

POLLUTANT BEHAVIOUR IN ABIOTIC MATRICES

LEVEL: MASTER 1

PERIOD: SEMESTER 1

LANGUAGE: EN

ECTS: 3

TEACHER/COORDINATOR: JULIEN CASTELIN



1-Main objectives

- › Understand the main chemical reactions between pollutants and chemical species in the contaminated matrices (soil, sediment, water...)
- › Comprehend the complexity of chemical processes

2-Skills developed

- › Read an analysis report and extract the most relevant information;
- › Discuss data on the analysis report (agronomic and physico-chemical properties);
- › Develop ideas to participate to the elaboration and set up of strategies to evaluate the environmental availability of metallic and organic pollutants.
- › Evaluate, analyze and, from a theoretical point of view, predict the behaviour of pollutants in soils and the main retention and depollution processes which are active in the soil-water system.

3-General content

- › the main chemical reactions between pollutants and chemical species in the contaminated matrices (soil, sediment, water...)
- › the students will be able to link the behaviour of xenobiotics in the soil-water system to the physical and chemical characteristics of both pollutant and soil/sediment under investigation, to report on specific themes related to the fate of pollutants into soil and water, and to approach scientific reports dealing with the evaluation and assessment of pollution phenomena in the soil and water environment

4- Evaluation

Individual written exam and written report