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Pacificchem 2010

Dec. 15th – Dec. 20th, 2010 – Honolulu - Hawaii



Announcing an upcoming symposium at Pacificchem 2010 in the Topic Area of *Physical, Theoretical & Computational*.

"Plasmonics and Nanophotonics for Chemical Sensing, Imaging and Spectroscopy" (#259)

Organized by: Alexandre Brolo

Surface plasmons (SPs) are concerted oscillations of free electrons in metal-dielectric interfaces. Ultra-thin metal films and nanostructured surfaces of noble metals support SP excitation in the visible range. SP fields are confined to the metal surface in regions much smaller than the wavelength of the free photon. The interesting properties of these surface waves are being explored in several applications, leading to a new research field called plasmonics. Nanophotonics is also concerned with the fabrication, characterization, and application of nanostructures that can localize light in sub-wavelength regions. The strong field localization enabled by plasmonics and nanophotonics can be explored for chemical sensing, enhanced spectroscopy and sub-wavelength imaging. This symposium will cover the latest advances in the development of applications of plasmonic and photonic nanostructures in chemistry, biochemistry and biophysics. These innovations include new synthetic methodologies for the generation of nanoparticles, the fabrication of advanced structures by nanolithography, the applications of nanoparticles in biomedical imaging, the development of a new generation of plasmonic biosensors based on SP wave-guides and diffractive optics elements, sub-wavelength imaging using optical antennas and near field optics, and the application of plasmonic structures for enhanced spectroscopy.

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