 0.8
Grating	:1800 G/mm
Slit width	:30 um

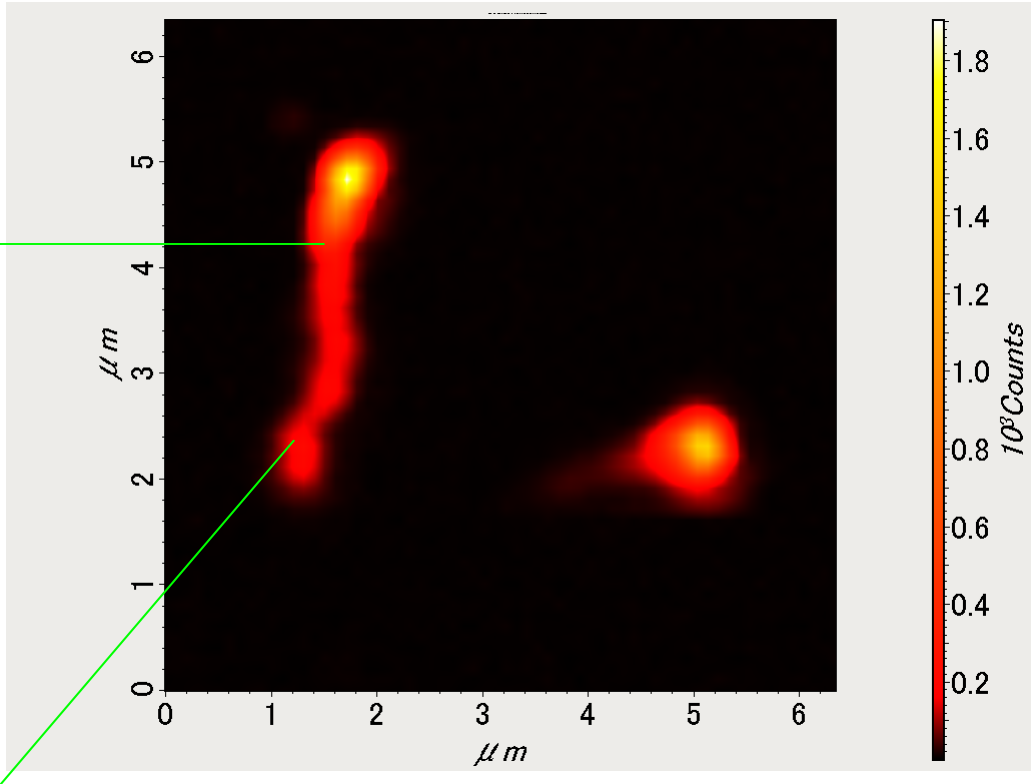
Raman Measurement in Region of Near excitation light

Nanofinder® FLEX





Raman spectra at specific point

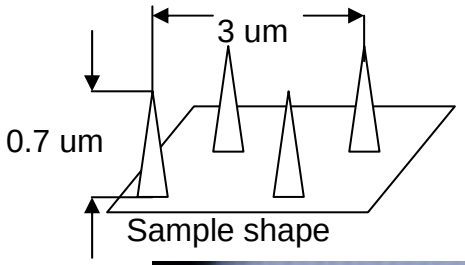


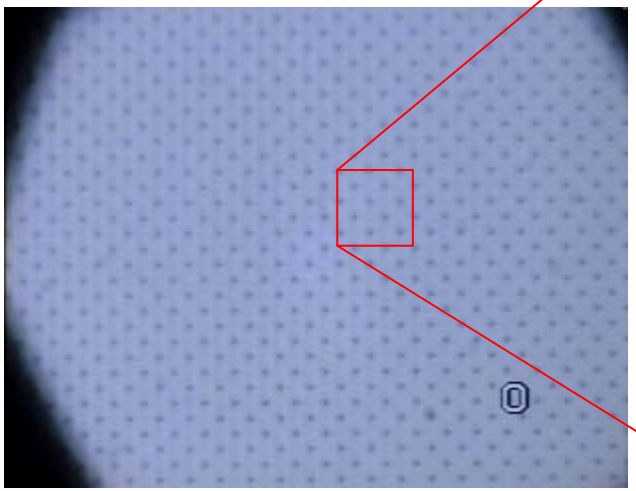
2D Raman Image of
Carbon Nano Tube (CNT) at G-band

resolution	:64 x 64 points, 100×100 nm step
Measurement time	:50 min
exposure time	:0.5 sec/point
Laser	:532 nm, 6 mW（sample position）

