

SATT South East, "Accelerator of Technology Transfer" is seeking a :

ENGINEER MECHANICS and OPTICS/ PostDoc MECHANICS and OPTICS (M/F)

For 12 months starting early 2015, eventual extension of 6 months

Context :

SATT South East, "Accelerator of Technology Transfer » transfers results from public research institutes, and concentrates in particular on technology transfer, maturation and the creation of start-up companies. The position concerns a maturation project which is based on a patented invention of Laboratoire Physique des Interactions Ioniques et Moléculaires (PIIM), UMR 7345 CNRS/ Aix-Marseille University. PIIM has developed an innovative technology to directly detect ions of giant, charged molecules.

Principal task:

The aim is the realization of the prototype of an ion detector capable of detecting weakly charged ions of very high mass ($> 10^6$ au), and possibly the experimental determination of the number of charges (Z). The device uses optical detection techniques (laser spectroscopy), and also guiding and storing of charged particles (ion trap). Its principle of operation is based on the observation of the fluorescence of a trapped ion cloud upon injection of a large molecule. The key parameters of this experiment (size and shape of the ion cloud, trapping parameters, laser cooling, ...) have to be explored. The feasibility study will be accompanied by numerical simulations in order to optimize experimental parameters.

Required profile :

Engineer (1-3 years of experience) or PhD/Doctor in Physics or Physical Chemistry. We are seeking an experimentalist, with competences to realize a complex system requiring inputs from mechanics, optics/photonics and guiding and trapping of charged particles.

Additional competences in metrology, measurements, and numerical simulations are appreciated. Experimental development, Data acquisition. Autonomy and team work, good organizational skills, communication skills

Salary :

Depending on the experience of the candidate: 1800 à 2000 € net per month+ tickets restaurant

Practical information

The position is based at laboratory PIIM, Marseille, France. Please send your inquires and applications (CV and motivation letter) by email, under the reference Détecteur infini to contact@sattse.com. We also suggest you contact the scientific coordinator, Dr. Martina Knoop at martina.knoop@univ-amu.fr.