Richard J Temkin

List of Publications by Year in descending order

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289 papers 10,778 citations

47409 49 h-index 97 g-index

293 all docs

293
docs citations

times ranked

293

4472 citing authors

#	Article	IF	CITATIONS
1	Generation of 565ÂMW of <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>X</mml:mi></mml:math> -band power using a metamaterial power extractor for structure-based wakefield acceleration. Physical Review Accelerators and Beams, 2022, 25, .	0.6	O
2	Phase Measurements of a 140-GHz Confocal Gyro-Amplifier. Journal of Infrared, Millimeter, and Terahertz Waves, 2021, 42, 29-39.	1.2	1
3	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
4	Second Harmonic 527-GHz Gyrotron for DNP-NMR: Design and Experimental Results. IEEE Transactions on Electron Devices, 2020, 67, 328-334.	1.6	41
5	Experimental demonstration of externally driven millimeter-wave particle accelerator structure. Applied Physics Letters, 2020, 117, .	1.5	53
6	Coherent high-power RF wakefield generation by electron bunch trains in a metamaterial structure. Applied Physics Letters, 2020, 116, .	1.5	10
7	Measurement of internal dark current in a 17ÂGHz accelerator structure with an elliptical sidewall. Physical Review Accelerators and Beams, 2020, 23, .	0.6	O
8	Phase Measurements of a 140 GHz Confocal Gyro-Amplifier. , 2020, , .		0
9	High Gradient and rf Breakdown Measurements in a Millimeter-Wave Accelerating Cavity. , 2020, , .		2
10	Modular, triple-resonance, transmission line DNP MAS probe for 500†MHz/330†GHz. Journal of Magnetic Resonance, 2019, 307, 106573.	1.2	2
11	High frequency dynamic nuclear polarization: New directions for the 21st century. Journal of Magnetic Resonance, 2019, 306, 128-133.	1.2	33
12	Measurement of Dielectric Multipactor Thresholds at 110ÂGHz. Physical Review Letters, 2019, 123, 175001.	2.9	14
13	High-Gradient Test Results of W-Band Accelerator Structures. , 2019, , .		4
14	Second Harmonic 527 GHz Gyrotron for DNP-NMR., 2019,,.		0
15	Laser-driven semiconductor switch for generating nanosecond pulses from a megawatt gyrotron. Applied Physics Letters, 2019, 114, 164102.	1.5	32
16	Linear theory of instabilities generated by an electron beam in a metamaterial-loaded waveguide. Physics of Plasmas, 2019, 26, 033104.	0.7	1
17	Subterahertz Photonic Crystal Klystron Amplifier. Physical Review Letters, 2019, 123, 244801.	2.9	8
18	Metamaterial-Inspired Vacuum Electron Devices and Accelerators. IEEE Transactions on Electron Devices, 2019, 66, 207-218.	1.6	48

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19	Generation of High-Power, Reversed-Cherenkov Wakefield Radiation in a Metamaterial Structure. Physical Review Letters, 2019, 122, 014801.	2.9	38
20	Measurement of internal dark current in a 17ÂGHz, high gradient accelerator structure. Physical Review Accelerators and Beams, 2019, 22, .	0.6	3
21	High power long pulse microwave generation from a metamaterial structure with reverse symmetry. Physics of Plasmas, 2018, 25, .	0.7	14
22	Results from mm-Wave Accelerating Structure High-Gradient Tests. , 2018, , .		4
23	Review of metamaterial-inspired vacuum electron devices. , 2018, , .		4
24	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
25	High power microwave generation by Cherenkov-cyclotron instability in a metamaterial structure with negative group velocity. , $2018, , .$		0
26	Design and test of a W-band photonic bandgap extended interaction Klystron amplifier. , 2018, , .		1
27	Design of a 250 GHz disk-loaded waveguide TWT amplifier. , 2018, , .		0
28	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
29	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
30	Photonic-band-gap gyrotron amplifier with picosecond pulses. Applied Physics Letters, 2017, 111, 233504.	1.5	35
31	Prototyping high-gradient mm-wave accelerating structures. Journal of Physics: Conference Series, 2017, 874, 012039.	0.3	11
32	Design Of Oversized Twts With Photonic Band-Gap Structures. , 2017, , .		0
33	Long pulse operation of a high power microwave source with a metamaterial loaded waveguide. , 2017,		2
34	Design of a 94 GHz photonic bandgap based extended interaction klystron amplifier. , 2017, , .		2
35	A 140 GHz gyro-amplifier using a dielectric-loaded, sever-less confocal waveguide., 2017,,.		1
36	Theory of Linear and Nonlinear Gain in a Gyroamplifier Using a Confocal Waveguide. IEEE Transactions on Plasma Science, 2017, 45, 2438-2449.	0.6	13

