



### 3-month postdoctoral position in Marine Biogeochemistry

We are looking for a postdoctoral researcher to work on a project (TRANSPort and Export of METals of Hydrothermal origins into the open ocean) funded by the cluster of Excellence LabexMER “frontiers in marine research”. The project will take place in LEMAR, a laboratory located on the largest oceanography campus in France, with labs and researchers located both at the University of Western Brittany marine science institutes (IUEM) and IFREMER. <https://www-iuem.univ-brest.fr/en/home>.

#### Scientific context

The importance of trace metals for marine ecosystems and in the global carbon cycle is well established: trace metals, among other elements, control the primary production and the structure of planktonic and benthic communities in the ocean. However, to date, dissolved metal sources in the deep ocean and their export mechanism are still unconstrained. The historical view that dissolved metals are largely removed from hydrothermal plumes through precipitation of a range of iron-bearing minerals (e.g. Fe-sulfides and Fe oxyhydroxide) is now being challenged. Several potential mechanisms for the delivery of hydrothermally sourced metals to the open ocean have been suggested and require a detailed study of the 3D structure of hydrothermal plumes. Yet, the available data on trace metal in hydrothermal vent systems and their vicinity are ambiguous in terms of speciation, particle association and plume detection. Evidences for long-range transport of hydrothermal metals throughout the open ocean are now piling up, and in some regions, hydrothermal vents may contribute to 30% of the total iron inputs, buffering the oceanic dissolved iron inventory on long timescales.

The primary goal of this project is to understand the dispersal and biogeochemical reactivity of particulate trace metals at distance from an hydrothermal plume, located on the mid-Atlantic ridge (hydrothermal vent TAG).

#### Expected profile

- PhD in the field of biogeochemistry
- Work in a clean room environment
- ICP-MS analyses
- Knowledge of particle cycling in the ocean
- Good writing and oral skills in English

Personal qualities, such as teamwork skills, rigor and intellectual curiosity will be particularly appreciated.

#### Type of contract

3 months full-time

Start : 1<sup>st</sup> September 2018

Location Laboratoire des Sciences de l'Environnement Marin (LEMAR CNRS-IRD-UBO-Ifremer), IUEM, Plouzané, France <https://www-iuem.univ-brest.fr/UMR6539/>

Gross salary: between 1900 and 2370 euros (Take home salary : 1600 and 1900 € per month) according to experience.

#### How to apply

Applicant should submit a cover letter and a CV by email to [contact-labexmer@univ-brest.fr](mailto:contact-labexmer@univ-brest.fr)

Please note “ TRANSE-METH “ in the title of your application