

## YK-FTIR920

### Fourier Transform Infrared Spectrometer



#### Basic introduction:

The FTIR920 Fourier transform infrared spectrometer is a high-precision Fourier transform infrared spectrometer developed by our company in cooperation with a well-known European FTIR manufacturer and combined with decades of infrared production experience. It uses a variety of special technologies to ensure that this compact infrared spectrometer has high performance. It adopts a unique optical design, software and hardware design, with stable and reliable performance, powerful functions and simple operation. It can be widely used in pharmaceutical, petroleum, chemical, environmental protection, food, material science and other fields

#### Features:

Adopts a new Michelson self-compensating optical system, which can be dynamically corrected and has a small size. The ultra-high sensitivity design is equipped with a DLATGS greenhouse detector, and the spectral data is collected in real time. With the USB2.0 communication interface, the data transmission rate is improved, and it only takes a few seconds to test a sample. The interferometer adopts a multi-sealed moisture-proof and dust-proof design, and the visible silicone window is easy to observe and replace. The ultra-large sample space can



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meet all the operational needs of samples involved in FTIR spectral analysis, and can perform transmission tests, attenuated total reflection tests, mirror reflection tests, etc. The software has added an audit tracking function, which can realize "three-level management authority". Only the general administrator can operate functions such as data backup and data restoration. The energy of the interferometer can be adjusted by yourself without opening the cover. The desiccant can be replaced without opening the host.

## Specification data :

1. Instrument wave number range: 7800-375 cm<sup>-1</sup>
2. Light source: long-life, high-intensity air-cooled, high-performance infrared light source.
3. Scanning speed: up to 2mm/S, different scanning speeds can be selected, the level is continuously adjustable, and the spectrum is automatically compared.
4. Detector: high-sensitivity DLATGS detector.
5. Signal-to-noise ratio: 45,000:1 (RMS value, near 2100 cm<sup>-1</sup>, 4 cm<sup>-1</sup> resolution, 1 minute data acquisition)
6. Optical system: integrated design of optical table, fully enclosed interference system, can timely protect the core components of the equipment from interference and corrosion from external moisture and harmful gases. The equipment is equipped with a quick identification device for temperature and humidity conditions, and has a cleaning function.
7. Transmittance repeatability: 0.5%T
8. Beam splitter: multi-layer coated potassium bromide with moisture-proof coating, high energy and high signal-to-noise ratio.
9. Wave number accuracy: 0.01 cm<sup>-1</sup>; baseline flatness: ≤0.1%T
10. Beam diameter at the sample: 10 mm; aperture ratio: 1/3.2
11. Interferometer automatic correction, optical mirror size 150\*56mm, all gold-plated reflective film, high reflectivity, anti-oxidation, longer service life.
12. Optical zero point detection: hardware detection, can detect extremely strong absorption samples <0.3%.
13. Sample test range: 10-190mm, sample switching does not need to wait, direct test.



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14. Other extensions: The instrument has a nitrogen purge interface to reduce the interference of water and carbon dioxide in the air; the instrument has its own heating and dehumidification function; a reserved light source interface can be connected to an external light source for expansion and development.

15. Software system: equipped with Chinese operating software for intelligent control of the instrument. It has data acquisition (spectral scanning, photometry, quantitative measurement), data processing (peak marking, peak area integration, baseline calibration and other operations), spectrum analysis (spectrum retrieval function, spectrum automatic comparison function, spectrum matching function, spectrum entry function, basic infrared analysis function, QC comparison function, smoothing function, y-axis normalization function);

16. Accessories: instrument drying box (electronic dehumidification, drying and moisture-proof), ATR accessories (crystal ZnSe, incident angle 45 degrees), 2 sets of potassium bromide liquid cells (including windows).

17. Packing: 750\*550\*290mm , GW:48KG ;

## Basic configuration:

1. Fourier transform infrared spectrometer host
2. AC power adapter and cable
3. USB data cable
4. Standard calibration plate
5. Color-changing silica gel (desiccant)
6. Quick operation guide
7. Application software

## Supporting tools:

1. Users need to prepare their own computer and printer
2. Optional accessories



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AIR accessories, mirror reflection accessories, reflection diffuse reflection accessories, series powder tablet press, Zhe series tablet mold, Kai series liquid test accessories, Kai series gas test accessories, m series infrared drying box, cuvette and cuvette rack, polishing tools, etc.