

General presentation

This summer school is organised in Clermont-Ferrand, which is a city located in the centre of France. The natural environment around the city is exceptional with diversity of landscapes and the unique volcanic landscape, in particular the beauty spots of the puy de Dôme (giant among Auvergne's volcanoes). Clermont-Ferrand is also famous for its very special black stone architecture in the old city centre and for its university « Université Clermont Auvergne (UCA) », a multidisciplinary university open to the world for the international cooperation and more particularly with China.

The scientific topic of this summer school is based on one of the main challenges of the XXIst century, the protection of the environment and more particularly the quality of soils and water resources. In fact, soils or water resources face high anthropic pressure since more than 50 years and it is urgent to work on their preservations for a sustainable development and for the future generations. Environmental protection, which includes restoring and preserving water and soil resources, is now a priority for China. New technologies, clean processes involving chemical reactions are among the ways to be explored to repair the harmful effects on our environment. It is within this very general framework that we propose this summer school for students of Chinese nationality to train them in these environmental issues and new cost-effective processes for soil and water remediation.

The site of Clermont-Ferrand is particularly adequate to welcome this summer school first of all because of the scientific potential which exists in the field of the chemistry of the environment and more particularly in that of the water treatment. Indeed, the Federation of Environmental Researches (FR CNRS-UCA-INRA N° 3467) and the axis "Chemistry of the Environment" of the Institute of Chemistry of Clermont-Ferrand (UMR UCA-CNRS-SIGMA Clermont N° 6296) will be the scientific structures which will supply equipment and staffs for the smooth running of this summer school. Furthermore, a strong and constant partnership exists now for more than 10 years with the Graduate School of Chemistry of Rennes (ENSCR, Rennes University) with colleagues specialists more particularly on the treatment of soils and scale up of water treatment technologies.