

# ***FTIR***

## ***Accessories Catalog***



***Your Primary Source for IR/FTIR Supplies***

Buck Scientific, Inc. is a manufacturer of analytical instruments for laboratories worldwide. Founded in 1970, Buck has established a reputation for providing affordable instruments with excellent analytical capabilities and reliability. Our commitment to the discerning spectroscopist has resulted in high customer loyalty and our continued strong growth. Buck Scientific has a team of sales and spectroscopy specialists available to provide technical assistance. A network of representatives exists throughout the U.S., Canada, Mexico, and over 50 additional countries worldwide.

Please give us a call if you have any questions or would like additional information regarding our products, order placement and delivery. Our Customer Service and Technical Assistance Hotline is available Monday through Friday from 9:00am to 6:00pm EST.

### Contacting Buck Scientific:

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Visit our website at **www.bucksci.com** or email us at **sales@bucksci.com**

### Ordering Information

Ordering is easy, just contact Buck Scientific using one of the methods described above.

Prompt service is guaranteed so please have the following information available when ordering: the quantity, part number and description of the item(s) desired, your purchase order number and shipping address.

*Orders will be invoiced at the list price in effect at the time of your order.*

We accept:



### Delivery and Terms of Payment

Standard delivery service is UPS ground freight. We ship most orders the next working day provided the item is in stock. Non-stock items are shipped as soon as they become available. Special delivery requests are welcome. Overnight service from Federal Express or UPS Red (Next Day Air) and UPS Blue (Second Day Air) is also available. Please specify your preferred service at the time you place your order. Terms of payment are net 30 days on open accounts with established credit, otherwise C.O.D. All prices are subject to change without notice. Shipments F.O.B. Norwalk, Connecticut, unless quoted otherwise.

#### Trademarks

Pyrex ..... Corning Glass  
Luer-Lok ..... Beckton Dickinson  
Mini Cell ..... Foxboro Co.  
Nujol ..... Schering-Plough  
Teflon ..... E.I. Dupont de Nemours  
Fluorolube ..... Hooker Chemical

Perkin-Elmer ..... Perkin-Elmer Corp.  
Specamill ..... Specac  
Carver ..... Carver, Inc.  
Delrin ..... E.I. Dupont de Nemours  
Foundation ..... Spectra-Tech, Inc.  
Thunderdome ..... Spectra-Tech, Inc.  
CPC Diffuse ..... Spectra-Tech, Inc.

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Window Material Range (cm-1)	R.Index*	Solubility (g/100g)	General Properties
<b>Sodium Chloride (NaCl)</b> 52,600 - 584	1.49	36	Soluble in water and glycerine and slightly soluble in alcohol. Fairly resistant to thermal and mechanical shock.
<b>Potassium Bromide (KBr)</b> 48,800 - 388	1.52	65	Soluble in water and alcohol. Slightly soluble in ether. Fairly good resistance to thermal & mechanical shock. Hygroscopic.
<b>Potassium Chloride (KCl)</b> 55,600 - 439	1.46	35	Less soluble than NaCl with lower reflection losses. Extended transmission range. Hygroscopic.
<b>Calcium Fluoride (CaF<sub>2</sub>)</b> 79,500 - 1,025	1.40**	0.0017	Insoluble in water, resists most acids & alkalis. Soluble in ammonium salts. Its high mechanical strength makes it particularly useful for high pressure work.
<b>Barium Fluoride (BaF<sub>2</sub>)</b> 66,600 - 782	1.42	0.17	Insoluble in water, soluble in acids. Wider spectral range. More sensitive to mechanical and thermal shock. Relatively hard material.
<b>Cesium Iodide (CsI)</b> 42,000 - 172	1.73	44	Soluble in water and alcohol. Wide transmission range. Good resistance to shock. Soft and hygroscopic. Mildly toxic.
<b>Thallium Bromo-iodide (KRS-5)</b> 17,900 - 232	2.37	0.05	Slightly soluble in water; soluble in bases, not in acids. Good transmission range, ideal for ATR work. Not hygroscopic. Soft - will deform. <i>Highly toxic.</i>
<b>Silver Bromide (AgBr)</b> 22,000 - 292	2.22	1.2E-05	Insoluble in water, soluble in acids. Attacks base metals. Sensitive to mechanical shock. Crystal tends to darken when exposed to ultraviolet light. Easily scratched. Will cold flow.
<b>Silver Chloride (AgCl)</b> 24,500 - 400	1.90	5.2E-02	Insoluble in water, slightly soluble in sodium hydroxide and some aminos. Will blacken under UV radiation. Not recommended for use at temperatures above 200°C.
<b>Silicon (Si)</b> 10,000 - 500	3.41	0	A hard, brittle material and is relatively inert. Can be attacked by a combination of HF and HNO <sub>3</sub> , but withstands thermal shock. Has strong absorption band in infrared.
<b>Fused Silica (SiO<sub>2</sub>)</b> 50,000 - 2,677	1.42***	0	Infrared grade SiO <sub>2</sub> is insoluble in water and slightly soluble in bases. Extends into the near infrared region.
<b>Germanium (Ge)</b> 5,500 - 574	4.0	0	Insoluble in water. Suitable for ATR work, but where high pressure contact is not required. Very brittle. High reflection losses due to low transmission levels.
<b>Zinc Selenide (ZnSe)</b> 15,000 - 508	2.40	0	Insoluble in water. Slightly soluble in acids. High resistance to chemical attack. Organic solvents, dilute acids and bases have no effect. Ideal for ATR work because of its low absorption in the infrared region.
<b>Zinc Sulfide (ZnS)</b> 17,000 - 722	2.20	0	Insoluble in water, normal acids and bases. Reacts to strong oxidizing agents. Good resistance to thermal and mechanical shock.

