Cunjun Ruan

List of Publications by Year
in descending order

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150	1,194	361045	454577
papers	citations	20 h-index	30 g-index

150	150	150	806
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Broadband Spintronic Terahertz Emitter with Magneticâ€Field Manipulated Polarizations. Advanced Optical Materials, 2019, 7, 1900487.	3.6	77
2	High-Sensitivity Microwave Sensor for Liquid Characterization Using a Complementary Circular Spiral Resonator. Sensors, 2019, 19, 787.	2.1	76
3	Generation and manipulation of chiral broadband terahertz waves from cascade spintronic terahertz emitters. Applied Physics Letters, 2019, 115, .	1.5	51
4	Particle-in-Cell Simulation and Optimization of Multigap Extended Output Cavity for a W-Band Sheet-Beam EIK. IEEE Transactions on Plasma Science, 2014, 42, 91-98.	0.6	47
5	W -Band Multiple Beam Staggered Double-Vane Traveling Wave Tube With Broad Band and High Output Power. IEEE Transactions on Plasma Science, 2015, 43, 2132-2139.	0.6	45
6	Complementary Metamaterial Sensor for Nondestructive Evaluation of Dielectric Substrates. Sensors, 2019, 19, 2100.	2.1	44
7	High Efficient and Ultra Wide Band Monopole Antenna for Microwave Imaging and Communication Applications. Sensors, 2020, 20, 115.	2.1	41
8	High performance THz patch antenna using photonic band gap and defected ground structure. Journal of Electromagnetic Waves and Applications, 2019, 33, 1943-1954.	1.0	40
9	Theoretical and Experimental Investigation on Intense Sheet Electron Beam Transport With Its Diocotron Instability in a Uniform Magnetic Field. IEEE Transactions on Electron Devices, 2014, 61, 1643-1650.	1.6	35
10	Dual Notch Microwave Sensors Based on Complementary Metamaterial Resonators. IEEE Access, 2019, 7, 153489-153498.	2.6	31
11	Extremely Sensitive Microwave Sensor for Evaluation of Dielectric Characteristics of Low-Permittivity Materials. Sensors, 2020, 20, 1916.	2.1	28
12	Ultra-Thin Metasheet for Dual-Wide-Band Linear to Circular Polarization Conversion With Wide-Angle Performance. IEEE Access, 2020, 8, 163244-163254.	2.6	27
13	Submersible High Sensitivity Microwave Sensor for Edible Oil Detection and Quality Analysis. IEEE Sensors Journal, 2021, 21, 13230-13238.	2.4	26
14	Design of an Electron Optics System for a W-Band Sheet Beam Klystron. IEEE Transactions on Plasma Science, 2008, 36, 665-669.	0.6	25
15	Researches on an X-Band Sheet Beam Klystron. IEEE Transactions on Electron Devices, 2014, 61, 151-158.	1.6	25
16	Triple-wide-band Ultra-thin Metasheet for transmission polarization conversion. Scientific Reports, 2020, 10, 8810.	1.6	25
17	Dual-Band Ultrathin Meta-Array for Polarization Conversion in Ku/Ka-Band With Broadband Transmission. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 856-860.	2.4	24
18	Theoretical Design and Numerical Simulation of Beam-Wave Interaction for <inline-formula> <tex-math notation="LaTeX">G </tex-math> </inline-formula>-Band Unequal-Length Slots EIK With Rectangular Electron Beam. IEEE Transactions on Electron Devices, 2018, 65, 3500-3506.	1.6	22

