Guo Liu

List of Publications by Citations

85 papers	591 citations	13 h-index	19 g-index
121 ext. papers	800 ext. citations	2.7 avg, IF	4.07 L-index

#	Paper	IF	Citations
85	Design and Experiment of a Q-band Gyro-TWT Loaded With Lossy Dielectric. *IEEE Transactions on Electron Devices*, **2012**, 59, 3612-3617	2.9	48
84	Demonstration of a Planar ${{W}}$ -Band, kW-Level Extended Interaction Oscillator Based on a Pseudospark-Sourced Sheet Electron Beam. *IEEE Electron Device Letters*, **2018**, 39, 432-435	4.4	46
83	Terahertz biosensing metamaterial absorber for virus detection based on spoof surface plasmon polaritons. *International Journal of RF and Microwave Computer-Aided Engineering*, **2018**, 28, e21448	1.5	29
82	Study of a High-Efficiency 34-GHz Sheet Beam Extended Interaction Oscillator With Low Filling Factor. *IEEE Transactions on Electron Devices*, **2016**, 63, 4074-4080	2.9	23
81	Experimental demonstration of a terahertz extended interaction oscillator driven by a pseudospark-sourced sheet electron beam. *Applied Physics Letters*, **2018**, 112, 033504	3.4	22
80	Ultrawideband Coalesced-Mode Operation for a Sheet-Beam Traveling-Wave Tube. *IEEE Transactions on Electron Devices*, **2016**, 63, 504-511	2.9	19
79	Wideband Circular TE21 and TE01 Mode Converters With Same Exciting Topologies. *IEEE Transactions on Electron Devices*, **2016**, 63, 4088-4095	2.9	19
78	Terahertz backward wave radiation from the interaction of high-order mode and double sheet electron beams. *Journal Physics D: Applied Physics*, **2018**, 51, 055107	3	18
77	A TE13 Mode Converter for High-Order Mode Gyrotron-Traveling-Wave Tubes. *IEEE Transactions on Electron Devices*, **2016**, 63, 486-490	2.9	16
76	Simulation study of a high-order mode terahertz radiation source based on an orthogonal grating waveguide and multiple sheet electron beams. *Optics Express*, **2018**, 26, 8040-8048	3.3	16
75	. *IEEE Transactions on Microwave Theory and Techniques*, **2016**, 64, 4108-4116	4.1	15
74	Design and Microwave Measurement of a Broadband Compact Power Coupler for Sheet Beam Traveling Wave Tubes. *IEEE Transactions on Electron Devices*, **2016**, 63, 814-818	2.9	14
73	Simulation of a G-band sheet beam backward wave oscillator with double staggered metallic rod array. *Journal Physics D: Applied Physics*, **2013**, 46, 345102	3	13
72	Investigation on High Average Power Operations of Gyro-TWTs With Dielectric-Loaded Waveguide Circuits. *IEEE Transactions on Electron Devices*, **2018**, 65, 3012-3018	2.9	13
71	A microwave biosensor based on spoof surface plasmon polaritons for in vivo measurement of the water content of human skin tissues. *Journal Physics D: Applied Physics*, **2019**, 52, 205401	3	11
70	Design and Test of Broadband Rectangular Waveguide TE10 to Circular Waveguide TE21 and TE01 Mode Converters. *IEEE Transactions on Electron Devices*, **2019**, 66, 3573-3579	2.9	11
69	Design and Experiment of a High Average Power Ku-Band TE01 Mode Gyro-TWT. *IEEE Transactions on Electron Devices*, **2019**, 66, 1559-1566	2.9	9

