

## Post-doctoral position in Molecular Chemistry

(organic synthesis and coordination chemistry)

Available now for 12 months

TITLE : FUNCTIONAL POROUS MATERIALS BASED ON SWITCHABLE MOLECULAR UNITS<sup>#</sup>

*Keywords: Ditopic ligands; switchable complexes; Metal-Organic Frameworks ;  
micro-& nano-particles; sensors*

Host institutions: IPCM @ Sorbonne Univ.; ICMMO @ Univ. Paris-Saclay; IMAP @ ENS

Context: Our goal is to create functional porous materials that are able to interact with their surrounding under a chemical (host molecules/gas) or a physical stimulus (pressure, temperature, electric potential, light irradiation) and to subsequently emit specific responsive signals (color change, magnetic response, etc.). Such porous responsive materials can be used as sensors but other possible applications can be envisioned, for example in the field of catalysis.

Content of the work: The post-doc fellow will work with the help of a new Ph.D. student in order to synthesize organic ditopic ligand that will be used to assemble switchable polymetallic complexes to form porous coordination polymers (MOFs). The materials will be obtained as bulk or as micro/nano-particles. The porosity will be investigated in collaboration with the IMAP team in ENS. The processing of the nanomaterials will be done in collaboration with the ICMMO team in Paris-Saclay (Orsay).

Profile of the candidate: Ph.D. in chemistry with a strong background in organic synthesis and skills in coordination chemistry (synthesis under inert atmosphere; characterization of metal complexes). Experience in porous coordination polymers, switchable complexes or nano-materials will be appreciated but they are not mandatory. Applicants are expected to be autonomous, enthusiastic, hard-worker and able to supervise students.

To apply: email your CV (with at least two contacts for references) to [rodrigue.lescouezec@upmc.fr](mailto:rodrigue.lescouezec@upmc.fr)

Salary (depending on the experience): ca. 2050 euros/months net for a young doctor.

<sup>#</sup> The post-doctoral position is funded by the French network "DIM-Respire", which is devoted to the research on porous materials.