

Scientific Report for the short visit grant Ref. no. 4595 (PLASMON-BIONANOSENSE, ESF)

Plasmonics for biosensing

Visitor: Dr. Aliaksandra Rakovich, School of Physics, Trinity College Dublin, Ireland

Host: Prof. Stefan Maier, Department of Physics, Imperial College London, United Kingdom

Dates of visit: 31/11/2011 - 01/12/2011 (2 days)

Purpose of the visit

The purpose of this visit was the establishment of future collaborations between the Semiconductor Photonics Group (TCD, Ireland) and Experimental Solid State Group (ICL, UK).

Description of the work carried out

- Tour of laboratory facilities by Dr Yannick Sonnefraud included description of available equipment and discussion of related research topics.
- Gave a seminar entitled “Interactions at Nano-/bio- interfaces” (approx. 40 min), which was followed by discussions with several postdoctoral associates and PhD students.
- Meeting with Prof. Stefan Maier involved discussion of current and possible future research directions and the establishment of future collaborations focusing on applications of active plasmonic structures to develop all-optical biosensors.

Description of the main results obtained

- Expertise exchange via lab tour, presentation and various discussions
- Plans for future collaborative projects on plasmonics for biosensing, that would combine the expertise of Experimental Solid State Group (ICL, UK) on nanoplasmonics and Semiconductor Photonics Group (TCD, Ireland) on nano-bio interactions
- Writing of project proposal drafts was discussed

Future collaboration with host institution

See main results

Projected publications / articles resulting or to result from the grant

None, since no experimental work was undertaken. However, future collaborations should result in joint publications.