

ESF Network – PLASMON-BIONANOSENSE

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Expense claim for short visit grant #4214

Dear Sir, dear Madame,

Please find attached below the scientific report for the short visit to Prof. Homola's group. Each of us will claim for travel expenses and forward you their own receipts independently. However, one expense stands for the whole group: it has been necessary to use a taxi to travel from central London to Gatwick airport. The receipt will be found in the documents sent by Yannick Sonnefraud. The cost of the ride (115£) will be spread between us all.

The present claim, for Yannick Sonnefraud, includes the following items:

Description	Unit price	Currency	Number	total (€)
Single travel, public transport Prague	26	CZK	5	5.35
Day ticket, public transport Prague	100	CZK	2	8.23
Taxi central London -> Gatwick airport	115	GBP	0.25	32.30
			Total	45.88

Exchange rate CZK/Euro	24.3
Exchange rate GBP/Euro	0.89

All tickets/receipts are following via mail.

Scientific report – short visit Stefan Maier's group in Jiri Homola's group

In addition to the presence of Prof. Stefan Maier the 30th May, the short visit took place between the 30th May and the 2nd June 2011, involving Toby Basey-Fisher, Yan Francescato, Binghao Ng, and Yannick Sonnefraud – this document reporting the activities undertaken is the same for the four participants. One report will be submitted by each participant.

This visit aimed to kick start collaborations between the groups of Prof. Homola and Maier, to bring together the experience in biosensing of the former with the expertise in plasmonics of the latter.

The visit opened with Prof. Maier giving a seminar to the Institute of Photonics and Electronics, highlighting the various research interests of his group at Imperial College London. After this, the Imperial group visited the facilities of the Prague group. Members of the department of optical sensors and members of Imperial gave presentations of their activities. Among the subjects discussed were lattice resonances for sensing, Fano resonances in the context of SEIRA (Surface Enhanced InfraRed Absorption), sensing in the THz range, SPR sensing with planar gold surfaces or gratings, sensing using plasmonic nanostructures, assays...

Time was then devoted to discussions, and the identification of potential points of collaboration. Collaborations can be foreseen in which the groups would work together to achieve novel classes of LSPR sensors using unusual cavity modes. The Imperial group would provide expertise in design/fabrication/characterisation of the structures, and the Prague group would provide the expertise in chemical binding/assays with the structures.