

■特任教授・特命教授 業績一覧 2018年

【査読付学術原著論文】 11件

題目	著者	掲載誌、巻、号(出版年月)頁
Saturation Effects in Frequency Pulling of Gyrotrons Operating in High-Order Axial Modes	Masafumi Fukunari, Gregory S. Nusinovich, Yoshinori Tatematsu, Teruo Saito, and Yuusuke Yamaguchi	IEEE Trans. Plasma Science,46.8 (2018.07)2488-2855
Subterahertz Wireless Power Transmission Using 303-GHz Rectenna and 300-kW-Class Gyrotron	Mizojiri, Sei;Shimamura, Kohei;Fukunari, Masafumi;Minakawa, Shunsuke;Yokota, Shigeru;Yamaguchi, Yuusuke;Tatematsu, Yoshinori;Saito, Teruo	IEEE MICROWAVE AND WIRELESS COMPONENTS LETTERS,28.9 (2018.09)834-836
Modelling,simulation and computer-aided design(CAD) of gyrotrons for novel applications in the high-power terahertz science and technologies	Sabchevski S.,Idehara T.,Damyanova M.,Zhelyazkov I.,Balabanova E.,Vasileva E.	Journal of Physics,992, (2018)
Frequency Tunable sub-THz Gyrotron for Direct Measurements of Positronium Hyperfine Structure	A.E.Fedotov,R.M.Rozental,I.V.Zotova,N.S.Ginzburg,A.S.Segev,V.P.Tarakanov,M.Yu.Glyavin,T.Idehara	J.Infrared,Millimeter and Terahertz Waves,39 (2018)975-983
Development and Application of Gyrotrons at FIR UF	Toshitaka Idehara, and Svilen Petrov Sabchevski	IEEE Transactions on Plasma Science,46 (2018)2452-2459
Theoretical Study on the 1.185 THz Third harmonic Gyrotron	O. Dumbrajs and T. Idehara	Journal of Infrared, Millimeter and Terahertz Waves,39 (2018)177-182
Excitation of Hybrid Space-Surface Waves in Clinotrons with Non-Uniform Grating	E.M. Khutoryan, Y.S. Kovshov, A.S. Likhachev, S.S.Ponomarenko, S.A. Kishko, K.A. Lukin, V.V. Zavertannyi, T.V. Kudina, S.A. Vlasenko, A.N. Kuleshov and T. Idehara	Journal of Infrared, Millimeter and Terahertz Waves,39 (2018)236-249
Frequency Stabilization in a Sub-Terahertz Gyrotron With Delayed Reflections of Output Radiation	M. Yu Glyavin ; I. Ogawa ; I. V. Zotova ; N. S. Ginzburg ; A. P. Fokin ; A. S. Sergeev ; R. M. Rozental ; V. P. Tarakanov ; A. A. Bogdashov ; T. O. Krapivnitskaia ; V. N. Manuilov ; T. Idehara	IEEE Transactions on Plasma Science,46 (2018)2465-2469
High purity mode CW gyrotron covering the sub-THz to THz range using a 20T super-conducting magnet	T. Idehara, I. Ogawa, D. Wagner, M. Thumm, K. Kosuga and S.P. Sabchevski	IEEE Transactions on Electron Devices,65.8 (2018)3486-3491
Effect of void propagation to sodium void reactivity in transient analyses of fast reactors with sodium-plenum	Toshikazu Takeda,Koji Fujimura,Kazuhiro Fujimata,Satoshi Takeda	Annals of Nuclear Energy,119 (2018)175-179
Reactivity feedback effect on loss of flow accident in PWR	Basma Foad, Salwa H.Abdel-Latif, Toshikazu Takeda	Nuclear Engineering and Technology,50 (2018.01)1277-1288

【査読付国際会議論文】 1件

題目	著者	掲載誌、巻、号(出版年月)頁
Developments for collective Thomson scattering equipment with a sub-THz gyrotron in LHD	Teruo Saito, Yoshinori Tatematsu, Yuusuke Yamaguchi, Masafumi Fukunari, Takumi Hirobe, Ryushi Shinbayashi, Shunsuke Tanaka, Kunizo Ohkubo, Shin Kubo, Takashi Shimozuma, Kenji Tanaka and Masaki Nishiura	EPJ Web of Conferences,203 (2019.03)03012-(5)

