MULTIPLASMON RESONANCES SUPPORTING THE NEGATIVE REFRACTIVE INDEX IN "SINGLE-ATOM" METAMATERIALS

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TÓM TẮT:

The search for a simple meta-system with negative refractive index has attracted a lot of attention recently. In this paper, we study a negative refractive transmission operating at 300 GHz by using "single-atom" metamaterials which were initially designed for achieving negative permeability. The nature of the negativity is discussed extensively by the effective medium analysis and confirmed by the dispersion diagram.