HORIBA
Scientific

2015 Training Courses

Raman Spectroscopy
Fluorescence
Ellipsometry
SPRi

GDOES
ICP-OES
Particle Size Analysis

C/S & O/N/H
S & Cl in Petroleum
X-Ray Fluorescence

Exceeding Customer Expectations

Training courses calendar 2015

HORIBA Scientific offers many types of training courses tailored to your particular requirements:

• Thematic training to meet other specialists on the same application domain working on different analytical techniques. This year this training will be on **Rare Earth Elements characterization**.

• «A la carte» training course at our approved HORIBA Scientific training center: learn and share your experience with other users and acquire the basics of the technique. You will be able to directly use this knowledge for your applications in your own laboratory.

• Training on-site, performed by one of our HORIBA Scientific application experts.

Certificates are given to every attendee for every course

Our trainers are Experts in each Technique.

They will provide you with advice and guidance to make the most of your HORIBA Scientific instrument.

You will gain confidence and experience in the analysis of your samples.

All trainings are in English

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All programs are subject to modifications.

Thematic training

	Ref.	Duration	Jan.	Feb.	March	April	May	June	July	Sept.	Oct.	Nov.	Dec.
Thematic training: REE, from mining to characterization of thin-films materials													
	THEREE	3 days							15 -17				

«à la carte» trainings

	Ref.	Duration	Jan.	Feb.	March	April	May	June	July	Sept.	Oct.	Nov.	Dec.
Raman													
Raman spectroscopy Basic training	RAM1	2 days			17-18							17-18	
Raman spectroscopy option	RAM2	1 day			19							19	
Raman spectroscopy SPM/Raman option	RAM3	1 day			19							19	
Advanced Raman Imaging	RAM4	1 day						10					
Customized Raman Imaging and hands-on	RAM5	2 days						10-11					
LabSpec 6 basic training	RAM6	1 day									20		
LabSpec 6 advanced training	RAM7	1 day									21		
Chermometrics with Solo + MIA	RAM8	1 day						9					
Advanced Raman and SPM training	RAM9	3 days					27-29						
Fluorescence													
Spectrofluorimetry Basic training	FL1	1 day					12					4	
Spectrofluorimetry Intermediate training	FL2	1 day					13					5	
Basic training in spectrofluorimetry - Fluorolog 3	FL3	1 day					19					6	
Basic training in spectrofluorimetry - Fluoromax 4	FL4	1 day					27					17	
Time-Resolved spectroflorimetry Basic training	FL5	2 days					28-29					18-19	
Time-Resolved spectroflorimetry Intermediate training	FL6	2 days					2-3					2-3	

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	Ref.	Duration	Jan.	Feb.	March	April	May	June	July	Sept.	Oct.	Nov.	Dec.
Fluorescence													
Basic training in Water analysis	FL7	1 day					21					25	
Aqualog or Dual FL: Basic training	FL8	1 day					20					25	
Advanced training: Anysotropy measurements	FL9	1 day						10			21		
Advanced training: Absolute Quantum Yield measurement	FL10	2 days						17-18			28-29		
Suface Plasmon Resonance Imaging													
Surface Plasmon Resonance Imaging – Level 1 – Basics													
Theory about kinetic interactions by SPRi and examples of applications	SPR1	1/2 day					26			18			
How to start a new SPRi experiment?	SPR2	1 day					27			21			
Learn how to use a SPRi system (OpenPlex) to characterize practical samples	SPR3	2 days					28-29			22-23			
Learn how to use a SPRi system (EzPlex) to characterize practical samples	SPR4	2 days						1-2		24-25			
Ligands Immobilization with a contact spotter (SPRi-Arrayer)	SPR5	1 day						3		28			
Ligands Immobilization with a flow printer spotter (SPRi-CFM)	SPR6	1 day						4		29			
Surface Plasmon Resonance Imaging – Level 2 – Advanced													
Kinetic constants and affinity determination of an interaction	SPR7	1 day						5		30			

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	Ref.	Duration	Jan.	Feb.	March	April	May	June	July	Sept.	Oct.	Nov.	Dec.
Improve your knowledge in the analysis of complex samples (serum, plasma, small molecules, …)	SPR8	2 days						8-9			1-2		
Ellipsometry													
Spectroscopic Ellipsometry - Level 1 - Basics													
Ellipsometry: Learn how to use your system for the measurement and analysis of simple samples	Ell1	2 days						22-23				30	1
Control of modelling techniques and practical sample analysis	Ell2	1 day						24					2
Spectroscopic Ellisometry - Level 2 - Advanced													
Ellipsometry: Improve your experience in the analysis of complex samples	Ell3	2 days				8 - 9							
DeltaPsi2 software and its numerous functions	Ell4	1 day				10							
GDOES													
User training courses	GD	4.5 days				13-17					12-16		
ICP-OES													
User training courses	ICP	5 days				20-24			6-10	14-18			
Particle Size Analysis													
User training courses on laser diffraction technique	PSA1	1 day			24					30			
User training courses on dynamic light scattering technique	PSA2	1 day			26						2		
EMIA/EMGA/SLFA/MESA/XGT WR													
EMIA	HOR1	1 day								22			
EMGA	HOR2	1 day								23			
SLFA/MESA	HOR3	1 day								24			
XGT/MESA-50	HOR4	1 day								25			

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Services offer

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On-line training													
All techniques	Formligne	4 hours	Contact us										
On-site training													
All techniques	Formsite		Contact us										
E-support													
Ellipsometry - e-modelling	We directly support you by e-mail for the modeling of your samples using package results of DeltaPsi2 software. It's fast and easy!												
SPRi - e-support	We directly support you by e-mail to analyze your results												

MIA Multivariate Image Analysis
GDOES Glow Discharge Optical Emission Spectrometry
ICP-OES Inductively Coupled Plasma Optical Emission Spectrometry
EMIA C/S analyser
EMGA O/N/H analyser
SLFA/MESA S & Cl analyser in petroleum
XGT/MESA Fluorescence X elemental analyser

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REE, from mining to characterization of thin-films materials

REE

Reference	REE
Duration	3 days
Fees	1 000 €
Dates	July 15-17, 2015

Who should attend
Users of HORIBA Scientific instruments: ICP-OES, Raman, Particle size analyzers, GDOES, Fluorescence

Schedule
Training room and applications laboratory depending on the technique

Objectives

- Overview of the technique,
- Acquire theoretical and practical knowledge on the instruments,
- Learn to use the software (latest version used in the laboratory),
- Learn methodology for method development and major analytical parameters,
- Know how to set up an analytical strategy with an unknown sample,
- Interpret results,
- Discover other technique for the REE
- Meet scientists working in the same area

Trainings on a given technique similar to the «à la carte training», basic level, with samples in the REE domain.

Technique to choose :
- Raman
- Ellipsometry
- Particle size analyzers
- ICP-OES
- GDOES

After training, there will be round tables on all type of analytical methods and characterization in geology, with a focus on Rare Earth Elements.

