Xiaotong Guan

List of Publications by Year in Descending Order

67 papers	307 citations	10 h-index	15 g-index
96 ext. papers	395 ext. citations	2.5 avg, IF	3.46 L-index

#	Paper	IF	Citations
67	A Hybrid Shuffled Frog Leaping Algorithm and Its Performance Assessment in Multi-Dimensional Symmetric Function. *Symmetry*, **2022**, 14, 131	2.7	1
66	Broadband Nonuniform Terahertz Multimode Conversion Series with Compactness and Pure Pattern. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2022**, 43, 150	2.2	
65	Design of a G-Band Extended Interaction Klystron Based on a Three-Coupling-Hole Structure. *IEEE Transactions on Electron Devices*, **2022**, 1-6	2.9	1
64	Investigation of sterilization by a microwave-generated low-temperature atmospheric pressure plasma jet. *Journal of Microwave Power and Electromagnetic Energy*, **2022**, 56, 58-67	1.4	0
63	Development of a High-Beam-Transparency Gridded Electron Gun Based on a Carbon Nanotube Cold Cathode. *IEEE Electron Device Letters*, **2022**, 43, 615-618	4.4	0
62	Investigation on Continuous and Modulated Microwave Plasma Filaments at Atmospheric Pressure. *IEEE Access*, **2021**, 9, 154318-154323	3.5	
61	An Economic Real-Time Microwave Plasma Impedance Measurement Method. *IEEE Transactions on Plasma Science*, **2021**, 1-6	1.3	
60	A Broadband Quasi-Optical Mode Converter for Sub-Terahertz Confocal Gyrotron Devices. *IEEE Transactions on Electron Devices*, **2021**, 1-5	2.9	
59	Dual-Frequency Microwave Plasma Source Based on Microwave Coaxial Transmission Line. *Applied Sciences (Switzerland)*, **2021**, 11, 9873	2.6	1
58	Over-Size Pill-Box Window for Sub-Terahertz Vacuum Electronic Devices. *Electronics (Switzerland)*, **2021**, 10, 653	2.6	0
57	Investigation on a 220 GHz Quasi-Optical Antenna for Wireless Power Transmission. *Electronics (Switzerland)*, **2021**, 10, 634	2.6	2
56	Design and analysis of a quasi-TM03 mode G-band extended interaction radiation source. *AIP Advances*, **2021**, 11, 035327	1.5	
55	Investigation on the Microwave Excited Plasma Filament at Atmospheric Pressure. *IEEE Transactions on Plasma Science*, **2021**, 49, 1877-1881	1.3	3
54	Study on a gyrotron quasi-optical mode converter for terahertz imaging. *Journal of Electromagnetic Waves and Applications*, **2021**, 35, 176-184	1.3	2
53	Investigation on 220 GHz Taper Cascaded Over-Mode Circular Waveguide TE0n Mode Converter. *Electronics (Switzerland)*, **2021**, 10, 103	2.6	
52	Study on a Depressed Collector for a 75 GHz Low-Voltage Compact Gyrotron for Industrial Application. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2021**, 42, 211-219	2.2	0
51	Frequency Tuning Characteristics of a High-Power Sub-THz Gyrotron with Quasi-Optical Cavity. *Electronics (Switzerland)*, **2021**, 10, 526	2.6	1

50	Coaxial electrostatic wiggler with corrugated inner and outer walls. *AIP Advances*, **2020**, 10, 035028	1.5	
49	A Low-Voltage, Premodulation Terahertz Oscillator Based on a Carbon Nanotube Cold Cathode. *IEEE Transactions on Electron Devices*, **2020**, 67, 1266-1269	2.9	6
48	Development of a Ka-Band Circular TM01 to Rectangular TE10 Mode Converter. *IEEE Transactions on Electron Devices*, **2020**, 67, 1254-1258	2.9	6
47	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	4.4	5
46	Design of second harmonic terahertz gyrotron cavity based on double confocal waveguide. *Wuli Xuebao/Acta Physica Sinica*, **2020**, 69, 068401	0.6	
45	Ultra-High Velocity Ratio in Magnetron Injection Guns for Low-Voltage Compact Gyrotrons. *Electronics (Switzerland)*, **2020**, 9, 1587	2.6	1
44	Langmuir Probe Diagnostics with Optical Emission Spectrometry (OES) for Coaxial Line Microwave Plasma. *Applied Sciences (Switzerland)*, **2020**, 10, 8117	2.6	2
43	A High-Current-Density Terahertz Electron-Optical System Based on Carbon Nanotube Cold Cathode. *IEEE Transactions on Electron Devices*, **2020**, 67, 5760-5765	2.9	2
42	Investigation on Symmetric and Asymmetric Broadband Low-Loss W-Band Pillbox Windows. *Electronics (Switzerland)*, **2020**, 9, 2060	2.6	1
41	Harmonic terahertz gyrotron with a double confocal quasi-optical cavity. *Physics of Plasmas*, **2019**, 26, 043109	2.1	5
40	Experiment of a High-Power Sub-THz Gyrotron Operating in High-Order Axial Modes. *IEEE Transactions on Electron Devices*, **2019**, 66, 2752-2757	2.9	17
39	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	1.4	1
38	A high efficiency low-temperature microwave-driven atmospheric pressure plasma jet. *Applied Physics Letters*, **2019**, 114, 254106	3.4	11
37	Design of a 75GHz Low Voltage-Continuous Wave Gyrotron with Mode Converter **2019**,		1
36	Study on a Quasi-Optical Mode Converter for Gyrotron Based on Metamaterial **2019**,		1
35	Design and Simulation of a Multi-Sheet Beam Terahertz Radiation Source Based on Carbon-Nanotube Cold Cathode. *Nanomaterials*, **2019**, 9,	5.4	3
34	Demonstration of a High-Order Mode Input Coupler for a 220-GHz Confocal Gyrotron Traveling Wave Tube. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2018**, 39, 183-194	2.2	3
33	Theoretical study of extended interaction frequency-locking oscillator based on carbon nanotube cold cathodes. *IET Microwaves, Antennas and Propagation*, **2018**, 12, 1771-1774	1.6	6