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37	Cryogenic testing of the 2.1 GHz five-cell superconducting RF cavity with a photonic band gap coupler cell. Applied Physics Letters, 2016, 108, 222603.	1.5	1
38	Coherent Cherenkov-Cyclotron Radiation Excited by an Electron Beam in a Metamaterial Waveguide. Physical Review Letters, 2016, 117, 237701.	2.9	47
39	Electron density and gas density measurements in a millimeter-wave discharge. Physics of Plasmas, 2016, 23, .	0.7	37
40	Novel linear analysis for a gyrotron oscillator based on a spectral approach. Physics of Plasmas, 2016, 23, .	0.7	10
41	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
42	Amplification of picosecond pulses with a photonic-band-gap gyro-TWT., 2016,,.		3
43	A 140 GHz gyro-amplifier using a sever-less confocal waveguide. , 2016, , .		5
44	Designs of W-band TWT amplifiers with large beam tunnels. , 2016, , .		1
45	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
46	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
47	Experimental high gradient testing of a 17.1ÂGHz photonic band-gap accelerator structure. Physical Review Accelerators and Beams, 2016, 19, .	0.6	8
48	High power experimental studies of hybrid photonic band gap accelerator structures. Physical Review Accelerators and Beams, 2016, 19, .	0.6	5
49	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
50	Overmoded traveling wave tubes for MM and THz applications. , 2015, , .		1
51	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
52	An Overmoded W-Band Coupled-Cavity TWT. IEEE Transactions on Electron Devices, 2015, 62, 1609-1616.	1.6	83
53	Overmoded W-band traveling wave tube (TWT) design and test. , 2015, , .		1
54	THz gyrotrons and their applications. , 2014, , .		7

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55	Sub-wavelength waveguide loaded by a complementary electric metamaterial for vacuum electron devices. Physics of Plasmas, 2014, 21, .	0.7	61
56	Design of a high power S-Band backward-wave oscillator with a metamaterial interaction circuit. , 2014, , .		0
57	High power test of an internal coupler to corrugated waveguide for high power gyrotrons. , 2014, , .		3
58	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
59	Design of a volume mode W-band TWT amplifier. , 2014, , .		3
60	Determination of waveguide mode content using irradiance moments. , 2014, , .		0
61	Cold test of gyrotron cavity modes using a 3D CFDTD method., 2014,,.		1
62	Design and experimental results from a 527 GHz gyrotron for DNP-NMR spectroscopy. , 2014, , .		5
63	Design of a Metamaterial-Based Backward-Wave Oscillator. IEEE Transactions on Plasma Science, 2014, 42, 930-936.	0.6	65
64	Experimental Results for a Pulsed 110/124.5-GHz Megawatt Gyrotron. IEEE Transactions on Plasma Science, 2014, 42, 1128-1134.	0.6	16
65	Progress of a 140 GHz gyro-amplifier using a confocal waveguide. , 2014, , .		4
66	Cold test of gyrotron cavity modes using a 3D CFDTD method., 2014,,.		5
67	Hot test of gyrotron cavity interaction using a 3D CFDTD PIC method. , 2014, , .		5
68	Simple Correctors for Elimination of High-Order Modes in Corrugated Waveguide Transmission Lines. IEEE Transactions on Plasma Science, 2014, 42, 29-37.	0.6	14
69	A 94 GHz overmoded coupled cavity TWT experiment. , 2014, , .		3
70	Corrugated Waveguide Mode Content Analysis Using Irradiance Moments. IEEE Transactions on Plasma Science, 2014, 42, 3358-3364.	0.6	1
71	Hot test of gyrotron cavity interaction using a 3D CFDTD PIC method. , 2014, , .		0
72	94 GHz overmoded TWT experiment. , 2014, , .		0