This training fees includes:
- Course
- Pause
- Living expenses (lunch, diner, hotel)

Training followed by discussion on REE

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Raman Spectroscopy: Basic training

RAM1

Reference	RAM1	Who should attend	
Duration	2 days	Users of HORIBA Scientific Raman spectrometers	
Fees	1500 €		
Dates	March 17 - 18, 2015 Novembre 17 - 18, 2015	Schedule	Training room and applications laboratory Theoretical part: 5 hours; Practical part: 9 hours

Objectives

- Overview of the Raman basics and technique,
- Acquire theoretical and practical knowledge on Raman spectrometers,
- Learn to use the software (latest version used in the laboratory),
- Learn methodology for method development and major analytical parameters,
- Know how to set up an analytical strategy with an unknown sample,
- Interpret results,
- Follow the performances of the Raman spectrometer over the time.

Program

Theory

- Review of the Raman principle/theory
- Instrumentation: the various optical elements and their use

This training can be followed by the training of the Options or/and the AFM training

Practical

- Using the system: LabSpec 6 and hardware
  - o LabSpec 6 envinronment (Users accounts, Tabs, Browser, Methods)
  - o Set-up of acquisition parameters (laser, grating, confocal hole, acquisition time, etc..)
  - o Optimisation of parameters (influence of the choice of the grating, laser and other experimental parameters)
- Data processing and display
  - o Spectrum processing: base-line correction, smoothing, Math
  - o Spectrum analysis: peak fitting and peak picking
  - o Display parameters
- Mapping
  - o Map acquisition (XY, Z, time, …)
  - o Map analysis (cursors, CLS fitting, peak fitting, display)
  - o Fast Mapping (SWIFT)
- Customer's samples measurement/evaluation; case studies
- Library search module KIA
  - o Search of spectra
  - o Creation of databases
  - o Additional features of KIA

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Raman Spectroscopy: Options

RAM2

Reference RAM2
Duration 1 day
Fees 750 €
Dates March 19 or 20, 2015
Novembre 19 or 20, 2015

Who should attend
Users of HORIBA Scientific Raman spectrometers who already understand the fundamentals of Raman spectroscopy and know how to use HORIBA Raman system and labSpec Software. It is adviced to participate in the basic Raman training first

Schedule
Training room and applications laboratory
Theoretical part: 2 hours; Practical part: 5 hours

Objectives

- Focus on specific methodology of acquisition and data treatment depending on the configuration of the user system

Program

Practical

- MULTIVARIATE module
  - o Basic introduction of the MV approaches available in LS6
  - o Map evaluations with PCA, MCR, Classification
  - o PLS
- PARTICLE FINDER module
  - o Principle
  - o Example with test samples
- 3D VOLUME module
  - o Illustration with known datasets
- SERS subtrates
  - o Using SERS substrates on test samples

This training can be followed by the SPM/ TERS training

Raman Spectroscopy: SPM/Raman

RAM3

Reference RAMA3
Duration 1 day
Fees 750 €
Dates March 19 or 20, 2015
Novembre 19 or 20, 2015

Who should attend
Users of HORIBA Scientific Raman spectrometers who already understand the fundamentals of Raman spectroscopy and know how to use Horiba Raman system and labSpec Software. **It is adviced to participate in the basic Raman training first.**

Schedule
Training room and applications laboratory
Theoretical part: 2 hours; Practical part: 5 hours

Objectives

- Introductory module on SPM Raman coupling

Program

Theory

- Introduction to SPM modes: AFM, STM, Tuning fork
- Configuration of the coupling module (top or oblique)

Practical

- Example of co-localized AFM – Raman
- o Set-up of the system
- o Installing a sample
- o Installing a tip
- o Set-up of a measurement (SPM and Raman parameters)
- Example of TERS (Tuning Fork or STM)
- o Set-up of the system
- o Installing a sample
- o Installing a tip
- o Alignment of the laser on the tip
- o Measurement parameters

This training can be followed by the Options training

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Advanced Raman Imaging

RAM4

Reference	RAM4
Duration	1 day
Fees	750 €
Dates	June 10, 2015

Who should attend
Experienced users of HORIBA Scientific Raman spectrometers.

Schedule
Applications laboratory
Practical part: 7 hours

Objectives

- Know how to use different acquisition modes and options
- Optimization of the mapping acquisition parameters
- Learn to more efficiently use the data treatment software

Program

Practical

- Optimization of mapping parameters
- Using different stages (standard, piezo, DuoScan)
- Advanced data treatment
  - o MVA
    - PCA, MCR, classification
  - o Advanced peak fitting
    - Peak position/width/area maps
    - Fitting parameters
- Fast Imaging
  - o SWIFT
  - o EMCCD
- 3D
  - o Acquisition, treatment and display of 3D data
  - o Display of 2D data

Customized Advanced Raman Imaging

RAM5

Reference	RAM5
Duration	2 days
Dates	June 10-11, 2015

Who should attend
Experienced users of HORIBA Scientific Raman spectrometers

Schedule
Applications laboratory
Practical part: 14 hours

The same content as the ADVANCED RAMAN IMAGING AND HANDS-ON on standard samples but with additional exercises on customer samples.

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LabSpec 6 basic training

RAM6

Reference	RAM6
Duration	1 day
Fees	750 €
Dates	October 20, 2015

Who should attend

Scientists, engineers, technicians, PhD students wishing to understand the basics of LabSpec 6 software, and using it for spectroscopic data treatment.

Objectives

- To understand LabSpec 6's main interface structure, and how to interact with data within it.
- Learn fundamentals of working with data files for data processing, analysis and display, with particular emphasis on spectra files.
- See how to output results via Reports, data export and copy/paste functions.

Program

- The LabSpec 6 graphical user interface and layout
- File handling (opening/saving data, data formats, batch export)
- Displaying different data types (spectra, videos, maps, images)
- Copying and pasting (data / picture / text)
- Copying and saving images
- Reporting
- Data processing for spectra (baseline correction, smoothing, derivatives)
- Peak labelling and fitting for spectra
- Using Methods for automation
- Introduction to database searching with KnowItAll®

This training can be followed by the LabSpec 6 advanced training session

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LabSpec 6 advanced training

RAM7

Reference	RAM7
Duration	1 day
Fees	750 €
Dates	October 21, 2015

Who should attend

Scientists, engineers, technicians, PhD students who already understand the fundamentals of working with LabSpec 6, and wish to acquire deeper knowledge of its advanced features.

Objectives

- Understand the hyperspectral map data structure, and how it can be processed, analyzed and displayed within LabSpec 6.
- Learn how to perform data treatment and analysis on hyperspectral map data to obtain results
- Explore multivariate analysis methods available within LabSpec 6 and learn how they can be applied to Raman data.
- Be introduced to advanced display tools available for surface and volume images.

