For immediate release

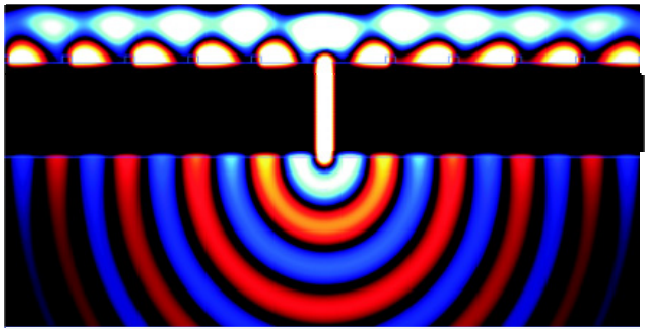
CSEM SA leads a European consortium in revolutionizing infrared chemical sensing

Neuchâtel, 30th June 2010 – The European Union has awarded a grant of 2.8 million Euro to the project PLAISIR (Plasmonic Innovative Sensing in the Infrared) which started 1st January 2010 and will run for three years. The goals of the project are to create ultra-sensitive chemical sensors and smarter, cheaper infrared (IR) photodetectors; these will have a significant impact on the marketplace.

IR technology is starting to flourish in areas from health and the environment through to security and chemical process control. In particular, the mid-IR is also the *key* region for finger-printing molecules and proteins, so any advances in mid-IR detectors are of fundamental importance.

To identify a specific molecule, spectroscopic chemical sensing (SCS) is used. SCS systems have yet to benefit from recent developments in optical telecommunications and nanotechnology. The goal of the PLAISIR project is to use these developments to enhance SCS systems to help in the detection of CO_2, a critical factor in global warming, and glucose, a key diagnostic marker for diabetes in an aging population. In addition, the same advances in technology will help us to develop better IR cameras.

The key to improving both mid-IR detectors and SCS is nanotechnology, which has the ability to confine and control light at both wavelength and sub-wavelength scales through a phenomenon known as plasmonics. While European know-how in plasmonics is amongst the best in the world, it is only now attracting the attention of the SMEs who are dynamic in the mid-IR market. CSEM will be playing a key role in coordinating and facilitating technology transfer between the SMEs and the academic partners.



Calculation of light going through a very small slit in a nano-structured metal film

Additional information

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About PLAISIR EU Consortium

This project includes **3 SMEs** (Xenics NV, Belgium, Photon Design Ltd, UK and Vigo System SA, Poland), **3 leading actors** in fundamental and applied plasmon research (Queen's University Belfast, UK, University of Zaragoza, Spain, Technical University of Dresden, Germany) and is lead by CSEM SA.

www.plaisir-project.eu

About CSEM

CSEM – an innovation center

CSEM, Centre Suisse d'Electronique et de Microtechnique SA (Swiss Center for Electronics and Microtechnology), founded in 1984, is a private research and development center specializing in microtechnology, nanotechnology, microelectronics, system engineering and communications technologies. It offers its customers and industry partners tailor-made innovative solutions based on its knowledge of the market and technological expertise derived from applied research. Having founded several start-ups, it contributes to developing Switzerland as an industrial location. To date, a total of 29 such enterprises, with more than 500 employees, have been launched by CSEM.

Approximately 400 highly qualified and specialized employees from various scientific and technical disciplines work for CSEM in Neuchâtel, Zurich, Basel, Alpnach and Landquart. They represent more than 30 nationalities and constitute the basis of the company's creativity, dynamism and innovation potential.

Further information is available at www.csem.ch.

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