

# Center for Quantum Science and Engineering (CQSE)

Weekly Seminar  
Mar. 18, 2011 (Friday)

TIME Mar. 18, 14:30 ~ 15:30  
TITLE Plasmonic metallic nanostructures by direct nanoimprinting of gold nanoparticles  
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## Abstract

We demonstrated the plasmonic metallic nanostructure fabricated by direct nanoimprinting of gold nanoparticles (AuNPs). This approach combines the patterning and lift-off processes into a simple one-step process without the need for expensive patterning lithographies and the stringent requirement of the lift-off process for nanostructures. The dynamic optical responses of the imprinted gold pillars from AuNPs to the bulk material during the annealing process were investigated. The localized surface plasmon resonance (LSPR) properties of AuNPs or gold pillar arrays can be controlled and tuned during the annealing process.

