

Richard J Temkin

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2304798/publications.pdf>

Version: 2024-02-01

289
papers

10,778
citations

41258

49
h-index

35952

97
g-index

293
all docs

293
docs citations

293
times ranked

4069
citing authors

#	ARTICLE	IF	CITATIONS
1	Vacuum Electronic High Power Terahertz Sources. IEEE Transactions on Terahertz Science and Technology, 2011, 1, 54-75.	2.0	841
2	Dynamic nuclear polarization at high magnetic fields. Journal of Chemical Physics, 2008, 128, 052211.	1.2	734
3	High Frequency Dynamic Nuclear Polarization. Accounts of Chemical Research, 2013, 46, 1933-1941.	7.6	480
4	Dynamic nuclear polarization with a cyclotron resonance maser at 5 T. Physical Review Letters, 1993, 71, 3561-3564.	2.9	417
5	Solid-state dynamic nuclear polarization at 263 GHz: spectrometer design and experimental results. Physical Chemistry Chemical Physics, 2010, 12, 5850.	1.3	315
6	High-Field Dynamic Nuclear Polarization for Solid and Solution Biological NMR. Applied Magnetic Resonance, 2008, 34, 237-263.	0.6	296
7	Generalized nonlinear harmonic gyrotron theory. Physics of Fluids, 1986, 29, 561.	1.4	220
8	Continuous-Wave Operation of a Frequency-Tunable 460-GHz Second-Harmonic Gyrotron for Enhanced Nuclear Magnetic Resonance. IEEE Transactions on Plasma Science, 2010, 38, 1150-1159.	0.6	216
9	Dynamic nuclear polarization at 9T using a novel 250GHz gyrotron microwave source. Journal of Magnetic Resonance, 2003, 160, 85-90.	1.2	209
10	Observation of Frequency-Locked Coherent Terahertz Smith-Purcell Radiation. Physical Review Letters, 2005, 94, 054803.	2.9	206
11	Second Harmonic Operation at 460 GHz and Broadband Continuous Frequency Tuning of a Gyrotron Oscillator. IEEE Transactions on Electron Devices, 2005, 52, 798-807.	1.6	182
12	Modeling the structure of amorphous tetrahedrally coordinated semiconductors. I. Physical Review B, 1974, 9, 5323-5326.	1.1	176
13	High frequency (140 GHz) dynamic nuclear polarization: Polarization transfer to a solute in frozen aqueous solution. Journal of Chemical Physics, 1995, 102, 9494-9497.	1.2	174
14	A Spectrometer for Dynamic Nuclear Polarization and Electron Paramagnetic Resonance at High Frequencies. Journal of Magnetic Resonance Series A, 1995, 117, 28-40.	1.6	163
15	THz Dynamic Nuclear Polarization NMR. IEEE Transactions on Terahertz Science and Technology, 2011, 1, 145-163.	2.0	161
16	250GHz CW gyrotron oscillator for dynamic nuclear polarization in biological solid state NMR. Journal of Magnetic Resonance, 2007, 189, 251-279.	1.2	158
17	Operation of a Continuously Frequency-Tunable Second-Harmonic CW 330-GHz Gyrotron for Dynamic Nuclear Polarization. IEEE Transactions on Electron Devices, 2011, 58, 2777-2783.	1.6	157
18	Observation of Large Arrays of Plasma Filaments in Air Breakdown by 1.5-MW 110-GHz Gyrotron Pulses. Physical Review Letters, 2008, 100, 035003.	2.9	145

#	ARTICLE	IF	CITATIONS
19	Single-mode operation of a high-power, step-tunable gyrotron. <i>Physical Review Letters</i> , 1987, 59, 547-550.	2.9	135
20	Photonic-Band-Gap Resonator Gyrotron. <i>Physical Review Letters</i> , 2001, 86, 5628-5631.	2.9	131
21	High-Power 140-GHz Quasioptical Gyrotron Traveling-Wave Amplifier. <i>Physical Review Letters</i> , 2003, 90, 258302.	2.9	131
22	Continuous-wave operation of a 460-GHz second harmonic gyrotron oscillator. <i>IEEE Transactions on Plasma Science</i> , 2006, 34, 524-533.	0.6	128
23	Plasma structures observed in gas breakdown using a 1.5 MW, 110 GHz pulsed gyrotron. <i>Physics of Plasmas</i> , 2009, 16, .	0.7	113
24	Simulation of photonic band gaps in metal rod lattices for microwave applications. <i>Journal of Applied Physics</i> , 2002, 91, 960-968.	1.1	110
25	Cryogenic sample exchange NMR probe for magic angle spinning dynamic nuclear polarization. <i>Journal of Magnetic Resonance</i> , 2009, 198, 261-270.	1.2	108
26	High-Frequency Dynamic Nuclear Polarization in MAS Spectra of Membrane and Soluble Proteins. <i>Journal of the American Chemical Society</i> , 2003, 125, 13626-13627.	6.6	107
27	Photonic-Band-Gap Traveling-Wave Gyrotron Amplifier. <i>Physical Review Letters</i> , 2013, 111, 235101.	2.9	100
28	Demonstration of a 17-GHz, High-Gradient Accelerator with a Photonic-Band-Gap Structure. <i>Physical Review Letters</i> , 2005, 95, 074801.	2.9	99
29	Resolution and polarization distribution in cryogenic DNP/MAS experiments. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 5861.	1.3	87
30	A 250 GHz gyrotron with a 3 GHz tuning bandwidth for dynamic nuclear polarization. <i>Journal of Magnetic Resonance</i> , 2012, 221, 147-153.	1.2	87
31	Dynamic nuclear polarization at 700MHz/460GHz. <i>Journal of Magnetic Resonance</i> , 2012, 224, 1-7.	1.2	85
32	An Overmoded W-Band Coupled-Cavity TWT. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 1609-1616.	1.6	83
33	The Design of Megawatt Gyrotrons. <i>IEEE Transactions on Plasma Science</i> , 1985, 13, 364-373.	0.6	82
34	Overview of the ITER EC H&CD system and its capabilities. <i>Fusion Engineering and Design</i> , 2011, 86, 951-954.	1.0	82
35	Submillimeter-wave harmonic gyrotron experiment. <i>IEEE Transactions on Plasma Science</i> , 1990, 18, 334-342.	0.6	74
36	Corrugated waveguide and directional coupler for CW 250-GHz gyrotron DNP experiments. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2005, 53, 1863-1869.	2.9	73

