



## Interspec 200-X FT-IR spectrometer

#### step-by-step ease

- Qualify the system
- Input the sample details
- Prepare your sample
- Select the appropriate method
- Verify the sample
- The test is performed
- The results and report are output

This spectrometer is the most sophisticated model of its kind. With a smart and simple design, outstanding functionality and the ability to measure a wide range of samples, this user-friendly instrument will drastically improve your productivity in the lab. Originally an affordable alternative to costly competitors, the 200-X surpasses expectations every time. A system designed to accommodate all your analytical needs, prioritising quality, accuracy and efficiency.

## "one of the most versatile spectrometers"



Powerful batch processing capabilities allow the user to easily create sequences of commands to automate repetitive tasks.



## simply designed with you in mind



All of these materials and many more can be quality checked by the 200-X.

efficient

The 200-X measures just 59x39x19cm

intelligent

The Interspec 200-X FT-IR spectrometer has several specialist features that ensure high performance from the compact instrument. The optical design of the 200-X is entirely unique; the software and firmware are both fashioned to reduce the overall time of your analytical procedure.

The interferometer geometry employs a new, compact

the use of standard corner-cube optics and dynamic

Michelson self-compensating optical system that eliminates



cosmetics

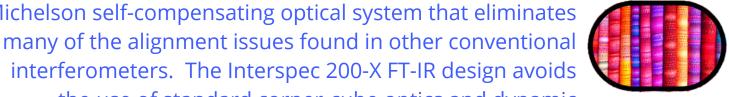


cement





textiles





(bio)fuels



pharmaceuticals

#### alignment to completely optimise user experience. adaptable

The FT-IR features a sealed, desiccated interferometer and detector compartment, ensuring high spectral integrity with low levels of water vapour within the interferometer. In practice, this means the instrument can be used in the research or QC laboratory, in any industrial or university environment and if required, outside of laboratories in remote locations, enabling you to get those important results wherever and whenever you need them.



## Interspec 311 FT-IR spectrometer



With horizontal one bounce ATR accessory and pressure applicator.

The Interspec 311 FT-IR spectrometer is more compact than the 200-X and is just as functional, provides high performance and features its own range of accessories.

### "lightweight design and a small footprint"



With horizontal one bounce ATR accessory.

Combining flexible sample handling outside the instrument and leading Interspec for Windows software, the 311 spectrometer is a great solution for industrial, government and academic labs. It implements the same field-proven FT-IR technology found on other Interspec FT-IR models using pendulum type roof mirror interferometer.

ATR products successfully replace constant path transmission cells and and salt plates used for analysis of liquid and semi-liquid materials. Horizontal ATR can be used to analyse films, pastes, pliable solids and fine powders. Thanks to the reproducible effective pathlength, it is well suited for both qualitative and quantitative applications.



Horizontal one bounce ATR accessory



## many unique specialist features

The lightweight design and small footprint of the Interspec 311 FT-IR spectrometer enables you to bring the instrument where you need answers the most: from your busy laboratory to the production floor or in the warehouse.



With demountable liquid cell.



With real crystal IR card.

With the wavenumber range from 7000 to 400cm – 1 (KBr optics) or from 5000 to 600cm – 1 (ZnSe optics) and spectral resolution of 2cm – 1, the spectrometer forms an open architecture type sample compartment outside the instrument capable to use different accessories for transmission, reflection and ATR measurements.

The Interspec 311 FT-IR spectrometer uses the same quality software as the 200-X. Interspec for Windows is supplied on CD and provided with each system shipped. The software includes features for all standard analytical requirements including manipulation of spectral data, instrument control, plot with preview on screen plus many others.

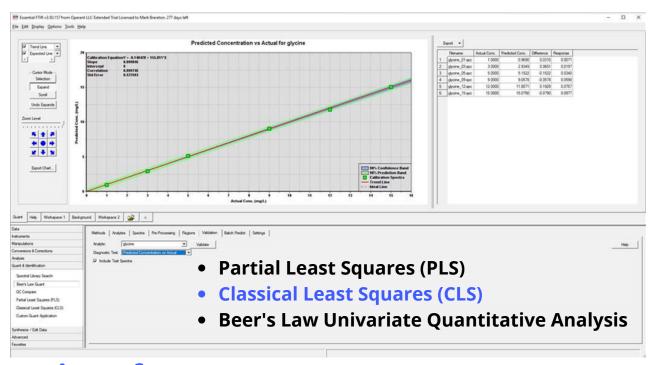




### spectacular software

Essential FT-IR implements the most important techniques, developed in collaboration with some of the world's most expert practitioners of Chemometrics. These field-tested tools are used worldwide in critical environmental, forensic, industrial and military applications.

