
The 208th iCeMS SEMINAR

Tue 26 Jul 2016 15:00-18:00

2nd Floor Seminar Room
iCeMS Main Building, Kyoto University

<Part 1: 15:00-16:30>

Intermolecular interactions between molecules on the surface of immune cells

Dr Peter Jönsson

Department of Chemistry, Lund University, Sweden

Dr Jönsson will in this seminar review some of his recent work on studying intermolecular interactions between molecules on the surface of immune cells. This includes both 2D affinity measurements between proteins in cell-cell contacts, as well as measurements of the lateral chemical potential of these molecules, obtained using a technique called hydrodynamic trapping.

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<Part 2: 16:30-18:00>

Plasmonic remote-excitation of Raman spectroscopy for single cell interrogation

Prof Hiroshi Uji-i

Research Institute for Electronic Science, Hokkaido University
Department of Chemistry, Katholieke Universiteit Leuven

In this talk, a noble Raman/fluorescence nanoscopic techniques using sub-diffraction limit SPPs waveguiding will be introduced. Specifically, we demonstrate that SPPs launched along a silver nanowire (50 ~ 100 nm diameter) can remotely excite SERS and SEF in the vicinity of the nanowire surface due to the SPPs wave-guiding effect. The ability to transfer SERS/SEF excitation over several microns, through sub-diffraction limited structures, will be discussed with respect to potential application toward super-resolution endoscopy and tip-enhanced Raman microscopy.

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