68	An Improved Slow-Wave Structure for the Sheet-Beam Traveling-Wave Tube. *IEEE Transactions on Electron Devices*, **2016**, 63, 2089-2096	2.9	9
67	Design of a TE01-Mode Waveguide Bend Based on an Elliptical Waveguide Structure. *IEEE Transactions on Microwave Theory and Techniques*, **2019**, 67, 906-914	4.1	8
66	Design and Experiment of a High Power and Broadband Ku-Band TE11 Mode Gyro-TWT. *IEEE Transactions on Electron Devices*, **2018**, 65, 1962-1968	2.9	8
65	A Millimeter Wave High-Order TE13 Mode Converter. *IEEE Transactions on Electron Devices*, **2016**, 63, 2907-2911	2.9	8
64	RF Design, Thermal Analysis, and Cold Test of a Ku-Band Continuous Wave Sheet Beam Traveling Wave Tube. *IEEE Transactions on Electron Devices*, **2015**, 62, 3844-3850	2.9	7
63	Design and microwave test of an ultrawideband input/output structure for sheet beam travelling wave tubes. *Review of Scientific Instruments*, **2015**, 86, 064703	1.7	7
62	Study of Performance Improvement for a ${Q}$ -Band Sheet-Beam Traveling-Wave Tube. *IEEE Transactions on Electron Devices*, **2018**, 65, 3970-3975	2.9	7
61	Design and Millimeter-Wave Measurement of a Wideband Power Coupling Structure for Sheet Electron Beam Devices. *IEEE Transactions on Electron Devices*, **2019**, 66, 3171-3177	2.9	7
60	Experimental Study of a 6 kW W-band PCM Focused Sheet Beam EIO **2019**,		7
59	. *IEEE Transactions on Electron Devices*, **2016**, 63, 3733-3739	2.9	7
58	Proof-of-Principle Experiment of a 20-kW-Average-Power Ka-Band Gyro-Traveling Wave Tube With a Cut-Off Waveguide Section. *IEEE Electron Device Letters*, **2020**, 41, 769-772	4.4	7
57	Design and microwave measurement of a Ka-band HE11 mode corrugated horn for the Faraday rotator. *IET Microwaves, Antennas and Propagation*, **2017**, 11, 75-80	1.6	6
56	Automatic Hot Test of Gyrotron-Traveling Wave Tubes by Adaptive PID Feedback Control. *IEEE Transactions on Electron Devices*, **2017**, 64, 1310-1314	2.9	6
55	. *IEEE Transactions on Electron Devices*, **2018**, 65, 1535-1541	2.9	6
54	The PCM focused millimeter-wave sheet beam TWT **2017**,		6
53	Millimetre-wave design and verification of a meta-surface dielectric window made of polytetrafluoroethylene in Ka- and Q-band. *IET Microwaves, Antennas and Propagation*, **2020**, 14, 2007-2010	1.6	6
52	Continuous Wave Operation of a Ka-Band Broadband High-Power Sheet Beam Traveling-Wave Tube. *IEEE Electron Device Letters*, **2021**, 42, 1069-1072	4.4	6
51	Design, Fabrication, and Cold Test of a High Frequency System for an H-Band Sheet Beam Travelling Wave Tube. *IEEE Transactions on Terahertz Science and Technology*, **2020**, 10, 292-301	3.4	5

