

Interfaces, Traitements, Organisation et DYnamique des Systèmes
Université Paris7-Denis Diderot - CNRS UMR 7086
1, rue Guy de la Brosse, 75005 PARIS – tél. 00 33 (0)1 57275430– Fax : 00 33 (0)1 5727 7263
email : lang@univ-paris-diderot.fr

Philippe Lang

Chargé de recherches au CNRS
Chargé de cours à l'Université Paris 7

Self Assembled nanonetworks of electroactive molecules:Organic synthesis,realization and tuning of electronic properties

The project concerns the building of nanonetworks of electroactive molecules by methods of self-assembling in order to determine the relationship between the size of the molecular domains (1-5nm) and their properties. The electroactive molecules are typically thiols functionalized by oligothiophenes .

Three teams of CNRS and University Paris Diderot are implied :

- Pr . Christine . Courillon,
- Pr. Vincent Repain and Sylvie Rousset
- Pr. Philippe Lang

It includes organic synthesis of the electroactive molecules , realization and characterization and properties of the nanonetworks . Postdoctoral fellow will work mainly on the first point . This project forms part of a larger project called "SAMNET" which is financed by the French Agency of Research (see abstract ANR); it includes also one team of phycisits (optical properties specialists).The work has started since February with the stabilization of the networks before the grafting of functionalized molecules. Pr. C. Courillon will manage the organic synthesis of the molecules tailored in relation to the goals of the project (conductivity of the molecules, electroactivity, molecular recognition). Post doctoral researcher may also participate, according to time and its interest, to the realization of nano networks.

The candidature for the grant of the « Mairie de Paris » should be deposited before end of march 2008 with a response in june ; it is personal and the selected candidate cannot be replaced by another one . The candidate (if selected) should also arrive in Paris before december 2008. The candidate commits himself coming if its request is accepted. The work should begin in September / october and imperatively before December 2008.

The wages are of 3500 dollars monthly during for 11 months: (net or free of charges)
Travelling expenses between the country of origin and France (and return) will be paid with by the program on the basis of fixed price in committed expenses. The medical insurance of the researcher will be also dealt with by the program.The researcher will be able to profit from an administrative help and assistance in the search of housing. A housing could be proposed but the rent will remain to him.

Contact and candidature : lang@univ-paris-diderot.fr or
christine.courillon@univ-paris-diderot.fr

Documents to send for the candidature :

- *Curriculum vitae, one page*
- *a certificate of PhD*
- *a half page describing the original institution and recent publications*