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19	Dual-Wide-Band Dual Polarization Terahertz Linear to Circular Polarization Converters based on Bi-Layered Transmissive Metasurfaces. Electronics (Switzerland), 2019, 8, 869.	1.8	21
20	Broadband and high-power terahertz radiation source based on extended interaction klystron. Scientific Reports, 2019, 9, 4584.	1.6	21
21	Super Wide Band, Defected Ground Structure (DGS), and Stepped Meander Line Antenna for WLAN/ISM/WiMAX/UWB and other Wireless Communication Applications. Sensors, 2020, 20, 1735.	2.1	21
22	A Wideband Terahertz Transmissive Polarization Manipulator Based on Metasurfaces. Electronics (Switzerland), 2019, 8, 1068.	1.8	19
23	Low cost and compact wideband microwave notch filter based on miniaturized complementary metaresonator. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	18
24	Study of H-Band High-Order Overmoded Power Couplers for Sheet Electron Beam Devices. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 2251-2258.	2.9	18
25	An Extended Theoretical Method Used for Design of Sheet Beam Electron Gun. IEEE Transactions on Electron Devices, 2016, 63, 4484-4492.	1.6	17
26	G-band Rectangular Beam Extended Interaction Klystron Based on Bi-Periodic Structure. IEEE Transactions on Terahertz Science and Technology, 2019, 9, 498-504.	2.0	17
27	Microstrip system on-chip circular polarized (CP) slotted antenna for THz communication application. Journal of Electromagnetic Waves and Applications, 2020, 34, 1029-1038.	1.0	16
28	Active tunable THz metamaterial array implemented in CMOS technology. Journal Physics D: Applied Physics, 2021, 54, 085107.	1.3	15
29	Research on a high-sensitivity asymmetric metamaterial structure and its application as microwave sensor. Scientific Reports, 2022, 12, 1255.	1.6	15
30	Novel Coupling Cavities for Improving the Performance of G-Band Ladder-Type Multigap Extended Interaction Klystrons. IEEE Transactions on Plasma Science, 2020, 48, 1350-1356.	0.6	14
31	Triband Ultrathin Polarization Converter for X/Ku/Ka-Band Microwave Transmission. IEEE Microwave and Wireless Components Letters, 2020, 30, 351-354.	2.0	14
32	Robust and sensitive metamaterial-inspired microfluidic sensor for liquids with low dielectric constants. Sensors and Actuators A: Physical, 2021, 331, 112869.	2.0	14
33	Design and optimization of G-band extended interaction klystron with high output power. Physics of Plasmas, 2018, 25, .	0.7	13
34	Integrated Planar Three-Beam Electron Optics System for 220-GHz Folded Waveguide TWT. IEEE Transactions on Electron Devices, 2018, 65, 270-276.	1.6	13
35	Linear analysis of a rectangular waveguide cyclotron maser with a sheet electron beam. Physics of Plasmas, 2010, 17, .	0.7	12
36	Analysis of a two-section folded waveguide of extend interaction oscillator. , 2011, , .		11

