

## ***Fourier Transform Infrared (FTIR) Spectroscopy***

Infrared spectroscopy is one of the most powerful qualitative analyses tools. The infrared spectrum provides a chemical fingerprint of the sample, and by interpreting this fingerprint one can interpret the chemistry of the sample. Libraries of fingerprints make it possible to search spectra and make an identification of unknown materials. Samples may be solids, liquids or gases, and important feature. Almost all materials have infrared spectra and spectra can be acquired on microscopic sized samples using the microscope accessory shown below. For example, it is possible to identify particles, fibers and other contamination that are microscopic through acquisition of their infrared spectra.

### ***Picture of Nicolet 470 FTIR and Nicplan Microscope***

