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标题: Extraordinary resonance transmission of two-dimensional terahertz metallic photonic crystals without defect
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摘要: In this paper, we have demonstrated a kind of extraordinary transmission in the photonic first pass band of two-dimensional terahertz metallic photonic crystals: in the regime of low-middle metal filling radio, resonances among the metallic cylinders lead to sharp and high resonance peaks of Lorentz type, layer dependency of the peak numbers. The effect of positional disorders of metallic cylinders has been investigated as well. Based on a simple model proposed in this paper, we can intuitively understand the extraordinary transmission and roughly estimate resonance frequencies. Our results agree qualitatively with the experimental data reported in Appl. Phys. Lett. 65, 645. 
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