

Abstracts

T-ray imaging: new possibilities in the far infrared

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Since the initial demonstrations of T-ray imaging in 1995, there has been considerable progress in the development of this field. Many possible applications have been explored, and a commercial terahertz time-domain spectrometer is now operating in a manufacturing environment. In addition, several new imaging techniques which exploit the unique properties of the THz system have been developed. We describe one technique, which permits time-of-flight imaging with depth resolution well below the Rayleigh limit. We demonstrate the capability to resolve two reflecting surfaces separated by only a few percent of the coherence length of the THz radiation.

 [Return to main document.](#)