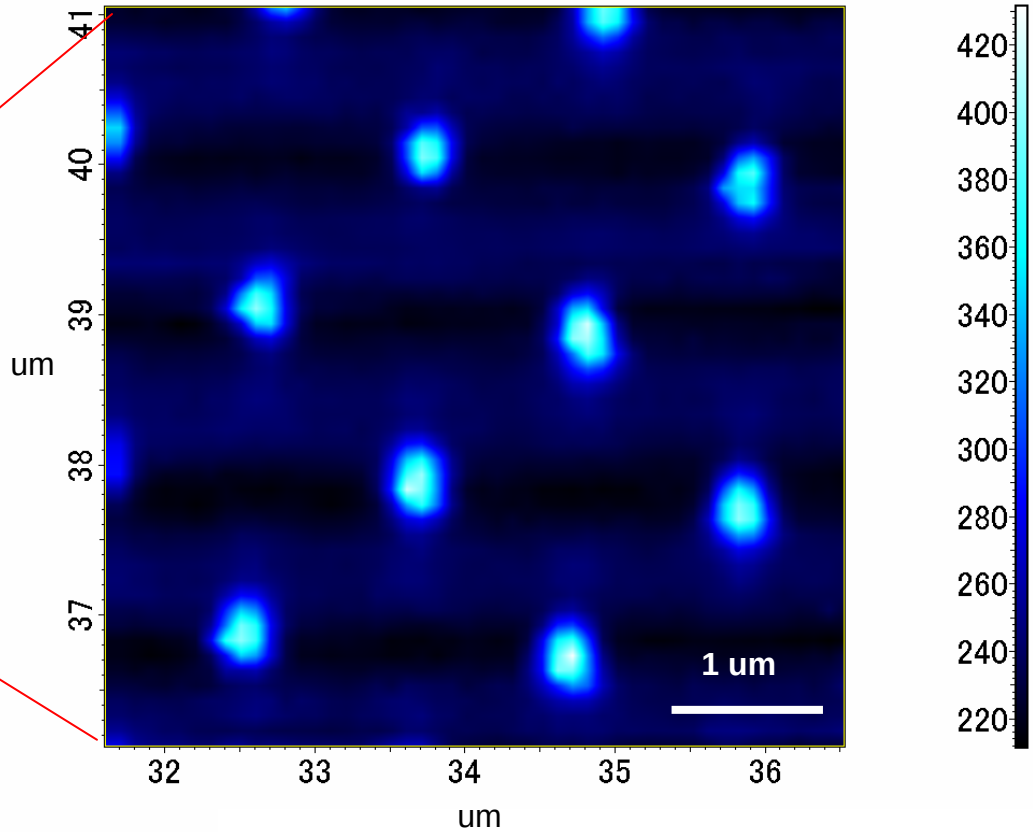
Image and Spectra of CNT

Nanofinder® FLEX



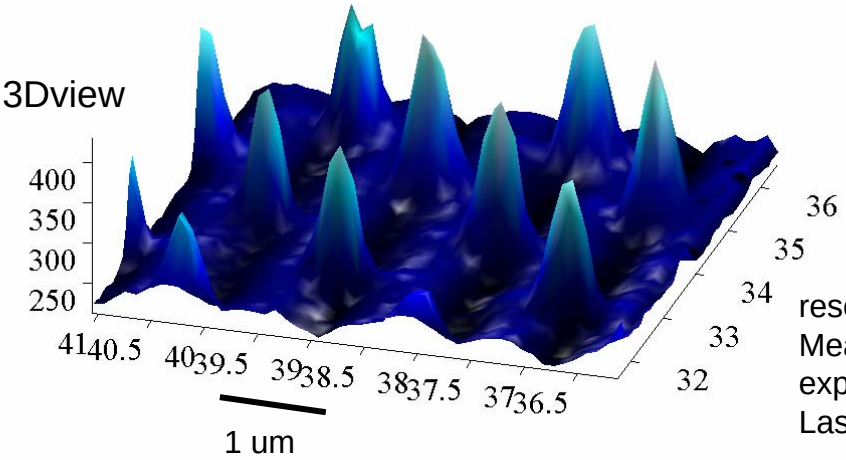


Microscope image



2D Raman image

3Dview



resolution	:50 x 50 points, 100×100 nm step
Measurement time	:15 min
exposure time	:0.3 sec/point
Laser	:532 nm, 5 mW（sample position）

