



IBS Center for Molecular Spectroscopy and Dynamics

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## COLLOQUIUM

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- SPEAKER

Prof. Wei-Chuan Shih (University of Houston)

- TITLE

Nanoplasmonic Chem / Bio Sensing

- ABSTRACT

Light-matter interaction can provide rich compositional information from various types of samples in a non-invasive fashion. Our laboratory has developed a broad range of opto-analytical spectroscopy, imaging, and sensing (OASIS) technologies with core innovations in nanomaterial, device, and instrumentation. In this talk, I will report our work in light-based sensing and imaging using various plasmon-enhanced light-matter interactions as contrast mechanisms. In particular, I will discuss our efforts in engineered nanostructures with high-density plasmonic hot spots and their use in Chem/Bio sensing – in some cases at the single molecular level. I will discuss their potential uses in biomedical and environmental applications, in particular, the potential translation into point-of-care, low-cost, distributed, and wearable devices. I will close by sharing our recent exciting journey with DotLens Smartphone and potential impact in formal and informal K-12 STEM education, citizen science, as well as other practical and research applications.

- DATE AND VENUE

October 21, 2016 (Friday, 4:00–5:00 p.m.)

고려대 아산이학관 433호