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73	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
74	A high gain photonic band gap gyrotron amplifier. , 2013, , .		4
75	Photonic-Band-Gap Traveling-Wave Gyrotron Amplifier. Physical Review Letters, 2013, 111, 235101.	2.9	100
76	Continuously Tunable 250ÂGHz Gyrotron with a Double Disk Window for DNP-NMR Spectroscopy. Journal of Infrared, Millimeter, and Terahertz Waves, 2013, 34, 42-52.	1,2	45
77	High Frequency Dynamic Nuclear Polarization. Accounts of Chemical Research, 2013, 46, 1933-1941.	7.6	480
78	Millimeter wave scattering and diffraction in 110 GHz air breakdown plasma. Physics of Plasmas, 2013, 20, 043507.	0.7	20
79	Calculation of wakefields in a 17ÂGHz beam-driven photonic band-gap accelerator structure. Physical Review Special Topics: Accelerators and Beams, 2013, 16, .	1.8	4
80	High power breakdown testing of a photonic band-gap accelerator structure with elliptical rods. Physical Review Special Topics: Accelerators and Beams, 2013, 16 , .	1.8	14
81	Active negative-index metamaterial powered by an electron beam. Physical Review B, 2012, 86, .	1.1	64
82	Spectroscopic temperature measurements of air breakdown plasma using a $110\mathrm{GHz}$ megawatt gyrotron beam. Physics of Plasmas, $2012,19,.$	0.7	28
83	Mode Content Determination of Terahertz Corrugated Waveguides Using Experimentally Measured Radiated Field Patterns. IEEE Transactions on Plasma Science, 2012, 40, 1530-1537.	0.6	12
84	Mode excitation during the voltage rise in megawatt gyrotrons. , 2012, , .		1
85	A 250 GHz gyrotron with a 3 GHz tuning bandwidth for dynamic nuclear polarization. Journal of Magnetic Resonance, 2012, 221, 147-153.	1.2	87
86	A novel high power 3 GHz tunable 250 GHz gyrotron for Dynamic Nuclear Polarization. , 2012, , .		1
87	Operation of a 140GHz gyro-amplifier using a confocal waveguide. , 2012, , .		1
88	Over-moded W-band Traveling Wave Tube design. , 2012, , .		2
89	A 250 GHz photonic band gap gyrotron traveling wave amplifier. , 2012, , .		2
90	A 140GHz pulsed EPR/212MHz NMR spectrometer for DNP studies. Journal of Magnetic Resonance, 2012, 223, 170-179.	1.2	37

#	Article	IF	Citations
91	Dynamic nuclear polarization at 700MHz/460GHz. Journal of Magnetic Resonance, 2012, 224, 1-7.	1.2	85
92	Low-loss Transmission Lines for High-power Terahertz Radiation. Journal of Infrared, Millimeter, and Terahertz Waves, 2012, 33, 695-714.	1.2	58
93	Real-time, T-ray imaging using a sub-terahertz gyrotron. Journal of the Korean Physical Society, 2012, 60, 1857-1861.	0.3	12
94	330 GHz helically corrugated waveguide. , 2011, , .		4
95	Recent progress at MIT on THz gyrotron oscillators for DNP/NMR. , 2011, , .		3
96	Mode excitation during start-Up of a 1.5 MW, 110 GHz gyrotron., 2011,,.		1
97	Progress on a 250 GHz photonic band gap gyrotron traveling wave tube. , 2011, , .		3
98	Design of an over-moded 94 GHz coupled-cavity TWT. , 2011, , .		1
99	Overview of the ITER EC H&CD system and its capabilities. Fusion Engineering and Design, 2011, 86, 951-954.	1.0	82
100	An overview of control system for the ITER electron cyclotron system. Fusion Engineering and Design, 2011, 86, 959-962.	1.0	2
101	Vacuum Electronic High Power Terahertz Sources. IEEE Transactions on Terahertz Science and Technology, 2011, 1, 54-75.	2.0	841
102	THz Dynamic Nuclear Polarization NMR. IEEE Transactions on Terahertz Science and Technology, 2011, 1, 145-163.	2.0	161
103	The EC H&CD Transmission Line for ITER. Fusion Science and Technology, 2011, 59, 709-717.	0.6	42
104	Dynamic nuclear polarization at 9 T using a novel 250 GHz gyrotron microwave source. Journal of Magnetic Resonance, 2011, 213, 404-409.	1.2	12
105	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
106	Calculation of a Hyperbolic Corrugated Horn Converting the TEM00 Mode to the HE11 Mode. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 283-294.	1.2	10
107	Experimental Results on a 1.5ÂMW, 110ÂGHz Gyrotron with a Smooth Mirror Mode Converter. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 358-370.	1.2	25
108	Microwave field distribution in a magic angle spinning dynamic nuclear polarization NMR probe. Journal of Magnetic Resonance, 2011, 210, 16-23.	1.2	73