Program

- Overview to map handling and analysis
- Map processing (including baseline methods and data resizing)
- Map characterization with cursors
- Map display tools
- Peak fitting and display of peak fit maps
- Multivariate – CLS Fitting in detail, and a brief introduction to other MVA methods
- Working with 3D datasets (surface and volume)

It is suggested that for inexperienced users this training should be combined with LabSpec 6 basic training

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Chemometrics with Solo & MIA

RAM8

Reference	RAM8
Duration	1 day
Fees	750 €
Dates	June 9, 2015

Who should attend

Scientists, engineers, technicians, PhD students wishing to understand the basics of chemometrics and SOLO & MIA software.

Schedule

Training room and applications laboratory
Theoretical part: 2 hours; Practical part: 5 hours

Objectives

Overview of the chemometrics methods
Acquire theoritical and practical knowledge on decomposition
Learn the use of the software Solo & MIA
Learn methodology of chemometrics analysis

Program

- Introduction to chemometrics
- Decomposition methods (PCA, clustering)
- Quantitative analysis
- Image treatment
- Data pre-processing

Advanced Raman and SPM training
training in collaboration with the ISEN (Lille)

RAM9

Reference	RAM9
Duration	3 days
Fees	1 500 €
Dates	May 27-29, 2015

Who should attend

Scientists, engineers, technicians, PhD students who have already acquired good skills in Raman spectroscopy or SPM.

Schedule

Training room and applications laboratory
Theoretical part: 4 hours; Practical part: 17 hours

Objectives

Understand Raman sepctroscopy and SPM techniques
Understand a coupling principles: make a difference between colocalised and TERS measurements
Learn to perform colocalised measurents
Learn to perform TERS imaging

Program

Theory

- Basic principles of SPM and Raman spectroscopy
- Integration of Raman spectroscopy with SPM techniques

Practical

- Introductory TP to AFM or Raman (one of both)
- Colocalized AFM-Raman spectroscopy
- Ultra-high vacuum STM-Raman spectroscopic measurements
- Tip-enhanced Raman Spectroscopy
- Tip fabrication and operation
- Examples of use for many types of material

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Spectrofluorimetry: Basic training

FL1

Reference	FL1
Duration	1 day
Fees	750 €
Dates	May 12, 2015 November 4, 2015

Who should attend
Dedicated to beginners in PhotoLuminescence measurements.

Schedule
Training room and applications laboratory
Theoretical part: 4 hours; Practical part: 3 hours

Objectives

- What is fluorescence ?

Program

Theory

- Introduction to Photoluminescence measurements
- Their use, their advantage

Practical

- Introduction to typical spectrofluorimetry measurements.

Spectrofluorimetry: Intermediate training

FL2

Reference	FL2
Duration	1 day
Fees	750 €
Dates	May 13, 2015 November 5, 2015

Who should attend
Dedicated to existing customers having a spectrofluorimeter

Schedule
Training room and applications laboratory
Theoretical part: 4 hours; Practical part: 3 hours

Objectives

- Introduction to advanced techniques (Quantum Yield, Anisotropy, Time-Resolved)

Program

Practical

- Advances use of your spectrofluorimeter
- Software tricks (Multigroup analysis, Batch mode, …)
- Possible upgrade (how to add new capabilities to your device)

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Fluorolog 3: Basic training

FL3

Reference	FL3
Duration	1 day
Fees	750 €
Dates	May 19, 2015 Novembrer 6, 2015

Who should attend
Dedicated to existing customers having a Fluorolog 3

Schedule
Training room and applications laboratory
Theoretical part: 2 hours; Practical part: 5 hours

Objectives

- How to check the instrument
- Optimise the instrument understanding
- Instrument maintenance

Program

Theory

- Description of the instrument (Optics, configuration)
- Introduction to advanced techniques (Quantum Yield, Anisotropy, Time-Resolved)

Practical

- How to check the instrument.
- Instrument maintenance

Fluoromax 4: Basic training

FL4

Reference	FL4
Duration	1 day
Fees	750 €
Dates	May 27, 2015 November 17, 2015

Who should attend
Dedicated to existing customers having a Fluoromax 4

Schedule
Training room and applications laboratory
Theoretical part: 2 hours; Practical part: 5 hours

Objectives

- How to check the instrument
- Optimise the instrument understanding
- Instrument maintenance

Program

Theory

- Description of the instrument (Optics, configuration)
- Introduction to advanced techniques (Quantum Yield, Anisotropy, Time-Resolved)

Practical

- How to check the instrument.
- Instrument maintenance

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Time-Resolved Spectrofluorimetry: Basic training

FL5

Reference	FL5
Duration	2 days
Fees	1 500 €
Dates	May 28 - 29, 2015 November 18 - 19, 2015

Who should attend
Dedicated to existing customers (beginners-intermediate users)

Schedule
Training room and applications laboratory
Theoretical part: 10 hours; Practical part: 25 hours

Objectives

- Description of the instrument (Optics, configuration)
- Use and advantages

Program

Theory

- Description of the technique
- Use and advantages

Practical

- Basic Time-Resolved measurements
- Basic Time-Resolved analysis

Time-Resolved Spectrofluorimetry: Intermediate training

FL6

Reference	FL6
Duration	2 days
Fees	1 500 €
Dates	May 2 - 3, 2015 November 2 - 3, 2015

Who should attend
Dedicated to existing customers (beginners-intermediate users)

Schedule
Training room and applications laboratory
Theoretical part: 10 hours; Practical part: 25 hours

Objectives

- Description of the instrument (Optics, configuration)
- Use and advantages

Program

Theory

- Description of the technique
- Use and advantages

Practical

- Advanced Time-Resolved measurements (FRET, TR anisotropy)
- Advanced Time-Resolved analysis

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Water analysis: Basic training

FL7

Reference FL7
Duration 1 day
Fees 750 €
Dates May 21, 2015
November 25, 2015

Who should attend
Dedicated to Water analysis scientist and /or intermediate spectrofluorimetry users (existing customers or not)

Schedule
Training room and applications laboratory
Theoretical part: 2 hours; Practical part: 5 hours

Objectives

- Introduction to water analysis
- Discover EEMs as a fast solution

Program

Theory

- Introduction to EEMs (instrumental approach)
- Use and advantages

Practical

- Acquire fast EEMs (excitation-emission matrices)
- Chemiometric approach

Aqualog or Dual FL: Basic training

FL8

Reference FL8
Duration 1 day
Fees 750 €
Dates May 20, 2015
November 24, 2015

Who should attend
Dedicated to existing customers having a CCD-based spectrofluorimeter

Schedule
Training room and applications laboratory
Theoretical part: 3 hours; Practical part: 4 hours

Objectives

- How to check the instrument
- Optimise the instrument understanding
- Instrument maintenance

Program

Theory

- Description of the instrument (Optics, configuration)
- Introduction to advanced techniques (Quantum Yield)

Practical

- Standard measurements in spectrofluorimetry
- Trace mreasurement

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Anisotropy measurements: Advanced training

