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[14a-C302-1~10]4.1 Plasmonics

Prabhat Verma(Osaka Univ.), Wakana Kubo(TUAT)

Wed. Sep 14, 2016 9:00 AM - 12:15 PM C302 (Nikko Houou)

△ : Presentation by Applicant for JSAP Young Scientists Presentation Award

▲ : English Presentation

▼ : Both of Above

No Mark : None of Above

9:00 AM - 9:30 AM

▲[14a-C302-1][JSAP-OSA Joint Symposia 2016 Invited Talk]

Plasmonic Nanogap-Enhanced Raman Scattering and Biomedical Applications

OJwa-Min Nam¹ (1.Seoul National Univ.)

Keywords:Plasmonic Nanogap Particle, Plasmonics, Surface-Enhanced Raman Scattering

Designing, synthesizing and controlling plasmonic nanostructures with high precision and high yield are of paramount importance in optics, nanoscience, chemistry, materials science, energy and nanobiotechnology. In particular, synthesizing and utilizing plasmonic nanostructures with ultrastrong, controllable and quantifiable signals is key to nanoantenna, plasmonics-driven chemical reaction, various chemical and biological detection and biological imaging applications. Here, I will introduce newly emerging DNA/polymer-engineered plasmonically coupled and enhanced nanoprobes with strong, controllable and quantifiable signals including nanogap-enhanced Raman scattering, show their potentials in addressing some of important challenges in science, and discuss how these new materials can lead us to new breakthroughs in various technologies including biomedical technologies.