

Postdoctoral position at LCMCP (UPMC, Paris)

This position (18 months contract) is funded by the National Agency Research (ANR) and the project is conducted in collaboration with two laboratories : IS2M in Mulhouse and LMI in Lyon. The general objective is the preparation of non oxide porous ceramics by templating of preceramic polymers. Whithin this project, the field of expertise of the group in Paris is centered on the characterization of these materials (both the porous structure by X-Ray techniques and the ceramic structure by solid-state NMR). Currently, self-assembly of mesostructured materials in C, SiCN, BN and SiBCN compositions is under investigation either by ceramisation of polymers in the presence of surfactant or by modification of preceramic polymers with long alkyl chains.

Therefore, the first objective will be the characterization by XRD and SAXS of the possible organisation of micelles/pores in these systems. Moreover, shape and size evolution of the micellar aggregates in solution throughout the self-assembly process could also be investigated by SAXS or SANS.

The second objective deals with the structural characterization of the polymers to ceramic conversion by XPS or solid-state NMR.

A good knowledge of X-Ray techniques to investigate mesoporous materials and/or micellar aggregates is required for this position. An experience in NMR would be a plus but is not necessary.

Applicants are invited to send a CV and a brief statement of research along with reference letters to :

Christel Gervais
Laboratoire de Chimie de la Matière Condensée de Paris
Collège de France
Bâtiment C 4ème étage
11, Place Marcelin Berthelot
75231 Paris Cedex 05 - France
christel.gervais_stary@upmc.fr