342.
标题: Terahertz emission dependence on the intensity ratio of 400-800 nm in generating terahertz waves from two-color laser-induced gas plasma
作者: Dai, HM (Dai, Houmei); Liu, JS (Liu, Jinsong)
来源出版物: PHOTONICS AND NANOSTRUCTURES-FUNDAMENTALS AND APPLICATIONS 卷: 10 期: 2 页: 191-195 DOI: 10.1016/j.photonics.2011.12.005 出版年: APR 2012
在 Web of Science 中的被引频次: 0
被引频次合计: 0
引用的参考文献数: 23
摘要: A transient photocurrent model is used to explain terahertz emission from gas plasma irradiated by a laser pulse and the second harmonic. By introducing the second harmonic, 400 nm, the corresponding terahertz emission is greatly enhanced. The exact dependence of terahertz emission on the intensity ratio of 400-800 nm is studied for the case with total intensity of 5.00 x 10(14) W/cm(2). Results show the emission reaches the maximum at about the case for energy distribution of I-omega = 4.00 x 10(14) W/cm(2), I-2 omega = 1.00 x 10(14) W/cm(2). (C) 2012 Elsevier B.V. All rights reserved.
入藏号: WOS:000302487400001
语种: English
文献类型: Article
作者关键词: Second harmonic; Ionization; Gas plasma; Terahertz
KeyWords Plus: PRESSURE-DEPENDENCE; FIELD IONIZATION; PULSE GENERATION; AIR; PHOTOIONIZATION
地址: [Dai, Houmei; Liu, Jinsong] Huazhong Univ Sci & Technol, Wuhan Natl Lab Optoelect, Sch Optoelect Sci & Engn, Wuhan 430074, Peoples R China
[Dai, Houmei] Wuhan Univ Sci & Technol, Hubei Prov Key Lab Syst Sci Met Proc, Wuhan 430081, Peoples R China
通讯作者地址: Liu, JS (通讯作者),Huazhong Univ Sci & Technol, Wuhan Natl Lab Optoelect, Sch Optoelect Sci & Engn, Wuhan 430074, Peoples R China
电子邮件地址: jsliu4508@vip.sina.com
出版商: ELSEVIER SCIENCE BV
出版商地址: PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
Web of Science 分类: Nanoscience & Nanotechnology; Materials Science, Multidisciplinary; Optics; Physics, Applied
学科类别: Science & Technology - Other Topics; Materials Science; Optics; Physics
IDS 号: 921OR
ISSN: 1569-4410
29 字符的来源出版物名称缩写: PHOTONIC NANOSTRUCT
ISO 来源出版物缩写: Photonics Nanostruct.
来源出版物页码计数: 5