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标题: Terahertz time-domain spectroscopy of anisotropic complex conductivity tensors in silicon nanowire films
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摘要: The effective complex conductivity tensor of a highly anisotropic, vertically aligned silicon nanowire film was measured by terahertz time-domain spectroscopy. The silicon nanowires were fabricated on a p-type silicon substrate by metal-assisted chemical etching, which resulted in a film with uniaxially anisotropic optical properties. The measured terahertz transverse and longitudinal conductivity values were in excellent agreement with the results of calculations based on the Drude-Smith and Lorentz models, respectively. (C) 2012 American Institute of Physics. [http://dx.doi.org/10.1063/1.4721490]
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