

## **Post doctoral position in Two-Dimensional Gas-Chromatography for TOTAL (Gas Chromatography-Mass Spectrometry)**

**Description** : You will be in charge of the development, qualification, validation and implementation of analytical methods (GCxGC FID and MS) and instruments in support of R&D projects and customers inquiries. This project is a part of exploration and production field in R&D TOTAL.

This project is divided in two issues.

On the one hand the goal is to develop geochemistry approach in order to have better molecular description of oils without sample preparation. In particular, this would facilitate crude oil reservoir studies and their biodegradation. On the other hand, the objective is to develop thermodynamic aspects in order to have better description of hydrocarbon family distribution.

To achieve this goal, the fellow will develop efficient, automated and selective analytical procedures (with emphasis on GCxGC and GCxGC-MS and related techniques) and will ensure technology survey of the analytical instrument market and identify the need for new equipment introduction.

### **Essential skills and experience**

PhD in the field of analytical chemistry, with a strong background in GCxGC development and, if possible, in petrochemical field. The candidate will be in charge of the project management, covering performing experiments, analysis and reporting of results. She/he is supposed to be highly autonomous and innovative, to take initiatives and to act as a team player; she/he should also possess ability to write, communicate and work in an interdisciplinary approach. Experiments will be carried out in the laboratories of each of the partners, so the candidate must be able to adapt and integrate quickly different environments with structured and organized skills.

Main Location: Total Exploration and Production, PAU (64000) France

Duration : 18 months

Collaboration: Laboratoire Sciences Analytiques, Bioanalytiques et Miniaturisation, UMR CNRS – ESPCI Paris Chimie Biologie Innovation

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