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作者: Nishida, A (Nishida, A.); Kashiwazaki, H (Kashiwazaki, H.); Yoshida, S (Yoshida, S.); Higashiguchi, T (Higashiguchi, T.); Yugami, N (Yugami, N.); Kodama, R (Kodama, R.)
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摘要: A tapered parallel plate waveguide was developed for frequency up-conversion experiments in the terahertz (THz) region by flash ionization. The element at the plasma-source-wave interaction area determines the conversion efficiency. It causes THz pulses to converge to a narrow plate separation, which is smaller than the wavelength. The waveguide exhibited good performance for transmitting p-polarized THz pulses in a 50 mu m separation, making it suitable for flash ionization experiments. (C) 2012 American Institute of Physics. [http://dx.doi.org/10.1063/1.3697700]
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地址: [Nishida, A.; Kodama, R.] Osaka Univ, Grad Sch Engn, Suita, Osaka 5650871, Japan
[Kashiwazaki, H.; Yoshida, S.; Higashiguchi, T.; Yugami, N.; Kodama, R.] Utsunomiya Univ, Dept Adv Interdisciplinary Sci, Utsunomiya, Tochigi 3218585, Japan
[Kashiwazaki, H.; Yoshida, S.; Higashiguchi, T.; Yugami, N.; Kodama, R.] Utsunomiya Univ, CORE, Utsunomiya, Tochigi 3218585, Japan
[Higashiguchi, T.; Yugami, N.] CREST, Japan Sci & Technol Agcy, Kawaguchi, Saitama 3320012, Japan
通讯作者地址: Nishida, A (通讯作者),Osaka Univ, Grad Sch Engn, 2-1 Yamada Oka, Suita, Osaka 5650871, Japan
电子邮件地址: nishida@ef.eie.eng.osaka-u.ac.jp; higashi@cc.utsunomiya-u.ac.jp; yugami@cc.utsunomiya-u.ac.jp
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