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Title:Study on the properties of dual-band terahertz metamaterials embedded in polyimide films

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Abstract:To embed two different metamaterials in polyimide films, the films possessed two deferent resonances frequency responses in terahertz frequency. The influence of the polyimide thickness on resonance behaviors was investigated. Results show that when the thickness of the polyimide film is 30 gm, the two types of metamaterial structure embedded in the film interact and lead to the changes of resonance magnitudes and frequencies, while embedded in the film with 100 gm thickness, properties of two resonance points are independent of each other, respectively, there is no interaction.

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