FL9

Reference FL9
Duration 1 day
Fees 750 €
Dates March 17 - 18, 2015
Novembre 17 - 18, 2015

Who should attend
Dedicated to existing customers (Advanced spectrofluorimetry users interested in anisotropy measurements)

Schedule
Training room and applications laboratory
Theoretical part: 2 hours; Practical part: 5 hours

Objectives

- Description of the instrument (Optics, configuration)
- Use and advantages

Program

Theory

- Anisotropy principles
- Application

Practical

- Instrument validation
- Standard anisotropy measurement

Option: Measurement on your sample (+1 Day) – No guarantee on results

Absolute Quantum Yield measurement : Advanced training

FL10

Reference FL10
Duration 1 day
Fees 750 €
Dates June 17, 2015
November 28, 2015

Who should attend
Dedicated to existing customers (Advanced spectrofluorimetry users interested in Absolute Quantum Yield measurements)

Schedule
Training room and applications laboratory
Theoretical part: 1 hours; Practical part: 6 hours

Objectives

- Description of the instrument (Optics, configuration)
- Use and advantages

Program

Theory

- PLQY principles
- Application (ELQY, ...etc)

Practical

- Instrument configuration
- Standard Absolute Quantum Yield measurement

Option: Measurement on your sample (+1 Day) – No guarantee on results

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Theory about kinetics insteractions by SPRi and examples of applications - Basics

SPRi1

Reference SPRi1
Fees 375 €
Duration 0.5 day
Dates May 26, 2015
September 18, 2015

Who should attend
Biologists, Biochemists who want information about SPRi

Schedule
A half-day of theoretical course

Description

This Half-day training course allows

- Understanding the theory of Surface Plasmon Resonance imaging
- Understanding how the biomolecular interactions are monitored in SPRi
- Defining the important parameters
- Seeing examples of applications

Objective

- Learn about SPRi theory
- Know how to analyze a kinetic curve

Program

Theory

- SPRi theory
- SPRi instruments
- Theory about kinetic interactions
  - o What are the important parameters?
  - o How to analyze a kinetic interaction?
- Examples of applications

How to start a new SPRi experiment? Basics

SPRi2

Reference SPRi2
Duration 1 day
Fees 750 €
Dates May 27, 2015
September 21, 2015

Who should attend
EzPlex, SPRi-Plex, Open-Plex and SPRi-Lab users

Schedule
One day of theoretical course

Description

This theoretical training will enable attendees to understand what experimental conditions are important to consider to optimize SPRi experiments.

Objective

Acquire automatisms in order to optimize your SPRi experiments.

Program

Theory

- Introduction to kinetic interactions: what is a « good » kinetics?
- How to choose the biochip according to the immobilized molecule?
- How to optimize your spotting (concentrations, buffers, negative control, …)?
- The important experimental parameters to test in SPRi (pH, running buffer, temperature, …)
- Advice to carry out your experiment (Kinetics duration, flow rate, regeneration, …)
- Cases studies

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Learn how to use a SPRi system (OpenPlex) to characterize samples - Basics

SPRi3

Reference	SPRi3	Who should attend	
Duration	2 days	OpenPlex and SPRi-Lab users	
Fees	2 160 €		
Dates	May 28-29, 2015	Schedule	
	September 22-23, 2015	A half-day of theoretical course and one day and a half of a practical work	

Description

This 2-day training allows acquiring the principle of the Surface Plasmon Resonance Imaging technique and defining the important parameters to optimize in order to follow a biomolecular interaction. We will put the emphasis on the practical use of the OpenPlex and the results analysis with SPRi-Analysis and Scrubbergen.

Objective

- Learn the SPRi Theory
- Optimize the experimental conditions according to the studied interaction
- Master the use of OpenPlex
- Know how to analyze a kinetic curve

Program

First Day

- SPRi theory
- Define the experimental condtions
- Instrumentation (OpenPlex)
- Study of a first interaction (protein/protein)

Second Day

- Study of a second interaction (DNA/DNA)
- Maintenance of OpenPlex
- Data analysis (SPRi-Analysis & ScrubberGen)

Learn how to use a SPRi system (EzPlex) to characterize samples - Basics

SPRi4

Reference	SPRi4	Who should attend	
Duration	2 days	EzPlex and SPRi-Plex users	
Fees	2 160 €		
Dates	June 1-2, 2015	Schedule	
	September 24-25, 2015	A half-day of theoretical course and one day and a half of a practical work	

Description

This 2-day training allows acquiring the principle of the Surface Plasmon Resonance Imaging technique and defining the important parameters to optimize in order to follow a biomolecular interaction. We will put the emphasis on the pratical use of the EzPlex and the results analysis with EzAnalysis and EzFit.

Objective

- Learn the SPRi Theory
- Optimize the experimental conditions according to the studied interaction
- Master the use of EzPlex
- Know how to analyze a kinetic curve

Program

First Day

- SPRi theory
- Define the experimental condtions
- Instrumentation (EzPlex)
- Study of a first interaction (protein/protein)

Second Day

- Study of a second interaction (DNA/DNA)
- Maintenance of EzPlex
- Data analysis (EzAnalysis & EzFit)

JOBIN YVON Technology

For further information, contact:

Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Ligands Immobilization with a contact spotter (SPRi-Arrayer) - Basics

SPRi5

Reference	SPRi5	Who should attend	
Duration	1 day	EzPlex, SPRi-Plex, Open-Plex and SPRi-Lab users	
Fees	950 €		
Dates	June 3, 2015	Schedule	
	September 28, 2015	One day of practical work	

Description

This one-day training allows mastering the features of SPRi-Arrayer and knowing how to optimize the spotting parameters (choice of the spotting buffer, solutions concentration, spotter's parameters,…) according to the nature of the immobilized samples.

Objective

- Choose the best surface chemistry according to the immobilized ligands
- Optimize the immobilization experimental conditions (spotting buffer, pH, ligands concentration, washing/ drying duration of the pin,…)
- Master the use of the SPRi-Arrayer (master the different steps in order to set up a spotting matrix)
- Carry out spottings

Program

- Presentation of the SPRi-Arrayer and its different accessories
- Definition of the spotting parameters
- Set up of different matrices
- Carrying out spotting matrices on biochips (SPRi-Biochips & SPRi-Slides)
- Visualization of the matrices in SPRi
- Maintenance of the SPRi-Arrayer and the pins

Ligands immobilization with a flow printer (SPRi-CFM) - Basics

SPRi6

Reference	SPRi6	Who should attend	
Duration	1 day	EzPlex, SPRi-Plex, Open-Plex and SPRi-Lab users	
Fees	950 €		
Dates	June 4, 2015	Schedule	
	September 29, 2015	One day of practical work	

Description

This one-day training allows mastering the features of the SPRi-CFM and knowing how to optimize the spotting parameters (choice of the spotting buffer, solutions concentration, spotter's parameters,…) according to the nature of the immobilized samples.

