

Training session

Python™ language for spectral data analysis

Learn how to analyze the spectroscopic data
using Python™ scripts

Objectives

This training session in the application of the Python™ language for spectroscopic data analysis is intended for people wishing to analyze their own data with the Python™ language from existing scripts.

During the training, emphasis is placed on the practical use of data analysis methods and the different steps necessary to analyze the data with Python™ language.

Application exercises are proposed with Python™ scripts provided by Ondalys. This session will give you solid basis to use Python™ scripts autonomously for

- > Exploratory data analysis
- > Quantitative prediction
- > Spectroscopic pre-processing



Information



Basics of programming and data analysis (PCA, PLS) and univariate statistics are required



R&D, quality control, product development, process optimization, ...



All data from processes



Agriculture / food, Petrochemical, Pharmaceutical, Biotechnology, Chemistry, Environment, ...



1,5 day



In-house session



Researchers, scientists and engineers

Program

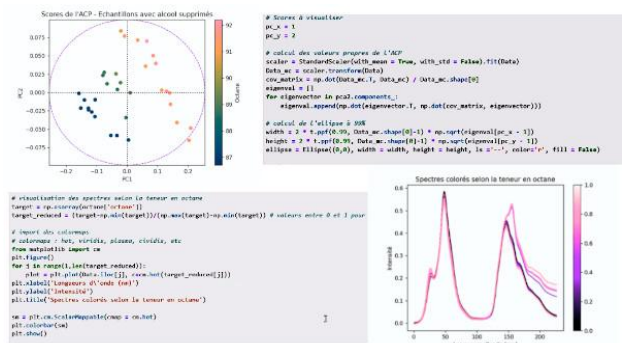
Half day 1: Introduction to Python™ for Machine Learning

- > Introducing some Python™ libraries for Machine Learning
- > Using the Anaconda distribution
- > Using Notebook (Jupyter, JupyterLab)
 - > Practice



Day 2: Dataset application exercises with existing Python™ scripts

- > Principal Component Analysis (PCA)
- > Linear pls multivariate regression models (PLS)
- > Pre-processing of spectroscopic data
- > Conclusions on multivariate data analysis
- > Questions and answers on uncontrolled points
- > Prior learning assessment
- > Satisfaction questionnaire



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If one of your employees is disabled and needs a specific welcome, please let us know so that we can adapt the training accordingly.