

# Xiaotong Guan

## List of Publications by Year in descending order

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papers

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all docs

96  
docs citations

96  
times ranked

391  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Fully-Sealed Carbon-Nanotube Cold-Cathode Terahertz Gyrotron. Scientific Reports, 2016, 6, 32936.	1.6	53
2	A Gridded High-Compression-Ratio Carbon Nanotube Cold Cathode Electron Gun. IEEE Electron Device Letters, 2015, 36, 399-401.	2.2	30
3	Design and Experiment of a 220/420-GHz Gyrotron for Nondestructive Evaluation. IEEE Transactions on Electron Devices, 2014, 61, 2531-2537.	1.6	23
4	A high efficiency low-temperature microwave-driven atmospheric pressure plasma jet. Applied Physics Letters, 2019, 114, .	1.5	23
5	Experiment of a High-Power Sub-THz Gyrotron Operating in High-Order Axial Modes. IEEE Transactions on Electron Devices, 2019, 66, 2752-2757.	1.6	22
6	Parametrically Optimized Carbon Nanotube-Coated Cold Cathode Spindt Arrays. Nanomaterials, 2017, 7, 13.	1.9	18
7	Two-beam magnetron injection guns for coaxial gyrotron with two electron beams. Physics of Plasmas, 2009, 16, .	0.7	17
8	Experiment Studies on Two-Dimension Terahertz Raster Scan Imaging. Journal of Infrared, Millimeter, and Terahertz Waves, 2012, 33, 513-521.	1.2	15
9	A 0.4-THz Second Harmonic Gyrotron with Quasi-Optical Confocal Cavity. Journal of Infrared, Millimeter, and Terahertz Waves, 2017, 38, 1457-1470.	1.2	15
10	Theoretical Research on a Multibeam-Modulated Electron Gun Based on Carbon Nanotube Cold Cathodes. IEEE Transactions on Electron Devices, 2016, 63, 2919-2924.	1.6	14
11	Harmonic terahertz gyrotron with a double confocal quasi-optical cavity. Physics of Plasmas, 2019, 26, 043109.	0.7	14
12	Theoretical and Experimental Investigations on the Quasi-Optical Mode Converter for a Pulsed Terahertz Gyrotron. IEEE Electron Device Letters, 2015, 36, 195-197.	2.2	13
13	Generating High-Power Continuous-Frequency Tunable Sub-Terahertz Radiation From a Quasi-Optical Gyrotron With Confocal Waveguide. IEEE Electron Device Letters, 2020, 41, 613-616.	2.2	13
14	High harmonic terahertz confocal gyrotron with nonuniform electron beam. Physics of Plasmas, 2016, 23, .	0.7	11
15	The Numerical Simulation Study of Pseudospark Hollow Cathode Discharge. Journal of Infrared, Millimeter, and Terahertz Waves, 2009, 30, 1083-1091.	1.2	9
16	Nonlinear theory for a terahertz gyrotron with a special cross-section interaction cavity. Physics of Plasmas, 2012, 19, .	0.7	9
17	Theoretical Study of a 0.22 THz Backward Wave Oscillator Based on a Dual-Gridded, Carbon-Nanotube Cold Cathode. Applied Sciences (Switzerland), 2018, 8, 2462.	1.3	9
18	Theoretical study of extended interaction frequency-locked oscillator based on carbon nanotube cold cathodes. IET Microwaves, Antennas and Propagation, 2018, 12, 1771-1774.	0.7	9

#	ARTICLE	IF	CITATIONS
19	Design and Simulation of a Multi-Sheet Beam Terahertz Radiation Source Based on Carbon-Nanotube Cold Cathode. <i>Nanomaterials</i> , 2019, 9, 1768.	1.9	8
20	Langmuir Probe Diagnostics with Optical Emission Spectrometry (OES) for Coaxial Line Microwave Plasma. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8117.	1.3	8
21	A Low-Voltage, Premodulation Terahertz Oscillator Based on a Carbon Nanotube Cold Cathode. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 1266-1269.	1.6	8
22	Development of a $K_a$ -Band Circular $TM_{01}$ to Rectangular $TE_{10}$ Mode Converter. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 1254-1258.	1.6	8
23	Design of a G-Band Extended Interaction Klystron Based on a Three-Coupling-Hole Structure. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 1368-1373.	1.6	8
24	Linear theory of the electron beam-wave-plasma interactions in a magnetized plasma waveguide. <i>Journal of Applied Physics</i> , 2007, 101, 053309.	1.1	5
25	Harmonic Generation of High-Power Microwave in Plasma Filled Waveguide. <i>Journal of Infrared, Millimeter and Terahertz Waves</i> , 2008, 29, 43-50.	0.6	5
26	Design and demonstration of a 0.22 THz gyrotron oscillator. <i>Science Bulletin</i> , 2009, 54, 1495-1499.	4.3	5
27	Demonstration of a High-Order Mode Input Coupler for a 220-GHz Confocal Gyrotron Traveling Wave Tube. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2018, 39, 183-194.	1.2	5
28	A High-Current-Density Terahertz Electron-Optical System Based on Carbon Nanotube Cold Cathode. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 5760-5765.	1.6	5
29	Investigation on the Microwave Excited Plasma Filament at Atmospheric Pressure. <i>IEEE Transactions on Plasma Science</i> , 2021, 49, 1877-1881.	0.6	5
30	Study of a high harmonic gyrotron with inner slotted coaxial structure. <i>International Journal of Electronics</i> , 1994, 76, 119-129.	0.9	4
31	Design of a 220-GHz continuous frequency-tunable gyrotron with quasi-optical cavity. , 2015, , .		4
32	Design of confocal waveguide interaction structure for a 220 GHz gyro-TWT. <i>Journal of Electromagnetic Waves and Applications</i> , 2017, 31, 650-662.	1.0	4
33	Frequency Tuning Characteristics of a High-Power Sub-THz Gyrotron with Quasi-Optical Cavity. <i>Electronics (Switzerland)</i> , 2021, 10, 526.	1.8	4
34	The Experiment of A 220 GHz Gyrotron with a Pulse Magnet. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2010, 31, 404.	1.2	3
35	A high current density plasma cathode electron gun. <i>Applied Physics Letters</i> , 2010, 96, 071502.	1.5	3
36	Generating 0.42 THz radiation from a second harmonic gyrotron. <i>Science Bulletin</i> , 2011, 56, 3572-3574.	1.7	3

