

Infrared Spectrometer

Principle

An IR spectrometer allows the identification and quantification of organic and inorganic substances comprising molecules via molecular vibrational spectroscopy.

Manufacturer	Bruker
Model	ALPHA
Spectral Range	375 – 7 500 cm^{-1}
Spectral Resolution	better than 0.8 cm^{-1}
Wave Number Accuracy	better than 0.05 cm^{-1}
Spectra Database	> 31 000 spectra
Measurable Items	Materials, powders, coatings, liquids, suspensions, gases
ATR Sampling Modules	Diamond, zinc selenide (multi-reflection)
Reflection Sampling Modules	30° reflection, diffuse reflection
Transmission Sampling Module	Potassium bromide discs, flow cells
Flow Cells	Liquid flow cell, short gas flow cell, heated long path gas flow cell (4.8m)
Inert Atmosphere	yes (argon)