【講演】 47件

題目	発表者	会議名、発表番号記号、開催地、抄録集等名 (開催年月)
154 GHz Collective Thomson Scattering (CTS) diagnostic for H and D plasmas in LHD	M. Nishiura, K. Tanaka, S. Kubo, N. Kenmochi, K. Nakamura, T. Shimozuma, T. Saito, D. Moseev, LHD experiment group	22nd Topical Conference on High Temperature Plasma Diagnostics,12.43,San Diego (USA) (2018.04)
Developments for collective Thomson scattering equipment with a sub-THz gyrotron in LHD	T. Saito, Y. Tatematsu, Y. Yamaguchi, M. Fukunari, T. Hirobe, R. Shinbayashi, S. Tanaka, K. Ohkubo, S. Kubo, T. Shimozuma, K. Tanaka and M. Nishiura	20th Joint Workshop on Electron Cyclotron Emission (ECE) and Electron Cyclotron Resonance Heating,S6.3,Greifswald (Germany) (2018.05)
Study of sub-Tera-Hz gyrotron scattering for a direct detection of EBW in QUEST	Shin Kubo, Hiroshi Idei, Teruo Saito, and Yoshinori Tatematsu	20th Joint Workshop on Electron Cyclotron Emission (ECE) and Electron Cyclotron Resonance Heating,Thur11,Greifswald (Germany) (2018.05)
Researches of Development of Sub-THz to THz Gyrotrons in FIR UF	Teruo Saito	IHM-Kolloquium,Karlsruhe (Germany) (2018.05)
Sub-Terahertz MSL and CPW rectenna using 303 GHz 300 kW-class Gyrotron	Sei Mizojiri, Shunsuke Minakawa, Masatoshi Suzuki, Kohei Shimamura, Shigeru Yokota, Masafumi Fukunari, Teruo Saito, Yoshinori Tatematsu and Yuusuke Yamaguchi	IEEE Wireless Power Transfer Conference 2018 (WPTC2018),WPTC-M3A,Montreal (Canada) (2018.06)
サブテラヘルツジャイロトロンを用いたQUESTの電子バーンシュタイン波散乱計測	久保 伸,出射 浩,斉藤輝雄,立松芳典,飯澤 萌	第12回核融合エネルギー連合講演会 (2018.06)
LHDの水素と重水素プラズマにおける協同トムソン散乱計測	M. Nishiura, K. Tanaka, S. Kubo, N. Kenmochi, K. Nakamura, T. Shimozuma, T. Saito, D. Moseev, LHD experiment group	第12回核融合エネルギー連合講演会,29P-118,大津市 (2018.06)
Combination Therapy of Hyperthermia and Photodynamic Therapy of Cancer by the Radiation Source of Gyrotron	三好憲雄, Svilen Sabchevski, Eduard Khutoryan, 出原敏孝	第35回日本ハイパーサーミア学会,福井市 (2018.08)
Magnetron Injection Gun For 203GHz Re?ective Gyro-BWO Syste	Cheng-Hung Tsai,Tsun-Hsu Chang,Toshitaka Idehara	43rd International Conference on Infrared,Millimeter and Terahertz Waves(IRMMW-THz2018),Th-POS-47,名古屋市 (2018.09)
Towards A Tunable Sub-THz Gyrotron For Spectroscopy Of Positronium	Alexey Fedotov, Mikhail Glyavin, Toshitaka Idehara,Roman Rozental, Alexander Sergeev,Naum Ginzburg,Vladimir Manuilov,Irina Zotova	43rd International Conference on Infrared,Millimeter and Terahertz Waves(IRMMW-THz2018),Th-P1-4-1,名古屋市 (2018.09)
Two-Stage Energy Recovery System For THz Band Double-Beam Gyrotron	Vladimir Manuilov,Vladislav Zaslavsky,Irina Zotova,Toshitaka Idehara, Mikhail Glyavin	43rd International Conference on Infrared,Millimeter and Terahertz Waves(IRMMW-THz2018),We-P1-4,名古屋市 (2018.09)
Two-beam Self-excited Frequency Gyro-multiplier	Andrei Savilov,Ilya Bandurkin,Mikhail Glyavin,Ivan Osharin,Toshitaka Idehara	43rd International Conference on Infrared,Millimeter and Terahertz Waves(IRMMW-THz2018),名古屋市 (2018.09)
Possibilities Of Mode Selection In Double-Beam Gyrotrons With Additional Absorbing Beam	Vladimir Manuilov,Vladislav Zaslavsky,Irina Zotova,Ivan Osharin,Andrey Savilov,Toshitaka Idehara,Andrey Fokin,Mikhail Glyavin	43rd International Conference on Infrared,Millimeter and Terahertz Waves(IRMMW-THz2018),Tu-P2-R1-3,名古屋市 (2018.09)
Terahertz-range High-order Cyclotron Harmonic Planar Gyrotrons With Transverse Energy Extraction	Naum Ginzburg, Vladislav Zaslavsky,Toshitaka Idehara,Vladimir Manuilov, Ilya Zhelezov,Andrey Kufin,Andrey Malkin,Irina Zotova,Alexander Sergeev,Mikhail Glyavin	43rd International Conference on Infrared,Millimeter and Terahertz Waves(IRMMW-THz2018),Tu-P2-R1-3,名古屋市 (2018.09)