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109	<mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">display="inline"><mml:mi>X</mml:mi></mml:math> -band photonic band-gap accelerator structure breakdown experiment. Physical Review Special Topics: Accelerators and Beams, 2011, 14, .	1.8	20
110	Measurements of electron avalanche formation time in W-band microwave air breakdown. Physics of Plasmas, 2011, 18, 080707.	0.7	20
111	Observation of plasma array dynamics in 110 GHz millimeter-wave air breakdown. Physics of Plasmas, 2011, 18, 100704.	0.7	29
112	Loss Estimate for ITER ECH Transmission Line Including Multimode Propagation. Fusion Science and Technology, 2010, 57, 196-207.	0.6	46
113	Measurement of RF Transmission Mode in ITER Relevant EC H&CD Transmission Line. Journal of Infrared, Millimeter, and Terahertz Waves, 2010, 31, 949.	1.2	19
114	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
115	Amplification of picosecond pulses in a 140 GHz gyro-TWT. , 2010, , .		1
116	14.4: Design of a 250 GHz photonic band gap gyrotron amplifier. , 2010, , .		7
117	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
118	Linearly Polarized Modes of a Corrugated Metallic Waveguide. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 2772-2780.	2.9	69
119	10.3: Experimental measurement of picosecond pulse amplification in a 140 GHz Gyro-TWT., 2010,,.		2
120	14.2: Operation of a 1.5 MW, 110 GHz gyrotron with an advanced internal mode converter. , 2010, , .		1
121	P3-3: Measurement of loss in high power 170 GHz gyrotron transmission lines. , 2010, , .		0
122	Resolution and polarization distribution in cryogenic DNP/MAS experiments. Physical Chemistry Chemical Physics, 2010, 12, 5861.	1.3	87
123	Amplification of Picosecond Pulses in a 140-GHz Gyrotron-Traveling Wave Tube. Physical Review Letters, 2010, 105, 135101.	2.9	50
124	Optimization of THz wave coupling into samples in DNP/NMR spectroscopy. , 2010, , .		1
125	10.6: Operation of a tunable second-harmonic 330 GHz CW gyrotron. , 2010, , .		1
126	Solid-state dynamic nuclear polarization at 263 GHz: spectrometer design and experimental results. Physical Chemistry Chemical Physics, 2010, 12, 5850.	1.3	315

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127	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
128	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
129	Design and testing of an internal mode converter for a 1.5 MW, 110 GHz gyrotron with a depressed collector., 2009,,.		1
130	Mode retrieval from intensity profile measurements using irradiant waveguide-modes. , 2009, , .		4
131	Calculation and measurement of higher order mode losses in ITER ECH transmission lines. , 2009, , .		1
132	Activities on Realization of High-Power and Steady-State ECRH System and Achievement of High Performance Plasmas in LHD. , 2009, , .		1
133	Demonstration of a 140-GHz 1-kW Confocal Gyro-Traveling-Wave Amplifier. IEEE Transactions on Electron Devices, 2009, 56, 818-827.	1.6	55
134	Cryogenic sample exchange NMR probe for magic angle spinning dynamic nuclear polarization. Journal of Magnetic Resonance, 2009, 198, 261-270.	1.2	108
135	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
136	Plasma structures observed in gas breakdown using a 1.5 MW, 110 GHz pulsed gyrotron. Physics of Plasmas, 2009, 16, .	0.7	113
137	Design of an overmoded W-band TWT. , 2009, , .		10
138	Active real-time imaging system employed with a CW 460-GHz gyrotron and a pyroelectric array camera. , 2009, , .		7
139	Observation and Study of Low-Frequency Oscillations in a 1.5-MW 110-GHz Gyrotron. IEEE Transactions on Plasma Science, 2009, 37, 1219-1224.	0.6	19
140	A tunable continuous-wave 330 GHz gyrotron for enhanced nuclear magnetic resonance. , 2009, , .		2
141	An overmoded 140 GHz, 1 kW quasioptical gyro-twt with an internal mode converter. , 2009, , .		2
142	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
143	High-Field Dynamic Nuclear Polarization for Solid and Solution Biological NMR. Applied Magnetic Resonance, 2008, 34, 237-263.	0.6	296
144	Dynamic nuclear polarization at high magnetic fields. Journal of Chemical Physics, 2008, 128, 052211.	1.2	734

