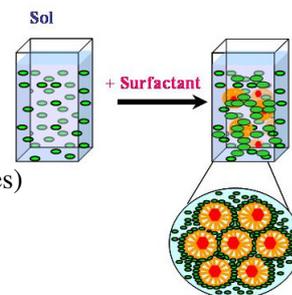


Position / scholarship: Post-Doctoral

Reference: *Molecular Simulation of sol-gel synthesis of nanoparticles*

Main research field: Materials Science and Engineering (Nanomaterials Synthesis and Silicates)

Sub research field: Computational Chemistry



Job summary:

A call is open to award one Post-Doctoral position from the project Pest-C/EQB/LA 0006/2011 - Strategic Project - LA - 6 - 2011 to 2012 of the R&D institution - ICETA – Instituto de Ciências e Tecnologias Agro-Alimentares/CEQUP, financed by national funds through the FCT / MCES (PIDDAC) and co-financed by the European Regional Development Fund (ERDF) through COMPETE - Programa Operacional Factores de Competitividade (POFC).

Work plan:

Under the project, the fellow will perform molecular dynamics simulations of sol-gel synthesis of nanoparticles considering the design of new materials for molecular imprinting, as well as the development of theoretical methods for this type of simulations. The techniques used will include: force fields of the Lennard-Jones type, or ReaxFF; Morse and harmonic potentials. Therefore, the candidate should have experience and skills suitable for the application of methods involving several types of potentials and also experience in molecular dynamics simulations.

Candidate's profile:

The fellowship is designated for holders of a Ph.D. in Material Sciences, Physics, Chemical Engineering, Chemistry, or a similar discipline, with curriculum adequate for the work to be performed.

The candidate will be chosen based on the following criteria:

- Indicators of scientific production, such as publications, conference presentations, books etc.
- Additional experience (courses, training etc.)
- Expertise in molecular dynamics (with preference given to the users of the GROMACS or LAMMPS)
- Programming skills.

Duration:

The fellowship is for 3 months, starting from December, 20th 2012 and can be extended by additional periods of 3 months.

Salary:

The salary is paid according to the indices established by FCT (1495 euros per month) and is tax free. The candidate can also apply for a voluntary social insurance, reimbursed by ICETA.

Required documents:

- Motivation letter,
- Curriculum vitae,
- Two letters of recommendation,
- Additional relevant documents.

Evaluation:

The applications will be evaluated by a panel including the chairman – Prof. Maria Natália Dias Soeiro Cordeiro and two members: Professor André Alberto de Sousa Melo and Dr. José Luis Cagide Fajín.

Deadline:

The applications should be submitted from 28th of November until 8th of December 2012.

Applications should be sent to the email ncordeir@fc.up.pt

(url: <http://www.eracareers.pt/opportunities/index.aspx?task=global&jobId=32424&lang=pt>)