Reactivity of high charge swelling clay minerals in soils - IC2MP Institute, University of Poitiers –
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High-charge swelling clay minerals, such as vermiculite, are known to account for most of the reactive properties of soils. In particular, it is important to understand the interaction of these minerals with inorganic cations in order to develop reactive transport models which could be used to predict migration of pollutants in soils and to assess the availability of nutrients for plants.

Within this context, we are seeking for an intern who will investigate the influence of some chosen parameters on cation exchange process on vermiculite. In this project, different tools, as analytical chemistry methods and X-ray diffraction will be used.

The goal of the internship is to give an independent scientific research experience for a student working on a particular topic of interest.

Learning Objectives:

1. Intern will learn to design an experiment to test the hypothesis based on the proposed topic; she/he will learn how to collect and analyse the data, give her/his interpretation for the obtained experimental results.
2. Intern will develop scientific communication skills by writing the report and giving the presentation at the end of internship.
3. Intern will have an insight in scientific career and will develop better formal interpersonal skills by working in a research team.

Length of the project: 3 months from April to June 2015

The project is intended for a first year graduate student of “Master Argiles” or M1 Chemistry with an interest in environment and inorganic chemistry studies.

Place: IC2MP, E2 team (HydrASA), Poitiers.

Funding: IC2MP