

Plasmonically Engineered Metal Nanogap Structures for Photonics and Biomedical Applications

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Data: 28 June 2017, Wednesday

Time: 10:45 a.m-12:00 p.m

Venue: Room ST602 (4D Theatre), POLYU



Abstract:

Designing, synthesizing and controlling plasmonic nanostructures with high precision and high yield are of paramount importance in optics, nanoscience, chemistry, materials science, energy and biotechnology. In particular, synthesizing and utilizing plasmonic nanostructures with ultrastrong, controllable and quantifiable signals is key to enhanced spectroscopies, nanoantenna, plasmon-driven chemical reactions, and chemical and biological detection and biological imaging applications. This talk will focus on two aspects: (1) elucidate newly emerging molecularly tunable and highly programmable plasmonically coupled and enhanced nanogap structures with strong, controllable and quantifiable signals including plasmonic nanogap-enhanced Raman scattering and photoluminescence. (2) present their potentials in addressing some of important challenges in science, and discuss how these new materials can lead us to new breakthroughs in biotechnologies for biosensing, bioimaging and therapeutic applications.

Biography:

Professor Jwa-Min Nam received his Ph.D. in chemistry from Northwestern University and worked as a postdoctoral fellow at the University of California, Berkeley. He is currently a Full Professor in Chemistry at Seoul National University and the Director of the Center for Innovative Nanobiomedical Technology, Bio-MAX/N-Bio at Seoul National University. He received the Chinese Academy of Sciences Fellowship for International Scientists, the Presidential Young Scientist Award from the President of the Republic of Korea, Frontier Scientists Fellowship from the Korean Academy of Science and Technology, Young Inorganic Chemist Award from the Korean Chemical Society, and the Victor K. LaMer award from the American Chemical Society. He was elected as a member of the Young Korean Academy of Science and Technology and the Global Young Academy. He serves as an executive advisory board member for Small Methods (Wiley-VCH) and an editorial board member for ChemNanoMat (Wiley-VCH). He has given >215 talks as plenary, keynote and invited speakers at conferences, symposia, universities, companies and research institutes. His interests include plasmonic nanostructures, plasmonically engineered nanopropes for biosensors, bioimaging and therapeutics, nanoparticle-tethered lipid bilayers, and cell-nanostructure interfaces.

ALL ARE WELCOME!

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