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Postdoctoral Position in the Phononic and Photonic Nanostructure Group at the Catalan Institute of Nanotechnology

Bellaterra, Barcelona, Spain

Diblock copolymer graphoepitaxy based on nanoimprint lithography Ref: LAMAND_02

The position is open in the context of the new European FP7 project “Large area molecularly assembled Nanopatterns for Devices (LAMAND) which investigates the use of block copolymer self-assembly and the concept of molecular machining to realize a scaleable, manufacturable process for nanopatterning substrate surfaces at dimensions consistent with industry roadmap goals for new nanoelectronic device technologies. Emphasis will be given in the development of new technologies, based on nanoimprint lithography (NIL), and novel intelligent and functionalised resist materials. Two key responsibilities are at the base of this postdoctoral position: (i) the design and fabrication of structures to deliver to project partners using electron beam lithography, thermal and UV assisted NIL and (ii) to characterise the fabricated nanostructures using SEM and AFM imaging techniques. Experience in nanofabrication and characterization of resist materials is essential.

The Phononic and Photonic Nanostructure group, lead by Prof. Sotomayor Torres, was established in the Catalan Institute of Nanotechnology in May 2008 (www.nanocat.org). The areas of research of the group are: nanophotonics, nanofabrication and phonon engineering.

The applicant should have (a) a PhD in physics or material sciences or electrical engineering, (b) expertise in nanofabrication processes, (c) clean room experience and (d) expertise in at least one family of nanoscale characterisation techniques, eg., structural, physical, optical, thermal. Other areas of expertise which are welcome include: nanoimprint lithography, step and flash imprint lithography, polymer functionalisation and nanometrology approaches. Excellent communications skills and readiness to travel to project meetings are crucial.

The position is available immediately and the duration is for 2 years. Salary level will depend on the expertise of the applicant.

Applications, consisting of: i) Curriculum Vitae, ii) a brief motivation letter, iii) the name and contact details of three referees, mentioning the position reference nr in the subject line, should be sent to:

Ms Rosa Juan
Email: icn@uab.cat

The closing date for applications is 31st December 2010.