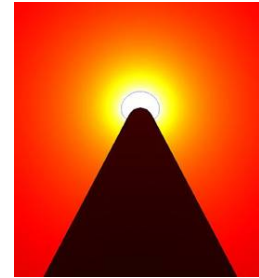


Queen's University and Imperial College share £6 million EPSRC grant for research into nanoplasmonic devices that may revolutionise computers, data storage and sensing

The Engineering and Physical Sciences Research Council (EPSRC) has awarded a team of scientists from Queen's University Belfast and Imperial College London a £6 million grant to establish a world-leading research programme on nanoplasmonic devices. The project is also supported by INTEL, Seagate, Ericsson, Oxonica, IMEC and the National Physics Laboratory.



Modern society increasingly relies on an ever faster flow of information and its processing. Current electronic devices are under pressure to transmit and manipulate signals at the required speeds, and the current growth rate in computing power will not be sustained for much longer due to fundamental limits inherent in electric signal distribution. The solution is to use light to process the information in nanoscale devices that can be integrated into nanophotonic chips to achieve the same functionality as electronic chips. This can be realized in metallic nanostructures. The new research programme will address the challenges to generate, manipulate and direct light signals on the nanoscale. This may pave the way to on- and intra- chip optical interconnects, novel datacom components, integratable bio- and chemo-sensors as well as nanoscale light sources for optical data storage and imaging.

The project is led by Professor Anatoly Zayats of the Centre for Nanostructured Media, Queen's University. Professor Stefan Maier leads the Imperial College team. The multidisciplinary research consortium includes Dr Robert Pollard and Dr Joerg Schilling from the Centre for Nanostructured Media as well as Professor Myunshik Kim of the Centre for Theoretical Atomic, Molecular and Optical Physics at Queen's, who will join force with Professor Donal Bradley and Dr Paul Stavrinou of the Department of Physics and Professor Neil Alford of the Department of Materials at Imperial.

More information on the project can be found at www.activeplasmonics.org

Contact: Professor Anatoly V Zayats (a.zayats@qub.ac.uk)
