

Training session

Hyperspectral image analysis

Learn about hyperspectral data processing methods

Objectives

This training session on multivariate data analysis is intended for people wishing to:

- Learn to process multispectral images
- Analyze their own images at the end of the course
- Know how to use the studied data analysis software

During the training, the method principles are introduced by a geometric approach. Emphasis is placed on the practical use of the method and the interpretation of the results.

Application exercises are proposed for each method. The training is given on the MIA_Toolbox[®] combined with PLS_Toolbox[®] from EigenVector Research Inc.

Information



Knowledge on basics data analysis methods (PCA, PLS) required



3 days



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



In-house sessions



Multispectral / Hyperspectral data



Researchers, scientists and engineers



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

Program

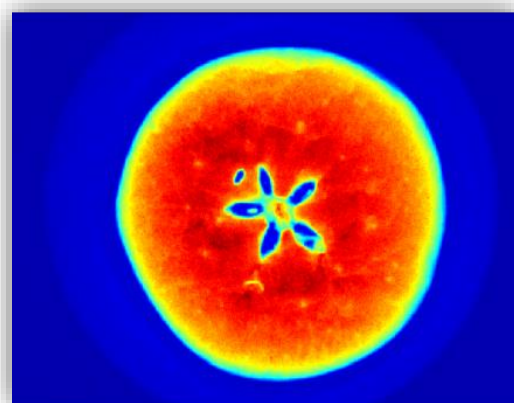
Day 1: Introduction about images

- General Introduction - Chemometrics
- Digital coding of images
- Visualization tools
- Handling of histograms
- Study of isolated objects
 - ✓ Application on data set and software



Day 2: Chemometrics on digital images: non-supervised methods

- Introduction
- PCA applied to images
- Unsupervised classification
 - ✓ Application on data set and software



Day 3: Chemometrics on digital images: supervised methods

- Supervised classification
- Semi-quantitative analysis
- Conclusion on hyperspectral images analysis
 - ✓ Application on data set and software



In-house sessions

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