#	ARTICLE	IF	CITATIONS
37	Microwave field distribution in a magic angle spinning dynamic nuclear polarization NMR probe. <i>Journal of Magnetic Resonance</i> , 2011, 210, 16-23.	1.2	73
38	Linearly Polarized Modes of a Corrugated Metallic Waveguide. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2010, 58, 2772-2780.	2.9	69
39	Design of a Metamaterial-Based Backward-Wave Oscillator. <i>IEEE Transactions on Plasma Science</i> , 2014, 42, 930-936.	0.6	65
40	Operational characteristics of a 14-W 140-GHz gyrotron for dynamic nuclear polarization. <i>IEEE Transactions on Plasma Science</i> , 2006, 34, 518-523.	0.6	64
41	Active negative-index metamaterial powered by an electron beam. <i>Physical Review B</i> , 2012, 86, .	1.1	64
42	Efficient Low-Voltage Operation of a CW Gyrotron Oscillator at 233 GHz. <i>IEEE Transactions on Plasma Science</i> , 2007, 35, 27-30.	0.6	63
43	Sub-wavelength waveguide loaded by a complementary electric metamaterial for vacuum electron devices. <i>Physics of Plasmas</i> , 2014, 21, .	0.7	61
44	Theoretical and experimental investigation of a quasi-optical mode converter for a 110-GHz gyrotron. <i>IEEE Transactions on Plasma Science</i> , 1996, 24, 1058-1066.	0.6	59
45	Two-Dimensional ^{13}C Correlation Spectroscopy with Magic Angle Spinning and Dynamic Nuclear Polarization. <i>Journal of the American Chemical Society</i> , 2002, 124, 3214-3215.	6.6	59
46	Low-loss Transmission Lines for High-power Terahertz Radiation. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2012, 33, 695-714.	1.2	58
47	High efficiency operation of a 140 GHz pulsed gyrotron. <i>International Journal of Electronics</i> , 1984, 57, 835-850.	0.9	55
48	Demonstration of a 140-GHz 1-kW Confocal Gyro-Traveling-Wave Amplifier. <i>IEEE Transactions on Electron Devices</i> , 2009, 56, 818-827.	1.6	55
49	Experimental demonstration of externally driven millimeter-wave particle accelerator structure. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	53
50	17 GHz photonic band gap cavity with improved input coupling. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2001, 4, .	1.8	50
51	Amplification of Picosecond Pulses in a 140-GHz Gyrotron-Traveling Wave Tube. <i>Physical Review Letters</i> , 2010, 105, 135101.	2.9	50
52	Metamaterial-Inspired Vacuum Electron Devices and Accelerators. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 207-218.	1.6	48
53	Self-consistent simulation of cyclotron autoresonance maser amplifiers. <i>IEEE Transactions on Plasma Science</i> , 1988, 16, 122-128.	0.6	47
54	Coherent Cherenkov-Cyclotron Radiation Excited by an Electron Beam in a Metamaterial Waveguide. <i>Physical Review Letters</i> , 2016, 117, 237701.	2.9	47

#	ARTICLE	IF	CITATIONS
55	Rate equations for an optically-pumped, far infrared laser. Optics Communications, 1976, 16, 213-217.	1.0	46
56	Loss Estimate for ITER ECH Transmission Line Including Multimode Propagation. Fusion Science and Technology, 2010, 57, 196-207.	0.6	46
57	Single-mode operation of a Bragg free-electron maser oscillator. Physical Review Letters, 1994, 72, 2391-2394.	2.9	45
58	Continuously Tunable 250 GHz Gyrotron with a Double Disk Window for DNP-NMR Spectroscopy. Journal of Infrared, Millimeter, and Terahertz Waves, 2013, 34, 42-52.	1.2	45
59	Linear theory of an electron cyclotron maser operating at the fundamental. Journal of Infrared, Millimeter and Terahertz Waves, 1980, 1, 195-223.	0.6	44
60	Experimental study of a high-frequency megawatt gyrotron oscillator. Physics of Fluids B, 1990, 2, 640-646.	1.7	43
61	Spatial dispersion in metamaterials with negative dielectric permittivity and its effect on surface waves. Optics Letters, 2006, 31, 2051.	1.7	42
62	The EC H&CD Transmission Line for ITER. Fusion Science and Technology, 2011, 59, 709-717.	0.6	42
63	Second Harmonic 527-GHz Gyrotron for DNP-NMR: Design and Experimental Results. IEEE Transactions on Electron Devices, 2020, 67, 328-334.	1.6	41
64	Analytic theory of a tapered gyrotron resonator. Journal of Infrared, Millimeter and Terahertz Waves, 1981, 2, 629-650.	0.6	39
65	Frequency pulling and bandwidth measurements of a 140 GHz pulsed gyrotron. International Journal of Electronics, 1984, 57, 851-862.	0.9	39
66	Generation of High-Power, Reversed-Cherenkov Wakefield Radiation in a Metamaterial Structure. Physical Review Letters, 2019, 122, 014801.	2.9	38
67	Experimental study of a 28 GHz high-power long-pulse cyclotron autoresonance maser oscillator. Physical Review Letters, 1993, 71, 2018-2021.	2.9	37
68	A 140GHz pulsed EPR/212MHz NMR spectrometer for DNP studies. Journal of Magnetic Resonance, 2012, 223, 170-179.	1.2	37
69	Electron density and gas density measurements in a millimeter-wave discharge. Physics of Plasmas, 2016, 23, .	0.7	37
70	A 100 kW, 140 GHz pulsed gyrotron. Journal of Infrared, Millimeter and Terahertz Waves, 1982, 3, 427-437.	0.6	35
71	Experimental study of a megawatt 200-300 GHz gyrotron oscillator. Physics of Fluids B, 1993, 5, 4135-4143.	1.7	35
72	Fabrication and cold test of photonic band gap resonators and accelerator structures. Physical Review Special Topics: Accelerators and Beams, 2005, 8, .	1.8	35

