



*The Department of Earth and Environmental Sciences conducts teaching and research across the full range of the environmental Earth Sciences, with activities in areas of chemical geodynamics, petrology, mineralogy, isotope geochemistry, applied geochemistry, sedimentology, basin geodynamics, chemical oceanography, water chemistry, glaciology, biogeochemical and earth system modeling.*

The Department is currently offering within the research theme 'Biogeochemical Modeling – Earth System' ([http://www.ulb.ac.be/sciences/dste/index\\_fichiers/laboratoire.html](http://www.ulb.ac.be/sciences/dste/index_fichiers/laboratoire.html)):

## 1 PhD - Teaching Assistant position

**Project:** Greenhouse gases and global climate: past, present and future.

This project aims to advance our understanding of the fundamental controls of the biosphere on global greenhouse gas (CO<sub>2</sub> and CH<sub>4</sub>) emissions in marine sedimentary environments and land-ocean transition systems. For each of these ecosystems, the goal is to develop reactive transport models that will ultimately become valuable tools for environmental management purposes. The project is articulated around three outstanding questions in the broad area of environmental and climate research: (I) The sedimentary carbon sink as a global climate regulator, (II) the global dissolution of marine gas hydrates, and (III) the quantitative significance of estuaries for the CO<sub>2</sub> dynamics in the global coastal ocean. The candidate will carry out a PhD in the framework of one of these research questions.

### **Qualifications:**

We seek highly motivated candidates who are interested in interdisciplinary research combining various fields of (geo)environmental sciences. Candidates must hold a MSc. degree in Sciences and have a solid background in geosciences, modeling and computational sciences. Expertise in microbiology, hydro(geo)chemistry and/or (sub)surface transport processes is beneficial. He/she communicates easily in English, both verbally and orally. Since this is a part-time teaching assistant position, very good communication skills in French are required.

### **Terms of employment:**

The successful candidate will be offered a full-time position of 'Assistant'. He/she will carry out a PhD. in the framework of the project 'Greenhouse gases and global climate: past, present and future'. The researcher will also dedicate part of his/her time to support teaching activities (undergraduate courses in introductory earth sciences and graduate courses in earth system modeling and computational geosciences). The researcher will join the Department of Earth and Environmental Sciences. He/She will nevertheless work in close collaboration with several partner institutes abroad.

### **Further details:**

Further information is available from: Prof. Pierre Regnier, email: [pregnier@ulb.ac.be](mailto:pregnier@ulb.ac.be)  
You may also wish to visit the website of the research group at <http://rtmlab.net>

### **How to apply:**

Applications, including a motivation for the position, curriculum vitae, copies of university-level academic transcripts and certificates (including course grades, and 2 letters of references, should be sent by e-mail to:

Prof. Lei Chou  
Chair, Department of Earth and Environmental Sciences  
[Lei.chou@ulb.ac.be](mailto:Lei.chou@ulb.ac.be)

**Review of application starts immediately and applications are accepted until the position is filled.**