

Abstract Submitted
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Evidence for Surface Plasmon Standing Waves in Ag Nanostructure Arrays¹ DOMINIC BRITTI, JULIA HEETDERKS, University of Maryland, HUNG-CHIH KAN, National Chung-Cheng University, Taiwan ROC, RAY PHANEUF, University of Maryland — We report on simulations of the near field for arrays of Ag nanowires and nanocolumns excited by plane waves of light at normal incidence. The results show a systematic variation of the local electric field with spatial period and incident polarization, which is confirmed experimentally [1]. The distribution of the local field and the dependence of local field intensity versus spatial period and polarization indicate that the excitations in the Ag nanostructures are surface plasmon standing waves.

[1] S.H.Guo, J.J. Heetderks, H.-C. Kan and R.J. Phaneuf, Optics Express 16, 18417 (2008).

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