#	Article	IF	CITATIONS
145	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
146	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
147	Study of after cavity interaction in a high efficiency 1.5 MW, 110 GHz gyrotron. , 2008, , .		1
148	Operation of a wideband 140 GHz, 1 kW confocal gyro-traveling wave amplifier., 2008,,.		2
149	Mode conversion losses in ITER transmission lines. , 2008, , .		8
150	A wideband 140 GHz, 1 kW confocal gyro-traveling wave amplifier. , 2008, , .		2
151	Propagating mode analysis and field reconstruction in the corrugated waveguides of a high power electron cyclotron heating system. , 2008, , .		1
152	Imaging of Atmospheric Air Breakdown Caused by a High-Power 110-GHz Pulsed Gaussian Beam. IEEE Transactions on Plasma Science, 2008, 36, 936-937.	0.6	14
153	Effects of after cavity interaction in a 1.5 MW, 110 GHz gyrotron with a depressed collector. , 2008, , .		1
154	CW operation of a tunable 330/460 GHz gyrotron for enhanced nuclear magnetic resonance. , 2008, , .		18
155	Handling Technology of Mega-Watt Millimeter-Waves For Optimized Heating of Fusion Plasmas. Journal of Microwave Power and Electromagnetic Energy, 2008, 43, 60-70.	0.4	12
156	Mode content analysis in circular corrugated waveguide using radiated field., 2007,,.		2
157	Design of Electron Cyclotron Heating and Current Drive System of ITER. AIP Conference Proceedings, 2007, , .	0.3	4
158	Low power testing of losses in components for the ITER ECH transmission lines. , 2007, , .		1
159	Photonic bandgap (PBG) accelerator structure design. , 2007, , .		1
160	Absolute scale power measurements of frequency-locked coherent transition radiation. Physical Review Special Topics: Accelerators and Beams, 2007, 10, .	1.8	5
161	Design of a 460 GHz Continuous-Wave Gyrotron Operating at TE <inf>11,2</inf> Mode., 2007,,.		3
162	Observation of wakefields in a 17 Ghz metallic photonic bandgap (PBG) structure., 2007,,.		0

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163	Surface waves on interface of 3D metal-wire diamond lattice for accelerator applications., 2007,,.		O
164	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
165	Experimental Investigation of Filamentary Arrays in a Breakdown Plasma Generated by a 1.5 MW, 110 GHz Gyrotron., 2007,,.		0
166	Progress of a 140 GHz, 1 kW Confocal Gyro-TWT Amplifier., 2007, 2007, 1-2.		4
167	Experimental observation of the effect of aftercavity interaction in a depressed collector gyrotron oscillator. Physics of Plasmas, 2007, 14, .	0.7	30
168	250GHz CW gyrotron oscillator for dynamic nuclear polarization in biological solid state NMR. Journal of Magnetic Resonance, 2007, 189, 251-279.	1.2	158
169	Efficient Low-Voltage Operation of a CW Gyrotron Oscillator at 233 GHz. IEEE Transactions on Plasma Science, 2007, 35, 27-30.	0.6	63
170	Spectral Characteristics of a 140-GHz Long-Pulsed Gyrotron. IEEE Transactions on Plasma Science, 2007, 35, 559-564.	0.6	28
171	Continuous-wave operation of a 460-GHz second harmonic gyrotron oscillator. IEEE Transactions on Plasma Science, 2006, 34, 524-533.	0.6	128
172	Operational characteristics of a 14-W 140-GHz gyrotron for dynamic nuclear polarization. IEEE Transactions on Plasma Science, 2006, 34, 518-523.	0.6	64
173	Continuous-wave submillimeter-wave gyrotrons. , 2006, 6373, 63730C.		15
174	Spatial dispersion in metamaterials with negative dielectric permittivity and its effect on surface waves. Optics Letters, 2006, 31, 2051.	1.7	42
175	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
176	Coherent Transition and Smith Purcell Radiation Experiments. AIP Conference Proceedings, 2006, , .	0.3	0
177	Power measurement of frequency-locked Smith-Purcell radiation. Physical Review Special Topics: Accelerators and Beams, 2006, 9, .	1.8	26
178	Single-Stage Depressed Collector Experimental Results from a 110 GHz 1.5 MW Gyrotron at MIT. , 2006, , .		1
179	Measurement of subpicosecond bunch lengths using coherent Smith-Purcell radiation. Physical Review Special Topics: Accelerators and Beams, 2006, 9, .	1.8	17
180	Experimental results for a 1.5MW, 110GHz gyrotron oscillator with reduced mode competition. Physics of Plasmas, 2006, 13, 023103.	0.7	26

