Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Optical Properties of Metal-Dielectric-Metal (MDM) Nanoantennas BHUWAN JOSHI, Kent State University, XUEJIN WEN, Ohio State University, KAI SUN, University Of Michigan, WU LU, Ohio State University, QI-HUO WEI, Kent State University — We present a new design of plasmonic nanoantennas and study their optical properties. The nanoantennas consist of two metal blocks (cuboids or cylinders) stacked vertically with a dielectric spacer. The results from numerical simulations show that such plasmonic nanoantennas exhibit various cavity resonance modes which produce sharp peaks in the near field spectra and leave dips in the far field scattering spectra. Nanofabrication and characterization of these nanoantennas will also be presented in the talk.

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Date submitted: 18 Nov 2010 Electronic form version 1.4