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Title:Analysis on the characteristics of animal tissues based on the Terahertz time domain spectroscopy system
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Abstract:THz spectral properties of several of fresh animal tissues are investigated based on the time domain system. Terahertz pulse transmission spectra of different animal tissues slices with different thickness are obtained, and the refractive index, the absorption coefficient, and the extinction coefficient of these tissues are analyzed and discussed. According to the double Debye model, tissue parameters are simulated and calculated. The theoretical and experimental results are matched. These studies are helpful to make further research of the THz spectral performances of human tissues and cancers. © 2012 Chinese Optics Letter.
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