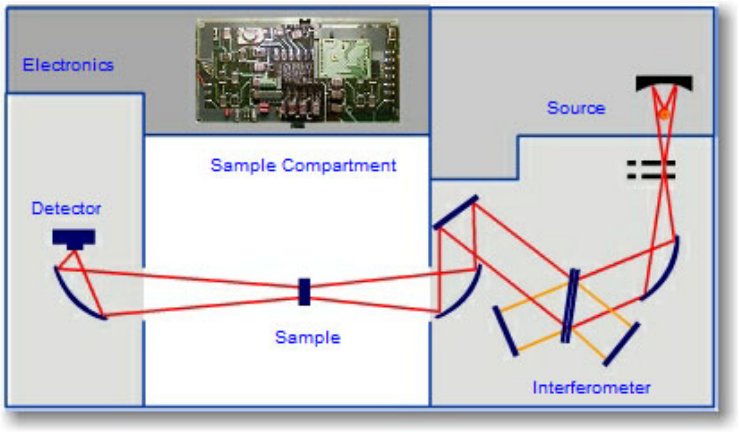
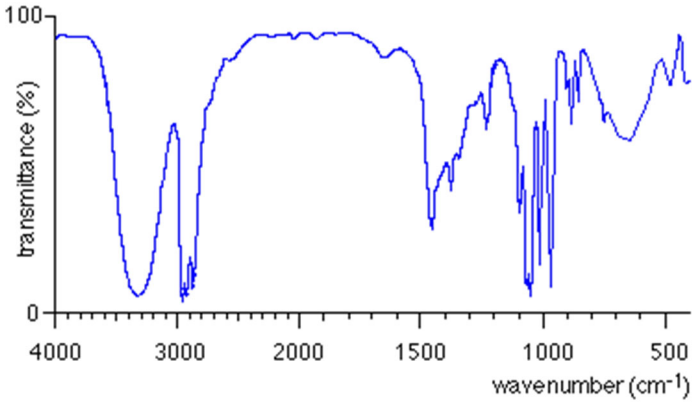
Fourier Transform Infrared Spectrometer (FTIR) with hyphenation capability.

Fourier Transform Infrared Spectroscopy is an analytical technique used to identify organic, polymeric, and, in some cases, inorganic materials. The FTIR analysis method uses infrared light to scan test samples and observe chemical properties.



FT-IR spectrometer layout

The FTIR uses interferometry to record information about a material placed in the IR beam. Infrared light from a source is directed into an interferometer, which modulates the light. After the interferometer, IR radiation is passed through a sample. Some radiation is absorbed by the sample and some passes through (is transmitted). The signal is measured by the detector. The resulting signal at the detector is a spectrum representing a molecular 'fingerprint' of the sample. The usefulness of infrared spectroscopy arises because different chemical structures (molecules) produce different spectral fingerprints. An example of spectrum is shown below.



For charging and staff in-charge information, please refer to the charges for the use of instrument.