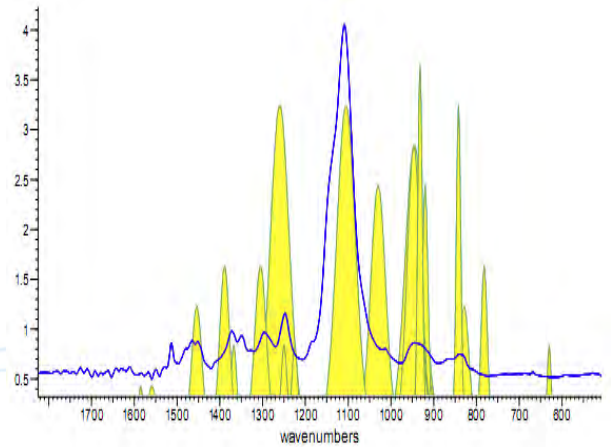
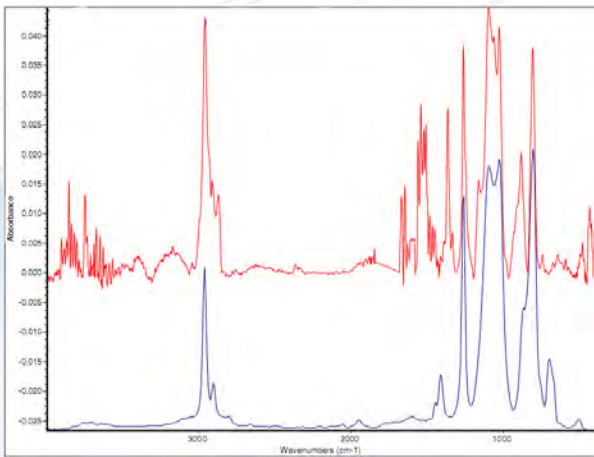


FOURIER TRANSFORM INFRARED SPECTROSCOPY

Samples are illuminated with a broad frequency spectrum of infra-red light, corresponding to energies associated with intra-molecular vibrations, especially in organic compounds. The pattern and intensity of frequencies absorbed by a sample are plotted, which gives structural information about the manner in which organic molecules are assembled. Organic compounds, which are generally very similar from an elemental standpoint, can be separated and identified using these structural fingerprints.



Peak Structure comparison by Functional Group



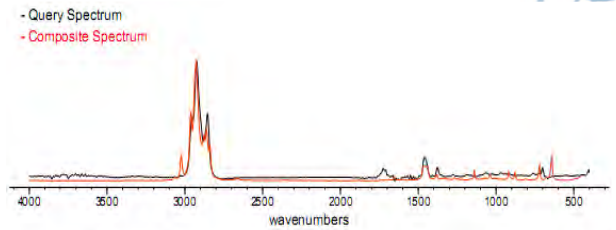
Comparison between Reference and Sample Spectrum

Advantages:

- Identification of a wide range of materials, including solids, powders, films, and liquids
- Individual phases can be directly identified with chemical preparation
- Characterization of materials by class can be followed by detailed comparative analysis
- Composites and mixtures analyzed to determine compounded material properties
- Small samples or inclusions can be examined with micro-FTIR attachment, allowing for particles or fibers as small as ~50 um to be examined
- ATR surface sampling allows isolation and examination of coatings or foulants limited to ~10 um depth from surface
- Qualitative identification of materials, or quantitative analysis of analytes using customized methods are possible

Application Fields:

- Polymer Manufacturing
- Environmental Testing
- Materials Science
- Fabric and Textiles
- Surface Coatings and Paints
- Thick/thin Film Electronics
- Materials Identification
- Manufacturing and Process Technology
- Pharmaceuticals



Hit	Weight	Flag	DB	Ref	Name	Chemical Structure	Spectrum
697.80	N.A.				Composite Spectrum	<chem>CCCCC(=O)O</chem>	
0.88		MEM	9		Hexane	<chem>CCCCCC</chem>	
0.12		MEM	2		Acetic acid	<chem>CC(=O)O</chem>	

Functional Correlation Chart

Learn more at <http://www.MicroVisionLabs.com>