Objective

- Choose the best surface chemistry according to the immobilized ligands
- Optimize the immobilization experimental conditions (spotting buffer, pH, ligands concentration, contact time, washing duration,…)
- Master the use of the SPRi-CFM (master the different steps in order to set up a spotting matrix)
- Carry out spottings

Program

- Presentation of the SPRi-CFM
- Definition of the spotting parameters
- Spotting of different kind of molecules
- Visualization of the matrices in SPRi
- Maintenance of the SPRi-CFM

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Kinetic constant determination and calculation of the interaction affinity - Advanced

SPRi7

Reference SPRi7
Duration 1 day
Fees 750 €
Dates June 5, 2015
September 30, 2015

Who should attend
EzPlex, SPRi-Plex, Open-Plex and SPRi-Lab users

Schedule
One day of theoretical course and use of the ScrubberGen of EzFit software

Description

This one-day training aims to perfect the users in the analysis of kinetic interactions, to acquire automatisms in order to determine quickly the kinetic constants of an interaction and the affinity between two biological molecules.

Objective

- Learn how to recognize a « good » kinetics
- Master Scrubbergen or EzFit software in order to determine the kinetic constants and calculate the affinity of the interaction.

Program

- Reminder about kinetics
- Use of the ScrubberGen or EzFit software. Analysis of different kinds of interactions (Ab/Ag ; DNA/DNA ; Protein/small molecule ; …)
- Data analysis in 'classical » configuration (injection of several concentrations of analyte) and in « single-injection » configuration (injection of only one concentration of analyte and immobilization of the ligands at different concentrations)

Improve your experience in the analysis of complex samples - Advanced

SPRi8

Reference SPRi8
Duration 2 days
Fees 1 900 €
Dates June 8-9, 2015
October 1-2, 2015

Who should attend
EzPlex, SPRi-Plex, Open-Plex and SPRi-Lab users

Schedule
Two days of practical work

Description

This two-day training allows perfecting SPRi users in order to be able to analyze samples in complex medium or to analyze small molecules.
The user chooses the molecules (molecules in serum or plasma, small molecules) he wants to analyze.

Objective

- Know to optimize the experimental conditions according to the analyzed interaction.
- Use the EzPlex or the OpenPlex with complex solutions

Program

First day

- Advice to analyze biomolecules in Complex media or small molecules
- Experiment on EzPlex or OpenPlex (choice of the user)

Second day

- Data analysis with SPRi- Analysis or EzAnalysis
- Data analysis with EzFit or ScrubberGen (according to the system used)
- Maintenance of the SPRi instrument

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Ellipsometry: Learn how to use your system for the measurement and analysis of simple samples
Basics

EL1

Rerence EL1
Duration 2 days
Fees 1 500 euros
Dates June, 22 - 23, 2015

Who should attend
Beginner users of UVISEL, UVISEL 2, AUTO SE, SMART SE or MM-16 ellipsometers

Organisation
1/2 day theoretical course, 1 day 1/2 pratical work

Description
This two day training course provides a thorough back-ground in the basic ellipsometry theory and data analysis methods to characterize simple thin film structures. The practical sessions aim to use the ellipsometer and DeltaPsi2 software through practical applications.

Objectives:
- Learn about ellipsometry theory
- Know how to measure opaque and transparent samples
- Control simple modelling functions to analyze ho-mogeneous, transparent and semi-transparent films

Program

1st day: Ellipsometry introduction

- Theoretical overview of ellipsometry
- Instrumentation
- Main functions of DeltaPsi2 software
- Data acquisition
- Measure and model standard NIST reference samples

2nd day: Modeling techniques

- Opaque and transparent substrates
- Transparent and semi-transparent films
- Standard dispersion formulae
- Interface and roughness layers
- Automated sample analysis via recipe functions

Control of the modelling techniques and give practice in sample analysis
Basics

EL2

Who should attend
Beginner users of UVISEL, UVISEL 2, AUTO SE, SMART SE or MM-16 ellipsometers

Reference EL2
Duration 1 day
Fees 750 euros
Dates June 23, 2015

Organisation
1 day practical work

Description
The two days of the training course « Spectroscopic ellip-sometry: Level 1 Basics » can be extended to one more day. This day will be focussed on modelling techniques with a large variety of hands-on sample analysis.

Objectives
- Analyze a large variety of samples and gain expe-rience in sample modelling
- We encourage attendees to bring samples (up to 2 per persons)

Program

Sample Analysis

- Transparent and semi-transparent films
- Multi-layers
- Graded films
- Uniaxial anisotropic films
- Choice and parameterization of dispersion formulae

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Ellipsometry: Improve your experience in the analysis of complex samples - Advanced

EL3

Reference EL3
Duration 2 days
Fees 1 500 euros
Dates April 8 - 9, 2015

Who should attend
Advanced users. A level of knowledge equivalent to Level 1-Basics is required.

Organisation
2 day pratical work

Description

This two day training course aims to gain a good practice of measurement and modelling methods used for the characterization of complex samples such as: unknown materials, inhomogeneous layers, ultra-thin films….
These two days will be entirely devoted to hands-on exercises.

Objectives

Control measurement and modelling techniques required for transparent samples, anisotropic and graded films, unknown materials, multi-sample analysis.

Program

1st and 2nd day: Sample Analysis

- Theoritical Overview of Ellipsometry
- Determine (n,k) of unknown material
- Transparent sample: transmittance measurement, (Ψ,Δ,T) data fitting
- Limited backside reflexion parameterization
- Multiple models
- Graded layer: EMA, graded function
- Point by point fitting
- Identify anisotropy orientation and model uniaxial and biaxial layer

Have a clear vision of the DeltaPsi2 software and control the numerous functionalities - Advanced

EL4

Reference EL4
Duration 1 day
Fees 750 euros
Dates April 10, 2015

Who should attend
Beginner users of UVISEL, UVISEL 2, AUTO SE, SMART SE or MM-16 ellipsometers

Organisation
1 day pratical work

Description

The power of the DeltaPsi2 software is seldom exploited. Advanced control of the software allows to save a lot of time, as well as optimize the quality and reliability of results. This additional day will enable you to gain in effectiveness in your daily work.

Objectives

- Effective use of the software functionalities
- Automate measurement, modelling, mapping and results

Program

DeltaPsi2 Sofware

- Main working interface, treeview and button bar
- Acquisition modes: ellipsometric, kinetic, R&T, variable angles
- Overview of models and films
- Set fitting parameters and simulation function
- Automatic operations via recipe function
- Result validation: tolerance limits
- Data processing: automatic reporting, import/export functions, data manipulation and graphic features

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

GDOES user training courses

GD

Reference GDeng
Duration 4.5 days
Fees
Dates April 13 to 17, 2015
October 12 to 16, 2015

Who should attend
Users of Horiba Scientific GD spectrometers

Schedule
The training is done in the laboratory

Objectives

- Know how to optimize the instrumental parameters,
- Ability to use the software,
- Perform bulk and surface calibrations,
- Analysis of unknown samples,
- Know and use of the accessories,
- Instrument diagnostics and how to interpret,
- How to identify and rectify problems.

