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Title:Comparison of spectra of materials measured by time domain and fourier transform spectroscopy in terahertz range

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Abstract:Absorption spectra in THz range of commonly used explosive materials - Hexogen, Penthrite, Octogen and Sugar are presented. Explosives were prepared as pellets, where Teflon was applied as a matrix material. The measurements were carried out by means of Time Domain Spectroscopy and compared to spectra obtained by Fourier Transform Spectroscopy. Good conformity is observed. We also present spectra of cotton and paper as well as RDX hidden under cotton.

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