2D Raman image of Si test sample for AFM

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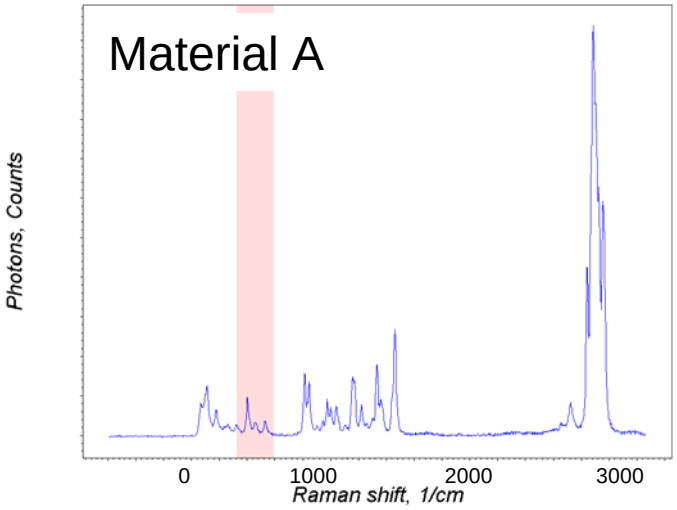
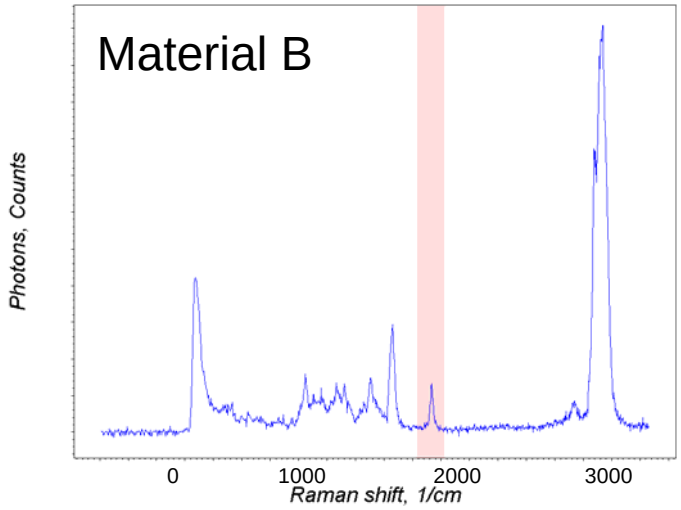
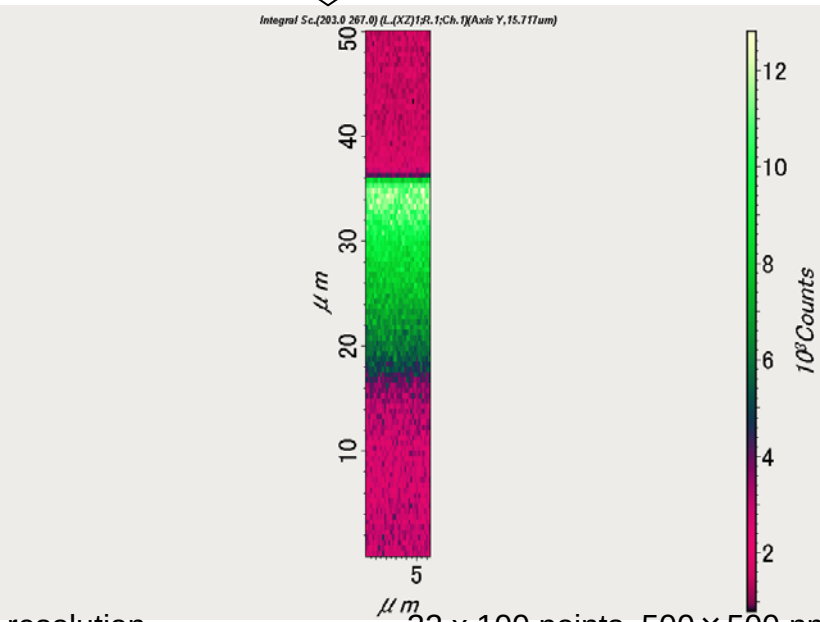
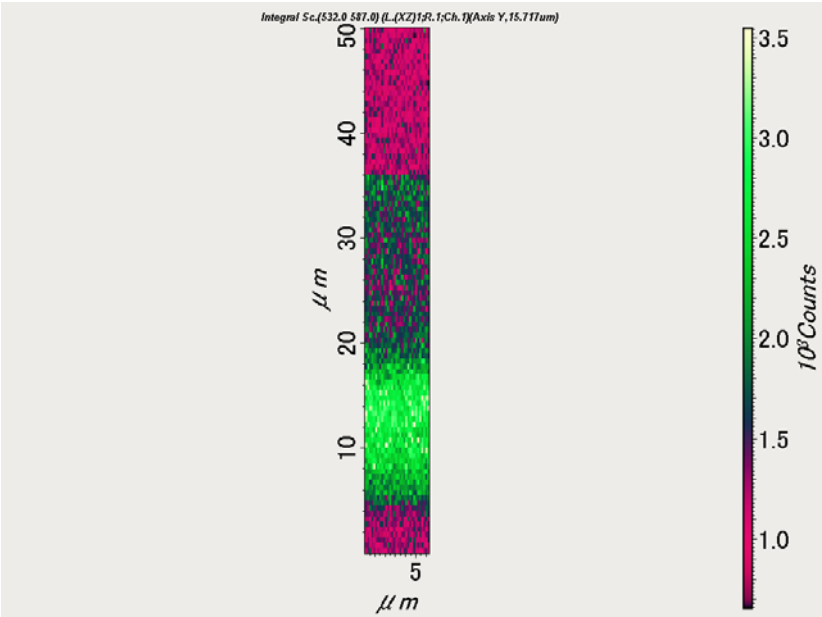