#	ARTICLE	IF	CITATIONS
73	Photonic-band-gap gyrotron amplifier with picosecond pulses. Applied Physics Letters, 2017, 111, 233504.	1.5	35
74	High frequency dynamic nuclear polarization: New directions for the 21st century. Journal of Magnetic Resonance, 2019, 306, 128-133.	1.2	33
75	A tunable far infrared laser. IEEE Journal of Quantum Electronics, 1984, 20, 834-837.	1.0	32
76	Operation of a 140-GHz Gyro-Amplifier Using a Dielectric-Loaded, Severless Confocal Waveguide. IEEE Transactions on Plasma Science, 2017, 45, 2835-2840.	0.6	32
77	Laser-driven semiconductor switch for generating nanosecond pulses from a megawatt gyrotron. Applied Physics Letters, 2019, 114, 164102.	1.5	32
78	Excitation of an atom by a train of short pulses. Journal of the Optical Society of America B: Optical Physics, 1993, 10, 830.	0.9	31
79	Design and emission uniformity studies of a 1.5-MW gyrotron electron gun. IEEE Transactions on Plasma Science, 2002, 30, 2117-2123.	0.6	31
80	Time- and frequency-domain models for Smith-Purcell radiation from a two-dimensional charge moving above a finite length grating. Physical Review E, 2005, 71, 016501.	0.8	30
81	Experimental observation of the effect of aftercavity interaction in a depressed collector gyrotron oscillator. Physics of Plasmas, 2007, 14, .	0.7	30
82	Velocity ratio measurements of a gyrotron electron beam. Journal of Applied Physics, 1991, 69, 3789-3795.	1.1	29
83	Observation of plasma array dynamics in 110 GHz millimeter-wave air breakdown. Physics of Plasmas, 2011, 18, 100704.	0.7	29
84	Mode excitation in a gyrotron operating at the fundamental. Journal of Infrared, Millimeter and Terahertz Waves, 1981, 2, 175-196.	0.6	28
85	Kiloampere and microsecond electron beams from ferroelectric cathodes. IEEE Transactions on Plasma Science, 1998, 26, 1347-1352.	0.6	28
86	Spectral Characteristics of a 140-GHz Long-Pulsed Gyrotron. IEEE Transactions on Plasma Science, 2007, 35, 559-564.	0.6	28
87	Spectroscopic temperature measurements of air breakdown plasma using a 110 GHz megawatt gyrotron beam. Physics of Plasmas, 2012, 19, .	0.7	28
88	Harmonic emission from high-power high-frequency gyrotrons. International Journal of Electronics, 1984, 57, 1033-1047.	0.9	27
89	Experimental investigation of a 140-GHz coaxial gyrotron oscillator. IEEE Transactions on Plasma Science, 2001, 29, 943-950.	0.6	27
90	High-intensity CO ₂ laser pumping of a CH ₃ F Raman FIR laser. Optics Letters, 1979, 4, 381.	1.7	26

