

チーム名： テラヘルツ光源研究チーム

(1) 原著論文 (accept) を含む / Original Papers

1. Y. Takida, K. Nawata, S. Suzuki, M. Asada, and H. Minamide, "Terahertz-wave differential detection based on simultaneous dual-wavelength up-conversion," AIP Advances, Vol. 7, Issue 3, 035020. 1-5 (Mar. 2017).
2. Y. Takida, K. Nawata, S. Suzuki, M. Asada, and H. Minamide, "Nonlinear optical detection of terahertz-wave radiation from resonant tunneling diodes," Opt. Express, Vol. 25, No. 5, pp. 5389-5396, (Mar. 2017).
3. Yu Tokizane, Kouji Nawata, Zhengli Han, Mio Koyama, Takashi Notake, Yuma Takida, and Hiroaki Minamide, "Tunable terahertz waves from 4-dimethylamino-N'-methyl-4'-stibazolium tosylate pumped with dual-wavelength injection-seeded optical parametric generation," Appl. Phys. Express, Vol. 10, No. 2, PP. 022101-1-4, (Jan. 2017).
4. K. Kamada, Y. Takida, H. Minamide, Y. Shoji, S. Kurosawa, Y. Yokota, Y. Ohashi, and A. Yoshikawa, "Growth of N-benzyl-2-methyl-4-nitroaniline (BNA) single crystal fibers by micro-pulling down method," J. Cryst. Growth, Vol. 452, pp. 162-165 (Apr. 2016).
5. K. Murate, S. Hayashi, K. Kawase "Expansion of the tuning range of injection-seeded terahertz-wave parametric generator up to 5 THz" Applied Physics Express, vol. 9, No. 8, pp. 082401 (2016)図書館
6. M. Bernier, F. Garet, J. L. Coutaz, H. Minamide, and A. Sato, "Accurate Characterization of Resonant Samples in the Terahertz Regime Through a Technique Combining Time-Domain Spectroscopy and Kramers-Kronig Analysis," IEEE Transactions on Terahertz Science and Technology, vol. 6, No.3 pp. 442-450, (May 2016).
7. 石井 雄大, 瀧田 佑馬, 金森 義明, 南出 泰亜, 羽根一博, "THz 帯におけるメタマテリアル・アブソルバーの製作と吸収特性の評価," 電気学会論文誌 E, 第 136 巻, 第 5 号, pp.172-179 (2016).
8. Y. Takida, J. Shikata, K. Nawata, Y. Tokizane, Z. Han, M. Koyama, T. Notake, S. Hayashi, and H. Minamide, "THz-wave parametric gain of stimulated polariton scattering," Phys. Rev. A, Vol. 93, Issue 4, 043836 (Apr. 2016).

(2) 著書・解説など / Book Editions, Review Papers

1. (総説)大野誠吾, 南出泰亜, 伊藤弘昌, 濱野哲英, "単色波長可変 THz 波光源で明らかにする半導体キャリア特性", オプトロニクス, Vol. 35, No.420, pp125-132, (Dec. 2016).

(3) 招待講演 / Invited Talks

1. Y. Takida and H. Minamide, "Nonlinear photonics for efficient terahertz-wave technology," 5th Russia-Japan-USA-Europe Symposium on Fundamental & Applied Problems of Terahertz Devices & Technologies (RJUSE TeraTech-2016), We3-2, Sendai, Japan, (Nov. 2, 2016).
2. Y. Takida and H. Minamide, "Frequency-domain tunable THz-wave sources and spectroscopic measurements," 7th International Symposium on Terahertz Nanoscience (TeraNano VII), Proquerolles, France, (Oct. 6, 2016).
3. Hiroaki Minamide, "Development of Terahertz-wave technology based on nonlinear optical effect," The 37th PIERS (Progress in Electromagnetic Research Symposium), Shanghai, China, (August 8-11, 2016).
4. Hiroaki Minamide, "NONLINEAR PHOTONICS FOR EFFICIENT TERAHERTZ-WAVE GENERATION AND DETECTION," the IEEE local chapter seminars, GWC Arizona State University Arizona, USA, (3 June 2016).
5. Y. Takida and H. Minamide, "Terahertz-wave technology based on nonlinear optical effect and sub-nanosecond pulse laser," The 4th Laser Ignition Conference 2016 (LIC'16), LIC7-1, Pacifico Yokohama, Yokohama, Kanagawa, Japan, (May 20, 2016).
6. Kouji Nawata, Hiroaki Minamide, "Nonlinear Optical Wavelength-Conversion using periodically poled LiNbO3 for Sensitive Terahertz-Wave Detection," B43, EMN Meeting on Terahertz 2016, San Sebastian, Spain, (May 17, 2016).
7. Hiroaki Minamide, "Sensitive THz-wave detection and imaging using nonlinear optical up-conversion," SPIE Defense + Commercial Sensing, Baltimore Convention Center, Baltimore, MD, USA, 17-21 (April, 2016).
8. K. Murate, K. Imayama, S. Hayashi, K. Kawase, "High efficiency THz generation using MgO:LiNbO3 crystal", EMN Meeting on Optoelectronics, A16, Holiday Inn Resort Phuket, Phuket, Thailand, (Apr. 12-15, 2016).

(4) 特許出願 / Patent Applications

1. 縄田耕二, 時実悠, 南出泰亜, "テラヘルツ波生成装置、光パラメトリック増幅器、テラヘルツ波検出器、および非線形光学素子", 特願 2016-192374, 2016年9月30日
2. Kouji Nawata, Hiroaki Minamide, Hiromasa Ito, Shinichiro Hayashi, U.S Patent "Terahertz Wave Detection Device and Method," Patent No. US 9,040,918 B2 (Date of Patent May 26, 2015)

(5) 特筆すべき事項・トピックス(雑誌表紙などの掲載記事) / Topics

1. 日刊工業新聞 "テラヘルツ波 100倍高感度", 2017年3月20日