Ranges based on 4mm crystals. \* At 1,000cm<sup>-1</sup>, \*\* at 2,000cm<sup>-1</sup>, \*\*\* at 3,333cm<sup>-1</sup>.

**Discs**

	13 x 2mm	25 x 4mm	32 x 3mm	
				<b>Drilled</b>
NaCl	500A1	500A3	500A4	500A4D
KBr	500C1	500C3	500C4	500C4D
CaF <sub>2</sub>	500D1	500D3	500D4	500D4D
BaF <sub>2</sub>	500E1	500E3	500E4	500E4D
ZnSe *	500K1	500K3	500K4	500K4D

**Rectangles**

	38 x 19 x 4mm	
		<b>Drilled</b>
NaCl	511A3	511A3D
KBr	511C3	511C3D
CaF <sub>2</sub>	511D3	511D3D
BaF <sub>2</sub>	511E3	511E3D
ZnSe *	511K3	511K3D

\* **Note:** Zinc Selenide (ZnSe) and Zinc Sulfide (ZnS) are supplied in half thicknesses, except for 2mm and 3mm thick discs.

**Calibration and Accuracy Test Pieces**
**BS186-0449 Polystyrene Test Film (0.05mm Thick)**

Polystyrene is a generally accepted test film for performing the following tests on infrared spectrophotometers: performance, resolution, frequency, accuracy and stray light tests. The test film is 0.05mm thick and is premounted for easy insertion into the sample slide of the instrument.

**BS186-0450 Neutral Density Filter (0.50 Abs.)**

The Neutral Density Filter is used for performing absorbance accuracy tests of the spectrophotometer. The Neutral Density Filter is set to measure 0.50 Abs. and comes pre-mounted for easy insertion into the sample slide of the instrument.



### Demountable Cell Holders

The Demountable Cell Holder is ideal for use when analyzing liquids, mulls and capillary films. Since the windows that are used in this holder are not amalgamated together (as in permanently sealed cells), the cell is easily convertible to accommodate many sampling types. Luer-Lok™ filling ports make filling and clean up easy.

#### Cell Assembly

When analyzing mulls or capillary films, the cell is assembled with one or two undrilled windows and when analyzing liquids, the cell can be assembled with one undrilled window, a Teflon® spacer, and a drilled window to create a cell with a specific pathlength. A Teflon gasket is used to help prevent leakage.

#### Ordering Information:

#### 6500C Demountable Cell Holder Kit (FTIR)

- ◆ 14mm aperture
- ◆ Window size: 38 x 19 x 4mm\*
- ◆ Consists of the Stainless Steel Holder, rear neoprene gasket, Teflon gasket, two Teflon plugs, and a package of assorted Teflon spacers.

\* Windows are not included.

#### Spacers (12 per package)

Size (mm)	Teflon
	FTIR
0.015	5209C
0.025	5210C
0.050	5211C
0.10	5212C
0.20	5213C
0.50	5214C
1.00	5215C
Assorted	5216C

#### Replacement Parts (12 per pkg.)

- 5233 Neoprene Gasket
- 5234T Teflon Gasket
- 5235 Teflon Plugs



FTIR

## Syringes for Filling Cells

We recommend filling Permanent Sealed Cells using syringes. This avoids bubbles from forming inside the cell during filling. Two syringes are recommended - one containing the sample, the other for drawing the sample through the cell. **Do Not Push Down On The Plunger** containing the sample as the seal of the cell can be broken when too much pressure is applied.

