

## Sample Identification Using FTIR Microanalysis

There are a number of industries and applications where being able to accurately identify the molecular structure and organic compounds of a sample is critical. From drug characterization to forensic science to standard analytical services. No matter what the application, there is a need for instrumentation that is both simple to use and can provide accurate results you can trust.

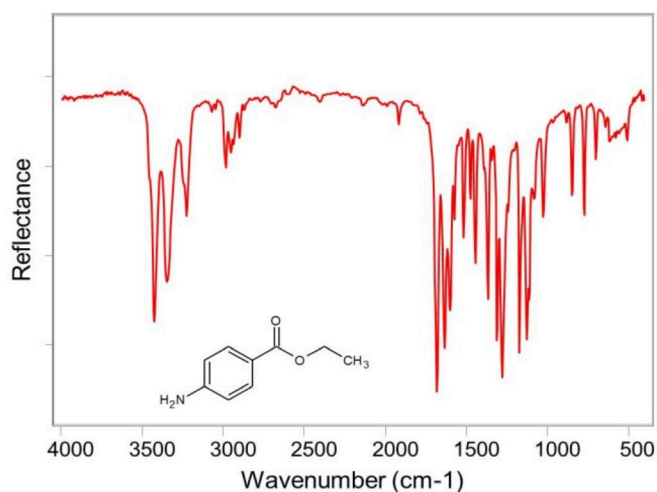
The SurveyIR™ is a FTIR Microspectroscopy accessory for a broad range of microanalysis techniques. The ergonomic design allows seamless interaction between operator and instrument. The SurveyIR accessory's compact configuration and alignment-free optical design facilitates simple mounting in the FTIR 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 onboard illumination modes create excellent contrast over

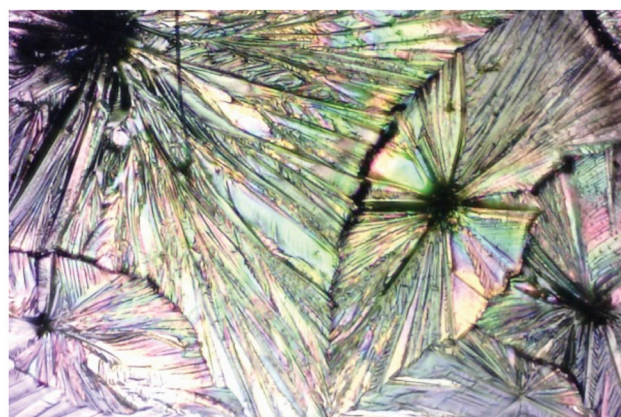
### Target Applications

- FTIR microspectroscopy of fibers, paints, polymers, fabrics, pharmaceutical active ingredients, excipients, narcotics, explosives, and minerals.
- Ideal for use in analytical services, quality assurance, educational, and forensic labs.
- Drug characterization, forensic science, fiber analysis, contaminant identification, and surface defect characterization.

### Benzocaine Anesthetic Crystal Film



**Figure 1:** IR spectrum of Benzocaine Anesthetic Crystal Film.



**Figure 2:** Video micrograph of Benzocaine Anesthetic Crystal Film.

a wide range of specimen morphologies. Unsurpassed viewing quality through 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.

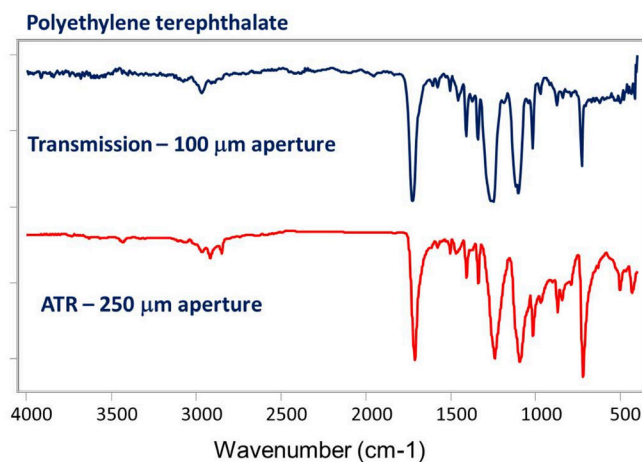
IR performance is leveraged with the FTIR instrument's onboard detector in reflection, transmission, and ATR modes. eSpot™ software facilitates image display, manipulation, capture, documentation and storage. eSpot also provides the interface for IR mode selection, illumination mode selection, and sample 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 and coarse/fine focus and condenser focus.

**Quantum Analytics is a value-added distributor of the SurveyIR microscopy accessory. For a complete solution, we are also an authorized distributor of Agilent FTIR microscopes.**



## Polyethylene Terephthalate (Pet) Single Fiber



**Figure 3:** IR spectra in transmission and ATR modes.



**Figure 4:** Left image shows video micrograph of fiber in compression cell. Right image shows video micrograph of fiber viewed through the ATR crystal.

**Contact us today to discuss your application needs.**



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