Make cross section images at specific peaks





resolution :32 x 100 points, 500×500 nm step
Measurement time :50 min, exposure time :0.5 sec/point
Laser :532 nm, 6 mW（sample position）

Depth analysis for polymer film

Nanofinder® FLEX

Sample: polymer film

Layer image

air

film

glue

glass

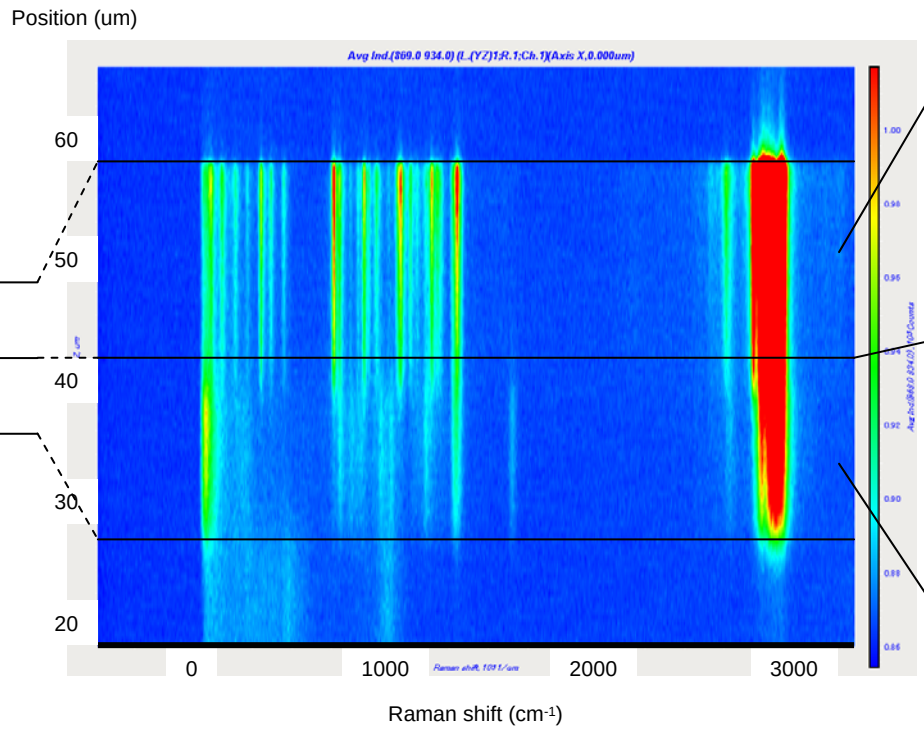
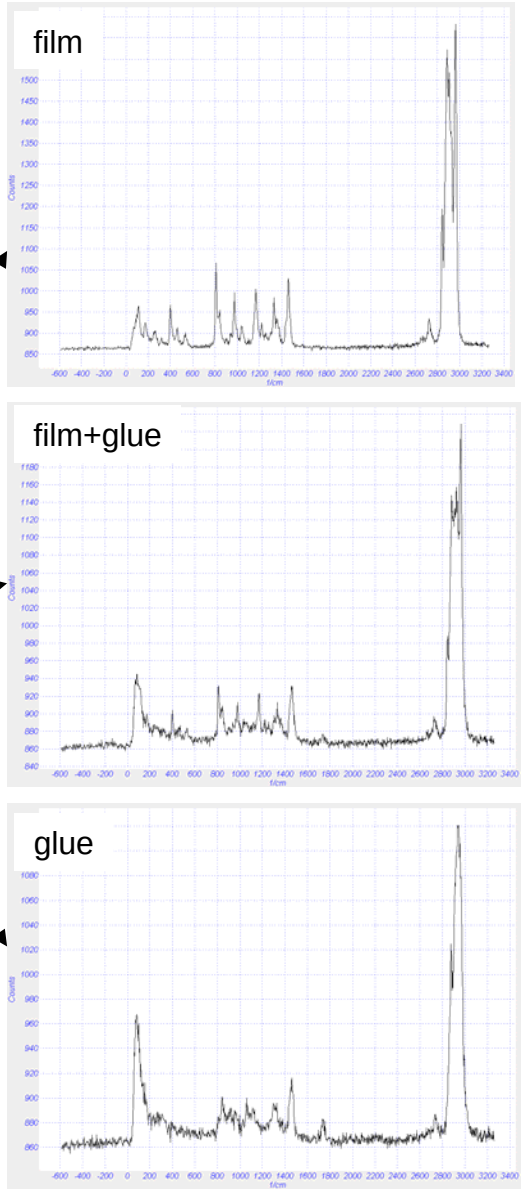