Program

Theory and practical

- Fundamentals of GDOES
- How to do an analysis in GDOES
- Principle of calibration for bulk and surface
- Example of calibration. Bulk and surface calibration
- Use of monochromator
- Maintenance (cleaning). Lamp/lens
- Tests of different anodes (2 mm, 7 mm),
- Diagnostic test. QC software
- Advanced features in the software

ICP-OES user training

ICP

Reference ICPeng
Duration 5 days
Dates April 20 - 24, 2015
July 6 - 10, 2015
September 14 - 18, 2015

Who should attend
Users of HORIBA Scientific ICP-OES spectrometers

Schedule
Training room and applications laboratory
Theoretical part: 10 hours; Practical part: 25 hours

Objectives

- Overview of the ICP-OES technique,
- A theoretical and practical knowledge on ICP-OES spectrometers,
- Learn to use the software (latest version used in the laboratory),
- Learn methodology for method development and major analytical parameters,
- Know how to set up an analytical strategy with an unknown sample,
- Interpret results,
- Follow the performances of the ICP-OES spectrometer over the time,
- Identify dysfunctions and their origins and solve these dysfunctions.

Program

Theory

- ICP-OES instrument: principle & instrumentation
- Software and methodology for software development
- Interferences in ICP-OES and performances
- Diagnostics in ICP-OES
- Accessories
- Maintenance.

Practical

- Method development: software and analytical parameters
- Strategy with an unknown sample
- Study of dysfunctions
- ICP Accessories practical use according to trainees' interest

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Particle Size Analyser user training courses on laser diffraction technique

PSA1

Reference PSA1 eng
Duration 1 day
Dates March 24, 2015
September 30, 2015

Who should attend
Users equipped with a laser diffraction analyzer from HORIBA

Schedule
The training is done in the training room and in the laboratory

Objectives

- Acquire theoretical and practical knowledge on the particle size analyzer,
- Learn to optimize operating conditions for any sample.

Program

Theory

- Fundamentals in laser diffraction
- Instruments and accessories description
- Software and specific functions presentation

Practical

- Sample preparation: importance and influence
- Choice of dispersion mode and accessories
- Instrument control check
- Analytical method developments
- First level maintenance

Particle Size Analyser user training courses on light scattering technique

PSA2

Reference PSA2 eng
Duration 1 day
Dates March 26, 2015
October 2, 2015

Who should attend
Users equipped with a DLS analyzer from HORIBA

Schedule
The training is done in the training room and in the laboratory

Objectives

- Understand DLS and zeta potential fundamentals,
- Learn to collect good data and interpret results.

Program

Theory

- Fundamentals in dynamic light scattering (DLS) and Zeta potential
- Software and specific functions presentation
- Results interpretation

Practical

- Analytical method developments
- Important parameters in dynamic light scattering: choice and optimization
- Instrument control check
- First level maintenance

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

C/S user training course on a HORIBA analyzer

HOR1

Référence HOR1eng
Duration 1 day
Date September 22, 2015

Who should attend
Users of the EMIA C/S analyzer

Schedule
The training is done in the HORIBA Scientific laboratory.

Objectives

- Acquire the knowledge to be able to chose the analytical conditions
- Learn to optimize the instrumental parameters
- Know how to calbrate the instrument
- Interpret results

Program

Theory

- Principle of C/S analyzers. Specificity of the EMIA
- Software presentation

Practical

- Instrument checking test
- Instrument calibration
- Optimization of the analytical conditions
- Choice of accelerators and flux
- Results traceability
- First level maintenance

O/N/H user training course on a HORIBA Analyzer

HOR2

Reference HOR2 eng
Duration 1 day
Dates September 23, 2015

Who should attend
Users of the EMGA O/N/H analyzer

Schedule
The training is done in the HORIBA Scientific laboratory.

Objectives

- Acquire the knowledge to be able to chose the analytical conditions
- Learn to optimize the instrumental parameters
- Know how to calbrate the instrument
- Interpret results

Program

Theory

- Fundamentals of O/N/H analyzers. Specificity of the EMGAs
- Determination of Hydrogen by FTIR or TCD
- Software presentation

Practical

- Instrument checking test
- Instrument calibration
- Optimization of the analytical conditions
- Choice of accelerators and flux
- Results interpretation and traceability
- First level maintenance

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Sulfur & Chlorine in Oil user training course on a HORIBA Analyzer

HOR3

Reference HOR3 eng
Duration 1 day
Dates September 24, 2015

Who should attend
Users of SLFA, MESA-6000/7220.

Schedule
The training is done in the HORIBA Scientific laboratory.

Objectives

- Know how to optimize the instrumental parameters,
- Control of the analytical conditions,
- How to interpret the results.

Program

Theory

- Fundamentals of X-Ray fluorescence
- Specificity of Sulfur and Chlorine determination in petroleum samples
- Presentation of the different instruments
- Presentation of the software

Practical

- Sample preparation
- Checking of the instrument
- Determination of the optimal conditions
- Calibration of the instrument
- Results interpretation
- First level maintenance

XGT/MESA-50 user training course on a HORIBA Analyzer

HOR4

Reference HOR4 eng
Duration 1 day
Date September 25, 2015

Who should attend
Users of the XGT /Mesa 50 X-Ray Fluorescence Analyzer

Schedule
The training is done in the HORIBA Scientific laboratory.

Objectives

- Know how to optimize the instrumental parameters,
- Control of the analytical conditions,
- How to interpret the results.

Program

Theory

- Fundamentals of X-Ray fluorescence
- Specificity of the XGTs
- Specificity of the MESA-50
- Presentation of the softwares

Practical

- Samples preparation (solid/liquid),
- Software presentation,
- Analytical conditions choices,
- Realization of a calibration,
- Identification of the different peaks in the spectra,
- Correction of spectral interferences,
- First level preventive maintenance,
- General analytical discussion.

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

On line training

FormLigne

Reference FormLigne
Duration 4 hours divisible
Dates by appointment

Who should attend
All users of Horiba analyzers equipped with internet access

Schedule
Remote training allowing the customer to follow the training in his laboratory and on his own instrument as the trainer gives the training from his own office.

Objectives
Training or analytical assistance on any kind of instrument commercialized by HORIBA scientific with the possibility to use the 4 hours package in modules (30 min minimum each)

Program
To be define when taking the appointment

Prerequisite
A first connection (free of charge) will be done to check if the connection works properly

Packaging use follow up
An e-mail will be sent to the customer after each connection to keep him informed about time remaining in his package

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

On site training

Formsite

Reference	Formsite
Duration	to be mutually agreed
Fees	1 700 €/day
Dates	by appointment

Objectives

- Basic training on the techniques like training ICP-OES, GDOES, PP-TOFMS, SPRi, Ellipsometry ...
- Use of specific software
- Use of accessories

Program

Schedule of an on-site training (example)

- Daily use of the instrument (start up, checking, routine analysis)
- Software review
- Maintenance
- Operating conditions optimization

JOBIN YVON Technology

For further information, contact:

Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

E-Modelling support for Ellipsometry measurements

Duration on request
Fees 1200 euros/day
Dates on request

Description

Users of HORIBA Scientific ellipsometers and DeltaPsi2 software experiencing some difficulties with sample modelling. Our experts can help you and provide you with optimised models, as well as advice and guidance for good measurement and analysis of your samples.
You just send us by e-mail the package of your experimental measurements. You will receive the results package in the next few days.