### Ordering Information:

- 5301** Syringe, tuberculine 1cc (without Luer-Lok tip)
- 5302** Syringe, 2cc, Luer-Lok tip
- 5310** Syringe, 10cc, Luer-Lok tip

\* *Until supplies last*



**Syringes**

**Permanent Sealed Liquid Cells**

The Permanent Sealed Liquid Cell consists of a stainless steel body, which is corrosion resistant. Each cell is permanently mounted and sealed in the stainless steel body and each has a precise pathlength. Permanent Sealed Liquid Cells can be calibrated with the interference fringe calculation before leaving the factory. Since the cell thickness is permanently fixed it provides the user a means for accurate, reproducible results, making it ideal for performing quantitative measurements. The cell is filled through the Luer-Lok filling ports. Permanent Sealed Cells cannot be disassembled without destroying the cell.

**Ordering Information:**



**Sealed Liquid Cells**

Window Material	Pathlength						
	0.015mm	0.025mm	0.050mm	0.10mm	0.20mm	0.50mm	1.0mm
NaCl	5153C	5154C	5155C	5156C	5157C	5158C	5159C
KBr	5160C	5161C	5162C	5163C	5164C	5165C	5166C
CaF <sub>2</sub>	5167C	5168C	5169C	5170C	5171C	5172C	5173C
BaF <sub>2</sub>	5174C	5175C	5176C	5177C	5178C	5179C	5180C
KRS-5	5195C	5196C	5197C	5198C	5199C	5200C	5201C
ZnSe	7216C	7217C	7218C	7219C	7220C	7221C	7222C



### Circular Demountable Cell Holders

The Circular Demountable Cell Holder is ideal for use when analyzing liquids because these cells are leak-proof and provide an even pressure. Since the windows that are used in this holder are not amalgamated together (as in permanently sealed cells), the cell is easily convertible to accommodate many sampling types, including mulls and capillary films. Luer-Lok filling ports make filling and clean up easy.

#### Cell Assembly

When analyzing mulls or capillary films, the cell is assembled with one or two undrilled windows and when analyzing liquids, the cell can be assembled with one undrilled window, a Teflon® spacer, and a drilled window to create a cell with a specific pathlength. A Teflon gasket is used to help prevent leakage.

#### Ordering Information:

#### 6500S Demountable Cell Holder Kit (FTIR)

- ◆ 14mm aperture
- ◆ Window size: 32 x 3mm\*
- ◆ Consists of the Anodized Aluminum Holder, two sealing gaskets, Teflon "O"-rings, two Teflon plugs, a compensating ring, Teflon spacers, a needle plate, and a package of assorted spacers.

\* Windows are not included



Cell Holder Kit

#### Spacers (12 pieces per package)

Size (mm)	Teflon
0.015	5209S
0.025	5210S
0.050	5211S
0.10	5212S
0.20	5213S
0.50	5214S
1.00	5215S
Assorted	5216S

#### Replacement Parts

5235	Teflon Plugs (12 pcs.)
6506	Needle Plate (use with 6500S)
6507	"O"-Ring (6 pcs)
6504	Gasket, Teflon (6 pcs.); use with 6500S

**Note:** The spacers listed above are used with both styles of the Circular Demountable Cell.

## Beta Cell

The Beta Cell is the most convenient, low-cost, easiest to use Demountable Cell available. Assembly is accomplished by placing the sample between two undrilled windows that are separated by a spacer. The windows are then placed into the holder and held secure with the threaded retaining ring. This type of cell is ideal for student use and is durable enough for continuous use. Recommended when analyzing unknown samples so as not to risk ruining more expensive cells. Uses standard 25 x 4mm discs.