#	ARTICLE	IF	CITATIONS
91	Application of advanced millimeter/far-infrared sources to collective Thomson scattering plasma diagnostics. <i>Journal of Infrared, Millimeter and Terahertz Waves</i> , 1983, 4, 205-229.	0.6	26
92	Power measurement of frequency-locked Smith-Purcell radiation. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2006, 9, .	1.8	26
93	Experimental results for a 1.5MW, 110GHz gyrotron oscillator with reduced mode competition. <i>Physics of Plasmas</i> , 2006, 13, 023103.	0.7	26
94	Phase retrieval of gyrotron beams based on irradiance moments. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2002, 50, 1526-1535.	2.9	25
95	Maturing ECRF technology for plasma control. <i>Nuclear Fusion</i> , 2003, 43, 1501-1504.	1.6	25
96	Experimental Results on a 1.5MW, 110GHz Gyrotron with a Smooth Mirror Mode Converter. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2011, 32, 358-370.	1.2	25
97	Sideband mode competition in a gyrotron oscillator. <i>Physical Review Letters</i> , 1992, 69, 3727-3730.	2.9	23
98	High frequency gyrotrons and their application to tokamak plasma heating. <i>Journal of Magnetism and Magnetic Materials</i> , 1979, 11, 368-371.	1.0	20
99	$\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mi} \rangle X \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -band photonic band-gap accelerator structure breakdown experiment. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2011, 14, .	1.8	20
100	Measurements of electron avalanche formation time in W-band microwave air breakdown. <i>Physics of Plasmas</i> , 2011, 18, 080707.	0.7	20
101	Millimeter wave scattering and diffraction in 110GHz air breakdown plasma. <i>Physics of Plasmas</i> , 2013, 20, 043507.	0.7	20
102	Pumping and emission characteristics of a 4 kW, submillimeter CH ₃ F laser. <i>Optics Communications</i> , 1975, 14, 314-317.	1.0	19
103	Tunable microwigglers for free-electron lasers. <i>Applied Physics Letters</i> , 1989, 54, 1299-1301.	1.5	19
104	Design of correcting mirrors for a gyrotron used at Large Helical Device. <i>Fusion Engineering and Design</i> , 2001, 53, 537-544.	1.0	19
105	Studies of the 1.5-MW 110-GHz Gyrotron Experiment. <i>IEEE Transactions on Plasma Science</i> , 2004, 32, 877-883.	0.6	19
106	Observation and Study of Low-Frequency Oscillations in a 1.5-MW 110-GHz Gyrotron. <i>IEEE Transactions on Plasma Science</i> , 2009, 37, 1219-1224.	0.6	19
107	Measurement of RF Transmission Mode in ITER Relevant EC H&CD Transmission Line. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2010, 31, 949.	1.2	19
108	Direct spectral measurements of a quasi-cw free-electron laser oscillator. <i>Physical Review Letters</i> , 1990, 65, 2251-2254.	2.9	18

#	ARTICLE	IF	CITATIONS
109	Experimental Studies of Local and Global Emission Uniformity for a Magnetron Injection Gun. IEEE Transactions on Electron Devices, 2005, 52, 825-828.	1.6	18
110	Experimental Verification of Phase Retrieval of Quasi-Optical Millimeter-Wave Beams. IEEE Transactions on Microwave Theory and Techniques, 2006, 54, 3899-3905.	2.9	18
111	CW operation of a tunable 330/460 GHz gyrotron for enhanced nuclear magnetic resonance. , 2008, , .		18
112	Megawatt Power Level 120 GHz Gyrotrons for ITER Start-Up. Journal of Physics: Conference Series, 2005, 25, 1-7.	0.3	17
113	Measurement of subpicosecond bunch lengths using coherent Smith-Purcell radiation. Physical Review Special Topics: Accelerators and Beams, 2006, 9, .	1.8	17
114	Efficiency Enhancement of a 1.5-MW, 110-GHz Gyrotron with a Single-Stage Depressed Collector. Fusion Science and Technology, 2007, 52, 334-339.	0.6	17
115	A high power, 1.22 mm 13C H3 laser. Physics Letters, Section A: General, Atomic and Solid State Physics, 1976, 57, 328-330.	0.9	16
116	High-frequency gyrotron scattering diagnostic for instability studies on TARA. Review of Scientific Instruments, 1985, 56, 914-916.	0.6	16
117	A high-voltage modulator for high-power RF source research. IEEE Transactions on Electron Devices, 1991, 38, 817-821.	1.6	16
118	Long-pulse millimeter-wave free-electron laser and cyclotron autoresonance maser experiments. Physics of Fluids B, 1992, 4, 2307-2314.	1.7	16
119	High-power operation of a 170 GHz megawatt gyrotron. Physics of Plasmas, 1997, 4, 1907-1914.	0.7	16
120	Experimental Study of the Start-Up Scenario of a 1.5-MW, 110-GHz Gyrotron. IEEE Transactions on Plasma Science, 2013, 41, 862-871.	0.6	16
121	Experimental Results for a Pulsed 110/124.5-GHz Megawatt Gyrotron. IEEE Transactions on Plasma Science, 2014, 42, 1128-1134.	0.6	16
122	Experimental study of a high efficiency quasi-optical mode converter for whispering gallery mode gyrotrons. International Journal of Electronics, 1992, 72, 1093-1102.	0.9	15
123	An improved design for quasi-optical mode conversion of whispering gallery mode gyrotron radiation. Journal of Infrared, Millimeter and Terahertz Waves, 1992, 13, 1033-1063.	0.6	15
124	Continuous-wave submillimeter-wave gyrotrons. , 2006, 6373, 63730C.		15
125	Calculation of Radiation from a Helically Cut Waveguide for a Gyrotron Mode Converter in the Quasi-Optical Approximation. Journal of Infrared, Millimeter, and Terahertz Waves, 2009, 30, 8-25.	1.2	15
126	Direct Machining of Low-Loss THz Waveguide Components With an RF Choke. IEEE Microwave and Wireless Components Letters, 2014, 24, 842-844.	2.0	15

