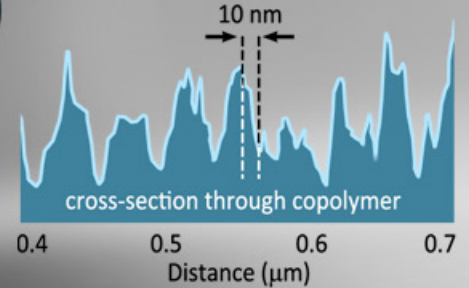
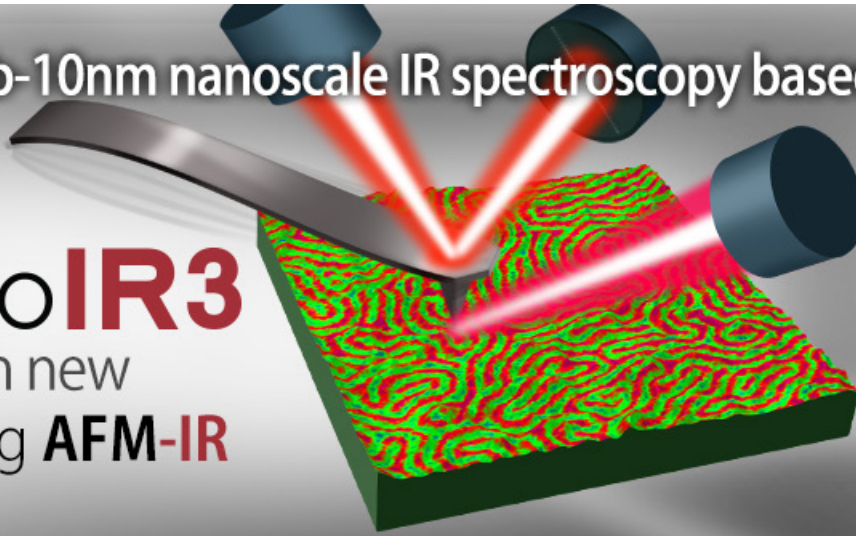


New sub-10nm nanoscale IR spectroscopy based on Tapping AFM-IR

nanoIR3
with new
Tapping **AFM-IR**



Tapping AFM-IR
sub-10nm chemical
imaging resolution

HYPERSpectra
Highest performance
nanoscale FTIR spectra

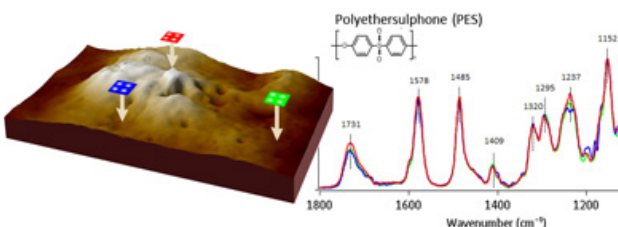
afm+
Nanoscale property
mapping

“Anasys engineered”
High performance,
productivity, reliability

The nanoIR3 is the highest performance nanoscale IR spectroscopy, chemical imaging, and materials property mapping system for materials and life science applications.

HYPERSpectra high speed spectra in seconds

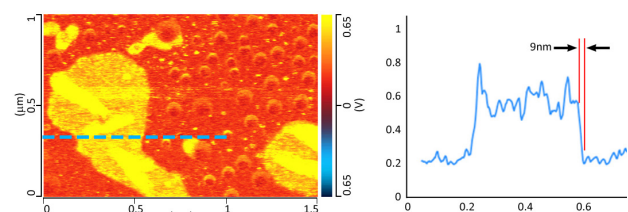
A proprietary Anasys instruments technology providing nanoscale FTIR spectra in seconds. **HYPERSpectra** laser technology extends Resonance Enhanced **AFM-IR** to a wider spectroscopic range (including the OH, C-H stretch and N-H stretch regions) setting new standards of resolution and sensitivity for a broader range of applications and still providing unrivalled, direct correlation to FTIR at the nanoscale.



AFM-IR spectra and IR imaging shows variation of IR signal at different sites

Tapping **AFM-IR** sub-10nm chemical imaging

Our new patent-pending Tapping **AFM-IR** imaging technique creates chemical mapping of the highest spatial resolution combined with high imaging speeds. Whether your goal is creating chemical composition maps of polymers or to image the smallest, thinnest contaminants or multilayer films, obtaining high resolution chemical imaging, is easy and fast.



IR line profile shows <10nm chemical spatial resolution using Tapping AFM-IR mode

Highest spatial resolution and monolayer sensitivity

Anasys' proprietary Tapping **AFM-IR** and **HYPERSpectra** sets new standards in resolution and sensitivity achieving sub-10nm spatial resolution, while maintaining monolayer sensitivity.

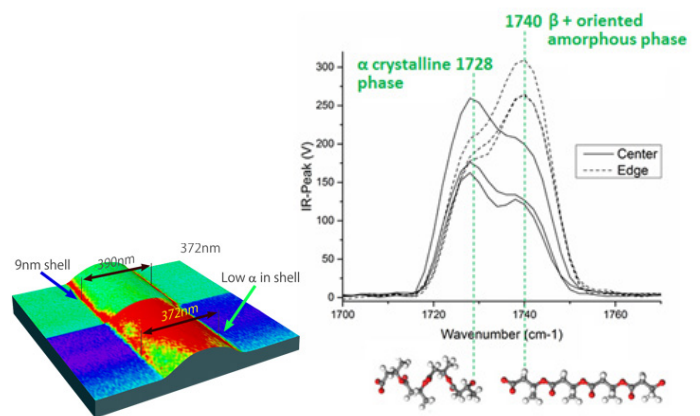
Multi-modal imaging: Adding nanoscale material property mapping with afm+

An integrated, fully featured afm provides unique material property mapping capabilities with thermal, mechanical and electrical modes to support unique multi-modal characterization of a wide range of materials science and life science applications.

POINTspectra imaging and spectroscopy with the same laser source

The **nanoIR3** also provides IR based chemical imaging to provide mapping of chemical variations of the feature of interest. Unique PointSpectra feature uniquely provides both point spectroscopy and chemical imaging with a single laser source enabling faster time to data and more cost effective solution.

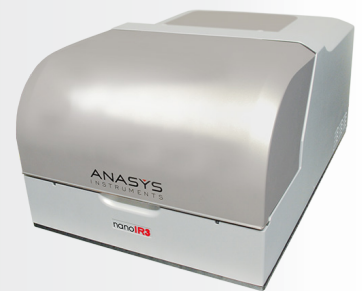
nanoIR measurements on polymer nano fibers
Courtesy: John Rabolt et al, University of Delaware



Specifications

Laser tuning range	HYPERSpectra QCL 780-1800 cm^{-1} FASTSpectra OPO 2710-3600 cm^{-1} FASTSpectra QCL Option: 950-1900 cm^{-1}
XYZ Scan Range	50 μm x 50 μm x 6 μm
Standard imaging modes	Tapping, Phase Imaging, Contact, Lateral Force, Force Curves, Force Modulation, EFM/MFM mode
Optional imaging modes	nanoTA, SThM, CAFM, Lorentz Contact Resonance, KPFM
AFM options	Environmental enclosure, heater/cooler, fluid imaging accessory

nanoIR3



Make New Discoveries:
www.anasysinstruments.com/products/nanoir3

ANASYS
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info@anasysinstruments.com | Tel: +1 (805) 730 3310
www.anasysinstruments.com