283.
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摘要: We demonstrated attenuated total reflection (ATR) spectroscopy with an integrated prism system that included a terahertz emitter, a terahertz receiver, and an ATR prism. The ATR prism had two internal off-axis parabolic mirrors for, respectively, collimating and focusing the terahertz waves. The Fresnel loss at each interface was reduced, and the total propagation efficiency was 3.36 times larger than when using a non-integrated prism system. The refractive index of water samples calculated from the experimental data showed good agreement with values reported in the literature. (C) 2012 American Institute of Physics. [http://dx.doi.org/10.1063/1.3692743]
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