

## Open Postdoctoral Researcher Position on Hybrid Nano-plasmonics

The *Laboratory of Nanotechnology, Instrumentation and Optics (LNIO, Inio.utt.fr)* at the University of Technology of Troyes (UTT), France, invites applications for a 2-year postdoctoral position. Highly motivated candidates with an earned Ph.D. in (organic) nano-optics, nanophysics and other related fields are encouraged to apply. Research experience in hybrid nanoplasmonics is a plus, but not required. We provide all necessary training.

The successful candidate will carry out research on hybrid plasmonics that relies on radiative and non radiative coupling between Metal Nano Particles (MNP) and other materials. It is at the origin of recent development of active plasmonics and "Spasers" (Surface Plasmons Amplification by Stimulated Emission of Radiation).

The project aims at developing an original approach for the realization of new light-emitting hybrid metal/polymer nano-systems (LEHPS) that are fabricated by near-field plasmon-based-photopolymerization. This process is triggered by plasmon-enhanced fields produced by the MNP itself. The result is a MNP exhibiting a polymeric coating reproducing the excited optical near-field intensity distribution. The polymer matrix can host active light nanoemitters such as semiconductor QDs and organic dyes. The postdoctoral fellow will work on the development of such hybrid nanosources on both substrates (for integrated photonics) and probes (for advanced scanning near-field optical microscopy).

Applicants should submit their 1) CV with a publication list, 2) Brief description of past research experience and accomplishments (limited to 2 pages), and 3) contact information of at least three references to *Professor Renaud Bachelot, LNIO-ICD, CNRS UMR 6281, University of Technology of Troyes (UTT) 12 rue Marie Curie CS 42060 10004 TROYES CEDEX, France* or [renaud.bachelot@utt.fr](mailto:renaud.bachelot@utt.fr)

Review of the applications will begin in April 2014 and the position will remain open until filled.