#	ARTICLE	IF	CITATIONS
127	Experimental Charge Density of Copper. <i>Physical Review B</i> , 1972, 6, 3572-3581.	1.1	14
128	High-power second harmonic emission and frequency locking in a 28-GHz gyrotron. <i>Applied Physics Letters</i> , 1985, 46, 728-730.	1.5	14
129	Whispering-Gallery-Mode Gyrotron Operation with a Quasi-Optical Antenna. <i>IEEE Transactions on Plasma Science</i> , 1985, 13, 383-388.	0.6	14
130	Imaging of Atmospheric Air Breakdown Caused by a High-Power 110-GHz Pulsed Gaussian Beam. <i>IEEE Transactions on Plasma Science</i> , 2008, 36, 936-937.	0.6	14
131	High power breakdown testing of a photonic band-gap accelerator structure with elliptical rods. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2013, 16, .	1.8	14
132	Simple Correctors for Elimination of High-Order Modes in Corrugated Waveguide Transmission Lines. <i>IEEE Transactions on Plasma Science</i> , 2014, 42, 29-37.	0.6	14
133	High power long pulse microwave generation from a metamaterial structure with reverse symmetry. <i>Physics of Plasmas</i> , 2018, 25, .	0.7	14
134	Measurement of Dielectric Multipactor Thresholds at 110-GHz. <i>Physical Review Letters</i> , 2019, 123, 175001.	2.9	14
135	Gain spectrum of a pulsed laser-pumped submillimeter laser. <i>Applied Physics Letters</i> , 1978, 33, 154-156.	1.5	13
136	Analytical treatment of linearized self-consistent theory of a gyromonotron with a non-fixed structure. <i>International Journal of Electronics</i> , 1986, 61, 895-903.	0.9	13
137	A long-pulse, CARM oscillator experiment. <i>International Journal of Electronics</i> , 1992, 72, 983-1004.	0.9	13
138	Theory of Linear and Nonlinear Gain in a Gyroamplifier Using a Confocal Waveguide. <i>IEEE Transactions on Plasma Science</i> , 2017, 45, 2438-2449.	0.6	13
139	Efficient high-power CH ₃ F amplifier for a 496- μ m cavity laser. <i>Applied Physics Letters</i> , 1976, 28, 328-330.	1.5	12
140	Laser-induced gas breakdown at cyclotron resonance: Low pressure results. <i>Journal of Magnetism and Magnetic Materials</i> , 1979, 11, 47-50.	1.0	12
141	Handling Technology of Mega-Watt Millimeter-Waves For Optimized Heating of Fusion Plasmas. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 2008, 43, 60-70.	0.4	12
142	Dynamic nuclear polarization at 9 T using a novel 250 GHz gyrotron microwave source. <i>Journal of Magnetic Resonance</i> , 2011, 213, 404-409.	1.2	12
143	Mode Content Determination of Terahertz Corrugated Waveguides Using Experimentally Measured Radiated Field Patterns. <i>IEEE Transactions on Plasma Science</i> , 2012, 40, 1530-1537.	0.6	12
144	Real-time, T-ray imaging using a sub-terahertz gyrotron. <i>Journal of the Korean Physical Society</i> , 2012, 60, 1857-1861.	0.3	12

#	ARTICLE	IF	CITATIONS
145	A high power, narrow linewidth D2O laser at 384.6 μ m. Physics Letters, Section A: General, Atomic and Solid State Physics, 1976, 59, 264-266.	0.9	11
146	137-GHz gyrotron diagnostic for instability studies in Tara. Review of Scientific Instruments, 1986, 57, 1983-1985.	0.6	11
147	Emission of microwave and millimeter wavelength radiation during hollow cathode discharge operation of the back lighted thyratron. Applied Physics Letters, 1992, 61, 2779-2781.	1.5	11
148	Modeling of the interaction of a volumetric metallic metamaterial structure with a relativistic electron beam. Physical Review Special Topics: Accelerators and Beams, 2015, 18, .	1.8	11
149	Prototyping high-gradient mm-wave accelerating structures. Journal of Physics: Conference Series, 2017, 874, 012039.	0.3	11
150	Design of an overmoded W-band TWT. , 2009, , .		10
151	Calculation of a Hyperbolic Corrugated Horn Converting the TEM ₀₀ Mode to the HE ₁₁ Mode. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 283-294.	1.2	10
152	Novel linear analysis for a gyrotron oscillator based on a spectral approach. Physics of Plasmas, 2016, 23, .	0.7	10
153	Coherent high-power RF wakefield generation by electron bunch trains in a metamaterial structure. Applied Physics Letters, 2020, 116, .	1.5	10
154	Continuous-Wave Operation of a Frequency-Tunable 460-GHz Second-Harmonic Gyrotron for Enhanced Nuclear Magnetic Resonance. IEEE Transactions on Electron Devices, 2010, 38, 1150-1159.	1.6	10
155	Free-electron lasers and their application to biomedicine. IEEE Journal of Quantum Electronics, 1987, 23, 1739-1750.	1.0	9
156	RADIATION SOURCES: Scanning with Ease Through the Far Infrared. Science, 1998, 280, 854-854.	6.0	9
157	Measurement of wakefields in a 17GHz photonic bandgap accelerator structure. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 618, 16-21.	0.7	9
158	Design and High-Power Test of an Internal Coupler to HE ₁₁ Mode in Corrugated Waveguide for High-Power Gyrotrons. IEEE Transactions on Electron Devices, 2018, 65, 2316-2320.	1.6	9
159	A gyrotron with a minimum Qcavity. International Journal of Electronics, 1986, 61, 757-770.	0.9	8
160	High-Frequency Cyclotron Autoresonance Maser Amplifier Experiments At MIT. Proceedings of SPIE, 1989, 1061, 243.	0.8	8
161	Study of rotating modes in high frequency whispering gallery mode gyrotrons. IEEE Transactions on Plasma Science, 1994, 22, 883-888.	0.6	8
162	Mode conversion losses in ITER transmission lines. , 2008, , .		8