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37	Multiple-beam and double-mode staggered double vane travelling wave tube with ultra-wide band. Scientific Reports, 2020, 10, 20159.	1.6	10
38	Design of planar distributed three beam electron gun with narrow beam separation for W band staggered double vane TWT. Scientific Reports, 2021, 11, 940.	1.6	10
39	Investigation on Stability of the Beam-wave Interactions for G-band Staggered Double Vane TWT. , 2018, , .		9
40	Mutual Coupling Reduction between Finite Spaced Planar Antenna Elements Using Modified Ground Structure. Electronics (Switzerland), 2021, 10, 19.	1.8	9
41	A dual-mode microwave sensor for edible oil characterization using magnetic-LC Resonators. Sensors and Actuators A: Physical, 2022, 333, 113275.	2.0	9
42	Reconfigurable Ultra Wide Band Notch Filter based on Complementary Metamaterial. , 2018, , .		8
43	High Q Dual Band Super High Frequency Notch Filter Based on Complementary Metamaterial. , 2018, , .		8
44	Planar Distributed Three-Beam Electron Optics System With Narrow Beam Separation for Fundamental-Mode TWT in W-Band. IEEE Transactions on Electron Devices, 2021, 68, 5215-5219.	1.6	8
45	Dispersion and Dielectric Attenuation Properties of a Wideband Double-Staggered Grating Waveguide for Subterahertz Sheet-Beam Traveling-Wave Amplifiers. IEEE Transactions on Electron Devices, 2021, 68, 5826-5833.	1.6	8
46	An Easy-to-Fabricate Circular TEâ„‚â‚TEâ‚€â‚•Mode Generator. IEEE Transactions on Electron Devices, 2021, 68, 6532-6537.	1.6	7
47	A High-Power and Broadband G-Band Extended Interaction Klystron Based on Mode Overlap. IEEE Transactions on Electron Devices, 2022, 69, 4611-4616.	1.6	7
48	Design of a reconfigurable antenna based on graphene for terahertz communication. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2021, 34, e2911.	1.2	6
49	Design and Measurement of Terahertz-Band Rectangular TE₁₀ to Circular TE_{n1}/TE_{0p}/TE_{1q} Mode Converters. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 3009-3019.	2.9	6
50	Reconfigurable Antenna Based on Graphene at Terahertz Frequency. , 2018, , .		5
51	Research on X-band sheet beam electron optics system. , 2012, , .		4
52	Design of a G-Band sheet electron beam travelling wave tube. , 2016, , .		4
53	Investigation of W-band High Power TWT Amplifier with Broadband Output Window. , 2019, , .		4
54	Horizontal Polarized DC Grounded Omnidirectional Antenna for UAV Ground Control Station. Sensors, 2021, 21, 2763.	2.1	4

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55	A G-Band High Output Power and Wide Bandwidth Sheet Beam Extended Interaction Klystron Design Operating at TM31 with 2Ï€ Mode. Electronics (Switzerland), 2021, 10, 1948.	1.8	4
56	Performance Enhancement of Photoconductive Antenna Using Saw-Toothed Plasmonic Contact Electrodes. Electronics (Switzerland), 2021, 10, 2693.	1.8	4
57	A Terahertz Band TE₂₀^{â–¡} Mode Input/Output Coupling Structure for Dual-Sheet-Beam Traveling-Wave Tubes. IEEE Transactions on Plasma Science, 2022, 50, 1360-1368.	0.6	4
58	Transmissive Polarizer Metasurfaces: From Microwave to Optical Regimes. Nanomaterials, 2022, 12, 1705.	1.9	4
59	A Sub-THz High-Order Mode Backward Wave Oscillator Driven by Pseudospark Sourced Multiple Sheet Electron Beams. IEEE Transactions on Electron Devices, 2022, 69, 5216-5222.	1.6	4
60	The circuit design and particle-in-cell simulation for W-band high-power extended interaction klystron. , 2013, , .		3
61	Design of High Efficiency Multiband Rectenna for RF Energy Harvesting. , 2018, , .		3
62	Frequency and Radiation Pattern Reconfigurable Graphene Square Spiral Antenna at Terahertz Band. , 2018, , .		3
63	High Power Terahertz Source Based on Planar Antenna Integrated Vacuum Photodiode. , 2019, , .		3
64	High-power and Broadband Terahertz TWT Amplifier Based on High Order Mode Staggered Double Vane Structure. , 2019, , .		3
65	Design and Stability Analysis of a High-Order Mode-Staggered Double Vane Traveling Wave Tube With Two Pencil Beams at G-Band. IEEE Transactions on Plasma Science, 2021, 49, 3029-3034.	0.6	3
66	G-Band High-Power Wide-Band Staggered Double Vane Traveling Wave Tube. , 2020, , .		3
67	Theory and experimental investigation on the high performance transport of sheet electron beam for the XSBK and WSBK. , 2012, , .		2
68	Study of a multi-gap extended interaction cavity for G-band EIK. , 2016, , .		2
69	Characteristics of 340 GHz Slow Wave Structure for Staggered Double-Vane Traveling Wave Tube. , 2018, , .		2
70	Design of the planar distributed three-beam gun for W-band staggered double vane TWT. , 2018, , .		2
71	A Compact, Mechanically rugged, DC Grounded 45Â° Slant Polarized Low Gain Ripple Omnidirectional Antenna. , 2019, , .		2
72	Terahertz Distributed Amplifiers Based on Nanoscale Vacuum Phototubes. , 2019, , .		2

