PhD Position in Inorganic Chemistry, Catalysis and Theoretical Chemistry

Department of Molecular Chemistry offers a **full-time PhD Position** (m/f) for a period of **3 years**, starting in October 2020.

Description

The activation of C-H bonds under mild conditions by coordination compounds is an area of considerable interest in chemistry. We seek a motivated PhD candidate to design efficient catalysts based on earth abundant metal ions and ligand radicals for aerobic sugar oxidation. The PhD candidate will synthesize original redox active-ligands and unravel their coordination chemistry with d-transition metal ions, with special emphasize on copper. He(she) will investigate their catalytic activity with downstream application in the field of biomass valorization and propose catalytic pathways on the basis of DFT calculations.

This multidisciplinary project involves three laboratories of Grenoble that are leaders in their domains: The department of Molecular Chemistry (DCM) and the Laboratory of Chemistry and Biology of Metals (LCBM) for their expertise on redox-active ligands, complexes and theoretical chemistry, as well as the Center of Research on Plant Macromolecules (CERMAV) for its expertise on biomass valorization. The candidate will benefit from the infrastructure of these laboratories, including facilities for organic synthesis, electrochemistry, various spectroscopic tools (EPR, NMR, UV-Vis-NIR), GC, HPLC and access to computer clusters for theoretical chemistry. The three labs are distant by max. 30 min by tramway.

We expect the successful candidate to sign a doctoral thesis agreement within 7 months.

Please send an e-mail (fabrice.thomas@univ-grenoble-alpes.fr, with a copy at yohann.moreau@cea.fr) containing a **CV** (with relevant scientific and research background) and a **motivation letter**.

More information can be found at: https://dcm.univ-grenoble-alpes.fr/research/cire-team/research-areas.

Eligibility criteria

Self-motivated, capable, enterprising and hard-working student interested in multidisciplinary projects.

Selection process

In two steps:

1st step: CV+ 2 pages motivation letter

2nd step: Interview (or Skype interview) with the selected candidates during the first week of April.

Requirements

Chemistry: Master Degree or equivalent

English: good

Skills: Organic Chemistry, Coordination Chemistry, basis in Spectroscopy and Theory.