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Title

Prism-Like Behavior at Terahertz Frequencies of a 2D Metallic Grid with a Varying Periodicity

Source

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Abstract

The terahertz (THz) spectral range is located in between the infrared and the microwaves. In other words, it is the region where the contributions of both conduction and displacement currents to the electromagnetic response of matter to a THz excitation are comparable. That is why optical components for manipulating THz beams could be either refractive elements like spherical or aspherical lenses, or 2D and even 3D metallic structures, Here we study a 2D structure with a spatially varying periodicity which behaves as a 2D-prism for some range of frequencies. In this letter, we report preliminary results of the experimental evidence of sub-wavelength dispersive refraction. (7 References).