

Semiconductor Heterostructures

The main principle of mid infrared gas spectroscopy is very simple:

Many important gases and liquids have strong absorption lines in mid infrared spectral range.

Different materials have different absorption spectra. Radiation from the source passes through the sample cell. The radiation not absorbed by the sample is then detected and the ratio of this to the incident provides a measure of the concentration of target gas in the sample. A second channel tuned to a different wavelength that is not attenuated by any species likely to be present in the sample is normally used to provide this reference measurement.