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Terahertz Irradiation Stimulates Actin Polymerization	Shota Yamazaki, Masahiko Harata, Toshitaka Idehara, Keiji Konagaya, Ginji Yokoyama, Hiromichi Hoshina, Yuichi Ogawa	43rd International Conference on Infrared, Millimeter and Terahertz Waves (IRMMW-THz2018), 名古屋市 (2018.09)
Development of a Second Harmonic Multi-Frequency Gyrotron with Gaussian Beam Output	Y. Tatematsu, K. Takayama, Y. Maeda, T. Ueyama, T. Ogura, M. Fukunari, Y. Yamaguchi, and T. Saito	43 International Conference on Infrared, Millimeter and Terahertz Waves, Tu-P2-R1-5, 名古屋市 (2018.09)
Developments of Equipment for Sub-THz Collective Thomson Scattering in LHD	T. Saito, S. Tanaka, R. Shinbayashi, T. Hirobe, Y. Yamaguchi, M. Fukunari, Y. Tatematsu, K. Ohkubo, S. Kubo, T. Shimozuma, K. Tanaka and M. Nishiura	43 International Conference on Infrared, Millimeter and Terahertz Waves, Tu-P2-R1-2, 名古屋市 (2018.09)
Development of a High-Power Gyrotron for Beamed Energy Propulsion Applications	Masafumi Fukunari, Yasuhisa Oda, Tsuyoshi Kariya, Ryutarō Minami, Yuusuke Yamaguchi, Yoshinori Tatematsu, Teruo Saito, Keishi Sakamoto, Tsuyoshi Imai, and Kimiya Komurasaki	43 International Conference on Infrared, Millimeter and Terahertz Waves, We-POS-69, 名古屋市 (2018.09)
Observation of Increased Number of Frequency Steps in Multi-Frequency Oscillations with a Two-Cavity Gyrotron	Yuusuke Yamaguchi, Masafumi Fukunari, Taisei Ogura, Tatsuya Ueyama, Yuto Maeda, Kyoya Takayama, Yoshinori Tatematsu and Teruo Saito	43 International Conference on Infrared, Millimeter and Terahertz Waves, We-POS-75, 名古屋市 (2018.09)
Observation of the Discharge Structure in 303 GHz Millimeter-Wave Air Breakdown	Masafumi Fukunari, Tetsuo Yokoyama, Shunsuke Tanaka, Ryuji Shinbayashi, Takumi Hirobe, Yuusuke Yamaguchi, Yoshinori Tatematsu and Teruo Saito	43 International Conference on Infrared, Millimeter and Terahertz Waves, Th-P1-1b-5, 名古屋市 (2018.09)
Developments of Millimeter Wave Backscattering Systems for Fusion Plasma Turbulence Measurements	T. Tokuzawa, K. Oguri, S. Kubo, K. Tanaka, H. Yamada, K. Y. Watanabe, A. Ejiri, S. Inagaki, J. Kohagura and T. Saito	43 International Conference on Infrared, Millimeter and Terahertz Waves, Th-P2-R2-1, 名古屋市 (2018.09)
Electron Bernstein Wave Detection by Sub-Tera-Hz Gyrotron Scattering in QUEST	Shin KUBO, Hiroshi IDEI, Teruo SAITO, Yoshinori TATEMATSU, Moe Iizawa	43 International Conference on Infrared, Millimeter and Terahertz Waves, Fr-A2-R2-5, 名古屋市 (2018.09)
303 GHz大電力ミリ波放電の電界面と磁界面での構造の違い及び超臨界条件から亜臨界条件への変化	福成 雅史, 横山 哲士, 田中 俊輔, 新林 竜志, 廣部 匠, 山口裕資, 立松 芳典, 齊藤 輝雄	第62 回宇宙科学技術連合講演会, 3N02 (2018.10)
Development of Sub-Terahertz Rectenna using Gyrotron	Sei Mizojiri, Shunsuke Minakawa, Kohei Shimamura, Shigeru Yokota, Masafumi Fukunari, Teruo Saito, Yoshinori Tatematsu, and Yuusuke Yamaguchi	IEEE Asia-Pacific Microwave Conference 2019 (APMC2019), WE2-C2, 京都市 (2018.11)
Experimental investigation on millimeter-wave discharge induced in gas	Masafumi Fukunari, Tetsuo Yokoyama, Shunsuke Tanaka, Ryuji Shinbayashi, Yuusuke Yamaguchi, Yoshinori Tatematsu, Teruo Saito, Kimiya Komurasaki	2nd Asia-Pacific Conference on Plasma Physics (AAPPs-DPP2018), B-124, 金沢市 (2018.11)
