Raman Microscopy Basic Level

Reference

RAM1

Price

1 815€ per attendee

Duration

3 days

Dates

13-15 May, 23-25 September and 18-20 November 2024.

Schedule

From 9 am to 5.30 pm

Registration deadline

13 April, 23 August and 18 October 2024

Location

14 Boulevard Thomas Gobert, 91120 Palaiseau - France

Who should attend

Users of HORIBA Scientific Raman spectrometers.

Certification

A diploma is delivered at the end of the course.

Learning method

Theoretical presentation and instruments practice.

Course language

English

Objectives

- Acquire theoretical and practical knowledge on Raman spectrometers.
- Learn how to use the software.
- Learn methodology for method development and major analytical parameters.
- How to set up an analytical strategy with an unknown sample.
- How to interpret results.
- Learn how to follow the performances of the Raman spectrometer over the time.

PROGRAM

Day 1

Raman basic principles.
Raman Instrumentation.
Practical session - System and software presentation, acquisition parameters:
· LabSpec 6 presentation and environment: user accounts, file handling, data display, basic functions.
· Acquisition parameters setup and single spectra measurement.
· Templates and reports.

Day 2

Analysis of Raman spectra.
Practical session - Raman spectrum measurement and database search:
· Parameters optimization: how to chose the laser, grating, confocal hole, laser power.
· How to use the polarization options.
· Library search using Know It All software.
· How to create databases.
Raman Imaging:
· How to make a Raman image (1D, 2D and 3D).
· Data evaluation: cursors, CLS fitting, peak fitting.
· Image rendering, 3D datasets.
· Fast mapping using SWIFT XS.
· DuoScan.
· Ultra Low Frequency.

Day 3

Data processing:
· Processing on single spectra and datasets.
· Baseline correction.
· Smoothing.
· Normalization.
· Spectra subtraction, averaging.
· Data reduction.
· Methods.
· Practical exercises.
Customer samples: bring your own samples!