Image of Raman spectrum and depth



Depth analysis by confocal measurement 1

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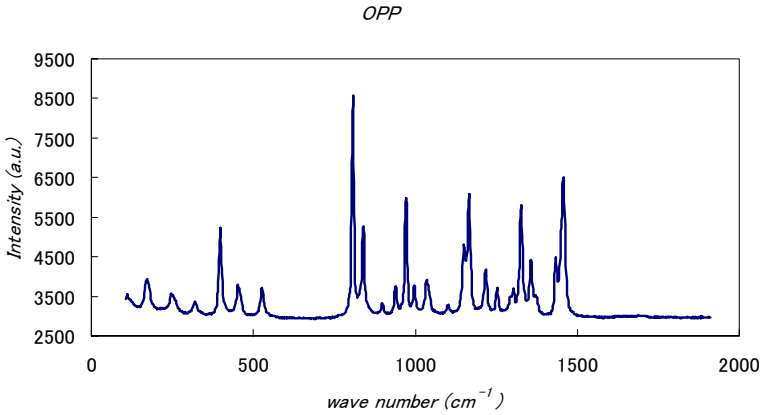
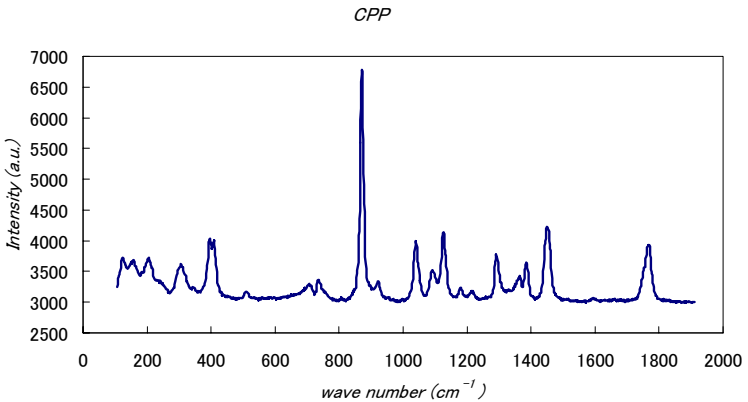
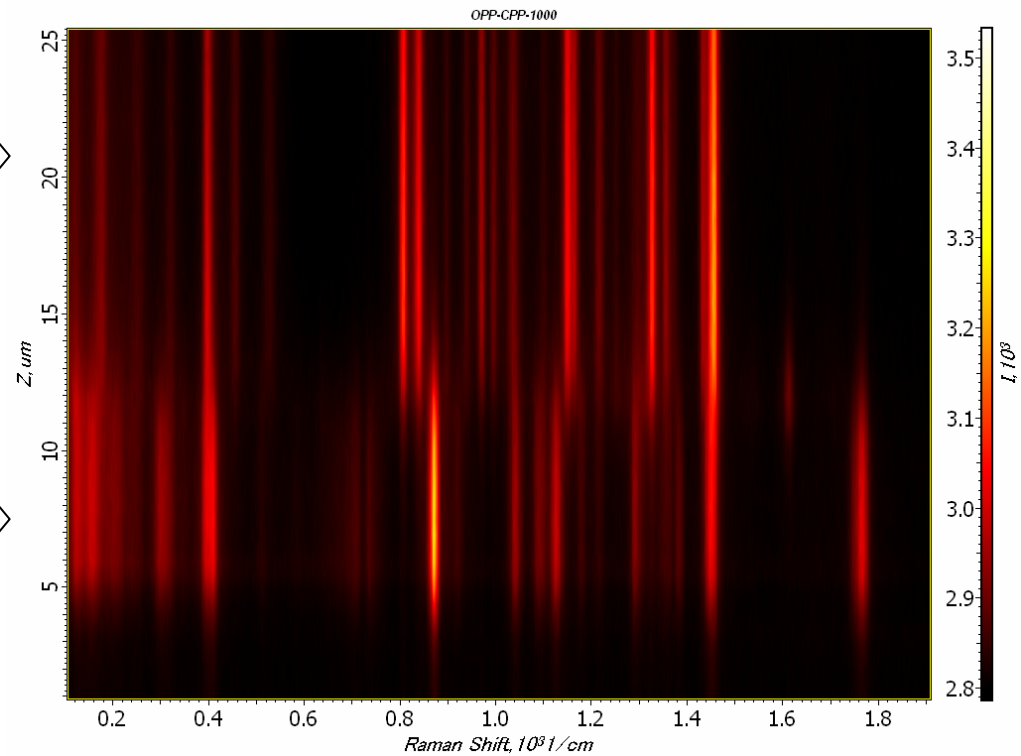