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37	A novel terahertz harmonic gyrotron with dual confocal cavity. , 2018, , .		3
38	Investigation of magnetron injection locking and cascaded locking by solid-state microwave power source. Journal of Microwave Power and Electromagnetic Energy, 2019, 53, 171-183.	0.4	3
39	A Hybrid Shuffled Frog Leaping Algorithm and Its Performance Assessment in Multi-Dimensional Symmetric Function. Symmetry, 2022, 14, 131.	1.1	3
40	Development of a High-Beam-Transparency Gridded Electron Gun Based on a Carbon Nanotube Cold Cathode. IEEE Electron Device Letters, 2022, 43, 615-618.	2.2	3
41	Study on a 60 kV/5 A magnetron injection gun for 200 GHz electron cyclotron master. Frontiers of Electrical and Electronic Engineering in China: Selected Publications From Chinese Universities, 2009, 4, 440-445.	0.6	2
42	Experimental results of a 0.42 THz harmonic gyrotron. , 2010, , .		2
43	Nonlinear Theory for a Compact Radial Extended Interaction Oscillator. IEEE Journal of the Electron Devices Society, 2015, 3, 371-376.	1.2	2
44	Theoretical research on an 8mm traveling wave tube based on carbon nanotube cold cathode. , 2016, , .		2
45	Initial experimental results for a 400GHz second harmonic gyrotron with quasi-optical confocal cavity. , 2017, , .		2
46	Study on a Quasi-Optical Mode Converter for Gyrotron Based on Metamaterial. , 2019, , .		2
47	Ultra-High Velocity Ratio in Magnetron Injection Guns for Low-Voltage Compact Gyrotrons. Electronics (Switzerland), 2020, 9, 1587.	1.8	2
48	Study on a gyrotron quasi-optical mode converter for terahertz imaging. Journal of Electromagnetic Waves and Applications, 2021, 35, 176-184.	1.0	2
49	Study on a Depressed Collector for a 75ÅGHz Low-Voltage Compact Gyrotron for Industrial Application. Journal of Infrared, Millimeter, and Terahertz Waves, 2021, 42, 211-219.	1.2	2
50	Investigation on a 220 GHz Quasi-Optical Antenna for Wireless Power Transmission. Electronics (Switzerland), 2021, 10, 634.	1.8	2
51	Design and analysis of a quasi-TM03 mode G-band extended interaction radiation source. AIP Advances, 2021, 11, 035327.	0.6	2
52	Dual-Frequency Microwave Plasma Source Based on Microwave Coaxial Transmission Line. Applied Sciences (Switzerland), 2021, 11, 9873.	1.3	2
53	Investigation of sterilization by a microwave-generated low-temperature atmospheric pressure plasma jet. Journal of Microwave Power and Electromagnetic Energy, 2022, 56, 58-67.	0.4	2
54	Propagation Characteristics of a High-Power Microwave in Waveguide Filled with Plasma. Journal of Infrared, Millimeter and Terahertz Waves, 2005, 26, 807-817.	0.6	1