50	Initial Investigation on Diffractive-Wave Feedback Mechanism of Confocal Gyro-TWAs. *IEEE Electron Device Letters*, **2018**, 39, 436-439	4.4	5
49	Broadband High-Efficiency Input Coupler With Mode Selectivity for a W-Band Confocal Gyro-TWA. *IEEE Transactions on Microwave Theory and Techniques*, **2018**, 66, 1895-1901	4.1	5
48	Design and Measurement of a Broadband Compact TE11 Mode Input Coupler for an X-Band Gyrotron Traveling Wave Tube. *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 4554-4559	4.1	5
47	The High-Order Coalesced TM11-Like Mode Operation for 220 GHz Sheet Beam Traveling-Wave Tube. *IEEE Transactions on Terahertz Science and Technology*, **2021**, 11, 159-164	3.4	5
46	A Wideband High-Voltage Longitudinal Output Structure for Ka-Band Sheet Beam Traveling-Wave Tubes. *IEEE Transactions on Microwave Theory and Techniques*, **2021**, 69, 2042-2047	4.1	5
45	Design and measurement of a TE13 input converter for high order mode gyrotron travelling wave amplifiers. *Physics of Plasmas*, **2016**, 23, 033101	2.1	5
44	Terahertz ultrasensitive biosensing metamaterial and metasurface based on spoof surface plasmon polaritons. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, **2020**, 33, e2529	1	5
43	Design and Cold Test of a G-Band 10-kW-Level Pulse TE□Mode Gyrotron Traveling-Wave Tube. *IEEE Transactions on Electron Devices*, **2022**, 1-7	2.9	5
42	A W-Band TE12-Mode Input Converter With Nonuniform Bragg Cavities. *IEEE Transactions on Plasma Science*, **2017**, 45, 649-653	1.3	4
41	Design of a High-Gain X -Band Megawatt Gyrotron Traveling-Wave Tube. *IEEE Transactions on Plasma Science*, **2019**, 47, 2818-2822	1.3	4
40	Broadband rectangular TE mode exciter with H-plane power dividers for 100 GHz confocal gyro-devices. *Review of Scientific Instruments*, **2017**, 88, 074701	1.7	4
39	Design and experimental study of a broadband U-band TE01 gyrotron traveling wave tube **2015**,		4
38	Theoretical analysis and design optimization of wideband input/output branch waveguide couplers for a sheet beam traveling wave tube. *Journal of Electromagnetic Waves and Applications*, **2015**, 29, 2002-2013	1.3	4
37	Influence of the Output Window Reflection on the Performance of W-Band Gyrotron Traveling Wave Tubes. *IEEE Transactions on Electron Devices*, **2022**, 1-7	2.9	4
36	Analysis of the Synthesis Method for Broadband Oversized TE01-to-TE11 Mode Converter. *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 620-627	4.1	4
35	A High-Power Sheet Beam Slow-Wave Structure of Traveling Wave Tubes. *IEEE Electron Device Letters*, **2021**, 42, 747-750	4.4	4
34	Efficient Heat Dissipation Study of High-Power ${W}$ -Band Sheet Beam Extended Interaction Oscillator. *IEEE Transactions on Electron Devices*, **2018**, 65, 5075-5081	2.9	4
33	Broadband and compact rectangular waveguide twist by using rigid waveguide. *Electronics Letters*, **2018**, 54, 835-837	1.1	4

32	Broadband and High Power Meta-Surface Dielectric Window for W-Band Gyrotron Traveling Wave Tubes. *IEEE Electron Device Letters*, **2021**, 42, 1386-1389	4.4	4
31	High Average Power Test of a W-band Broadband Gyrotron Traveling Wave Tube. *IEEE Electron Device Letters*, **2022**, 1-1	4.4	4
30	Wideband Rectangular TE10 to TE $_{{{n}text{0}}}$ Mode Converters for Terahertz-Band High-Order Overmoded Planar Slow-Wave Structures. *IEEE Transactions on Electron Devices*, **2020**, 67, 1259-1265	2.9	3
29	Automatic Hot-Test System for High Average/Continuous-Wave Power Gyro-TWTs. *IEEE Transactions on Electron Devices*, **2018**, 65, 1139-1145	2.9	3
28	Design and Analysis of a Diode Magnetron Injection Gun for a G-Band Gyro-TWT. *IEEE Transactions on Electron Devices*, **2022**, 1-6	2.9	3
27	. *IEEE Transactions on Electron Devices*, **2018**, 65, 2340-2346	2.9	3
26	Thermal Analysis of Micro-Channel Cooling for a Megawatt Gyrotron Travelling Wave Tube **2019**,		2
25	Comparative analysis on TM110-2□mode and TM110-□mode as the operating mode for W-band sheet beam klystron. *Journal of Electromagnetic Waves and Applications*, **2013**, 27, 1089-1099	1.3	2
24	Investigation of High Interaction Efficiency of Sheet Beam TWT Based on All-Period Optimization and Beam Bunching Analysis. *IEEE Transactions on Electron Devices*, **2021**, 68, 6451-6457	2.9	2
23	Design, Microfabrication, and Characterization of a Subterahertz-Band High-Order Overmoded Double-Staggered Grating Waveguide for Multiple-Sheet Electron Beam Devices. *IEEE Transactions on Electron Devices*, **2021**, 68, 3021-3027	2.9	2
22	High-Efficiency Study of an SBEIO Based on the SAA Optimization. *IEEE Transactions on Electron Devices*, **2019**, 66, 4938-4942	2.9	2
21	Simulation and Experiment of PID Applied to the Automatic Voltage Control of Gyrotron Traveling Wave Tubes. *IEEE Transactions on Plasma Science*, **2018**, 46, 2446-2451	1.3	2
20	Influence of the Background Plasma on the Performance for X-Band Gyrotron Traveling Wave Tubes **2021**,		2
19	Design of a Broad-band Circular Waveguide TE□21 Mode Generator for Cold Test of Gyro-TWT **2019**,		1
18	Analysis of Phase Characteristics of Gyrotron Traveling-Wave Tubes. *IEEE Transactions on Electron Devices*, **2020**, 67, 2170-2175	2.9	1
17	Electron Gun Thermal Depended Properties□Analysis of a High-Power ${W}$ -Band Sheet Beam Extended Oscillator. *IEEE Transactions on Electron Devices*, **2020**, 67, 684-689	2.9	1
16	Theoretical and Experimental Investigations on a Gaussian-Like Beam Output System for Ku-Band Gyro-TWT. *IEEE Transactions on Electron Devices*, **2018**, 65, 1976-1981	2.9	1
15	1.2THz backward wave radiation generated by double bunched sheet beams **2015**,		1