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181	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
182	Synthesis of gyrotron phase-correcting mirrors using irradiance moments. IEEE Transactions on Microwave Theory and Techniques, 2005, 53, 2610-2615.	2.9	5
183	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
184	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
185	Megawatt Power Level 120 GHz Gyrotrons for ITER Start-Up. Journal of Physics: Conference Series, 2005, 25, 1-7.	0.3	17
186	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
187	Observation of Frequency-Locked Coherent Terahertz Smith-Purcell Radiation. Physical Review Letters, 2005, 94, 054803.	2.9	206
188	Corrugated waveguide and directional coupler for CW 250-GHz gyrotron DNP experiments. IEEE Transactions on Microwave Theory and Techniques, 2005, 53, 1863-1869.	2.9	73
189	Demonstration of a 17-GHz, High-Gradient Accelerator with a Photonic-Band-Gap Structure. Physical Review Letters, 2005, 95, 074801.	2.9	99
190	Fabrication and cold test of photonic band gap resonators and accelerator structures. Physical Review Special Topics: Accelerators and Beams, 2005, 8, .	1.8	35
191	Studies of the 1.5-MW 110-GHz Gyrotron Experiment. IEEE Transactions on Plasma Science, 2004, 32, 877-883.	0.6	19
192	Dynamic nuclear polarization at 9T using a novel 250GHz gyrotron microwave source. Journal of Magnetic Resonance, 2003, 160, 85-90.	1.2	209
193	High-Frequency Dynamic Nuclear Polarization in MAS Spectra of Membrane and Soluble Proteins. Journal of the American Chemical Society, 2003, 125, 13626-13627.	6.6	107
194	High-Power 140-GHz Quasioptical Gyrotron Traveling-Wave Amplifier. Physical Review Letters, 2003, 90, 258302.	2.9	131
195	Maturing ECRF technology for plasma control. Nuclear Fusion, 2003, 43, 1501-1504.	1.6	25
196	Two-Dimensional 13Câ ⁻ '13C Correlation Spectroscopy with Magic Angle Spinning and Dynamic Nuclear Polarization. Journal of the American Chemical Society, 2002, 124, 3214-3215.	6.6	59
197	Simulation of photonic band gaps in metal rod lattices for microwave applications. Journal of Applied Physics, 2002, 91, 960-968.	1.1	110
198	New opportunities in vacuum electronics using photonic band gap structures. AIP Conference Proceedings, 2002, , .	0.3	0

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199	Photonic Band Gap Structures for Accelerator Applications. AIP Conference Proceedings, 2002, , .	0.3	4
200	Phase retrieval of gyrotron beams based on irradiance moments. IEEE Transactions on Microwave Theory and Techniques, 2002, 50, 1526-1535.	2.9	25
201	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
202	17 GHz photonic band gap cavity with improved input coupling. Physical Review Special Topics: Accelerators and Beams, 2001, 4, .	1.8	50
203	Design of correcting mirrors for a gyrotron used at Large Helical Device. Fusion Engineering and Design, 2001, 53, 537-544.	1.0	19
204	Experimental investigation of a 140-GHz coaxial gyrotron oscillator. IEEE Transactions on Plasma Science, 2001, 29, 943-950.	0.6	27
205	Low emittance electron beam formation with a 17 GHz RF gun. Physical Review Special Topics: Accelerators and Beams, 2001, 4, .	1.8	5
206	Photonic-Band-Gap Resonator Gyrotron. Physical Review Letters, 2001, 86, 5628-5631.	2.9	131
207	Kiloampere and microsecond electron beams from ferroelectric cathodes. IEEE Transactions on Plasma Science, 1998, 26, 1347-1352.	0.6	28
208	RADIATION SOURCES: Scanning with Ease Through the Far Infrared. Science, 1998, 280, 854-854.	6.0	9
209	High-power operation of a 170 GHz megawatt gyrotron. Physics of Plasmas, 1997, 4, 1907-1914.	0.7	16
210	Theoretical and experimental investigation of a quasi-optical mode converter for a 110-GHz gyrotron. IEEE Transactions on Plasma Science, 1996, 24, 1058-1066.	0.6	59
211	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
212	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
213	Single-mode operation of a Bragg free-electron maser oscillator. Physical Review Letters, 1994, 72, 2391-2394.	2.9	45
214	Velocity spread measurements on a magnetron injection gun beam. Journal of Applied Physics, 1994, 76, 3237-3243.	1.1	7
215	Influence of sideband oscillations on gyrotron efficiency. IEEE Transactions on Plasma Science, 1994, 22, 871-877.	0.6	6
216	Study of rotating modes in high frequency whispering gallery mode gyrotrons. IEEE Transactions on Plasma Science, 1994, 22, 883-888.	0.6	8