#### quantitative analysis



#### user interface

- Intuitive, mode-less, tool-box based design increases productivity by minimising navigation.
- Easy-to-learn; all data manipulations use a similar interface.
- Tabbed data work spaces help to organise work sessions.
- Save and restore complete work sessions.
- Undo changes to data at any level.
- Integrated with windows explorer for use as a file viewer.
- Powerful interactive spectral display features for visual analysis of data.



# accurate and legible results

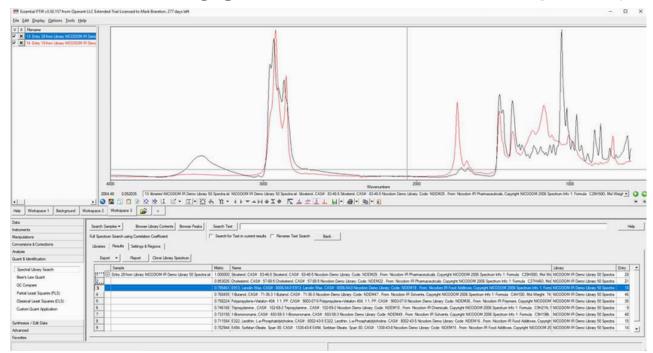
#### data display

- Spectra data display includes interactive expand, roll and zoom.
- Autoscale X, Y or X and Y.
- Control over the display colours including the colour of individual spectra in a window.
- Data can be displayed in full-screen mode for increased resolution.
- Live cursor position read-out in data units.
- Overlay, stack and superimpose display modes for visual comparison of spectra.
- Export spectral display to standard graphics file formats, including metafiles.
- Accepts files dropped from Windows Explorer.



The large sample compartment accommodates all of the normal sample handling requirements relating to FT-IR spectroscopy.

#### search library function





## accessories by *Specac*





#### Quest

The Quest's innovative optical design is based around all reflective, gold-coated optics and features Specac's Synopti-Focal Array technology with precision-moulded aspheric mirrors. These features allow for a high throughput accessory with an extended wavelength capability suitable for both mid and far IR spectroscopy.

#### **Golden Gate**

The Golden Gate ATR unit is a high performance, single reflection monolithic diamond ATR sampling accessory. Featuring a Type IIIA diamond ATR element, metal-bonded into a tungsten carbide mount, providing outstanding durability and exceptional chemical resistance.





#### Atmos Gas Cell

Atmos is our range of long pathlength gas cells for measuring the infrared spectra of trace gases and vapours. Available in fixed pathlengths of 2.5, 5.0, 10.0 or 20.0 meters for maximum pathlength stability, the cells have been individually optimised for maximum optical throughput and signal-to-noise. The volume of the cells has been reduced to facilitate rapid gas exchange and stabilisation and feature gold-coated stainless-steel optics which are both highly reflective and chemically inert.

#### Pearl Liquid Analyser

The Pearl is a high specification liquid transmission accessory designed for laboratory spectroscopic sample analysis in the Near and Mid Infrared. The accessory contains Specac's innovative Oyster Cell assembly which holds your sample in a horizontal plane. The design of the Pearl and Oyester Cell allows for fast, easy application of the sample and for cleaning between samples.





## technical specifications

**Wavelength** range

Resolution, standard

Resolution, option

Interferometer

**Beam diameter** 

Aperture ratio

Beamsplitter, standard IR

Sample compartment

Beam at sample

IR source

Detector, IR

**Purge possibility** 

Power

**Dimensions** 

Weight

IR7000 to 400cm - 1

1cm - 1

0.5cm - 1

Self aligning

30<sub>mm</sub>

f 3.2

Multicoated KBr Beamsplitter,

option ZnSe, CaF2, Csl

W20xD26xH16cm

10mm diameter

High intensity air cooled

**Standard low noise DLATGS** 

Yes

90-230VAC, 12VDC, 40W

W59xD39xH19cm

24kg

All Interspec FTIR instruments offer high S:N ratios and can provide SNR up to 12000:1.

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