#	ARTICLE	IF	CITATIONS
163	Subterahertz Photonic Crystal Klystron Amplifier. Physical Review Letters, 2019, 123, 244801.	2.9	8
164	Experimental high gradient testing of a 17.1ÅGHz photonic band-gap accelerator structure. Physical Review Accelerators and Beams, 2016, 19, .	0.6	8
165	Development of high power ch3f laser systems for plasma diagnosticsâ—. Infrared Physics, 1976, 16, 429-434.	0.5	7
166	Prospects for high power gyrotrons. Plasma Physics and Controlled Fusion, 1985, 27, 1449-1459.	0.9	7
167	The Design Of Megawatt Gyrotrons For The Compact Ignition Tokamak. Proceedings of SPIE, 1988, 1039, 179.	0.8	7
168	Theory And Design Of A High-Power, 140 Ghz CARM Amplifier. Proceedings of SPIE, 1988, 0873, 143.	0.8	7
169	Velocity spread measurements on a magnetron injection gun beam. Journal of Applied Physics, 1994, 76, 3237-3243.	1.1	7
170	Low-Power Testing of Losses in Millimeter-Wave Transmission Lines for High-Power Applications. Journal of Infrared, Millimeter and Terahertz Waves, 2008, 29, 1011-1018.	0.6	7
171	Active real-time imaging system employed with a CW 460-GHz gyrotron and a pyroelectric array camera. , 2009, , .		7
172	14.4: Design of a 250 GHz photonic band gap gyrotron amplifier. , 2010, , .		7
173	THz gyrotrons and their applications. , 2014, , .		7
174	A Gyrotron with a High Q Cavity for Plasma Scattering Diagnostics. IEEE Transactions on Plasma Science, 1985, 13, 393-397.	0.6	6
175	Quasi-optical gyrotron with arbitrary beam injection angle. IEEE Transactions on Electron Devices, 1988, 35, 1166-1171.	1.6	6
176	Gyrotron collective Thomson scattering from plasma fluctuations in a Tara axicell. Review of Scientific Instruments, 1988, 59, 1562-1564.	0.6	6
177	Influence of sideband oscillations on gyrotron efficiency. IEEE Transactions on Plasma Science, 1994, 22, 871-877.	0.6	6
178	Mode-Content Analysis and Field Reconstruction of Propagating Waves in Corrugated Waveguides of an ECH System. Plasma and Fusion Research, 2010, 5, S1029-S1029.	0.3	6
179	Gas breakdown at cyclotron resonance with a submillimeter laser. Applied Physics Letters, 1976, 29, 146-148.	1.5	5
180	Low emittance electron beam formation with a 17 GHz RF gun. Physical Review Special Topics: Accelerators and Beams, 2001, 4, .	1.8	5

#	ARTICLE	IF	CITATIONS
181	Synthesis of gyrotron phase-correcting mirrors using irradiance moments. IEEE Transactions on Microwave Theory and Techniques, 2005, 53, 2610-2615.	2.9	5
182	Absolute scale power measurements of frequency-locked coherent transition radiation. Physical Review Special Topics: Accelerators and Beams, 2007, 10, .	1.8	5
183	Design and experimental results from a 527 GHz gyrotron for DNP-NMR spectroscopy. , 2014, , .		5
184	Cold test of gyrotron cavity modes using a 3D CFDTD method. , 2014, , .		5
185	Hot test of gyrotron cavity interaction using a 3D CFDTD PIC method. , 2014, , .		5
186	A 140 GHz gyro-amplifier using a sever-less confocal waveguide. , 2016, , .		5
187	Mode Conversion Losses in Expansion Units for ITER ECH Transmission Lines. Journal of Infrared, Millimeter, and Terahertz Waves, 2016, 37, 72-86.	1.2	5
188	Study of the Effect of Reflections on High-Power, 110-GHz Pulsed Gyrotron Operation. Journal of Infrared, Millimeter, and Terahertz Waves, 2021, 42, 547-556.	1.2	5
189	High power experimental studies of hybrid photonic band gap accelerator structures. Physical Review Accelerators and Beams, 2016, 19, .	0.6	5
190	Photonic Band Gap Structures for Accelerator Applications. AIP Conference Proceedings, 2002, , .	0.3	4
191	Evaluation of phase correcting mirrors for an 84GHz gyrotron based on direct phase measurements at low-power level. Fusion Engineering and Design, 2005, 73, 9-18.	1.0	4
192	Design of Electron Cyclotron Heating and Current Drive System of ITER. AIP Conference Proceedings, 2007, , .	0.3	4
193	Progress of a 140 GHz, 1 kW Confocal Gyro-TWT Amplifier. , 2007, 2007, 1-2.		4
194	Mode retrieval from intensity profile measurements using irradiant waveguide-modes. , 2009, , .		4
195	330 GHz helically corrugated waveguide. , 2011, , .		4
196	A high gain photonic band gap gyrotron amplifier. , 2013, , .		4
197	Calculation of wakefields in a 17ÅGHz beam-driven photonic band-gap accelerator structure. Physical Review Special Topics: Accelerators and Beams, 2013, 16, .	1.8	4
198	Progress of a 140 GHz gyro-amplifier using a confocal waveguide. , 2014, , .		4