**Beta Cell Kit**

### Ordering Information:

#### 6401 Beta Cell Kit

- ◆ Includes Demountable Cell Holder, Assorted Teflon Spacers, Slide Plate Holder, and Instructions

#### 6402 Beta Cell Holder

- ◆ Includes Demountable Cell Holder and Assorted Teflon Spacers

#### 6404 Beta Cell Only

#### 6105 Slide Plate Holder

#### Teflon Spacers *(12 pieces per package)*

Part Number	Thickness (mm)
5244	0.015
5240	0.025
5241	0.05
5242	0.10
5245	0.20
5246	0.50
5247	1.00
5237	Gasket

**Mini Cell®**

The Mini Cell is the most economical approach for obtaining qualitative infrared spectra of liquids. The window fits into one portion of the cell. The second portion is then screwed in to form the seal. The AgCl cell windows each contain a 0.025mm circular depression. The rim of the window is flat to insure proper sealing. Because AgCl cold flows slightly under pressure, a tight seal is formed. The 0.025mm circular depression in each window enables the cell pathlength to be varied.

**Ordering Information:****018-4041 Mini Cell Kit**

- ◆ Complete with a Delrin cell holder, slide plate holder and six AgCl windows with 0.025mm depression

**018-4045 Mini Cell AgCl Windows**

- ◆ Package of 6 with 0.025mm depression

**018-4044 Mini Cell Sample Holder**

- ◆ Without windows

**6105 Slide Plate Holder****Mini Cell Kit**

### Solid Sampling Accessories

Common items needed for the preparation of KBr Mulls, Pellets and films include the following:

#### Ordering Information:

#### Sample Preparation Materials

##### 6109 Nujol:

- ◆ High Purity Mineral Oil (2oz)
- ◆ Used in the 4,000 to 200cm<sup>-1</sup> range, except for hydrocarbon region of 3,000 to 2,900cm<sup>-1</sup>.

#### Agate Mortars and Pestles

5311	35mm OD Mortar and Pestle
5312	65mm OD Mortar and Pestle
5313	95mm OD Mortar and Pestle

##### 5231 KBr Powder:

- ◆ Used in the 40,000 to 400cm<sup>-1</sup> range.

##### 6107 Micro Spatula

##### 6111 13mm Magnetic KBr Slide Holder

##### 6300 Magnetic Film Holder (Dispersive)

- ◆ Aperture 10 x 20mm

##### 6300C Magnetic Film Holder (FTIR)

- ◆ Aperture 20mm Diameter

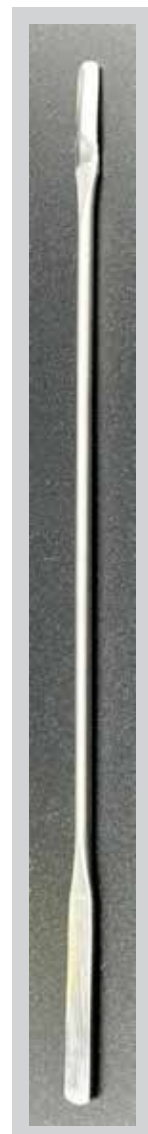
##### 6105 Slide Holder



KBr Powder



Nujol



Spatula



KBr

Dispersive

FTIR

### Carver® Hydraulic Press

The 12-ton Hydraulic Press is a widely used piece of standard laboratory equipment and is ideal for pressing 13mm KBr pellets. The hydraulic press is compact and has a 4" diameter platen. The press includes a Safety Shield, buffer plate and counter-bored platen allowing for proper die alignment.



#### Ordering Information:

4350-L 12-ton Hydraulic Press

### Evacuable 13mm KBr Die

The Evacuable 13mm KBr Die is the most popular and versatile die for producing 13mm pellets. The die is constructed of stainless steel and is precision machined. This die set requires the use of a 12-ton hydraulic press to produce the KBr pellets. Once the pellet is produced it is inserted into the Magnetic KBr Slide Holder, which in turn is inserted into the sample slide of the infrared spectrophotometer.

#### Ordering Information:

0016-009 Evacuable 13mm KBr Die  
6111 13mm Magnetic KBr Slide Holder



KBr Slide Holder

#### Replacement Parts

##### 13mm Die Set

Part No.	Description
6230	Plunger
6231	Body
6232	Base
6233	Pair of polished stainless steel pellets
6234	Set of "O"Rings
6235	Extractor Ring



## Quick Press

The Quick Press offers the user a quick and simple method for producing good quality KBr pellets. The Quick Press comes complete with the 7mm Die set. Using modest hand pressure, a clear pellet is produced. The pellet is formed inside of the metal collar. The 7mm collar is placed on the solid sample slide holder. Both a 2mm and 4mm Die set is available for micro sampling techniques.

