Physics
AT QUEENS COLLEGE

Colloquium Notice

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Plasmonic Crystals - Nanostructured Metals beyond Electrical Conductors

Surface plasmons have been investigated intensively because of their unique properties for optical confinement and light manipulation on subwavelength scales. Research on both fundamentals and applications of surface plasmons are advanced by rapid development of nanoscale synthesis and fabrication techniques. By defining nanostructures in metals, these traditional electrical conductors are functionalized with plasmonic properties, which have led to exotic phenomena such as negative light refraction, surface enhanced Raman scattering, and subwavelength focusing. In this talk, I will discuss how surface plasmons in periodically patterned metals can be identified, characterized, and tuned using near-field and far-field optical methods. These periodic nanostructures, also known as plasmonic crystals, provide versatile platforms for discovering and screening new plasmonic materials. Rationally designed plasmonic crystals have also shown promises for applications from biochemical sensing to solar energy harvesting.

Monday
March 4, 2013
Starts at 12:15 PM
Coffee at 12:00 PM
Physics Conference Room, SB B326