

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. 小山美緒, 野竹孝志, 伊藤弘昌, 南出泰亜, “非位相整合第二高調波発生による光学結晶の品質計測と非線形係数相対評価”, レーザー研究, Vol.45, No.12, pp.773-778, (2017.12)
2. Kouji Nawata, Shin'ichiro Hayashi, Hideki Ishizuki, Kousuke Murate, Kazuki Imayama, Yuma Takida, Vincent Yahia, Takunori Taira, Kodo Kawase, and Hiroaki Minamide, “Effective Terahertz Wave Parametric Generation Depending on the Pump Pulse Width Using a LiNbO₃ Crystal,” IEEE Trans. Terahertz Sci. Technol., Vol. 7, No.5, PP. 617-620, (Sep. 2017).
3. 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, Featured in Advances In Engineering (Aug. 4, 2017)
4. YUTA ISHII, YUMA TAKIDA, YOSHIAKI KANAMORI, HIROAKI MINAMIDE and KAZUHIRO HANE, “Fabrication of Metamaterial Absorbers in THz Region and Evaluation of the Absorption Characteristics,” 電気学会論文誌 E, 第 136 巻, 第 5 号, pp. 172-179 (2016) (selected by Electronics and Communications in Japan, Vol. 100, No. 4, pp.15-24.), (8, March 2017).

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

1. 南出泰亜, “テラヘルツ波電磁波領域を切り開くニオブ酸リチウム結晶”, レーザー研究, Vol.45, No.12, pp.757-761, (2017.12)
2. 南出泰亜, 縄田耕二, 瀧田佑馬, “高効率非線形光学波長変換によるテラヘルツ波発生検出技術”, フォトニクスニュース Photonics Division, Vol.3, No.3, pp.105-109, (2017.12)

(3) 招待講演 / Invited Talks

1. H. Ito, “THz-wave Coherent Sources,” Mid-Infrared Coherent Sources 2018, MT1C.1, Hilton Strasbourg, Strasbourg, France, Mar. 27, (2018).
2. Hiroaki Minamide, “STATE-OF-THE-ART NONLINEAR OPTICAL WAVELENGTHCONVERSION BETWEEN TERAHERTZ WAVE AND NEAR-INFRARED LIGHT,” The 10th Asian Symposium on Intense Laser Science (ASILS10), American University of Sharjah, Sharjah, United Arab Emirates, 10-13 Mar. (2018).
3. Hiroaki Minamide, Kouji Nawata, “Backward THz-wave parametric oscillation with tenability,” The International Workshop on Terahertz Technology (IWOTT 2018), Pyeongchang, Korea, 7-10 Jan. (2018).
4. Hiroaki Minamide, “Lithium niobate as a nonlinear optical crystal exploring Terahertz-wave region,” The 4th International Symposium on Microwave/Terahertz Science and Applications & the 8th

International Symposium on Terahertz Nanoscience, Okayama, Japan, Nov. 19-23, (2017).

5. Y. Takida and H. Minamide, "Nonlinear optical detection of terahertz waves from sub-nanosecond pulses to continuous wave," 6th Russia-Japan-USA-Europe Symposium on Fundamental & Applied Problems of Terahertz Devices & Technologies (RJUSE TeraTech-2017), #4, Rensselaer Polytechnic Institute, Troy, NY, USA, Oct. 2, (2017).
6. Hiromasa Ito, "Nonlinear materials and their efficient THz-wave generation / detection -Progress and prospects-", Advanced Solid State Lasers Conference, AW3A.1, Nagoya Congress Center, Oct. 4, (2017).
7. K. Nawata, and H. Minamide, "Pioneering Terahertz-wave Technology based on Nonlinear Optics", The 24th Congress of the International Commission for Optics (ICO-24), W1E-06, Keio Plaza Hotel, Tokyo, Japan, Aug. 23, (2017).
8. H. Minamide and Y. Takida, "Intense tera-photonics source and power calibration," XXXIInd International Union of Radio Science General Assembly & Scientific Symposium (URSI GASS 2017), A11-2, Montreal convention center, Montreal, Canada, Aug. 23, (2017).
9. Hiroaki Minamide, "Terahertz-wave technology based on nonlinear optics," 9th International Conference on Advanced Materials (ROCAM 2017), Bucharest, Romania, July 11-14, (2017).
10. Hiroaki Minamide, "Efficient terahertz-wave generation and detection based on dynamic nonlinear effect," XXXVII Dynamics Days Europe 2017 (DDE2017), Szeged, Hungary, June 5-9, (2017).
11. Y. Takida and H. Minamide, "Frequency-domain spectroscopy using high-power tunable THz-wave sources: towards THz sensing and detector sensitivity calibration," SPIE Defense + Commercial Sensing, 10210-28, Anaheim, CA, USA, Apr. 11, (2017).
12. 縄田耕二, 南出泰亜, "究極の波長変換による社会実装を目指したテラヘルツ波デバイス開発" テラヘルツ科学の最前線IV, Inv06, KKR ホテル熱海, 静岡, (2017年12月6日)
13. 瀧田佑馬, 南出泰亜, "非線形光学波長変換によるテラヘルツ波検出の最先端~サブナノ秒パルスからCWまで~, " 電子情報通信学会テラヘルツ応用システム研究会, 京都大学, 8月7日, (2017)

(4) 会議、シンポジウム、セミナー主催 / Meeting, Symposiums and Seminars

1. 理研セミナー, 理研仙台, "新材料の理論設計は可能 -90年も間違っただけで来た磁性理論の正しい理解-", 川添良幸, 東北大学, 9月19日, (2017)
2. 理研セミナー, 理研仙台, "THz cyclotron emission from Dirac-like fermions in bulk HgCdTe", Wojciech KNAP, Montpellier University, 11月14日, (2017)
3. 理研セミナー, 理研仙台, "ALD (Atomic Layer Deposition) プロセス技術現状と課題", 熊野勝文, 東北大学, 12月20日, (2017)
4. 理研セミナー, 理研仙台, "デュアル THz コム分光の応用と汎用化", 安井 武史, 徳島大学, 3月1日, (2018)

(5) 特許出願 / Patent Applications

1. 南出泰亜, 森口祥聖, “テラヘルツ波発生方法、及びテラヘルツ波発生装置”,
特願番号 2017-155165 2017年8月10日出願

(6) 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. マイナビニュース, “小型の疑似位相整合デバイスだけでテラヘルツ波の発振が可能に”,
2018年2月15日