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55	THz Coherent Vavilov-Cherenkov Radiation in a Special Three-Mirror Cavity. Journal of Infrared, Millimeter and Terahertz Waves, 2007, 28, 797-809.	0.6	1
56	Design and Preliminary Experiment of 35ÅGHz Pulsed Extended Interaction Oscillator with Folded Waveguide. Journal of Infrared, Millimeter, and Terahertz Waves, 2010, 31, 543.	1.2	1
57	Design and simulation of a W-band extended interaction oscillator with coupled cavity. International Journal of Electronics Letters, 2017, 5, 26-35.	0.7	1
58	Simulation of extended interaction oscillator based on carbon nanotube cold cathode. , 2017, , .		1
59	220GHz confocal waveguide Gyro-TWT with double lossy severs. , 2017, , .		1
60	Harmonic terahertz gyrotron with quasi-optical confocal cavity. EPJ Web of Conferences, 2017, 149, 05014.	0.1	1
61	Dual band and dual mode overmode waveguide bend. , 2018, , .		1
62	Design of a 75GHz Low Voltage-Continuous Wave Gyrotron with Mode Converter. , 2019, , .		1
63	A Broadband low-loss W-band Pill-box Window. , 2019, , .		1
64	Investigation on Symmetric and Asymmetric Broadband Low-Loss W-Band Pillbox Windows. Electronics (Switzerland), 2020, 9, 2060.	1.8	1
65	Investigation on 220 GHz Taper Cascaded Over-Mode Circular Waveguide TE <sub>0n</sub> Mode Converter. Electronics (Switzerland), 2021, 10, 103.	1.8	1
66	Over-Size Pill-Box Window for Sub-Terahertz Vacuum Electronic Devices. Electronics (Switzerland), 2021, 10, 653.	1.8	1
67	Design of a Compact Millimeter Wave Gyrotron. , 2021, , .		1
68	Simulation of a 0.33-THz Second Harmonic Gyrotron Based on Double Confocal Cavity. , 2020, , .		1
69	Simulation Design of TWT Based on CNT Cold Cathode. , 2020, , .		1
70	Studies on two-beam magnetron injection gun for coaxial gyrotron with two electron beams. , 2009, , .		0
71	Design of a frequency tunable 0.2 THz gyrotron-backward wave oscillator. , 2010, , .		0
72	Possibilities and advantages of coaxial gyrotron with two beams operation at high harmonic. , 2011, , .		0

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73	Studies on fast two-dimension terahertz raster scan imaging. , 2012, , .		0
74	Design of a magnetron injection gun with low velocity spread for 0.56THz third harmonic gyrotron. , 2015, , .		0
75	Carbon nanotube magnetron injection electron gun for a 0.22THz gyrotron. , 2015, , .		0
76	Theoretical research on multi-beam modulation in a carbon nanotube cold cathode electron gun. , 2015, , .		0
77	Theoretical research on a TWT based on magnetic injection CNT cold cathode electron gun. , 2017, , .		0
78	Simulation study on a gridded micro-focus X-ray electron gun based on carbon nanotube cathode. , 2017, , .		0
79	A Quasi-Optical Mode Converter for 220 GHz Confocal Gyro-TWTs. , 2018, , .		0
80	Study of a 90-degree TE01-TM11 oversized mode converter. , 2018, , .		0
81	Initial Experimental Results for a High Power Frequency-Tunable sub-THz Gyrotron. , 2019, , .		0
82	Theoretical Research on 300GHz Carbon Nanotube Cold Cathode Gyrotron. , 2019, , .		0
83	Demonstration of a High Power Frequency-Tunable 0.22-THz Gyrotron Operating in High-Order Axial Modes. , 2019, , .		0
84	Coaxial electrostatic wiggler with corrugated inner and outer walls. AIP Advances, 2020, 10, 035028.	0.6	0
85	An Economic Real-Time Microwave Plasma Impedance Measurement Method. IEEE Transactions on Plasma Science, 2021, , 1-6.	0.6	0
86	A Broadband Quasi-Optical Mode Converter for Sub-Terahertz Confocal Gyrotron Devices. IEEE Transactions on Electron Devices, 2021, , 1-5.	1.6	0
87	Experimental Test on a Broadband Sub-Terahertz Quasi-Optical Mode Converter for High-Order Confocal Mode. , 2021, , .		0
88	Design of second harmonic terahertz gyrotron cavity based on double confocal waveguide. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 068401.	0.2	0
89	Investigation on Continuous and Modulated Microwave Plasma Filaments at Atmospheric Pressure. IEEE Access, 2021, 9, 154318-154323.	2.6	0
90	Investigation on Dual Frequency Operation in Double Confocal Gyrotron. , 2020, , .		0

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91	0.22-THz Frequency-Tunable Gyrotron with Transverse Sliced Cavity. , 2020, , .		0
92	Broadband Nonuniform Terahertz Multimode Conversion Series with Compactness and Pure Pattern. Journal of Infrared, Millimeter, and Terahertz Waves, 2022, 43, 150-164.	1.2	0
93	Frequency Tuning Characteristic of a Sub-THz Quasi-Optical Gyrotron Cavity by Mirror Separation Adjusting. , 2021, , .		0
94	Low-voltage Gyrotron as Simple Mm-Wave Source. , 2021, , .		0
95	Low-Temperature Sterilization by Atmospheric Pressure Plasma Jet. , 2020, , .		0
96	Diagnosis for 2.4GHz Coaxial Microwave Driven Plasma. , 2020, , .		0