

STALWART

Benchtop FTIR Spectrometer SFT-890B



Discription

SFT-890B routine benchtop FT-IR spectrometer is self-designed seal integrated Kbr beamsplitter and high sensitivity DTGS Detector. The sample compartment can compatible with IR transmission module, Attenuated Total Reflectance, diffuse reflectance up or front, and specular reflectance, gas cell etc. The experiment involves in-situ diffuse reflectance attachment, temperature controller and other auxilliary equipment can be contained inside. This design is compact and save space.

SFT-890B is widely used for solid, liquid and gas transmission characteristics, direct measure with solid or liquid ATR diamond, ZnSe, Ge crystal no necessary press, and direct connect to gas cell fit to both high and low concentration gases, customize measure is available for one stop solution provider.

Features

- Michelson interferometer with wear free and reliability of 10 year guaranty, with cube-corner mirror resist mechanical and temperature vibration
- Higher stability of optical system is designed with gold mirror improve reflectivity by >5% than traditional aluminium mirror.
- Super sensitivity and reliable temperature controlled DTGS detectors
- Reliable performance of solid laser life up to 10 years
- Vacuum cooling ceramic IR light source with high performance
- Powerful software functions for IR analysis and simplify measurement procedure

Specification

Model	SFT-890B
Spectral Resolution	$\leq 1 \text{ cm}^{-1}$
Spectral Range	8000-350 cm^{-1}
IR source	vacuum cooling ceramic light source, 1550K
Laser	Solid laser
Beam splitters	Kbr
Detectors	Temperature controlled DTGS detector
Interferometer	Cube-corner mirror Michelson interferometer, wear free fit to many field measure can resist to mechanical and temperature vibration
Wavenumber Accuracy	Better than 0.01 cm^{-1}
Wavenumber Precision	Better than 0.01 cm^{-1}
Signal to Noise	$\geq 40,000:1$ 1 min sample measurement, 4 cm^{-1} , peak-to-peak
Dimension	685×415×223mm

Application

FT-IR spectrometer is widely applied to IR measure modules of solid transmission, ATR reflection, and diffuse transmission etc.

Solid Transmission

1. Many solid powder press
2. Thin film Quantitative analysis
3. Heating press module quantitative analysis
4. Transparent IR materials of various glasses, Jades, crystal materials, and material properties change

Solid / Liquid Attenuated Total Reflectance (ATR)

1. Many powder sample without press for direct measure
2. Irregular shape sample of non-destructive measure without press
3. Many polymer, fiber, thin film, and high polymer sample
4. Many O ring, rubber sample
5. Many others difficult to measure by transmission

Liquid Transmission

1. Seal liquid cell qualitative analysis organic solution, VOCs
2. Disassemble liquid cell available in change optical length for quantitative analysis
3. Many lubricant oil quantitative analysis
4. IR window film forming liquid film for qualitative analysis

Gas Cell

Glass or Stainless steel gas cell can inlet directly with select temperature control and optical length of 1.5cm, 3cm, 5cm, 7cm etc fit to high concentration gas

Multi-reflectance gas cell of stainless steel, temperature control and optical length of 50cm, 100cm, 5m fit to low concentration gas

Corrosion resistant gas cell can customize anti-corrosion materials gas cell e.g. HF gas measure

Accessories

- TGA-IR coupling Module
- GC-IR coupling Module
- External sample compartment, vacuum or purgeable
- External vacuum UHV Chamber
- 2cm to 20 meters gas cells
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- In-situ Transmission accessory
- In-situ Diffuse Reflection accessory
- ATR and specular accessory