14	Corrections to Design and Measurement of a Broadband Compact TE11Mode Input Coupler for an X-Band Gyrotron Traveling Wave Tube *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 4641-4641	4.1	1
13	A More Accurate Measurement Method of the Dielectric Material Properties With High Tolerance Using an Overmoded Waveguide. *IEEE Transactions on Microwave Theory and Techniques*, **2022**, 1-7	4.1	1
12	Coaxial Control in Iteration Synthesis of Axis-Perturbed Mode Converter. *IEEE Microwave and Wireless Components Letters*, **2021**, 31, 1039-1042	2.6	1
11	High Average Power Investigation of Dielectric Dissipation in the W-Band Gyro-TWT. *IEEE Transactions on Electron Devices*, **2022**, 1-7	2.9	1
10	Curved Geometry Collector Design for High-Power Gyrotraveling Wave Tubes. *IEEE Transactions on Electron Devices*, **2018**, 65, 2327-2333	2.9	0
9	Design and Measurement of a Broadband Beryllium Oxide Window With High Power Handling Capability. *IEEE Transactions on Electron Devices*, **2021**, 68, 4711-4716	2.9	0
8	PID Modeling and Experiment of the Hot Test of Gyrotron Traveling Wave Tubes. *IEEE Transactions on Plasma Science*, **2019**, 47, 2812-2817	1.3	
7	Experimental Study on rf Circuits of Confocal Gyrotron Travelling-Wave Amplifiers. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2018**, 39, 749-760	2.2	
6	Synthesis of Highly Oversized TE to TE Mode Converter Based on Elliptical Waveguide. *IEEE Transactions on Microwave Theory and Techniques*, **2022**, 1-1	4.1	
5	Circular TE Mode Content Analysis Technique for High-Power Gyro-TWT System. *IEEE Transactions on Microwave Theory and Techniques*, **2022**, 70, 1169-1177	4.1	
4	Microwave Measurement of a Compact Circular TE11 Mode Coupler Loaded With Ridges. *IEEE Transactions on Electron Devices*, **2021**, 68, 359-363	2.9	
3	Investigation of a Multibeam Magnetron Injection Gun for a W-Band Sectorial-Tunnel Gyro-TWT. *IEEE Transactions on Electron Devices*, **2021**, 68, 5211-5214	2.9	
2	Design and Measurement of Terahertz-Band Rectangular TE $_{10}$ to Circular TE $_{n1}$ /TE $_{0p}$ /TE $_{1q}$ Mode Converters. *IEEE Transactions on Microwave Theory and Techniques*, **2022**, 1-1	4.1	
1	Design and Experiment of a Dielectric-Loaded Gyro-TWT With a Single Depressed Collector. *IEEE Transactions on Electron Devices*, **2022**, 1-6	2.9	