

Sample Preparation for Infrared Spectroscopy

N020-0120

1 Day

Tuition \$730

This fundamental course in infrared sample preparation provides attendees with instruction on various sample-handling techniques, allowing them to acquire good quality spectra by either transmission or reflectance. Through classroom sessions and laboratory exercises, attendees will learn to prepare solids, liquids and solution samples for transmission studies. Attendees will also learn to align and acquire data on internal reflectance, specular reflectance and diffuse reflectance accessories.

Lectures and Labs

- Solid sample-handling techniques, diffuse reflectance accessories
- Reflectance techniques
- Cast films, Nujol, KBr pellet preparation
- Liquids and solution sample handling
- Specular reflectance, internal reflectance

Introduction to FT-IR Microspectroscopy*

N020-0125

2 Days

Tuition \$1220

This course in infrared microspectroscopy covers the i-Series and AutoIMAGE microscopes. It provides attendees with the ability to prepare samples and acquire useful data using infrared microspectroscopic techniques. A combination of classroom lectures and hands-on laboratory exercises will allow attendees to become familiar with infrared microspectroscopy. General sampling techniques and strategies will be discussed. Typical microspectroscopic samples to infrared analysis will be examined in the laboratory sessions.

Lectures and Labs

- Intro to the i-Series/AutoImage microscope
- Sample preparation
- Using the microscope – transmission and reflectance measurements
- Principles of infrared microspectroscopy
- Sampling strategies in infrared microspectroscopy

*THIS COURSE IS SCHEDULED UPON REQUEST.

Please visit www.perkinelmer.com/onesource for registration options and cancellation/refund policies.

Introduction to FT-IR and Spectrum Software

N020-0126

2 Days

Tuition \$1220

This course is an introduction to FT-IR spectrometers and software. Through a combination of classroom lectures and hands-on exercises, attendees will become familiar with the routine operations of PerkinElmer FT-IR spectrometers. Attendees will learn various data-processing techniques that will enable the presentation of quality spectra and use of spectral library search routines, and will also receive an introduction to Fourier-Transform (FT) instrumentation and the instrument setup commands for their instrumentation. This course also includes an overview of the software for FT-IR spectrometers and various processing commands.

Lectures and Labs

- Introduction to FT-IR instrumentation
- Arithmetic functions, derivative, peak height and area
- File, view and software setup exercises
- Data processing exercises: smooth, flat, abex
- Reflectance correction: Kubelka-
- Library search, instrument menus and setup
- Munk, Kramers-Kronig, MIR

Paragon 1000/1600/RX FT-IR*

N020-0118

1 Day

Tuition \$730

This fundamental course in FT-IR covers use of the Paragon 1000, 1600 or RX series spectrometers. It provides customers with the competencies needed to set up, operate and maintain instruments. Through classroom sessions and laboratory exercises, the attendees learn routine operation such as acquiring and saving data and printing and plotting spectra.

Lectures and Labs

- Intro to the Paragon 1000 FT-IR
- Familiarization and setup of the Paragon
- Intro to 1600 Series FT-IR
- Familiarization and setup of 1600 FT-IR
- Intro to RX Series FT-IR
- Familiarization and setup of RX FT-IR
- Principles of infrared spectroscopy
- FT-IR theory

*THIS COURSE IS SCHEDULED UPON REQUEST.

Please visit www.perkinelmer.com/onesource for registration options and cancellation/refund policies.