



12 months Postdoctoral position

**@ Extreme conditions, materials,
high temperature and irradiation
lab (CNRS, France):**

On-site Raman spectroscopy of high temperature materials

The CEMHTI (Extreme Conditions, Materials, High Temperature and Irradiation) is a laboratory of the CNRS (French national Research Center) in Orléans, France. The CNRS (<http://www.cnrs.fr/index.php>) is a high level multidisciplinary research institution of international visibility. The CEMHTI (<http://www.cemhti.cnrs-orleans.fr/>) is specialized in the characterization of materials exposed to extreme conditions. The teams of the lab are involved in various topics from fundamental research to industrial contracts, with a great ability in instrumental developments.

We are looking for a creative and motivated Research Associate with proven skills in (Geo)chemistry and/or spectroscopy to join our teams and develop innovative approaches for the field characterization of high temperature materials. The successful candidate will be involved in an experimental and analytical development project focused on the outdoor characterization of high temperature materials. In this frame, in one hand, he/she will help in the development of a hybrid instrument using luminescence/Raman spectroscopies, in other hand will participate to the on-site measurement campaigns. The instrumentation will be implemented on two main topics. First, *in situ* high temperature characterization of corium melt in collaboration with the serious nuclear accident group of the CEA (Cadarache, France); and second, in collaboration with volcanologists of the Geoscience lab of Saint Denis de la Réunion university it is planned to experiment high temperature site characterization of volcanic fluids as hot gas or lava.

This is an excellent opportunity to work on a challenging research project within a leading academic institution and develop multidisciplinary research and leadership skills. The project is funded by the French National Agency for Research (ANR) and the position located at

CEMHTI lab (<http://www.cemhti.cnrs-orleans.fr/>) at Orléans, a French historical city at one hundred kilometers south of Paris.

Candidates profile:

- PhD in Physics, chemistry, geophysics, geochemistry, Materials Science or related field
- Strong experimental skills and experience in data acquisition, analysis and interpretation
- Knowledge of optical spectroscopies would be an asset
- Knowledge in the behavior of high temperature materials would be an asset
- Field experience would be a strong asset
- Fluency in English (scientific exchanges) is a must
- Excellent communication, organizational, flexibility and interpersonal skills with a mandatory team-spirit

This position requires an innovative researcher who is able to work independently and with other researchers and collaborators on this project. You will have the ability to generate new ideas, to test them and apply them and be able to demonstrate an enthusiasm for **interdisciplinary** research.

Benefits

This post is full-time and fixed term for 12 months. Ideally, the successful candidate will commence employment at the beginning of 2015.

Salary: The net salary range is approximately 2100 Euros/month. (health care insurance is included).

Contact:

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