

Abstract Submitted
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Terahertz Radiation from Laser Created Plasma by Applying a Transverse Static Electric Field¹ NOBORU YUGAMI, Department of Advanced Interdisciplinary Sciences, Center for Optical Research Education, and Optical Technology Innovation Center, Utsunomiya Univ, TAKUYA FUKUDA, Department of Innovation Systems Engineering, Advanced Interdisciplinary Sciences Course, Utsunomiya Univ, ZHAN JIN, RYOSUKE KODAMA, Photon Pioneers Center, Osaka Univ, HIDEO NAGATOMO, YASUHIKO SENTOKU, Institute of Laser Engineering, Osaka Univ, HITOSHI SAKAGAMI, Fundamental Physics Simulation Research Division, National Institute for Fusion Science — Terahertz (THz) radiation, which is emitted in narrow cone in the forward direction from femtosecond laser pulse created plasma has been observed by N.Yugami *et al.* [1]. Additionally, T. Loffler *et al.* have observed that a significantly increased THz emission intensity in the forward direction when the transverse static electric field is applied to the plasma [2]. We propose the theoretical model of the THz radiation from laser created plasma by applying the transverse static electric field and conducted both experiments and 2D-PIC simulation to compared with our theory.

[1] N. Yugami *et al.*, Jpn. J. Appl. Phys. **45**, L1051 (2006). [2] T. Loffler *et al.*, Appl. Phys. Lett. **77**, 453 (2000).

¹JSPS Core-to-Core Program on International Alliance for Material Science in Extreme States with High Power Laser and XFEL

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