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标题: Low energy electrodynamics of the Kondo-lattice antiferromagnet CeCu2Ge2
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摘要: We present time-domain terahertz spectroscopy data of a thin film of the Kondo-lattice antiferromagnet CeCu2Ge2. The low-frequency complex conductivity has been obtained down to temperatures below the onset of magnetic order. At low temperatures a narrow Drude-like peak forms, which is similar to ones found in other heavy-fermion compounds that do not exhibit magnetic order. Using this data in conjunction with dc resistivity measurements, we obtain the frequency dependence of the scattering rate and effective mass through an extended Drude model analysis. The zero-frequency limit of this analysis yields evidence for large mass renormalization even in the magnetic state, the scale of which agrees closely with that obtained from thermodynamic measurements.
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