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摘要: Thin films of HgTe have been systematically investigated using continuous frequency terahertz spectroscopy in external magnetic fields. In these experiments, full control of the polarization state can be achieved including Faraday rotation and ellipticity. We present the details of the experimental procedure and of the data analysis. Besides the cyclotron resonance, an additional mode is observed in the zero-gap sample. The results at high temperatures can be well understood within the classical Drude model of the dynamic conductivity. Possible dimensionality of the charge dynamics at low temperatures is discussed.
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