



Spectrolab Science

SPECTROLAB

S50-180 *Rayleigh* Series FT-IR Spectrometer



Spectrolab - Rayleigh S50-180 FTIR Spectrometer

FEATURES:

- Employs a new type cube-corner Michelson interferometer that features smaller size and a more compact structure, providing higher stability and less sensitivity to vibration and thermal variations than conventional Michelson interferometers.

This is a “plug and play” instrument that installs itself. No need for an engineer
Fully sealed damp and dust proof interferometer, providing high performance, and long lifetime.
Viewable window for desiccant enables easy observation and replacement.

- The design incorporates an Isolated IR source and large space heat dissipation chamber designed to provide higher thermal stability.
- High intensity IR source using a reflex sphere to obtain even and stable IR radiation.
- A unique suspended cooling fan design ensures good mechanical stability.
- Super wide sample compartment provides more flexibility to accommodate every accessory.
- The application of a programmable gain amplifier plus a high accurate *ND* converter and embedded computer improves the accuracy and reliability of the whole system.
- The spectrometer connects to a PC via a USB port for automatic control and data communication,

Plus plug and play installation.

- *No installation required*

PC control with user friendly, multi function software enables easy, convenient and flexible operation.

Data collection, spectrum conversion, spectrum processing, spectrum analyzing, and spectrum output functions etc. can be performed with ease.

- Various special IR libraries are available for routine search. Users can also add to and maintain the libraries or set up new libraries by themselves.
- Accessories such as Defuse/Specular Reflection, ATR, Liquid cell, Gas cell, etc can be mounted in the sample compartment.

ACCESSORIES

Diffuse/Specular Reflectance Accessory



Specular Refection Accessory

Used for transparent and powder samples and powder sample analysis. Specular reflection is for measuring smooth reflective surfaces and coating surfaces.

- High light throughput
- Easy operation, no internal adjustment required
- Optical aberration compensation
- Small light spot size able to measure micro samples
- Variable angle of incidence
- Fast change of powder holders

ACCESSORIES

Horizontal ATR /Variable Angle ATR (30°~ 60°)

Horizontal ATR is suitable for the analysis of materials such as rubber, viscous liquids, large surface samples and pliable solids etc.

Variable angle ATR is used for the measurement of films, paint (coatings) layers and gels etc.

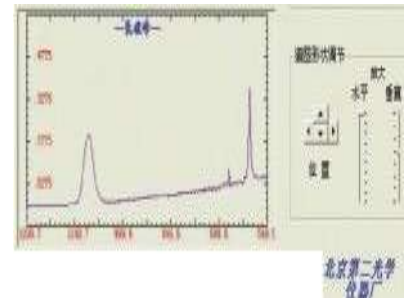
Providing

- Easy installation and operation
- High light throughput with variable depth of penetration it provides for high sensitivity when measuring materials with high absorption such as polymers, rubber, lacquer, fibers etc.
- Easy operation and high analytical efficiency
- ZnSe Diamond, AMTIR, Ge and Si crystal plate can be selected according to requirements.



Accessory for the Determination of Hydroxyl in IR Quartz

- Fast, convenient and accurate measurement of the Hydroxyl content in IR quartz
- Direct measurement of IR quartz tube with, no need to cut samples
- + Accuracy: 1×10^{-5} (s ppm)



Determination of Oxygen and Carbon in Silicon Crystals

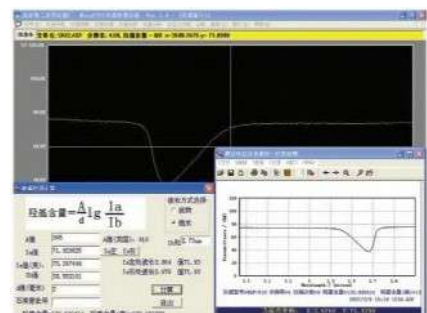
- + Special silicon plate holder
- + Automatic, fast and accurate measurement of oxygen and carbon in silicon crystal

SiO2 Powder Dust Monitoring Accessory

- + Special SiO2 powder dust monitoring software
- + Fast and accurate measurement of SiO2 powder

Component Testing Accessory

- + Fast and accurate measurement of the response of such components as MCT InSb and PbS etc.
- + Curve, peak wavelength or end wavelength and D* etc can be presented.

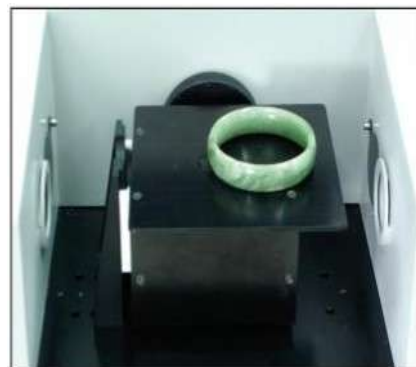


Optical fiber testing accessory

- Easy and accurate measurement of IR optical fiber attenuation overcoming the general problems for fiber optic testing due to the small mean diameters / apertures .

Jewelry inspection accessory

- + Accurate identification of jewelry and precious stones



Jewelry / Inspection

Universal Accessories

- Fixed liquid cells and demountable liquid cells
- Variable path length gas cells

SPECIFICATIONS:

* Spectral range	350 – 4400cm ⁻¹
* Clear Aperture	25.5mm dia
* Interferometer	20 degree self compensating.
* Double beam	Laser detector with 130% better optical efficiency
* TC Source	Temperature compensated IR source
* Humidity	Sealed interferometer
* 5mm dia	IR spot size improves sensitivity by X6 times
* Scan speed	Adjustable 5 step Resolution better than 4.0cm ⁻¹
* Resolution	Better than 4.0cm ⁻¹
* CM-1 precision	0.01cm ⁻¹
* S:N ratio	Better than 10000:1 rms
* Detector	Low Noise DTGS:
* Beam splitter:	Ge coated KBr
* Infrared Source	Air cooled / high efficiency
* Data system:	Compatible computer
* Software:	FT-IR software contains all routines required for basic spectrometer use including library search, quantities etc
* IR Library:	IR library included
* Dimensions	40x35x15cm
* Weight:	15kg

CAT22233

Our partners In FTIR

Anaspec, BRAIC, Specac



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