OPTOSKY
Spectroscopy Solutions

Datasheet

2 Channels & 2 Compartments Benchtop FT-IR Spectrometer

ATP8900-2-C

Features:

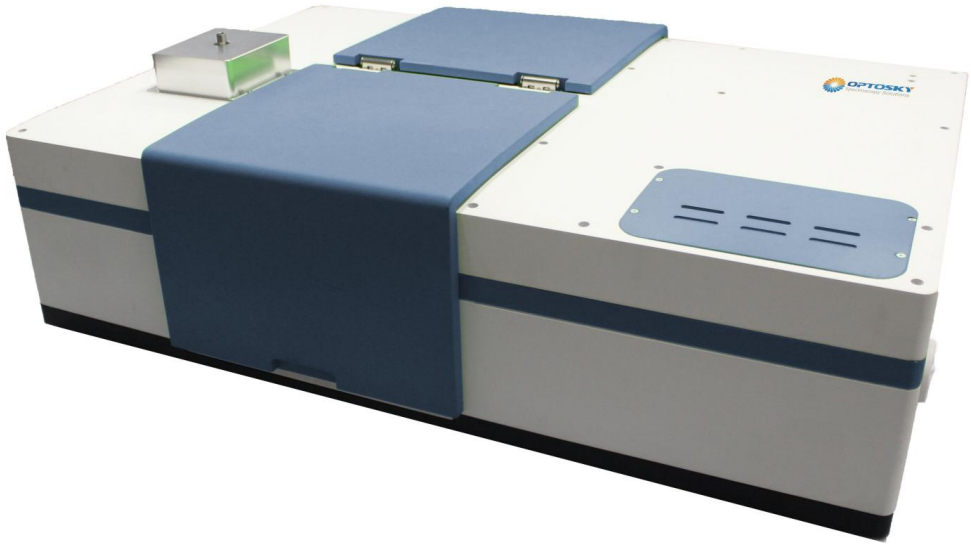
- 2 channels & 2 sample compartments for independent operation.
- Easy to auto-switch channels on the software Auto adjust 6 scan speed with 2.5K-3.0K
- Software can auto-transfer in K-M format for convenient comparison with diffuse reflection spectra
- Save or import background spectra for comparing, reminder valid time function.
- Sample compartment is spacious for various bigger IR attachment.
- Optical path in good collimated, no necessary to replace large attachments with 2 compartment
- ZnSe beam splitter with little maintenance for optional

Description:

ATP8900-2-C FTIR spectrometer with two compartments for two channels independent operation, In-situ diffuse reflection and in-situ transmission cell synchronization, no necessary to replace attachments frequently.

Configured to room temperature detector and low temperature LN MCT detector sychronization with a max. scan rate 60K

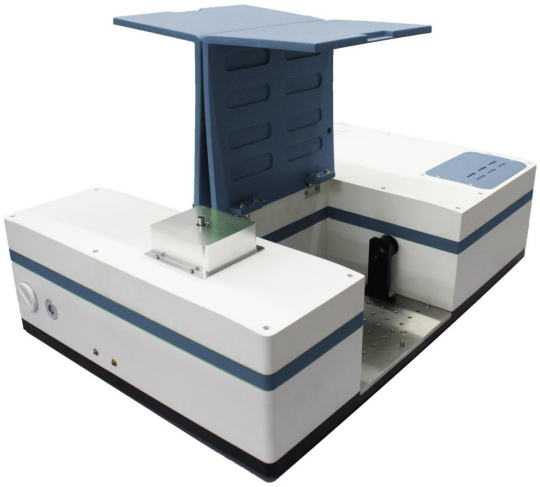
ATP8900-2-C FTIR spectrometer with compact and rigid design to fit to multi-mode measurement of transmission, ATR , diffuse reflection, specular reflection. Dual sample compartment requires no frequent replacement can improve efficiency. It's widely applied to measure solid, liquid, and gas in the third party lab and in-situ characteristics of many categories of catalysts.