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73	Tri-band Linear to Circular Polarization Converter based on Transmissive Metasurfaces. , 2019, , .		2
74	Optimization and Improvement of Output Performance in G-Band Extended Interaction Klystron. Journal of Infrared, Millimeter, and Terahertz Waves, 2019, 40, 5-16.	1.2	2
75	High current density photocathode for CW terahertz photoconductive vacuum devices. Vacuum, 2020, 180, 109587.	1.6	2
76	High Photocurrent Density and Continuous Electron Emission Characterization of a Multi-Alkali Antimonide Photocathode. Electronics (Switzerland), 2020, 9, 1991.	1.8	2
77	Low Gain Ripple and DC-Grounded Slant-Polarized Formulation With 360Â° Broadbeam Coverage. IEEE Access, 2020, 8, 224190-224199.	2.6	2
78	Compact single layer Dual-Band Dual Polarized Transmissive Linear-to-Circular Polarization Converter with High Angular Stability. , 2021, , .		2
79	Nano Gap Metamaterials promising for Virus Detection. , 2021, , .		2
80	Design of Compact and Easy-to-Fabricate Power Coupling Structures for Sub-Terahertz Sheet Beam Traveling Wave Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 2622-2630.	2.9	2
81	Demonstration of a Wideband and Compact Inputâ€“Output Coupling Structure for Subterahertz Sheet-Beam Traveling Wave Amplifiers. IEEE Transactions on Terahertz Science and Technology, 2022, 12, 401-408.	2.0	2
82	Double-mode and double-beam staggered double-vane traveling-wave tube with high-power and broadband at terahertz band. Scientific Reports, 2022, 12, .	1.6	2
83	Simulation and analysis of the beam-wave interaction for the high power W-band sheet beam klystron. , 2012, , .		1
84	Estimation Method for Self-Impedance's Real Part of Multigap Output Cavity of Klystrons Using Group Delay. IEEE Transactions on Plasma Science, 2013, 41, 2269-2276.	0.6	1
85	Research on W-Band sheet beam electron optics system. , 2013, , .		1
86	The design of W-band broadband output window for TWT. , 2016, , .		1
87	Investigation on ultra-wide band plan alignment multiple beam W-band travelling wave tube with two stage staggered double-vane structure. , 2016, , .		1
88	Study of a rectangular beam extended interaction klystron in G-band. , 2017, , .		1
89	Simulation and Analysis of Photoconductive Vacuum Diode Arrays in Terahertz Band. , 2018, , .		1
90	Improvement of Output Performance in G-Band Extended Interaction Klystron. , 2018, , .		1