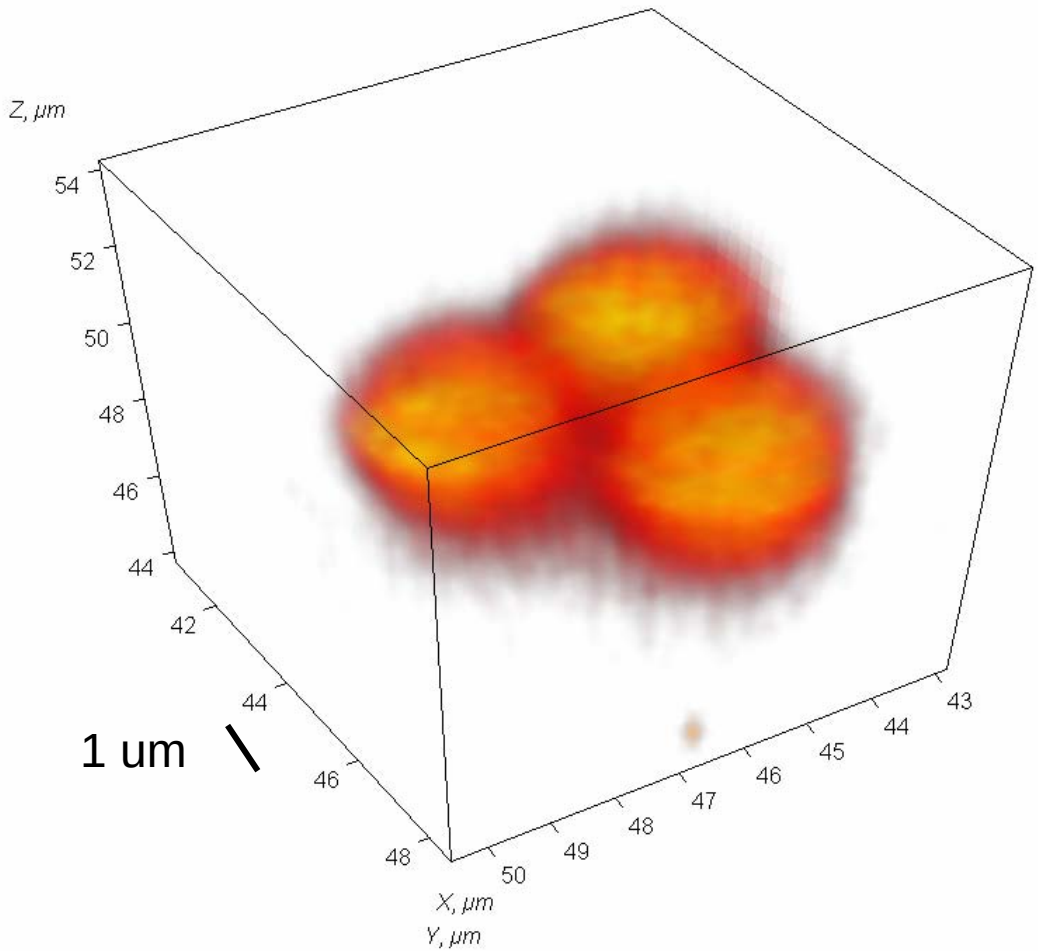


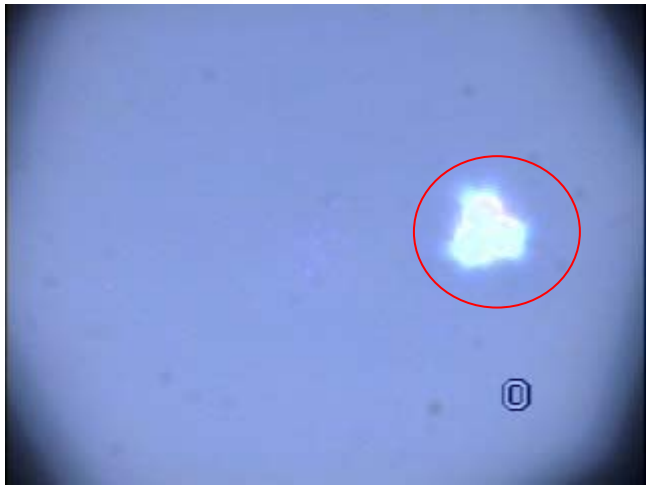


spectra

Depth analysis by confocal measurement 2

Nanofinder® FLEX





resolution	: 32 x 32 x 15 points, 250 x 250 x750 nm step
Measurement time	: 90 min
exposure time	: 0.3 sec/point
Laser	: 532 nm, 1 mW（on sample）

3D Raman image of polystyrene bead (at 1000 cm^{-1}peak)

