

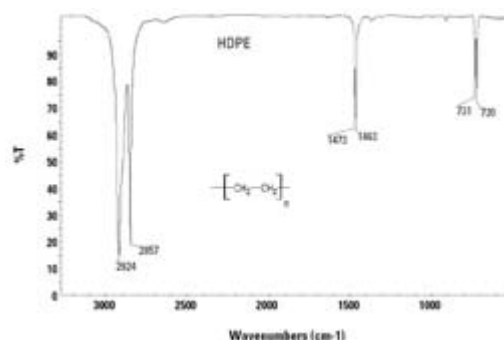
FOURIER-TRANSFORMATION-IR SPECTROSCOPY (FTIR)



PRINCIPLE:

IR (infrared)-spectroscopy is a form of spectroscopy which is specifically active in the infrared part of the electromagnetic spectra.

IR-spectroscopy relies on the fact that IR-radiation excites molecular structures on different levels of vibration. This leads to absorption of different regions of the irradiated IR light. The thus resulting spectrum allows identification of the chemical bonds.



METHOD:

The sample is placed on an ATR crystal, pressed down and irradiated with a narrow band of IR light (middle part of the spectrum). The signal of the reflected IR light is detected.

APPLICATIONS:

- Qualitative determination of the polymer type
- Determination of foreign substances in plastics (>5%)
- Determination of impurities in recycle

