Marie Skłodowska Curie ITN Early Stage Researcher Openings in Chemical Physics

Applications are invited for one post to work with Danielle Dowek as part of a European funded project at the Institut des Sciences Moléculaires d'Orsay (ISMO), CNRS-Université Paris-Sud part of the newly formed Paris-Saclay University (http://www.universite-paris-saclay.fr/en). The post benefits from a highly competitive and attractive salary, plus mobility and family allowances as applicable. The successful candidates will be part of the EU-funded Marie Skłodowska-Curie Innovative Training Network (ITN), "ASPIRE", and will also register for a PhD at the Paris-Saclay University.

The **ASPIRE network** comprises 9 member institutions, from both academia and industry, located in the United Kingdom, Germany, France, Denmark and Italy, together with 6 partner organisations. A total of 12 Early Stage Researchers (ESRs) will be hosted across the network and will take part in laboratory-based research, a network-wide training program, public engagement activities and collaboration with network partners through short-term placements in European industrial/academic partner laboratories. Details of all available projects can be found at: **www.ASPIRE-ITN.eu**.

The overarching research goal of the ASPIRE project is the measurement of "molecular frame" (MF) photoelectron angular distributions (PADs) from isolated molecules of varying complexity. Individual projects in ASPIRE will involve the use of charged particle detection technology as well as either state-of-the-art laser systems or synchrotron radiation. Progress in this area of research is highly technologically driven, and the input of private company partners is critical to the scientific objectives, as well as to the enhanced training environment that will be provided.

The ISMO-based project is "Probing ultrafast electronic and nuclear dynamics in molecules by spectrally and time resolved molecular frame photoelectron angular distributions", ranging from the study of valence- and inner-shell photoionization of small molecular systems to that of fragmentation of molecular excited states and the induced reaction dynamics, in time-resolved studies at the attosecond (as) and femtosecond (fs) time scales. The PhD program will take place in the context of the recently developed ATTOLab facility installed at CEA/l'Orme-les-Merisiers, which includes high performance laser systems (Ti:sapphire IR, <20fs, CEP phase stabilized, respectively 15W/1kHz and 20W/10kHz) and associated attosecond sources in the extreme-UV (XUV) based on laser-driven high harmonic generation. The experiments will make use of multiparticle coincidence spectroscopy techniques, at play in an electron/ion momentum imaging spectrometer of COLTRIMS type, to access physical observables at the most sensitive level such as time-resolved molecular-frame photoemission. Close collaborations with theoretical groups currently involved in related studies will be essential to the interpretation of the data.

The successful candidates for these posts will possess an excellent Master's degree in a relevant subject (Physics, Chemistry, Chemical Physics), excellent verbal and written communication skills, and the potential to conduct independent scientific research and perform well as part of a research team. Candidates will be required to meet the Marie Skłodowska-Curie Early Stage Researcher **eligibility criteria**: (http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-msca_en.pdf, p40-41). In particular, at the time of appointment candidates must have had less than four years full-time equivalent research experience and must not have already obtained a PhD. Additionally, they must not have resided in France for more than 12 months in the 3 years immediately before the appointment.

These full-time posts will be available from September 2016 and are each offered on a fixed-term 36 month contract.
The CNRS and University Paris-Saclay value diversity and are committed to equality of opportunity.

Applications and informal enquiries should be addressed to the supervisor Danielle Dowek – danielle.dowek@u-psud.fr, Tel 33 (0)1 69 15 76 72 (http://www.ismo.u-psud.fr/?lang=fr). Applications should include a cover/motivation letter, CV, Bachelor and/or master's degree transcript, as well as the name and contact details for 2 references.
The deadline for application is May 30th, 2016 with interviews expected to be held June/July 2016.