



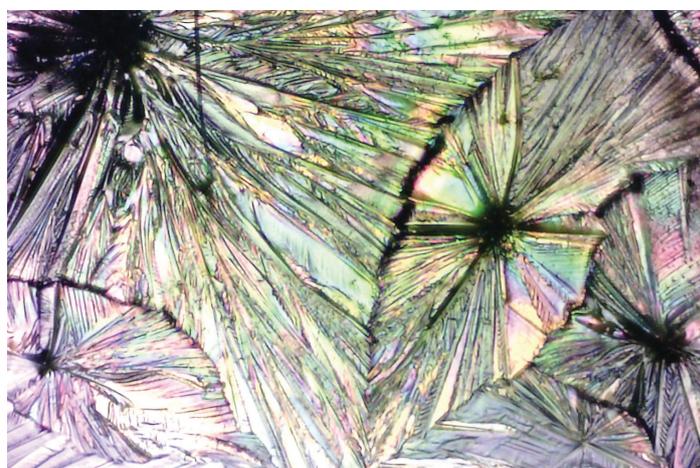
SurveyIR™ FT-IR Microanalysis Accessory

The SurveyIR™ is a new FT-IR Microspectroscopy accessory designed to deliver the ultimate user experience for a broad range of microanalysis techniques. The unique ergonomic design allows seamless interaction between operator and instrument. SurveyIR's compact configuration and alignment free optical design facilitates simple mounting in the FT-IR spectrometer sample compartment.

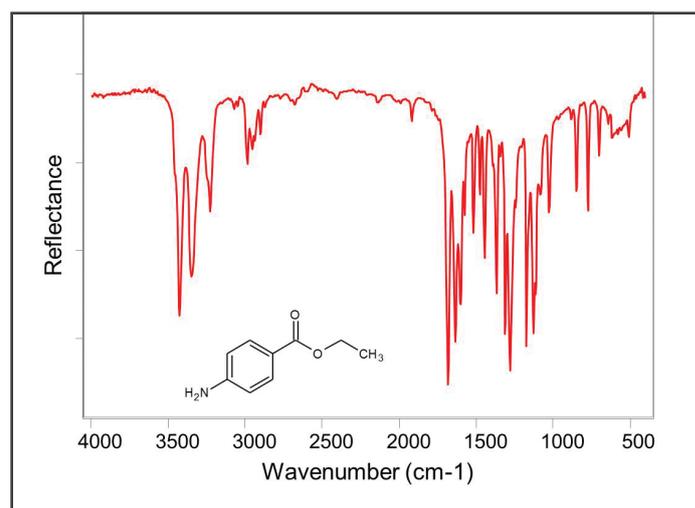
Research grade visual images are produced via a high resolution color video camera. High depth of field viewing optics facilitate quick specimen location and alignment in reflection, transmission and Attenuated Total Reflection (ATR) viewing modes. A choice of three on board illumination modes create excellent contrast over a wide range of specimen morphologies. Unsurpassed viewing quality thru the diamond ATR simplifies target manipulation and guarantees excellent sample/ATR coupling, including visualization of sample contact. Simultaneous viewing and IR spectroscopy allows visualization and interaction with the specimen while observing IR spectrum.

IR performance is leveraged with the FT-IR spectrometer on board detector in reflection, transmission, and ATR modes. eSpot™ software facilitates image display, manipulation, capture, documentation, and storage. eSpot also provides the interface for IR mode selection, illumination mode selection, and sample size by user choice of six masking aperture settings.

Sample manipulation is accomplished by manual adjustment of standard microscope controls including 1 x 3 inch travel x, y stage, coarse/fine focus, and condenser focus.



*Benzocaine anesthetic crystal film top - video micrograph.
Bottom - IR spectrum.*

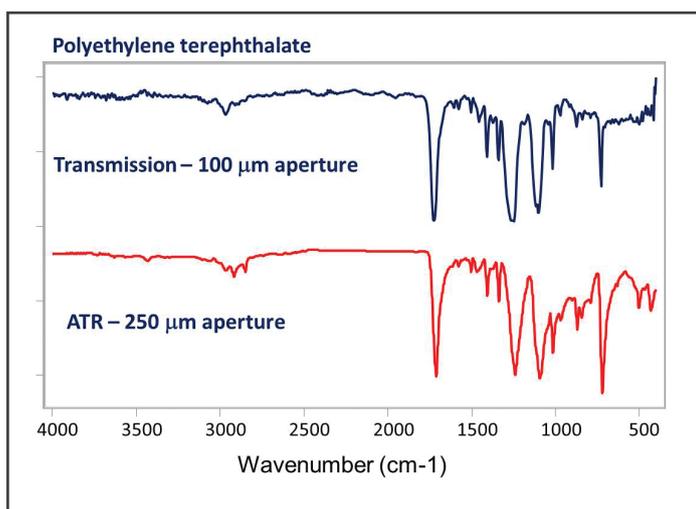


Applications

- FT-IR microspectroscopy of fibers, paints, polymers, fabrics, pharmaceutical active ingredients, excipients, narcotics, explosives, and minerals.
- SurveyIR is ideal for use in analytical services, quality assurance, educational, and forensic labs.
- Drug characterization, Forensic Science, Fiber analysis, Contaminant identification, and Surface defect characterization.



Polyethylene terephthalate (PET) single fiber top left – video micrograph of fiber in compression cell. Top right - video micrograph of fiber viewed through the ATR crystal. Bottom – IR spectra in transmission and ATR modes.



Features and Specifications

- User installed in the FT-IR spectrometer sample compartment
- Uses on board FT-IR spectrometer detector
- Powered by external computer USB 2.0, +5VDC
- 5 mega pixel CMOS color video camera, 2592 x 1944 maximum resolution
- Research grade visual image quality, 1900 μ m field of view
- 2X optical magnification yields .7 μ m/pixel at sample plane
- Transmission, reflection, and oblique illumination modes
- IR Reflection, Attenuated Total Reflection, and transmission modes available
- Diamond, Germanium (Ge), and Zinc Selenide (ZnSe) ATR prisms
- 5X magnification aspheric objective and condenser
- Simultaneous view/IR
- Variable remote IR image mask - 2000 μ m, 250 μ m, 200 μ m, 160 μ m, 100 μ m, or 60 μ m fixed diameter - controlled via eSpot™ software
- eSpot™ software control of visual illumination modes, visible illumination intensity, ATR contact alert, IR mask selection, and IR transmission/reflection modes
- eSpot™ software capability for image capture, storage, and documentation
- eSpot™ software compatible with Windows™ 7, 8, 8.1, and 10
- Manual coarse/fine z stage focus adjust, 1/3" minimum working distance, 1/2" maximum travel
- Manual x, y stage fits 1" x 3" standard microscope slides and yields 1" x 2 1/2" specimen travel
- Accommodates commercially available transmission cells including diamond compression cells
- Manual transmission condenser focus adjustment
- Dimensions – 13.2" depth x 4.3" width x 10.5" height, 10lb weight



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