#	Article	IF	CITATIONS
217	High Power Gyrotrons. Materials Research Society Symposia Proceedings, 1994, 347, 91.	0.1	1
218	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
219	Experimental study of a megawatt 200–300 GHz gyrotron oscillator. Physics of Fluids B, 1993, 5, 4135-4143.	1.7	35
220	Dynamic nuclear polarization with a cyclotron resonance maser at 5 T. Physical Review Letters, 1993, 71, 3561-3564.	2.9	417
221	Experimental study of a 28 GHz high-power long-pulse cyclotron autoresonance maser oscillator. Physical Review Letters, 1993, 71, 2018-2021.	2.9	37
222	Sideband mode competition in a gyrotron oscillator. Physical Review Letters, 1992, 69, 3727-3730.	2.9	23
223	Autophase cyclotron autoresonance maser amplifiers. Physics of Fluids B, 1992, 4, 1077-1080.	1.7	2
224	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
225	A photoacoustic joulemeter for millimeter wave radiation. Review of Scientific Instruments, 1992, 63, 166-171.	0.6	2
226	A long-pulse, CARM oscillator experiment. International Journal of Electronics, 1992, 72, 983-1004.	0.9	13
227	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
228	Experimental Study of a Megawatt 200-300 GHz Gyrotron Oscillator. Fusion Science and Technology, 1992, 21, 1648-1653.	0.6	3
229	Multi-Megawatt Gyrotron Design Study. Fusion Science and Technology, 1992, 21, 1654-1657.	0.6	0
230	Longâ€pulse millimeterâ€wave freeâ€electron laser and cyclotron autoresonance maser experiments. Physics of Fluids B, 1992, 4, 2307-2314.	1.7	16
231	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
232	A high-voltage modulator for high-power RF source research. IEEE Transactions on Electron Devices, 1991, 38, 817-821.	1.6	16
233	Slotted-resonator gyrotron experiments. IEEE Transactions on Electron Devices, 1991, 38, 1544-1552.	1.6	3
234	Velocity ratio measurements of a gyrotron electron beam. Journal of Applied Physics, 1991, 69, 3789-3795.	1.1	29

#	Article	IF	CITATIONS
235	Direct spectral measurements of a quasi-cw free-electron laser oscillator. Physical Review Letters, 1990, 65, 2251-2254.	2.9	18
236	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
237	Experimental study of a highâ€frequency megawatt gyrotron oscillator. Physics of Fluids B, 1990, 2, 640-646.	1.7	43
238	Submillimeter-wave harmonic gyrotron experiment. IEEE Transactions on Plasma Science, 1990, 18, 334-342.	0.6	74
239	Tunable microwigglers for freeâ€electron lasers. Applied Physics Letters, 1989, 54, 1299-1301.	1.5	19
240	High-Frequency Cyclotron Autoresonance Maser Amplifier Experiments At MIT. Proceedings of SPIE, 1989, 1061, 243.	0.8	8
241	Quasi-optical gyrotron with arbitrary beam injection angle. IEEE Transactions on Electron Devices, 1988, 35, 1166-1171.	1.6	6
242	Self-consistent simulation of cyclotron autoresonance maser amplifiers. IEEE Transactions on Plasma Science, 1988, 16, 122-128.	0.6	47
243	Narrow bandwidth emission from a mirrorless, far infrared, /sup 13/CH/sub 3/F laser. IEEE Journal of Quantum Electronics, 1988, 24, 99-104.	1.0	1
244	Gyrotron collective Thomson scattering from plasma fluctuations in a Tara axicell. Review of Scientific Instruments, 1988, 59, 1562-1564.	0.6	6
245	Submillimeter Gyrotron For Space Based Radar. Proceedings of SPIE, 1988, , .	0.8	0
246	The Design Of Megawatt Gyrotrons For The Compact Ignition Tokamak. Proceedings of SPIE, 1988, 1039, 179.	0.8	7
247	Millimeter Wave CARM Amplifier Experiment. Proceedings of SPIE, 1988, 1039, 316.	0.8	1
248	Nonlinear Theory Of Quasi-Optical Gyrotron With An Electron Beam At An Oblique Angle. Proceedings of SPIE, 1988, , .	0.8	0
249	Theory And Design Of A High-Power, 140 Ghz CARM Amplifier. Proceedings of SPIE, 1988, 0873, 143.	0.8	7
250	Operation Of Harmonic Gyrotrons In The Submillimeter Region. , 1988, , .		3
251	Single-mode operation of a high-power, step-tunable gyrotron. Physical Review Letters, 1987, 59, 547-550.	2.9	135
252	Free-electron lasers and their application to biomedicine. IEEE Journal of Quantum Electronics, 1987, 23, 1739-1750.	1.0	9

