

Structural characterization of organometallic catalysts by high resolution TEM and analytical STEM

Post-doc position

Duration: 12 months (renewable once), tentative starting date: Sept 2013

Location: **CRISMAT** (<http://www-crismat.ensicaen.fr/>), city of Caen, **France**

In collaboration with: GPM (<http://gpm.labos.univ-rouen.fr/>), city of Rouen, France

CRISMAT laboratory and GPM groups are partners of the Labex EMC³ (Energy Materials Clean Combustion Center (<http://www.labex-emc3.fr/>)). This “laboratory of excellence” has financially supported the project COLIBRI for which a postdoctoral position will open in the fall 2013.

This post-doc position will take place in the framework of the COLIBRI project, for the structural characterization of organometallic materials designed for catalysis using TEM/STEM linked to XRD. The candidate will be in charge of the analytical characterization by EELS of the metallic element in the catalysts and will characterize the shape, size and structure of the catalysts by conventional TEM techniques (SAED, HRTEM), by STEM-HAADF images and by XRD techniques.

The TEM and XRD studies will be mostly realized in CRISMAT laboratory (Caen) equipped with 4 different TEM equipped with EDS (JEOL ARM, TECNAI 30G², JEOL 2010F and JEOL 2010) and different X-Ray diffractometers (BRUKER D8-Advance vario-1; PANalytical X’PertPro MPD and MRD). The EELS and HAADF-STEM studies will be performed in GPM laboratory in Rouen on a JEOL-ARM 200F. Both labs are partners of the EMC³ Labex and funding for the travel expenses between both cities is planned. Caen and Rouen are the 2 biggest cities of Normandie (North West of France).

REQUIREMENTS

- PhD in Materials sciences (Physics or chemistry).
- Demonstrated skills in Transmission Electron Microscopy (electron diffraction, EELS and/or HREM, and/or STEM).
- Knowledge in crystallography and X-Ray diffraction will be an asset.
- Background in catalyst is not mandatory but would be appreciated.
- Ability to communicate effectively, to work independently and cooperatively

CONTACT

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GPM : xavier.sauvage@univ-rouen.fr.

APPLICATION

Dead line: May 30th, 2013

Send a copy of your resume/CV and a statement of interest to Sylvie Malo: sylvie.malo@ensicaen.fr