32	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	2.6	8
31	Design and simulation of a W-band extended interaction oscillator with coupled cavity. *International Journal of Electronics Letters*, **2017**, 5, 26-35	0.6	1
30	Design of confocal waveguide interaction structure for a 220 GHz gyro-TWT. *Journal of Electromagnetic Waves and Applications*, **2017**, 31, 650-662	1.3	3
29	A 0.4-THz Second Harmonic Gyrotron with Quasi-Optical Confocal Cavity. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2017**, 38, 1457-1470	2.2	11
28	Parametrically Optimized Carbon Nanotube-Coated Cold Cathode Spindt Arrays. *Nanomaterials*, **2017**, 7,	5.4	16
27	Harmonic terahertz gyrotron with quasi-optical confocal cavity. *EPJ Web of Conferences*, **2017**, 149, 05014	0.3	1
26	Simulation of extended interaction oscillator based on carbon nanotube cold cathode **2017**,		1
25	Initial experimental results for a 400GHz second harmonic gyrotron with quasi-optical confocal cavity **2017**,		1
24	A Fully-Sealed Carbon-Nanotube Cold-Cathode Terahertz Gyrotron. *Scientific Reports*, **2016**, 6, 32936	4.9	38
23	High harmonic terahertz confocal gyrotron with nonuniform electron beam. *Physics of Plasmas*, **2016**, 23, 013301	2.1	9
22	Theoretical Research on a Multibeam-Modulated Electron Gun Based on Carbon Nanotube Cold Cathodes. *IEEE Transactions on Electron Devices*, **2016**, 63, 2919-2924	2.9	11
21	A Gridded High-Compression-Ratio Carbon Nanotube Cold Cathode Electron Gun. *IEEE Electron Device Letters*, **2015**, 36, 399-401	4.4	21
20	Nonlinear Theory for a Compact Radial Extended Interaction Oscillator. *IEEE Journal of the Electron Devices Society*, **2015**, 3, 371-376	2.3	1
19	Design of a 220-GHz continuous frequency-tunable gyrotron with quasi-optical cavity **2015**,		3
18	Theoretical and Experimental Investigations on the Quasi-Optical Mode Converter for a Pulsed Terahertz Gyrotron. *IEEE Electron Device Letters*, **2015**, 36, 195-197	4.4	10
17	Design and Experiment of a 220/420-GHz Gyrotron for Nondestructive Evaluation. *IEEE Transactions on Electron Devices*, **2014**, 61, 2531-2537	2.9	19
16	Nonlinear theory for a terahertz gyrotron with a special cross-section interaction cavity. *Physics of Plasmas*, **2012**, 19, 053107	2.1	6
15	Experiment Studies on Two-Dimension Terahertz Raster Scan Imaging. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2012**, 33, 513-521	2.2	12

14	Generating 0.42 THz radiation from a second harmonic gyrotron. *Science Bulletin*, **2011**, 56, 3572-3574		3
13	Experimental results of a 0.42 THz harmonic gyrotron **2010**,		2
12	A high current density plasma cathode electron gun. *Applied Physics Letters*, **2010**, 96, 071502	3.4	3
11	Design and Preliminary Experiment of 35 GHz Pulsed Extended Interaction Oscillator with Folded Waveguide. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2010**, 31, 543	2.2	1
10	The Numerical Simulation Study of Pseudospark Hollow Cathode Discharge. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2009**, 30, 1083-1091	2.2	8
9	The Experiment of A 220 GHZ Gyrotron with a Pulse Magnet. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2009**, 31, 404	2.2	1
8	Design and demonstration of a 0.22 THz gyrotron oscillator. *Science Bulletin*, **2009**, 54, 1495-1499	10.6	4
7	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		2
6	Two-beam magnetron injection guns for coaxial gyrotron with two electron beams. *Physics of Plasmas*, **2009**, 16, 023103	2.1	13
5	Harmonic Generation of High-Power Microwave in Plasma Filled Waveguide. *Journal of Infrared, Millimeter and Terahertz Waves*, **2008**, 29, 43-50		4
4	THz Coherent Vavilov-Cherenkov Radiation in a Special Three-Mirror Cavity. *Journal of Infrared, Millimeter and Terahertz Waves*, **2007**, 28, 797-809		0
3	Linear theory of the electron beam-wave-plasma interactions in a magnetized plasma waveguide. *Journal of Applied Physics*, **2007**, 101, 053309	2.5	5
2	Propagation Characteristics of a High-Power Microwave in Waveguide Filled with Plasma. *Journal of Infrared, Millimeter and Terahertz Waves*, **2005**, 26, 807-817		1
1	Study of a high harmonic gyrotron with inner slotted coaxial structure. *International Journal of Electronics*, **1994**, 76, 119-129	1.2	3