Guidelines for E-Support Modeling

- Complete the sample description form on page 32 and return by:
  Fax : +33 (0)1 69 31 32 20 or E-mail : training.jyfr@horiba.com
- After receipt of the form we evaluate if your samples can be characterized by HORIBA Scientific spectroscopic ellipsometers. If more detailed information is required, an application engineer will contact you
- A quotation will be submitted. After your acceptance an application engineer will be responsible for your sample analysis and you will receive the results package in the next few days

To know

- The average time for 3 sample analysis is around 2 days
- The average time for 5 sample analysis is around 3.5 days

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Sample Description Form
for e-modelling support for Ellipsometry measurement

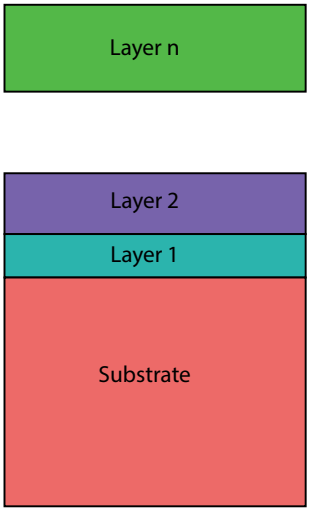
Contact

Name :_____ Email: _____

Company/Laboratory : _____ Telephone: _____

Number of samples _____up to 5 maximum

Sample Description



The figure on the left provides the convention used to describe coated substrates: the number of the layer increases from the substrate to the top of the sample surface.

Please, supply as much information as you can for each of the samples, including:

- Thickness of substrate and of each of the layers
- Materials of substrate and of each of the layers (deposition techniques, all information that can help, eg: possible porosity, inhomogeneities, etc…)
- Optical constants (n,k) of substrate and of each of the layers

Please, do not hesitate to give any other useful information that may help for your sample analysis, a sample picture showing where the measurement

Information Provided by Ellipsometry

Thickness, Optical constants (n,k), BandGap Eg, Roughness, Interface, Anisotropy, Gradient, Porosity, Doping, Concentration, Composition, etc…

Sample N°	Thickness (Å, nm or µm)	(n,k) at = ?nm	Material / Process information	Informations to be determined
Substrat				
Layer 1				
Layer 2				
Layer 3				
Layer x				

Description of Measurement Conditions

- Name of experimental file:
- Ellipsometer type: UVISEL UVISEL 2 AUTO SE MM-16 Smart SE Others: ____
- Spot size: _____
- Transparent substrate (glass, plastic): Y / N

Please, follow these measurement instructions:

- Always measure your sample on the whole spectral range of your ellipsometer.
- If the substrate is very rough (ex: metals), measure your sample in (high accuracy) merge configuration.
- If possible, please send a measurement of the uncoated substrate.

JOBIN YVON Technology

For further information, contact:

Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

E-Support for samples analyzed by SPRi

Duration on request
Fees 1200 euros/day
Dates on request

Description

You are a user of a Surface Plasmon Resonance imaging system and you are facing an analysis issue for your samples? Our team can help you.

- Either to advise you on the good strategy to adopt to carry out your experiment by helping you in the writing of the experimental protocol
- Or to analyze your data

You need only to fill one or the other of the questionnaires in the annex and to return it by e-mail.

Guidelines for E-Support Modeling

- Fill the sheet (annex n°1) if you need help to carry out your experiment
- Fill the sheet (annex n°2) if you need help to analyze your data
- Return the sheet by Fax (+33 1 69 31 32 20) or by e-mail training.jyfr@horiba.com
- After receiving sheet n°1 and after discussion with the user, an experimental protocol is sent.
- After receiving sheet n°2 and after discussion with the user, the data analysis is done and the report is sent to the customer.

To know

For each service, a quotation will be made after discussion with the customer. After the quotation acceptance, an application engineer will be in charge to study your request.

Note, the average time of the analysis depends on the number of studied samples.

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Annex n°1: Description of the samples

Contact

Name: ..... E-mail: .....
Company / Laboratory: ..... Phone: .....

Description of the request

The customer has to forward us the following information:

- What king of interaction is studied?
- What kind of system is used (EzPlex, OpenPlex, SPRi-Plex II, SPRi-Lab)?
- Describe the interaction
- Did you already observe this interaction?
- What are the optimal experimental conditions for your samples (buffer, specific reagents, readout, …) ?
- Can you provide references describing your work (or similar work)? If yes, please attach the corresponding pdf files.
- What are the immobilized molecules? (name, nature, molecular weight, pI, chemical formula / structure (only for small molecules), pH, stability conditions, degree of purity, concentration and any information that you consider relevant)
- What is (are) the reference molecule(s) [negative control]?
- What are the injected molecules? (name, nature, molecular weight, state, pI, chemical formula / structure (only for small molecules), pH, stability conditions, degree of purity, concentration, and any information that you consider relevant)

After the analysis of this information, our application engineer will suggest you an experimental protocol.

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For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Annex n°2 : Kinetics analysis

Contact

Name: ..... E-mail: .....
Company / Laboratory: ..... Phone: .....

Description of the experiment

In order to carry out the analysis, the customer has to forward us the following information:

- What kind of biochip was used?
- How the samples were immobilized?
- What was the immobilization buffer?
- For each ligand, indicate:
    - o The spotting concentration
    - o The running buffer
    - o The pH of the immobilization solution
    - o The pI of the molecule (if known)
    - o If the ligand is a molecule of interest or a negative control
- What was the running buffer?
- What was the flow rate?
- At which temperature, the experiment was carried out?
- What were the regeneration solutions?
- For each analyte, indicate:
    - o The injected concentration
    - o The duration of the injection of the analyte
    - o The dissociation time

You have also to send us:

- A map of the spotted matrix
- The data files (plasmon, kinetics)
- The spotfile
- The comment file
- The image of the biochip

Did you already analyze your data? Yes / No

If yes, with what software (EzAnalysis, EzFit, SPRi-Analysis or ScrubberGen)?

What information do you want?

Remark:
The data file must be sent by e-mail to the application engineer in charge of the analysis.

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For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Practical Information

Courses range from basic to advanced levels and are taught by application experts. The theoretical sessions aim to provide a thorough background in the basic principles and techniques. The practical sessions are directed at giving you hands-on experience and instructions concerning the use of your instrument, data analysis and software. We encourage users to raise any issues specific to their application. At the end of each course a certificate of accomplishment is awarded.
Standard, customized and on-site training courses are available in France, Germany, USA and also at your location. Dates of the training calendar 2015 are only available for HORIBA Jobin Yvon France training center.

