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Title

Retrieval of terahertz spectra through ultrafast electro-optic modulation

Source

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Abstract

Ultrafast electro-optic modulation on a narrow band optical pulse is utilized to spectrally resolve coherent terahertz radiation. This technique requires no moving parts and has the potential to measure THz spectra with a resolution better than 10 GHz, limited by the bandwidth of the optical probe field or optical spectrometer. The dynamic range of this device is limited by the detection capabilities of an optical spectrometer, providing a highly efficient method of spectral reconstruction of both narrow band and broadband terahertz radiation. (13 References).