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Title:Study on the transmission characteristic of terahertz pulse through packing materials

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Abstract:Terrorism has become an international problem in recent years as evidenced by toxins mailed through the post, liquid explosives planted in airplanes, and so on. Clearly, the security screening of packing materials is highly required. We conduct nondestructive and contactless detection of some packing materials used in daily life by terahertz time-domain spectroscopy. The THz time-domain spectra of five typical kinds of packing materials are measured in the frequency range of 0.3-2.5 THz. THz absorption spectra and transmittance are also analyzed.

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