

1056-35-1579

Santiago P. Fortes* (santiago@math.lsu.edu), 3450 Nicholson Drive, Apt. 2020, Baton Rouge, LA 70802, and **Robert P. Lipton** and **Stephen P. Shipman**. *Sub-Wavelength Plasmonic Crystals: Dispersion Relations and Effective Properties*.

We obtain a convergent power series representation for the first branch of the dispersion relation for sub-wavelength plasmonic crystals consisting of plasmonic rods with frequency-dependent dielectric permittivity embedded in a host medium with unit permittivity. (Received September 22, 2009)