### Ordering Information:

- 6200 Quick Press (0012-4586)**  
♦ With 7mm Die Set and Holder
- 6202 7mm Die Set (0012- 189)**  
♦ Includes top anvil, lower anvil, and 7mm collar
- 6218 4mmDie Set (0012-191)**  
♦ Includes top anvil, lower anvil, and 4mm collar
- 6217 2mm Die Se (0012-190)**  
♦ Includes top anvil, lower anvil, and 2mm collar
- 6105 25mm Collar Holder**



Quick Press Set

## Gas Sampling Accessories

### 10cm Demountable Gas Cell

The 10cm Demountable Gas Cell provides the spectroscopist with a high quality yet relatively inexpensive method for performing gas studies by infrared. The gas cell consists of a Pyrex cell body with high vacuum oblique stopcocks. The cell body is mounted in a protective anodized aluminum safety sleeve. Connections are 18/9 spherical ball and socket joints. The cell can be operated at either reduced or positive pressures. Two 49 x 6mm windows\* are used to complete the cell. A leak-tight seal is formed once the screw cap is in place. Windows are interchangeable and the procedure can be done quickly due to the demountable cell design.

\* Windows are not included.

#### Ordering Information:

**7200** 10cm Demountable Gas Cell

#### Replacement Parts

**7204** Pyrex Body, 10cm

**7201** Viton O-rings (package of 6)

**7202** Teflon O-rings (package of 6)

**7203** Teflon Gaskets (package of 6)



**Demountable Gas Cell**

### Beta Gas Cell

The Beta Gas Cell is available in two pathlengths, 5cm and 10cm. The cell consists of a Pyrex body and two Pyrex filling stems fitted with replaceable rubber septa, Viton O-rings and a cell slide holder. A leak-tight seal is made when the cell is assembled. Fill the cell using a gas-tight syringe. Two 25 x 4mm windows\* are required to complete the cell. Windows are interchangeable and the procedure can be done quickly due to the demountable cell design.

\* Windows are not included.

#### Ordering Information:

**6801** 10cm Beta Gas Cell

**6802** 5cm Beta Gas Cell

#### Replacement Parts

**6806** Pyrex Body, 10cm

**6808** Pyrex Body, 5cm

**6803** Septa (package of 6)

**6804** Viton O-rings (package of 6)

**6804T** Teflon O-rings (package of 6)

**6805** Teflon Gaskets (package of 6)



### PLC-11M Single Reflection Prism Cell

### Reflectance

*“The Universal Sampling Accessory”*

The Prism Cell is primarily used for analyzing highly absorbing materials, typically aqueous samples, pastes, films and soluble powders. The accessory utilizes a 45° single reflecting prism (permanently mounted Zinc Selenide) and a two-mirror transfer optic design for high performance. The two-mirror transfer optical design means easy alignment. The accessory is slide-mounted to fit into the sample holder of the instrument.

#### Ordering Information:

**PLC-11M** **Single Reflection Prism Cell**

- ◆ Includes transfer optic, one Single Reflection ZnSe prism (45°), flow-through plate, and pressure plate.

#### Replacement Items

**PLC-100** Transfer Optics

**EM11B4-M** Single Reflection ZnSe prism (45°) mounted



**Prism Cell**

Buck Scientific has developed a new line of improved replacement sources for infrared spectrophotometers. Generally superior to original equipment sources with no change in power requirements.

### Consider These Features

- ◆ Lifetime exceeds 1,250 hours even in ON/OFF duty cycles
- ◆ Silver or Platinum electrodes insure minimum resistance
- ◆ Constant output in infrared radiation
- ◆ Guaranteed uniform physical and electrical characteristics

### Ordering Information:

### Replacement Sources for the Buck M500

Part Number	Description
PE-1	Source Element
500-0001	Source Element Complete Assembly



### Replacement Sources for Perkin-Elmer Instruments

Part Number	Description	Instrument
PE-1	Source Element	X37, X57, X67, X97, X98, X99 Series, 281, 282, 681, 682, 683, 684, 781, 782, 983, 1500.
PE-1H	Source Element Complete Assembly	

- ◆ PE-1 will fit most PE except 700, 1300, 180, 580, 21 Series



### Replacement Sources for Wilks / Foxboro Instruments

Part Number	Description	Instrument
FX-1	Source Element	Miran 1, 1A, 1B, 2, 101, 103, 80, 980
FX-11	Source Element Complete Assembly	

Part Number	Description
PE-5	Free Standing Coil. 3V (AC or DC) 3 amps - 9 watts
PE-12CIWL	Grooved Ceramic Support Post w/ Extended Leads. 5V (AC or DC) 1.8amp - 9 watts
PE-13	Ceramic Support Post 5V (AC or DC) - (watts Ceramic Support Post with caper 25mm cap

## Buck Model HC-404 Total Hydrocarbon Analyzer



**HC-404**

### Overview

The Model HC-404 is a self contained, fixed infrared analyzer designed for rapid, accurate analysis of total petroleum hydrocarbons in water, soil and sludge samples.