Electron Bernstein wave detection by far-infrared wave scattering in QUEST	Shin Kubo, Hiroshi Idei, Teruo Saito, Yoshinori Tatematsu	The 27th International Toki Conference on Plasma and Fusion Research & The 13th Asia Pacific Plasma Theory Conference, P2-35, Toki (Japan) (2018.11)
400 GHz帯二次高調波ジャイロトロンにおけるTE8.4/TE8.5モード複合共振器の実験的検証	小椋大聖, 福成雅史, 前田悠斗, 上山達也, 高山京也, 峠正範, 山口裕資, 立松芳典, 齊藤輝雄	ブラズマ・核融合学会第35回年会, 3P61, 吹田市 (2018.12)
二次高調波多周波数ガウスビーム出力ジャイロトロンの特徴評価	上山達也, 高山京也, 中川和輝, 前田悠斗, 小椋大聖, 神谷亮汰, 笹野準貴, 若林優次, 福成雅史, 山口裕資, 齊藤輝雄, 立松芳典	ブラズマ・核融合学会第35回年会, 3P60, 吹田市 (2018.12)
二次高調波多周波数ガウスビーム出力ジャイロトロンモード変換器設計及びビーム形状計測	高山京也, 立松芳典, 上山達也, 中川和輝, 前田悠斗, 小椋大聖, 神谷亮汰, 笹野準貴, 若林優次, 山森英智, 峠正範, 青山直2, 川崎孝俊, 山口裕資, 福成雅史, 齊藤輝雄	ブラズマ・核融合学会第35回年会, 4Da02, 吹田市 (2018.12)
複合共振器搭載ジャイロトロンにおける超多周波発振の観測	山口裕資, 小椋大聖, 上山達也, 前田悠斗, 高山京也, 福成雅史, 立松芳典, 齊藤輝雄	ブラズマ・核融合学会第35回年会, 4Pa63, 吹田市 (2018.12)
400 GHz帯二次高調波ジャイロトロンにおける複合共振器の改良	前田悠斗, 福成雅史, 小椋大聖, 笹野準貴, 若林優次, 峠正範, 山口裕資, 立松芳典, 齊藤輝雄	ブラズマ・核融合学会第35回年会, 4Da03, 吹田市 (2018.12)
LHDにおけるCTS計測用300GHz帯ジャイロトロンの特徴	田中俊輔, 齊藤輝雄, 新林竜志, 山口裕資, 福成雅史, 立松芳典, 久保伸, 下妻隆, 田中謙治, 西浦正樹	ブラズマ・核融合学会第35回年会, 4Pa59, 吹田市 (2018.12)
LHDにおけるサブテラヘルツ帯協同トムソン散乱計測のための機器開発と準備	齊藤輝雄, 田中俊輔, 新林竜志, 山口裕資, 福成雅史, 立松芳典, 大久保邦三, 久保伸, 下妻隆, 田中謙治, 西浦正樹	ブラズマ・核融合学会第35回年会, 4Bp02, 吹田市 (2018.12)
高速度カメラを用いたE面とH面での303 GHz ミリ波放電構造の詳細計測	福成雅史, 田中俊輔, 新林竜志, 山口裕資, 立松芳典, 齊藤輝雄	ブラズマ・核融合学会第35回年会, 5Ba07, 吹田市 (2018.12)
LHDにおける300GHz帯CTS計測用ジャイロトロン出力ビームの整形と3.5インチコルゲート導波管伝送試験	新林竜志, 田中俊輔, 齊藤輝雄, 大久保邦三, 山口裕資, 福成雅史, 立松芳典, 久保伸, 下妻隆, 田中謙治, 西浦正樹	ブラズマ・核融合学会第35回年会, 吹田市, 5P54 (2018.12)
サブテラヘルツ波の散乱を用いたQUESTの電子バーンシュタイン波直接検出	久保伸, 出射 浩, 齊藤輝雄, 立松芳典, 飯澤 萌	ブラズマ・核融合学会第35回年会, 6P55, 吹田市 (2018.12)
Developments of sub-THz wave camera and application for plasma diagnostics	T. Tokuzawa, A Tanabe, T. Tsujimura, S. Kubo, H. Tsuchiya, K. Yamamoto, T. Saito, M. Tani, and H. Kitahara	The 7th International Workshop on Far-Infrared Technologies 2019, P-20, 福井 (2019.03)
Observation of Filamentary Array Formations under Overcritical to Subcritical Conditions in 303 GHz Millimeter-Wave Air-breakdown	M. Fukunari, S. Tanaka, R. Shinbayashi, Y. Yamaguchi, Y. Tatematsu, and T. Saito	The 7th International Workshop on Far-Infrared Technologies 2019, P-14, 福井 (2019.03)
Observation of Super-Multiple Frequency Oscillations with a Complex-Cavity Gyrotron	Y. Yamaguchi, T. Ogura, M. Fukunari, J. Sasano, T. Ueyama, Y. Maeda, K. Takayama, Y. Tatematsu and T. Saito	The 7th International Workshop on Far-Infrared Technologies 2019, P-12, 福井 (2019.03)
Design Improvement of a Complex-Cavity Resonator for the 400 GHz Second-Harmonic Gyrotron	Y. Maeda, T. Ogura, J. Sasano, M. Fukunari, Y. Yamaguchi, M. Tao, Y. Tatematsu, T. Saito	The 7th International Workshop on Far-Infrared Technologies 2019, P-11, 福井 (2019.03)
Grating reflector mirror design for sub-Tera-Hz scattering in the QUEST	Shin Kubo, Hiroshi Idei, Teruo Saito, Yoshinori Tatematsu	The 7th International Workshop on Far-Infrared Technologies 2019, P-9, 福井 (2019.03)
Development of a Second Harmonic Multi-Frequency Gyrotron with Gaussian Beam Output, Gyrotron FU CW GVII	T. Ueyama, Y. Tatematsu, Y. Yamaguchi, K. Takayama, Y. Maeda, T. Ogura, K. Nakagawa, R. Kamiya, J. Sasano, Y. Wakabayashi, M. Fukunari, T. Saito	The 7th International Workshop on Far-Infrared Technologies 2019, P-5, 福井市 (2019.03)

