

Yoshinori Tatematsu

List of Publications by Year in descending order

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64
papers

1,126
citations

394421

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414414

32
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64
all docs

64
docs citations

64
times ranked

547
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Review of Subterahertz and Terahertz Gyrodevices at IAP RAS and FIR FU. IEEE Transactions on Plasma Science, 2009, 37, 36-43. | 1.3 | 120 |
| 2 | Development of a Novel High Power Sub-THz Second Harmonic Gyrotron. Physical Review Letters, 2009, 103, 225002. | 7.8 | 83 |
| 3 | Spectrum response and analysis of 77 GHz band collective Thomson scattering diagnostic for bulk and fast ions in LHD plasmas. Nuclear Fusion, 2014, 54, 023006. | 3.5 | 65 |
| 4 | Generation of high power sub-terahertz radiation from a gyrotron with second harmonic oscillation. Physics of Plasmas, 2012, 19, . | 1.9 | 63 |
| 5 | The potential of the gyrotrons for development of the sub-terahertz and the terahertz frequency range " A review of novel and prospective applications. Thin Solid Films, 2008, 517, 1503-1506. | 1.8 | 57 |
| 6 | Novel and Emerging Applications of the Gyrotrons Worldwide: Current Status and Prospects. Journal of Infrared, Millimeter, and Terahertz Waves, 2021, 42, 715-741. | 2.2 | 56 |
| 7 | Observation of Dynamic Interactions between Fundamental and Second-Harmonic Modes in a High-Power Sub-Terahertz Gyrotron Operating in Regimes of Soft and Hard Self-Excitation. Physical Review Letters, 2012, 109, 155001. | 7.8 | 47 |
| 8 | The Development of 460 GHz gyrotrons for 700 MHz DNP-NMR spectroscopy. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 613-627. | 2.2 | 47 |
| 9 | Strong yellow emission of high-conductivity bulk ZnO single crystals irradiated with high-power gyrotron beam. Applied Physics Letters, 2017, 111, . | 3.3 | 42 |
| 10 | Development of a kW Level-200GHz Gyrotron FU CW GI with an Internal Quasi-optical Mode Converter. Journal of Infrared, Millimeter, and Terahertz Waves, 2012, 33, 292-305. | 2.2 | 39 |
| 11 | First millimeter-wave spectroscopy of ground-state positronium. Progress of Theoretical and Experimental Physics, 2015, 2015, 11C01-0. | 6.6 | 38 |
| 12 | Performance Test of CW 300GHz Gyrotron FU CW I. Journal of Infrared, Millimeter and Terahertz Waves, 2007, 28, 1063-1078. | 0.6 | 31 |
| 13 | Formation of a laminar electron flow for 300GHz high-power pulsed gyrotron. Physics of Plasmas, 2012, 19, . | 1.9 | 30 |
| 14 | The Direct Spectroscopy of Positronium Hyperfine Structure Using a Sub-THz Gyrotron. Journal of Infrared, Millimeter, and Terahertz Waves, 2014, 35, 91-100. | 2.2 | 26 |
| 15 | High-power pulsed gyrotron for 300 GHz-band collective Thomson scattering diagnostics in the Large Helical Device. Nuclear Fusion, 2015, 55, 013002. | 3.5 | 26 |
| 16 | Development of the Multifrequency Gyrotron FU CW GV with Gaussian Beam Output. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 697-708. | 2.2 | 25 |
| 17 | Development of second harmonic gyrotrons, Gyrotron FU CW GII and Gyrotron FU CW GIII, equipped with internal mode converters. Journal of Infrared, Millimeter, and Terahertz Waves, 2014, 35, 169-178. | 2.2 | 24 |
| 18 | High power 303 GHz gyrotron for CTS in LHD. Journal of Instrumentation, 2015, 10, C10002-C10002. | 1.2 | 21 |