#	ARTICLE	IF	CITATIONS
199	Results from mm-Wave Accelerating Structure High-Gradient Tests. , 2018, , .		4
200	Review of metamaterial-inspired vacuum electron devices. , 2018, , .		4
201	High-Gradient Test Results of W-Band Accelerator Structures. , 2019, , .		4
202	Cyclotron resonant laser induced gas breakdown at 496 microm. Optics Communications, 1976, 18, 226-227.	1.0	3
203	Operation Of Harmonic Gyrotrons In The Submillimeter Region. , 1988, , .		3
204	Slotted-resonator gyrotron experiments. IEEE Transactions on Electron Devices, 1991, 38, 1544-1552.	1.6	3
205	Experimental Study of a Megawatt 200-300 GHz Gyrotron Oscillator. Fusion Science and Technology, 1992, 21, 1648-1653.	0.6	3
206	Design of a 460 GHz Continuous-Wave Gyrotron Operating at TE _{11,2} Mode. , 2007, , .		3
207	Recent progress at MIT on THz gyrotron oscillators for DNP/NMR. , 2011, , .		3
208	Progress on a 250 GHz photonic band gap gyrotron traveling wave tube. , 2011, , .		3
209	High power test of an internal coupler to corrugated waveguide for high power gyrotrons. , 2014, , .		3
210	Design of a volume mode W-band TWT amplifier. , 2014, , .		3
211	A 94 GHz overmoded coupled cavity TWT experiment. , 2014, , .		3
212	Amplification of picosecond pulses with a photonic-band-gap gyro-TWT. , 2016, , .		3
213	Simple Expressions for the Design of Linear Tapers in Overmoded Corrugated Waveguides. Journal of Infrared, Millimeter, and Terahertz Waves, 2016, 37, 100-110.	1.2	3
214	Measurement of internal dark current in a 17ÂGHz, high gradient accelerator structure. Physical Review Accelerators and Beams, 2019, 22, .	0.6	3
215	Nonlinear theory of quasi-optical gyrotron with an electron beam at an oblique angle. IEEE Transactions on Electron Devices, 1990, 37, 833-839.	1.6	2
216	Autophase cyclotron autoresonance maser amplifiers. Physics of Fluids B, 1992, 4, 1077-1080.	1.7	2

#	ARTICLE	IF	CITATIONS
217	A photoacoustic joulemeter for millimeter wave radiation. Review of Scientific Instruments, 1992, 63, 166-171.	0.6	2
218	Mode content analysis in circular corrugated waveguide using radiated field. , 2007, , .		2
219	Simulation of the bulk and surface modes supported by a diamond lattice of metal wires. Journal of Applied Physics, 2008, 104, 103107.	1.1	2
220	Operation of a wideband 140 GHz, 1 kW confocal gyro-traveling wave amplifier. , 2008, , .		2
221	A wideband 140 GHz, 1 kW confocal gyro-traveling wave amplifier. , 2008, , .		2
222	A tunable continuous-wave 330 GHz gyrotron for enhanced nuclear magnetic resonance. , 2009, , .		2
223	An overmoded 140 GHz, 1 kW quasioptical gyro-twt with an internal mode converter. , 2009, , .		2
224	10.3: Experimental measurement of picosecond pulse amplification in a 140 GHz Gyro-TWT. , 2010, , .		2
225	An overview of control system for the ITER electron cyclotron system. Fusion Engineering and Design, 2011, 86, 959-962.	1.0	2
226	Over-moded W-band Traveling Wave Tube design. , 2012, , .		2
227	A 250 GHz photonic band gap gyrotron traveling wave amplifier. , 2012, , .		2
228	Long pulse operation of a high power microwave source with a metamaterial loaded waveguide. , 2017, , .		2
229	Design of a 94 GHz photonic bandgap based extended interaction klystron amplifier. , 2017, , .		2
230	Grating Polarizers at 170 GHz for ECRH Systems: Low Power Tests and Simulations. IEEE Transactions on Antennas and Propagation, 2018, 66, 4719-4728.	3.1	2
231	Modular, triple-resonance, transmission line DNP MAS probe for 500 MHz/330 MHz. Journal of Magnetic Resonance, 2019, 307, 106573.	1.2	2
232	High Gradient and rf Breakdown Measurements in a Millimeter-Wave Accelerating Cavity. , 2020, , .		2
233	Cyclotron resonant gas breakdown with a 1.22 mm ¹³ CH ₃ F laser. Journal of Applied Physics, 1979, 50, 121-126.	1.1	1
234	Narrow bandwidth emission from a mirrorless, far infrared, ¹³ CH ₃ F laser. IEEE Journal of Quantum Electronics, 1988, 24, 99-104.	1.0	1

#	ARTICLE	IF	CITATIONS
235	Millimeter Wave CARM Amplifier Experiment. Proceedings of SPIE, 1988, 1039, 316.	0.8	1
236	High Power Gyrotrons. Materials Research Society Symposia Proceedings, 1994, 347, 91.	0.1	1
237	Single-Stage Depressed Collector Experimental Results from a 110 GHz 1.5 MW Gyrotron at MIT. , 2006, , .		1
238	Low power testing of losses in components for the ITER ECH transmission lines. , 2007, , .		1
239	Photonic bandgap (PBG) accelerator structure design. , 2007, , .		1
240	Study of after cavity interaction in a high efficiency 1.5 MW, 110 GHz gyrotron. , 2008, , .		1
241	Propagating mode analysis and field reconstruction in the corrugated waveguides of a high power electron cyclotron heating system. , 2008, , .		1
242	Effects of after cavity interaction in a 1.5 MW, 110 GHz gyrotron with a depressed collector. , 2008, , .		1
243	Design and testing of an internal mode converter for a 1.5 MW, 110 GHz gyrotron with a depressed collector. , 2009, , .		1
244	Calculation and measurement of higher order mode losses in ITER ECH transmission lines. , 2009, , .		1
245	Activities on Realization of High-Power and Steady-State ECRH System and Achievement of High Performance Plasmas in LHD. , 2009, , .		1
246	Amplification of picosecond pulses in a 140 GHz gyro-TWT. , 2010, , .		1
247	14.2: Operation of a 1.5 MW, 110 GHz gyrotron with an advanced internal mode converter. , 2010, , .		1
248	Optimization of THz wave coupling into samples in DNP/NMR spectroscopy. , 2010, , .		1
249	10.6: Operation of a tunable second-harmonic 330 GHz CW gyrotron. , 2010, , .		1
250	Mode excitation during start-Up of a 1.5 MW, 110 GHz gyrotron. , 2011, , .		1
251	Design of an over-moded 94 GHz coupled-cavity TWT. , 2011, , .		1
252	Mode excitation during the voltage rise in megawatt gyrotrons. , 2012, , .		1