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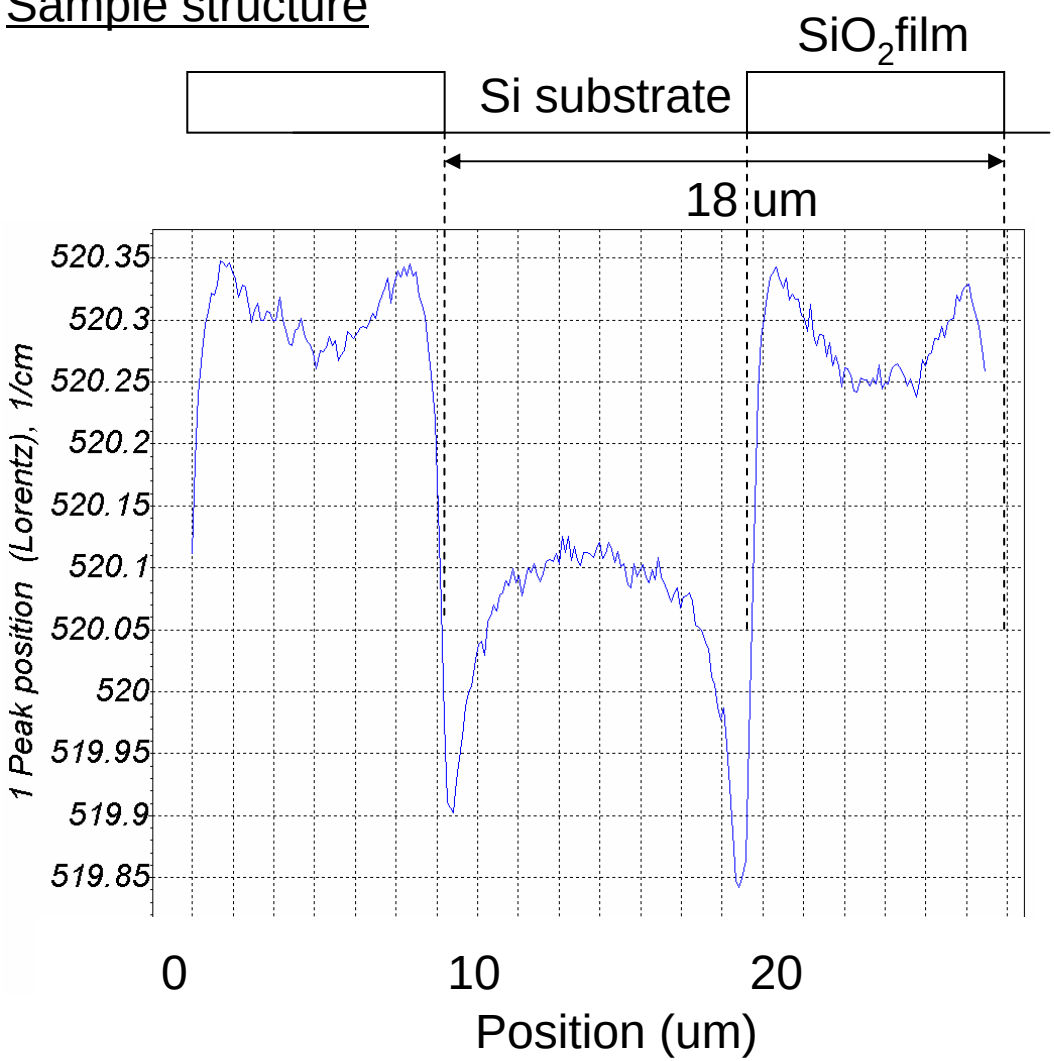
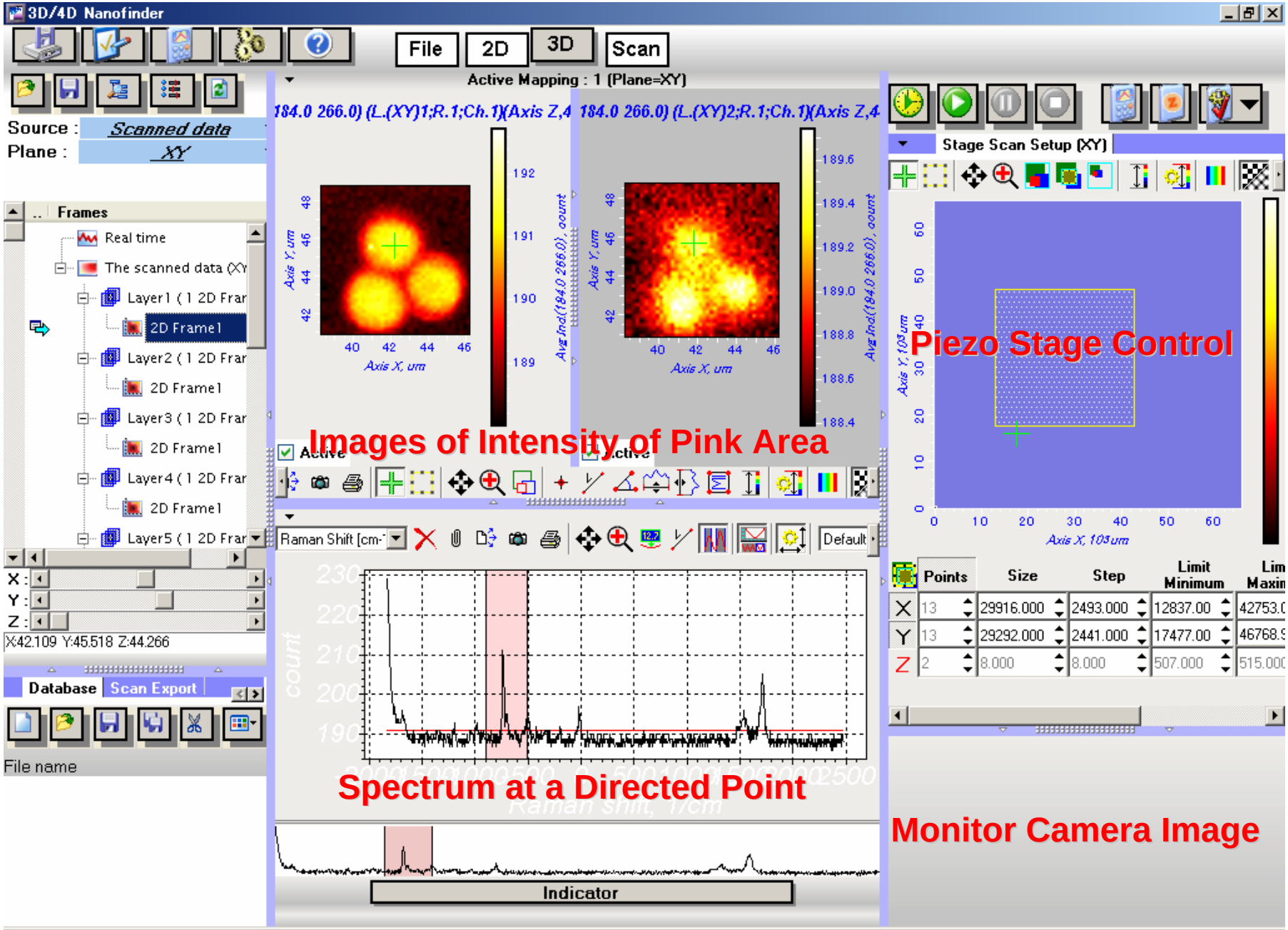
Sample structure



resolution	:256 points, 100 step
Measurement time	:5 min
exposure time	:1 sec/point
Laser	:532 nm, 6 mW（sample position）

Raman shift analysis by peak fit

Nanofinder® FLEX



Control and Analysis Software of Nanofinder®

Nanofinder® FLEX