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|----|---|-----|-----------|
| 19 | Characteristics of the mode converter of Gyrotron FU CW GII radiating Gaussian beams in both the fundamental and second harmonic frequency bands. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2014, 35, 517-524. | 2.2 | 19 |
| 20 | Broadband Continuously Frequency Tunable Gyrotron for 600 MHz DNP-NMR Spectroscopy. <i>Plasma and Fusion Research</i> , 2014, 9, 1206058-1206058. | 0.7 | 18 |
| 21 | Development of 300 GHz Band Gyrotron for Collective Thomson Scattering Diagnostics in the Large Helical Device. <i>Plasma and Fusion Research</i> , 2017, 12, 1206013-1206013. | 0.7 | 17 |
| 22 | Electromagnetic Modeling of a Complex-Cavity Resonator for the 0.4-THz Second-Harmonic Frequency-Tunable Gyrotron. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 5141-5146. | 3.0 | 16 |
| 23 | Subterahertz Wireless Power Transmission Using 303-GHz Rectenna and 300-kW-Class Gyrotron. <i>IEEE Microwave and Wireless Components Letters</i> , 2018, 28, 834-836. | 3.2 | 16 |
| 24 | Calculations of Starting Currents and Frequencies in Frequency-Tunable Gyrotrons. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 126601. | 1.5 | 15 |
| 25 | An Experimental Investigation of a 0.8-THz Double-Beam Gyrotron. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2019, 40, 1114-1128. | 2.2 | 14 |
| 26 | Influence of the electron velocity spread and the beam width on the efficiency and mode competition in the high-power pulsed gyrotron for 300-GHz band collective Thomson scattering diagnostics in the large helical device. <i>Physics of Plasmas</i> , 2016, 23, . | 1.9 | 13 |
| 27 | Start-up scenario of a high-power pulsed gyrotron for 300-GHz band collective Thomson scattering diagnostics in the large helical device. <i>Physics of Plasmas</i> , 2016, 23, . | 1.9 | 13 |
| 28 | Reflective Gyrotron Backward-Wave Oscillator With Piecewise Frequency Tunability. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 324-329. | 3.0 | 12 |
| 29 | Dielectric property measurements of corneal tissues for computational dosimetry of the eye in terahertz band in vivo and in vitro. <i>Biomedical Optics Express</i> , 2021, 12, 1295. | 2.9 | 11 |
| 30 | Efficient Excitation of Hybrid Modes in a THz Clinotron. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2021, 42, 671-683. | 2.2 | 11 |
| 31 | Low-Voltage Operation of the Double-Beam Gyrotron at 400 GHz. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 673-676. | 3.0 | 10 |
| 32 | Further Characterization of 394-GHz Gyrotron FU CW GII with Additional PID Control System for 600-MHz DNP-SSNMR Spectroscopy. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2016, 37, 825-836. | 2.2 | 9 |
| 33 | Recent progress in development and application of sub-THz gyrotrons in University of Fukui. <i>EPJ Web of Conferences</i> , 2018, 195, 01018. | 0.3 | 9 |
| 34 | Formation of Laminar Electron Flow for a High-Power Sub-THz Gyrotron. <i>Plasma and Fusion Research</i> , 2012, 7, 1205004-1205004. | 0.7 | 9 |
| 35 | Saturation Effects in Frequency Pulling of Gyrotrons Operating in High-Order Axial Modes. <i>IEEE Transactions on Plasma Science</i> , 2018, 46, 2848-2855. | 1.3 | 7 |
| 36 | Super Multi-Frequency Oscillations at Fundamental Harmonics With a Complex Cavity Gyrotron. <i>IEEE Electron Device Letters</i> , 2020, 41, 1241-1244. | 3.9 | 7 |

