PhD student

Van der Waals heterostructures for vertical organic transistors

A PhD student position is open in the “molecular nanostructures & devices (NCM)” group at the Institute for Electronics Microelectronics and Nanotechnologies (IEMN), a CNRS laboratory located at the university of Lille – France.

This position is open in the context of collaborative project funded by Agence National de la Recherche and Swiss National Science Foundation. It is a project between our group and the Laboratory "Transport at Nanoscale Interfaces" lead by prof. Michel Calame at EMPA at Dübendorf (near Zurich). This group develop fundamental understanding in the optoelectronic, thermal and ionic transport properties of low-dimensional materials & devices and transfer this knowledge to applications for biochemical sensing and bioelectronics.

We are looking for a highly motivated PhD student with a master degree in condensed matter physics, materials science, nanoscience or a related discipline and a strong interest for 2D materials, nano-fabrication and interdisciplinary research. The position requires a good autonomy and initiative to work in a multidisciplinary area. Good communication skills (written and oral) in English are also mandatory.

The “molecular nanostructures & devices” group is mainly interested in the electronic properties of organic nanostructures and molecular-scale electronics devices. IEMN (www.iemn.fr) is a widely recognized nanotechnology research centres in France with world-class clean-room equipments, electrical characterization and simulation capabilities, near-field scanning probe platform. Our group is well equipped with a platform for "materials and organic devices". We have a large experience for molecular materials and nano-devices fabrication and characterization. For more details: www.nanomol.wordpress.com

The position is funded for up to 3 years, the foreseen starting date is February 1, 2019.

Applicants should send by e-mail: A detailed curriculum-vitae, letter of motivation, diplomas with transcripts and contact details of two referees to: Dominique Vuillaume, research director at CNRS, head of the “molecular nanostructures & devices” group: dominique.vuillaume@iemn.fr