310. Title: Terahertz quasi-time-domain spectroscopy imaging

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Abstract:We demonstrate terahertz (THz) imaging with a quasi-time-domain spectrometer. This type of THz system is inexpensive, compact, and relatively easy to set up. Beating the simultaneously emitted equidistant modes of a compact diode laser allows for analysis of samples at multiple frequencies with a single measurement. Thus, this technique merges the potential of terahertz time-domain spectrometers with the simplicity of continuous wave lasers. Multiple imaging applications and stability issues are discussed.