#	ARTICLE	IF	CITATIONS
253	A novel high power 3 GHz tunable 250 GHz gyrotron for Dynamic Nuclear Polarization. , 2012, , .		1
254	Operation of a 140GHz gyro-amplifier using a confocal waveguide. , 2012, , .		1
255	Cold test of gyrotron cavity modes using a 3D CFDTD method. , 2014, , .		1
256	Corrugated Waveguide Mode Content Analysis Using Irradiance Moments. IEEE Transactions on Plasma Science, 2014, 42, 3358-3364.	0.6	1
257	Overmoded traveling wave tubes for MM and THz applications. , 2015, , .		1
258	Overmoded W-band traveling wave tube (TWT) design and test. , 2015, , .		1
259	Cryogenic testing of the 2.1â€‰GHz five-cell superconducting RF cavity with a photonic band gap coupler cell. Applied Physics Letters, 2016, 108, 222603.	1.5	1
260	Controllability Study of Propagating Mode Content by an Angle-Adjustable Mirror of a Miter-Bend in EC H&CD Transmission Line. IEEE Transactions on Plasma Science, 2016, 44, 3392-3397.	0.6	1
261	Designs of W-band TWT amplifiers with large beam tunnels. , 2016, , .		1
262	A 140 GHz gyro-amplifier using a dielectric-loaded, sever-less confocal waveguide. , 2017, , .		1
263	Design and test of a W-band photonic bandgap extended interaction Klystron amplifier. , 2018, , .		1
264	Linear theory of instabilities generated by an electron beam in a metamaterial-loaded waveguide. Physics of Plasmas, 2019, 26, 033104.	0.7	1
265	Phase Measurements of a 140-GHz Confocal Gyro-Amplifier. Journal of Infrared, Millimeter, and Terahertz Waves, 2021, 42, 29-39.	1.2	1
266	<title>An Introduction To Optically Pumped Lasers</title>. , 1977, , .		0
267	Tuning behavior of a ch₃f amplified spontaneous emission laser. , 1987, , .		0
268	Submillimeter Gyrotron For Space Based Radar. Proceedings of SPIE, 1988, , .	0.8	0
269	Nonlinear Theory Of Quasi-Optical Gyrotron With An Electron Beam At An Oblique Angle. Proceedings of SPIE, 1988, , .	0.8	0
270	Multi-Megawatt Gyrotron Design Study. Fusion Science and Technology, 1992, 21, 1654-1657.	0.6	0

#	ARTICLE	IF	CITATIONS
271	New opportunities in vacuum electronics using photonic band gap structures. AIP Conference Proceedings, 2002, , .	0.3	0
272	Coherent Transition and Smith Purcell Radiation Experiments. AIP Conference Proceedings, 2006, , .	0.3	0
273	Observation of wakefields in a 17 Ghz metallic photonic bandgap (PBG) structure. , 2007, , .		0
274	Surface waves on interface of 3D metal-wire diamond lattice for accelerator applications. , 2007, , .		0
275	Experimental Investigation of Filamentary Arrays in a Breakdown Plasma Generated by a 1.5 MW, 110 GHz Gyrotron. , 2007, , .		0
276	P3-3: Measurement of loss in high power 170 GHz gyrotron transmission lines. , 2010, , .		0
277	Design of a high power S-Band backward-wave oscillator with a metamaterial interaction circuit. , 2014, , .		0
278	Determination of waveguide mode content using irradiance moments. , 2014, , .		0
279	Hot test of gyrotron cavity interaction using a 3D CFDTD PIC method. , 2014, , .		0
280	94 GHz overmoded TWT experiment. , 2014, , .		0
281	Design Of Oversized Twts With Photonic Band-Gap Structures. , 2017, , .		0
282	High power microwave generation by Cherenkov-cyclotron instability in a metamaterial structure with negative group velocity. , 2018, , .		0
283	Design of a 250 GHz disk-loaded waveguide TWT amplifier. , 2018, , .		0
284	Second Harmonic 527 GHz Gyrotron for DNP-NMR. , 2019, , .		0
285	Higher order mode damping in a five-cell superconducting rf cavity with a photonic band gap coupler cell. Physical Review Accelerators and Beams, 2016, 19, .	0.6	0
286	Measurement of internal dark current in a 17ÅGHz accelerator structure with an elliptical sidewall. Physical Review Accelerators and Beams, 2020, 23, .	0.6	0
287	Phase Measurements of a 140 GHz Confocal Gyro-Amplifier. , 2020, , .		0
288	<title>Operation Of A Gyrotron At The Fundamental And Second Harmonic</title>. , 1981, , .		0

#	ARTICLE	IF	CITATIONS
289	Generation of 565ÂMW of X -band power using a metamaterial power extractor for structure-based wakefield acceleration. Physical Review Accelerators and Beams, 2022, 25, .	0.6	0