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Frequency Stability of a High Power Sub-THz Gyrotron	Teruo Saito, Shunsuke Tanaka, Ryuji Shinbayashi, Yoshinori Tatematsu, Yuusuke Yamaguchi and Masafumi Fukunari	The 7th International Workshop on Far-Infrared Technologies 2019,P-4,福井市 (2019.03)
Sub-terahertz wireless power transmission using 303 GHz Gyrotron	Sei Mizojiri, Kohei Shimomura, Masafumi Fukunari, Shunsuke Minakawa, Maho Matsukura, Shigeru Yokota, Yuusuke Yamaguchi, Yoshinori Tatematsu, Teruo Saito	The 7th International Workshop on Far-Infrared Technologies 2019,P-3,福井市 (2019.03)
二段共振器ジャイロトロンにおける 110 ~ 220-GHz 帯の超多周波数発振	山口 裕資, 小椋 大聖, 福成 雅史, 笹野 準貴, 上山 達也, 前田 悠斗, 高山 京也, 立松 芳典, 斉藤 輝雄	日本物理学会第74回年次大会,15aK309-2,福岡市 (2019.03)
テラヘルツおよびサブテラヘルツ領域のジャイロトロン開発の現状と応用への展開	斉藤輝雄	日本物理学会第74回年次大会,16pF303-4,福岡市 (2019.03)
LHDにおける協同トムソン散乱計測により得られた散乱スベクトルの評価	西浦正樹, 久保伸, 田中謙治, 飯澤萌, 鋤持尚輝, 下妻隆, 高橋裕己, 斉藤輝雄, LHD実験グループ	日本物理学会第74回年次大会,17aK307-9,福岡市 (2019.03)