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|----|--|-----|-----------|
| 37 | Development of Gyrotron FU CW GVII: a Second Harmonic, Multifrequency Gyrotron that Radiates Gaussian Beams. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2020, 41, 576-589. | 2.2 | 7 |
| 38 | Clinical Course of High-Frequency Millimeter-Wave (162 GHz) Induced Ocular Injuries and Investigation of Damage Thresholds. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2020, 41, 834-845. | 2.2 | 6 |
| 39 | Analysis of oscillation characteristics and optimal conditions for high power operation of Gyrotron FU CW GIII. <i>Physics of Plasmas</i> , 2014, 21, 083113. | 1.9 | 5 |
| 40 | Traveling-Wave Amplification in a Circuit With Nonuniform Grating. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 5232-5237. | 3.0 | 5 |
| 41 | Oscillation Characteristics of a High Power 300 GHz Band Pulsed Gyrotron for Use in Collective Thomson Scattering Diagnostics. <i>Plasma and Fusion Research</i> , 2019, 14, 1406104-1406104. | 0.7 | 5 |
| 42 | GaN Schottky Barrier Diode for Sub-Terahertz Rectenna. , 2019, , . | | 4 |
| 43 | Frequency-Tunable Second Harmonic Gyrotron With Selective Cavity: Design and Simulations. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 1402-1408. | 3.0 | 4 |
| 44 | Development of a high-power 295 GHz fundamental-harmonic gyrotron. , 2012, , . | | 3 |
| 45 | Experiment for over 200 kW oscillation of a 295 GHz pulse gyrotron. , 2013, , . | | 3 |
| 46 | Frequency tunability in both 200 and 400 GHz bands realized in Gyrotrons FU CW GIV and FU CW X. , 2016, , . | | 3 |
| 47 | Observation of Increased Number of Frequency Steps in Multi-Frequency Oscillations with a Two-Cavity Gyrotron. , 2018, , . | | 3 |
| 48 | Developments for collective Thomson scattering equipment with a sub-THz gyrotron in LHD. <i>EPJ Web of Conferences</i> , 2019, 203, 03012. | 0.3 | 2 |
| 49 | Experimental and Numerical study of the 0.4-THz Second-Harmonic Gyrotron with a Complex-Cavity Resonator. , 2019, , . | | 2 |
| 50 | Hybrid Bulk-Surface Modes Excited by a Sheet Electron Beam in THz Cherenkov Oscillator. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 3407-3412. | 3.0 | 2 |
| 51 | The sub-THz direct spectroscopy of positronium hyperfine splitting. <i>Journal of Physics: Conference Series</i> , 2013, 443, 012002. | 0.4 | 1 |
| 52 | Development of a multiple-frequency gyrotron, gyrotron FU CW GV. , 2014, , . | | 1 |
| 53 | Influence of thermal-insulation structure of thermionic cathode on oscillation efficiency of a sub-THz gyrotron. , 2016, , . | | 1 |
| 54 | Increase of Gyrotron Output Power at High-Order Axial Mode Through an After-Cavity Excitation of the Next Transverse Mode. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2021, 42, 684-700. | 2.2 | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|--|----|-----------|
| 55 | Application of the Millimeter-Wave Discharge Induced in Gas to a Wireless Power Transfer System. , 2020, , . | | 1 |
| 56 | Observation of Multi-Frequency Oscillations at Second-Harmonics with a Two-Cavity Sub-THz Gyrotron. , 2020, , . | | 1 |
| 57 | Development of Gyrotron FU CW GIII with a Gaussian beam output. , 2012, , . | | 0 |
| 58 | Sub-THz spectroscopy of the ground state hyperfine splitting of positronium. , 2013, , . | | 0 |
| 59 | Observation of strong yellow emission for high-conductivity ZnO excited by sub-terahertz gyrotron beam. , 2019, , . | | 0 |
| 60 | Development of a Second Harmonic Multi-Frequency Gaussian Beam Output Gyrotron FU CW GVII. , 2019, , . | | 0 |
| 61 | Low-Voltage Adiabatic Magnetron Injection Gun for 400 GHz Gyrotron. , 2020, , . | | 0 |
| 62 | Frequency Measurements of a Complex-Cavity Gyrotron for 400 GHz Second-Harmonic Oscillation. , 2020, , . | | 0 |
| 63 | Experimental investigation of gyrotron radiation frequency multiplication. , 2021, , . | | 0 |
| 64 | Influence of the Aftercavity Interaction on the Output Power of a Gyrotron Operating at a High-Order Axial Mode. , 2021, , . | | 0 |