#	Article	lF	CITATIONS
253	Tuning behavior of a ch ₃ f amplified spontaneous emission laser., 1987,,.		O
254	Generalized nonlinear harmonic gyrotron theory. Physics of Fluids, 1986, 29, 561.	1.4	220
255	137â€GHz gyrotron diagnostic for instability studies in Tara. Review of Scientific Instruments, 1986, 57, 1983-1985.	0.6	11
256	A gyrotron with a minimumQcavity. International Journal of Electronics, 1986, 61, 757-770.	0.9	8
257	Analytical treatment of linearized self-consistent theory of a gyromonotron with a non-fixed structure. International Journal of Electronics, 1986, 61, 895-903.	0.9	13
258	Prospects for high power gyrotrons. Plasma Physics and Controlled Fusion, 1985, 27, 1449-1459.	0.9	7
259	Highâ€power second harmonic emission and frequency locking in a 28â€GHz gyrotron. Applied Physics Letters, 1985, 46, 728-730.	1.5	14
260	Highâ€frequency gyrotron scattering diagnostic for instability studies on TARA. Review of Scientific Instruments, 1985, 56, 914-916.	0.6	16
261	The Design of Megawatt Gyrotrons. IEEE Transactions on Plasma Science, 1985, 13, 364-373.	0.6	82
262	Whispering-Gallery-Mode Gyrotron Operation with a Quasi-Optical Antenna. IEEE Transactions on Plasma Science, 1985, 13, 383-388.	0.6	14
263	A Gyrotron with a High Q Cavity for Plasma Scattering Diagnostics. IEEE Transactions on Plasma Science, 1985, 13, 393-397.	0.6	6
264	High efficiency operation of a 140 GHz pulsed gyrotron. International Journal of Electronics, 1984, 57, 835-850.	0.9	55
265	A tunable far infrared laser. IEEE Journal of Quantum Electronics, 1984, 20, 834-837.	1.0	32
266	Harmonic emission from high-power high-frequency gyrotrons. International Journal of Electronics, 1984, 57, 1033-1047.	0.9	27
267	Frequency pulling and bandwidth measurements of a 140 GHz pulsed gyrotron. International Journal of Electronics, 1984, 57, 851-862.	0.9	39
268	Application of advanced millimeter/far-infrared sources to collective Thomson scattering plasma diagnostics. Journal of Infrared, Millimeter and Terahertz Waves, 1983, 4, 205-229.	0.6	26
269	A 100 kW, 140 GHz pulsed gyrotron. Journal of Infrared, Millimeter and Terahertz Waves, 1982, 3, 427-437.	0.6	35
270	Mode excitation in a gyrotron operating at the fundamental. Journal of Infrared, Millimeter and Terahertz Waves, 1981, 2, 175-196.	0.6	28

#	Article	IF	CITATIONS
271	Analytic theory of a tapered gyrotron resonator. Journal of Infrared, Millimeter and Terahertz Waves, 1981, 2, 629-650.	0.6	39
272	<title>Operation Of A Gyrotron At The Fundamental And Second Harmonic</title> ., 1981,,.		0
273	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
274	Cyclotron resonant gas breakdown with a 1.22â€mm13CH3F laser. Journal of Applied Physics, 1979, 50, 121-126.	1.1	1
275	High-intensity CO_2 laser pumping of a CH_3F Raman FIR laser. Optics Letters, 1979, 4, 381.	1.7	26
276	High frequency gyrotrons and their application to tokamak plasma heating. Journal of Magnetism and Magnetic Materials, 1979 , 11 , $368-371$.	1.0	20
277	Laser-induced gas breakdown at cyclotron resonance: Low pressure results. Journal of Magnetism and Magnetic Materials, 1979, 11, 47-50.	1.0	12
278	Gain spectrum of a pulsed laserâ€pumped submillimeter laser. Applied Physics Letters, 1978, 33, 154-156.	1.5	13
279	<title>An Introduction To Optically Pumped Lasers</title> ., 1977, , .		0
280	Cyclotron resonant laser induced gas breakdown at 496 microm. Optics Communications, 1976, 18, 226-227.	1.0	3
281	Development of high power ch3f laser systems for plasma diagnosticsâ^—. Infrared Physics, 1976, 16, 429-434.	0.5	7
282	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
283	A high power, narrow linewidth D2O laser at 384.6 νm. Physics Letters, Section A: General, Atomic and Solid State Physics, 1976, 59, 264-266.	0.9	11
284	Rate equations for an optically-pumped, far infrared laser. Optics Communications, 1976, 16, 213-217.	1.0	46
285	Efficient highâ€power CH3F amplifier for a 496â€Î¼m cavity laser. Applied Physics Letters, 1976, 28, 328-330.	1.5	12
286	Gas breakdown at cyclotron resonance with a submillimeter laser. Applied Physics Letters, 1976, 29, 146-148.	1.5	5
287	Pumping and emission characteristics of a 4 kW, submillimeter CH3 F laser. Optics Communications, 1975, 14, 314-317.	1.0	19
288	Modeling the structure of amorphous tetrahedrally coordinated semiconductors. I. Physical Review B, 1974, 9, 5323-5326.	1.1	176

#	Article	IF	CITATIONS
289	Experimental Charge Density of Copper. Physical Review B, 1972, 6, 3572-3581.	1.1	14