Registration

Fill in the form and:

- Email it to: training.jyfr@horiba.com
- Or Fax it to: +33 (0)1 69 09 07 21
- More information, tel: +33 (0)1 69 74 72 00

General Information

The invoice is sent at the end of the training.
A certificate of participation is also given at the end of the training.
We can help you to book hotel accommodation.
Following your registration you will receive a package including training details and course venue map. We will help with invitation letter for visa, but HORIBA Jobuin Yvon are not responsible for any visa refusal.

Pricing

Refreshments, lunches during training and handbook included.
Hotel transportation, accommodation and evening meals are not included.
Special conditions for the thematic training, please consult us for more detail.

Location

Depending on the technique, there are three locations: Longjumeau (France, 20 km from Paris), Palaiseau (France, 26 km from Paris), Villeneuve d'Ascq (France 12 km from Paris) or at your facility for on-site training courses. Training courses can also take place in subsidiaries in Germany or in the USA.

Access to HORIBA Jobin Yvon, Longjumeau

HORIBA Jobin Yvon SAS
16 - 18 rue du canal
91165 Longjumeau - FRANCE

Depending on your means of transport, some useful information:
- if you are arriving by car, we are situated near the highways A6 and A10 and the main road N20
- if you are arriving by plane or train, you can take the train RER B or RER C that will take you not far from our offices.

We remain at your disposal for any information to access to your training place. You can also have a look at our web site at the following link:

http://www.horiba.com/scientific/contact-us/france/visitors-guide/

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Access to HORIBA Jobin Yvon, Palaiseau

HORIBA Jobin Yvon SAS
Passage Jobin Yvon, Avenue de la Vauve,
91120 Palaiseau - FRANCE

From Roissy Charles de Gaulle Airport By Train

- Take the train called RER B (direction Saint Remy Les Chevreuse) and stop at Massy-Palaiseau station
- At Massy-Palaiseau station, take the Bus 91-06 C or 91-10 stop at Ecole Polytechnique (D128)
- The company is 5 minutes walk from the station, on your left, turn around the traffic circle and you will see the HORIBA building

From Orly Airport By Train

- At Orly airport, take the ORLYVAL, which is a metro line that links the Orly airport to the Antony RER station
- At Antony station, take the RER B (direction St Remy Les Chevreuse) and stops at Massy-Palaiseau station
- At Massy-Palaiseau station, take the Bus 91-06 C, 91-06 B or 91-10 stop at Ecole Polytechnique (D128)
- The company is 5 minutes walk from the station, on your left, turn around the traffic circle and you will see the HORIBA building
- Or at Orly take the Bus 91-10 stop at Ecole Polytechnique (D128).The company is 5 minutes walk from the station, on your left, turn around the traffic circle and you will see the HORIBA building. We remain at your disposal for any information to access to your training place. You can also have a look at our web site at the following link:

http://www.horiba.com/scientific/contact-us/france/visitors-guide/

Access to HORIBA Jobin Yvon, Villeneuve d'Ascq

HORIBA Jobin Yvon SAS
231 rue de Lille,
59650 Villeneuve d'Ascq - FRANCE

By Road from Paris

When entering Lille, after the exit «Aéroport de Lequin», take the direction «Bruxelles, Gand, Roubaix». Straight after take the direction «Gand / Roubaix» (N227) and not «Bruxelles» (A27) nor «Valenciennes» (A23).

You will then arrive on the ringroad around Villeneuve d'Ascq. Do not take the exit «Cité Scientifique», nor the following «Triolo» but take the third exit «Pont de Bois».

At the traffic lights turn right and follow the road around, the road shall bend left then right. About 20m further on you shall see the company on the right hand side where you can enter the car park.

By Road from Belgium (GAND - GENT)

Once in France follow the motorway towards Lille. After «Tourcoing / Marcq-en-Baroeul», do not take the motorway for Lille, but follow on the right hand side for Villeneuve d'Ascq. Take the exit «Flers Chateau» (This is marked exit 6 and later exit 5 - but it is the same exit). (You shall now be following a road parallel to the motorway) Rest in the middle lane and go past two sets of traffic lights, at the third set move into the left hand lane to turn under the motorway.

At the traffic lights under the motorway go straight ahead, the road shall bend left then right. About 20m further on you shall see the company on the right hand side where you can enter the car park.

Aeroplane

From the airport Charles de Gaulle take the direction 'Terminal 2' which is also marked TGV (high speed train); where you can take the train to 'Lille Europe'.

Train - SNCF

There are two train stations in Lille - Lille Europe or Lille Flandres. Once arrived at the station in Lille you can take a taxi for HORIBA Jobin Yvon S.A.S., or you can take the underground. Please note both train stations have stations for the underground.

Follow the signs:
1.From the station «Lille Flandres», take line 1, direction «4 Cantons» and get off at the station «Pont de bois».
2. From the station «Lille Europe», take line 2, direction «St Philibert» and get off at the following station «Gare Lille Flandres» then take line 1, direction «4 Cantons» and get off at the station «Pont de bois».

Bus

Bus n°43, direction «Hôtel de ville de Villeneuve d'Ascq», arrêt «Baudoin IX».

JOBIN YVON Technology

For further information, contact:
Tel: + 33 (0) 1 69 74 72 00 Fax: + 33 (0) 1 69 09 07 21, training.jyfr@horiba.com

Registration Form

Training course:..... Date: .....
Family Name:..... First Name:.....
Company/Organisation:.....
Address:.....
Telephone Number:..... Fax:
Email:.....
Purchase order number:.....
Invitation letter requested: Yes No
If yes: Accomodation at hotel:.....
Passport number:..... Date of arrival:.....
Date of passport validity:..... Date of departure:.....
Date of birth:..... Additional hotel dates (if requested in Paris):
Place of issue (as mentioned on the passport):..... .....

Date & signature

Stamp of the company

Information

Registration: fill in the form and send it back by FAX or Email four weeks before beginning of the training.
Registration fees: the registration fees include the training courses and documentation. Hotel, transportation and living expenses are not included except lunches which are taken in the HORIBA Scientific Restaurant during the training.
Your contact: HORIBA Jobin Yvon SAS, 16-18 rue du Canal, 91165 Longjumeau, FRANCE Tel: + 33 1 64 74 18 73
Fax: + 33 1 69 09 07 21
E-Mail: training.jyfr@horiba.com
Siret Number: 837 150 366 00024

HORIBA Scientific continues contributing to the preservation of the global environment through analysis and measuring technology

Certified ISO 14001 in 2009, HORIBA Scientific is engaged in the monitoring of the environmental impact of its activities during the development, manufacture, sales, installation and service of scientific instruments and optical components. Training courses include safety and environmental precautions for the use of the instruments

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