Especially useful for EPA 418.1/413.2 Freon Methods and EPA 1664 Hexane Methods.

### Features:

- ◆ Fixed wavelength  $2924\text{cm}^{-1}$  ( $3.42\mu$ ) allows for quick analysis without unnecessary scanning.
- ◆ Digital readout in %T and absorbance or in concentration mode for direct ppm readings.
- ◆ Accommodates 10, 50, 100mm quartz cells for analysis to 1ppm or lower detection levels.

### Ordering Information:

**HC-404** Total Petroleum Hydrocarbon Analyzer

#### Cuvettes

**BS-21-I-10** Infrasil quartz, 10mm pathlength  
**BS-34-I-50** Infrasil quartz, 50mm pathlength  
**BS-34-I-100** Infrasil quartz, 100mm pathlength  
**404-13** Vessel Cell for Non-Freon Method

#### HOLDERS

**5708** 10mm cuvette holder  
**5710** 50mm cuvette holder  
**5707** 100mm cuvette holder  
**6105** Vessel cell holder

### Calibration Standards

#### Freon Method

**404-11** Reference Standard for EPA Method 413.2 / 418.1 TPH  
(Photometric Certification - NIST / US FDA, ASTM)

#### Non-Freon Method

**404-14** Calibration Standards in hexane 50ml. (10, 50, 250 ppm)



## Scan-n-Search Infrared Software

An infrared spectrum of a molecule is like a fingerprint. By comparing the spectrum of an unknown compound to a library of data, the spectroscopist can identify the unknown. This technique has wide applications in many fields such as forensics, environmental chemistry, research, industrial quality control, and teaching.

Scan-n-Search Infrared Software includes a complete spectral library search tool with user-defined region searching, many search algorithms, and customizable reports.

Commercially available Reference Spectra Databases (Libraries)

Hundreds of Thousands of reference spectra are available for purchase

### Scan-n-Search Overview:

A complete program for handling Infrared data

Very easy to use, makes complex data manipulations simple

Powerful Batch-Processing automates repetitive tasks

Scaleable from the teaching lab to the on-line process environment

Extensible using the powerful open-source Python programming language

Reads and writes data in industry-standard file formats

Collects data directly from the M530 IR spectrophotometer

**SOFTWARE CAPABILITIES**

**scan-n-search**

M500/M530 Compatible | Ease of Use | Free Support  
Try Scan-n-Search Free for 30 Days

**STEP 1** In the M500/M530 start-up screen, it checks your computer and network for all available device drivers and shares them.

**STEP 2** In the Scan-n-Search Software's the professional instrument user interface that makes data collection a breeze. The single-beam background scan is displayed and stored as the background for the complete run to come.

**STEP 3** In the instrument Control Section once the background Scan has been done change to Sample mode and collect a real time 16K scan of your sample. If you like the finished scan you can choose to save it, print it or do other advanced manipulations on it.

**STEP 4** Manual File Labeling at a click.

**STEP 5** Advanced Functions: Savitzky-Golay Smoothing for noisier systems reduce.

**STEP 6** Advanced Functions - Library Search - Your Spectra can be searched / compared against products and libraries you construct.

**Did you know?**  
FTIR instruments have become an industry standard due to their technology across other scientific instruments. For major advantages of an FTIR system you'll learn more by reading "FTIR: A Buyer's Guide" (1-1-2013) reviews. Buck Scientific has been able to design an instrument that works well with your FTIR, using a hybrid design with the same type of camera, software, and detector to achieve compatible and consistent results.

	Buck M530	FTIR
Price	Starting at \$5.9K	Starting at \$10,000
Software	Multi-beam to track water support	Multiple algorithms to choose from
Accuracy	1:1,000,000	1:1,000,000
Resolution/Speed	1.5cm/1hr to 10cm/1min	1.5cm/1hr to 10cm/1min
Flexibility	1-Beam Mode, Multi-Beam	Multi-Beam (Simultaneous)
Web Interface	4096x1024px	4096x1024px
Size	10" x 10" x 10"	10" x 10" x 10"
Resolution	10" x 10" x 10"	10" x 10" x 10"

### Software Quick View