

OPEN POST-DOCTORAL POSITION

Spatial and temporal variations of suspended particulate matter along the salt-wedge of the Rhône river (Mediterranean Sea).

JOB DESCRIPTION :

Title: Post-doctoral fellowship

Location: CEREGE, University Paul Cézanne – Aix-Marseille III, France

Group: Water, Soil, Waste, Sustainable development

Status: 16 months. The position will start in September 2007

Net salary : 1757 euros per month.

PURPOSE :

This position is provided in the framework of a national project CHACCRA : Climate and Human induced alterations in carbon cycling at the river-sea connection. The overall scientific objectives of the project are 1) to provide a continuous inputs of suspended particulate matter (SPM), organic matter and nutrients over two years with a detailed study of floods ; 2) to study the transformation of particles and nutrient along the salt-wedge ; 3) to perform plume process studies of production , mineralization and export and 4) to study benthic processes of mineralization of terrestrial and marine particulate organic matter in the prodelta area.

Whithin this context, our team is more particularly involved in point 1 and 2 and will sample, analyse and describe SPM along the salt-wedge estuary of the Rhone river. Organic matter and nutrients will be studied by other partners. This post-doctoral position is thus mainly dedicated to the study of grain-size variations within the salt-wedge and the river plume in relation with physicochemical processes of aggregation, deposition and degradation. For the first time, a specific attention will be paid to time variations during flood as well as to the bed-load transport. Furthermore, the candidate will also have to develop the determination of cationic exchange capacity of this SPM. An experience on aggregation-disaggregation modelling will be a real benefit in order to work with a model developed in our lab.

The candidate will :

- participate to the various sampling of SPM cruises along the salt-wedge,
- provide SPM samples to different laboratories in France (for various kind of analyses including organic chemistry)
- be in charge of grain-size analyses with portable particle counter and Hiac-royco granulometer
- develop the analyse of cation exchange capacity on the samples with Acoustic Zeta potential measurement and DT 300 Horiba

QUALIFICATIONS

- 🍏 PhD on environmental science or high degree or equivalent qualification in a relevant subject such as water chemistry.
- 🍏 Experience on grain-size analyses and/or CEC determination.
- 🍏 Field sampling experience.
- 🍏 Evidence of publishing research in peer-reviewed journals.
- 🍏 Excellent inter-personal communication skills and aptitude for consultancy and team- working.
- 🍏 Driver licence. Boat licence is wellcome.

Please send CV + 2 letters of reference before 15 June 07 to:

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