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Abstract:In this letter we present a switchable THz notch filter. The filter contains a liquid crystal layer that acts as a half wave retarder in one state and as an isotropic layer in the other state. The device combines three unique properties: it can be switched electrically, it provides a filter depth of 35 dB at 350 GHz and it can be tuned over wide frequency range from 350 GHz to 700 GHz. © Springer Science+Business Media, LLC 2012.
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