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摘要: We present high precision measurements of polarization rotations in the frequency range from 0.1 to 2.5 THz using a polarization modulation technique. A motorized stage rotates a polarizer at similar to 80 Hz, and the resulting modulation of the polarization is measured by a lock-in technique. We achieve an accuracy of 0.05 degrees (900 mu rad) and a precision of 0.02 degrees (350 mu rad) for small rotation angles. A detailed mathematical description of the technique is presented, showing its ability to fully characterize elliptical polarizations from 0.1 to 2.5 THz. (C) 2012 Optical Society of America
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