

FT-IR SPECTROMETER EQUIPMENT



MODEL: TENSOR 27 - BRUKER

INSTALLATION PLACE: Chemistry Lab,
Department of Microelectronics

DESCRIPTION: An advanced flexible benchtop FT-IR spectrometer designed for both routine lab and demanding analytical laboratory applications. It allows data acquisition in the mid IR region.

SPECIFICATIONS

1. Interferometer: ROCKSOLID™; permanently aligned
2. IR source: air cooled; high emission
3. Detector: DLATGS (Deuterated L- α -Alanine doped TriGlycine Sulphate); low noise; temperature stabilized; range: 12,000-360 cm^{-1}
4. Wavenumbers range: 4000-400 cm^{-1}
5. Sample chamber equipped with a QuickLock™ baseplate
6. Optional beam port allowing attachment of external accessories (e.g. IR microscope, GC, etc.)
7. Capability for N_2 purging in the chamber
8. Instrument's electronics based on a 24 bit data sampling unit; control of instrument with PC (Microsoft Windows 2000; OPUS™ 4.2 software)
9. Transmission set-up: OMNI-CELL, SPECAC
10. Grazing angle (0-90°) set-up: MICOS
11. IR filter grid polariser: SPECAC

APPLICATIONS

1. Transmission IR spectra: thick films (0.1-5 μm thick) depending on film material (e.g. polymers, metal oxides, etc); powders in KBr pellets.
2. Grazing angle reflection-absorption IR spectra: thin films (0.01-0.1 μm thick)
3. Substrates: Si wafer, reflecting substrates (e.g. Au)

CERTIFICATION/ACCREDITATION

The facility is not certified or accredited.

CONTACT PERSON

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