

标题: Terahertz detection using spectral domain interferometry

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摘要: In this work, we present a novel method based on spectral domain interferometry for the electro-optic (EO) sampling of terahertz (THz) electric fields. This technique allows the use of thick crystals without the drawback of the over-rotation that may occur with intense THz sources, allowing longer temporal scans and thus, better spectral resolution. Using this technique, a phase difference of approximately 8898π can be measured, which is 18,000 times larger than the phase difference that could be measured using EO sampling. (C) 2012 Optical Society of America

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