474.
Author
Sun JB. Liu LY. Dong GY. Zhou J.,
Title
An extremely broad band metamaterial absorber based on destructive interference,
Source
OPTICS EXPRESS, vol.19, no.22, OCT 24 2011, 21155-21162.
Abstract
We propose a design of an extremely broad frequency band absorber based on destructive interference mechanism. Metamaterial of multilayered SRRs structure is used to realize a desirable refractive index dispersion spectrum, which can induce a successive anti-reflection in a wide frequency range. The corresponding high absorptance originates from the destructive interference of two reflection waves from the two surfaces of the metamaterial. A strongly absorptive bandwidth of almost 60GHz is demonstrated in the range of 0 to 70GHz numerically. This design provides an effective and feasible way to construct broad band absorber in stealth technology, as well as the enhanced transmittance devices.