Floor 15th, Bld. A04, 3rd Software Park, Jimei, Xiamen, 361005, China
Tel: +86-592-6102588

1. Performance

Items	Description
Channels/Compartments	Auto-switch 2 channels, 2 compartments
Spectral range	8000-350cm-1
Spectral resoluion	≤1cm^{-1}
Wavenumber precision	≤0.01cm^{-1}
Wavenumber accuracy	≤0.01cm-1
Michelson interferometer	Michelson interferometer with wear free and reliability of 10 year guaranty, with cube-corner mirror resist mechanical and temperature vibration
Beam splitter	ZnSe, KBr
Detector	LN MCT detector / DLATGS detector
IR source	Long life vacuum cooling ceramic light source, 1550K
Laser	Solid laser, 10 years warranty
Software	Win10 software functions including FTIR spectra measure, spectra database pretreatment, spectra comparison, standard peaks finding, user self-build library, quantitative analysis, auto-deduct diamond/CO2 absorption peak, intelligent peak finding warning, one-button test result evaluate, export report and print
	Auto switch channels, configured to quick scan speed of 20K, 40K, 60K and diffuse reflectance measure change to K-M spectra



Floor 15th, Bld. A04, 3rd Software Park, Jimei, Xiamen, 361005, China
Tel: +86-592-6102588

2. Applications

Chemical Reaction Kinetics of Catalysts

- Online catalysts at high temperature, high pressure or vacuum catalytic performance
- Catalytic reaction mechanics and process
- Catalytic surface absorption activities and performances
- Catalytic characteristics of Acid/Alkali
- New catalysts experiment database
- Ingredients identification and structure analysis of catalysts sample

Multi-tasks measurements

Experimenters are always receive various samples for measurement, such as solid, liquid and gas and in order to make a different analysis, say transmission modules, ATR attachments. When it's necessary to replace the different FTIR attachments, ATP8900-2-C can customize immovable attachments, auto-switch optical path at accuracy.

Heating in-situ transmission cell

- High temperature/pressure in-situ diffuse reflection cell
- High temperature/vacuum in-situ diffuse reflection cell
- Low temperature/vacuum in-situ diffuse reflection cell
- Positive transitivity （paralleled incident light）
- Diffuse transmission （integrating sphere attachments)
- Reflectivity measure (reflective angle of 10°, 30°, 45°, 80°, and changed degree etc)
- ATR measurement (optional crystals: diamond, ZnSe, Ge)
- Solid, liquid, gas sample transmission characteristics

Pharm & Life Science

- Protein conformation and quantification
- Quantification for Active Pharmaceutical Ingredients and excipient in water solution

Microorganism Identification

- Characterization for the volatility and stability of medicine combined with TGA module

Polymer and Chemical Products

- Detection and Characterization for the volatility and decomposition combined with TGA module
- Monitoring reaction process in lab combined with MIR fiber probe module

Surface analysis

- Detection and Characterization for the Ultra-Thin film and mono-layer film
- Characterization for the erosion process

Material Science

Floor 15th, Bld. A04, 3rd Software Park, Jimei, Xiamen, 361005, China
Tel: +86-592-6102588

- Detection of Emissivity of building materials
- Evaluation for Optical material such as Infrared windows and mirrors

Semi-conductor Silicon Industry

- Different non-metal film measure
- Quality control medium carbon / oxygen impurity identification

Soil Analysis

- Soil fertility and organic evaluation
- Soil properties research

3. Attachment

Items	Model	Qty	Remarks
FTIR spectrometer	ATP8900-2-C	1 unit	Included
Room temperature detector	-	1 unit	Included
Desiccant kit	-	2 pcs	Included
Wires	-	1 unit	Included
computer	-	1 unit	Optional
In-situ diffuse reflection attachment, available in high temperature, low temperature, high pressure reaction cell	-	1 unit	Optional
In-situ transmission attachment (solid, liquid absorption, gas solid absorption)	-	1 unit	Optional
Temperature control system	-	1 unit	Optional
Gas system	-	1 unit	Optional
Water cycle system	-	1 unit	Optional
Vacuum pump system	-	1 unit	Optional

Floor 15th, Bld. A04, 3rd Software Park, Jimei, Xiamen, 361005, China
Tel: +86-592-6102588