

IT2000CE Online FT-IR Analyzer



JINSP® IT2000CE online FT-IR analyzer is used for *in situ* monitoring of chemical reaction.

IT2000CE can measure the content of reactants' residues, products, intermediates and impurities in the reaction system **continuously and quickly**, thus predicting reaction rate, reaction termination, conversion rate and reaction incidents **in real time**.

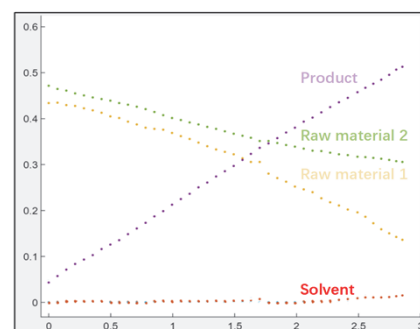
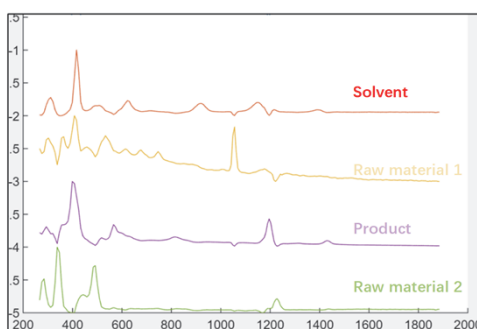
IT2000CE is designed for use in lab research, bench-scale test, or manufacturing environments.

Technical Highlights

- **Highly applicable:**
 - Capability to measure black or deep color samples, without the influence from sample color;
 - Capability to detect liquid components in suspension, getting rid of the interference from solid particles.
 - Resistant to high temperature and pressure, strong acid/alkali, and strong corrosive liquid
- **Fast:** Data acquired in seconds
- **Intuitive:** Real-time display of the dynamic change of reactants and products
- **Multi-functional:** Simultaneous measurement of the concentrations of multiple components
- **Intelligent:** Automatic analysis of FT-IR spectra based on intelligent algorithm

Reaction Monitoring

Real-time monitoring of the changes of multiple components



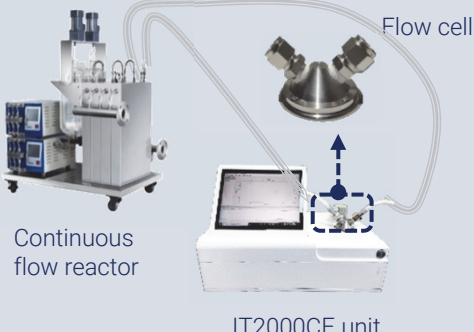

JINSP COMPANY LIMITED

JINSP Company Limited (JINSP) is a company specialized in spectral analytical technology. With the experts in such fields as optics, machinery, electricity and software, we are engaged in the development and production of scientific and industrial spectrometers. With our existing technology, JINSP has won key awards in several international invention exhibitions and more than 200 patents, and passed the European Union CE certification and the EU Civil Aviation ECAC certification. Our thousands of products have been exported to dozens of countries worldwide.



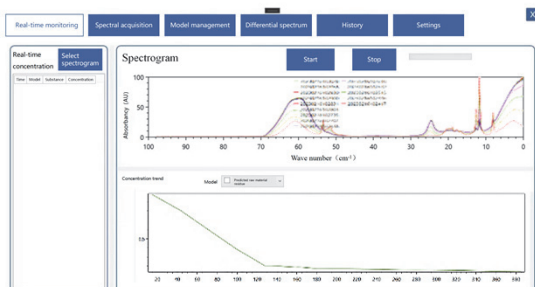
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Specifications

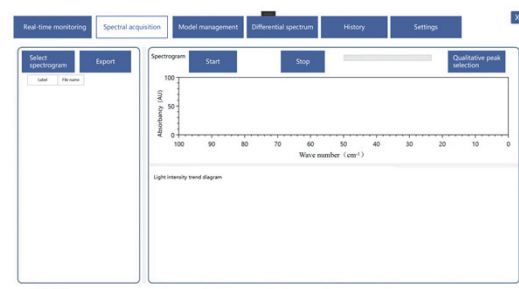
	Flow cell	Immersion probe
Application mode	 <p>Continuous flow reactor</p> <p>IT2000CE unit</p>	 <p>IT2000CE unit</p> <p>Reaction kettle</p>
Unit dimensions	51 cm (Length) × 30 cm (Width) × 25 cm (Height)	
Weight	≤15 kg	
Resolution	2 cm ⁻¹ , 4 cm ⁻¹ , or 8 cm ⁻¹	
Sample suitability	Strong acid/alkali and strong corrosive liquid samples can be analyzed	
Display screen	10.5" capacitive touchscreen, supporting multi-point touch and multi-angle folding	
Spectral range	500 ~ 5000 cm ⁻¹	600 ~ 1800 cm ⁻¹
Sample temperature	-50 ~ 100 °C	-150 ~ 230 °C
Sample pressure	≤2 MPa	≤10 MPa
Length of optical fiber	–	1.5 m or 3 m
Connector Interface/ Probe dimensions	Φ6 as standard, 1/8" or 1/4" upon request (steel tubing using tube fittings, or hose using barbed fittings)	L: 300 mm, D: 6.35 mm (Hastelloy alloy) L: 150 mm, D: 6.35 mm (PEEK)
Material	C276 alloy as standard, 316 stainless steel, 304 stainless steel, Monel alloy or TA2 upon request	Hastelloy alloy as standard, PEEK upon request

Software Functions

- Real-time analysis while collecting data**
 Multiple absorption peaks of target components can be marked while IR spectra being collected. The change of the marked components is displayed in real time.



- Flexible platform for online monitoring**
 The embedded quantification model can be used to monitor component concentration in chemical reactions in real time.



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