JOB DESCRIPTION

Job title	**Research engineer / Post-doc in chemistry - development of experimental and analytical tools to analyse trace elements in marine environment**
Employer / Department	Toulon University - PROTEE laboratory - CAPTE research team (http://protee.univ-tln.fr/)
Job location	La Garde (France)
Description of the job	
Job category	Research engineer / Post-doc in analytical/environmental chemistry
Net salary	~ 1800€ / month
Expected starting	**mid-november 2016**
Duration	1 year
Mission	In the framework of the HYDROTALCITE research project (2016-2018), coordinated by the PROTEE (Toulon University, La Garde) and MIO (Aix-Marseille University, Marseille) laboratories, the recruited person will be in charge of developing experimental and analytical tools to evaluate the processes controlling (1) the formation/dissolution of hydrotalcite precipitates, occurring during the mixing of industrial alkaline effluent (from an alumine producer) and seawater, and (2) the consecutive trace elements trapping/mobilization. This study will rely on experiments performed under controlled conditions and the characterization of ambient samples (seawater, hydrotalcite, sediment). The recruited person will be in charge of developing trace metal on-line preconcentration and analysis via SEAFAST-HR-ICP/MS (Element XR). Those analysis, in combination with other analytical tools (atomic fluorescence, voltammetry), will be applied in order to analyze trace metals/metalloids in ambient seawater samples and samples from various batch experiments, studying formation of hydrotalcites as well as their stability over time. Characterization (elemental composition, mineralogy, ...) of hydrotalcites collected in-situ and formed in-vitro, coupled with geochemical modelling will complete the observational and experimental results. The main objective of the HYDROTALCITE project is to evaluate if the formation of hydrotalcite precipitate generated from the industrial effluent discharge into the Mediterranean Sea constitutes (or not) an effective and sustainable process to trap the associated trace metals and metalloids.
Relations with other laboratories	collaborative project with MIO laboratory (AMU, Marseille) (https://www.mio.univ-amu.fr/)
Required skills	- strong knowledge and practice of trace elements analysis in environmental matrix (ICP/MS, voltammetry, atomic fluorescence, ...) are a prerequisite - knowledge of trace elements biogeochemistry in marine environments - field trip and ultra-traces handling abilities - capacity to interpret the obtained results, valorization in scientific publications - complementary knowledge on geochemical modelling would be appreciated
Requested diploma	PhD in marine chemistry, environmental chemistry of geochemistry - trace metals analysis

To apply for this position:

CV, letter of intent and references to **Dr. Cédric GARNIER (cgarnier@univ-tln.fr)**

Deadline for application: october 4th 2016