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91	A Miniaturize and High Efficient Quadband Rectenna Design for RF Energy Harvesting. , 2018, , .		1
92	Optimization of Output Power and Bandwidth in G-band Extended Interaction Klystron. , 2018, , .		1
93	Comparison of Complementary Metamaterials in Microstrip Transmission Line and Applications. , 2019, , .		1
94	G-Band High-Power and Ultrawide Band Staggered Double-Vane Slow-Wave Circuit With Double Beams. IEEE Transactions on Terahertz Science and Technology, 2022, 12, 23-29.	2.0	1
95	Complementary Metamaterial based Dual Notch Microwave Sensor. , 2020, , .		1
96	High Sensitivity Microwave Sensor for Edible Oil Detection Using Complementary Multiple Split-Ring Resonators. , 2020, , .		1
97	Design and Optimization of Electron Guns for a 220GHz Sheet Electron Beam EIK. , 2021, , .		1
98	Optically and Voltage Reconfigurable Metamaterials. , 2021, , .		1
99	Theoretical Analysis and Simulated Verification of Circular Beam Electron Optical System for Terahertz Vacuum Electron Devices. IEEE Transactions on Plasma Science, 2022, 50, 1807-1813.	0.6	1
100	Interaction simulation of an X-band sheet beam klystron. , 2009, , .		0
101	The design of W-band Extended Interaction Klystron Electron optics system. , 2012, , .		0
102	Design and particle-in-cell simulation of sub-terahertz CW extended interaction klystron. , 2012, , .		0
103	The design considerations of W-band broad band output window. , 2013, , .		0
104	Structure design and simulation of extended interaction oscillator. , 2013, , .		0
105	Design and coldtest of high frequency interaction structure for X-band sheet beam klystron. , 2013, , .		0
106	Experimental investigation on sheet electron beam transport with Electron Beam Measuring and Analyzing System developed in IECAS. , 2013, , .		0
107	Development and Application of a Nonlinear Beam-Wave Interaction Code SBK2D for Sheet Beam Klystrons. IEEE Transactions on Electron Devices, 2014, 61, 2523-2530.	1.6	0
108	Investigation on the strong-coupling multiple-gap cavities for the W-band sheet beam extended interaction klystron. , 2015, , .		0

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109	Investigation on the high gain sheet beam extended interaction klystron with strong-coupling multiple-gap cavities in W-band. , 2015, , .		0
110	Design of a W-band plan alignment multiple beam travelling wave tube. , 2015, , .		0
111	A narrow sheet beam electron gun designed by approximate Pierce method for the millimeter wave TWT. , 2016, , .		0
112	Development of the ultra-wide band millimeter wave TWT with two stage SDV-SWS. , 2017, , .		0
113	Primary investigation of a rectangular beam EIK with high output power and broad bandwidth in G-band. , 2017, , .		0
114	Optimization of electric field distribution in unequal-length slots extended interaction klystron. , 2017, , .		0
115	The Data Analysis of Continuous Wave Terahertz Spectrometer in Time Domain. , 2018, , .		0
116	Magnifying Near-field Image Structure Based on Monolayer Graphene. , 2018, , .		0
117	Design and Analysis of High Selectivity THz Filters for Astronomical Observation System Including Power Handling Analysis. , 2018, , .		0
118	S-shaped High Efficient Meander Monopole Antenna for WLAN/WIMAX/Ultra Wide Band (UWB) Applications. , 2019, , .		0
119	Triple-wide-band Linear to Circular Polarization Converters Using Bi-layered Metasurfaces. , 2019, , .		0
120	Bandwidth Enhancement for Transmissive Linear to Circular Polarization Converters using Direct Coupling between Metasurfaces. , 2019, , .		0
121	Simulation of the Photoconductive Vacuum Diode Arrays. , 2019, , .		0
122	Design of Arm Asymmetry Structure Based on Metamaterial for THz Sensor. , 2019, , .		0
123	DC Grounded 45Â° Band Switchable Slant Polarized Antenna. , 2019, , .		0
124	Design of a Simple Inter-connected U-shaped Circular Polarized Monopole Antenna for THz Communication Applications. , 2019, , .		0
125	Measurement and Research of Liquid Transmission Spectrum Based on Continuous-wave Terahertz Spectroscopy. , 2019, , .		0
126	High Sensitivity Quadrupole Fano Resonances Using Terahertz Metamaterials with Its Application as Biosensor. , 2019, , .		0

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127	Enhanced Spintronic Terahertz Emission in W/CoFeB Heterostructures Through Annealing Effect. , 2019, , .		0
128	Research of a metamaterial microfluidic sensor based on FANO resonance. , 2021, , .		0
129	Researches on G-band High-Power and Broadband Extended Interaction Klystron. , 2021, , .		0
130	Studies on Planar Pencil Beam Staggered Double Vane Slow Wave Structures. , 2021, , .		0
131	Ultra-Sensitive Bio-sensor Based on Part Shape Asymmetric Structure. , 2021, , .		0
132	Design of the Terahertz Near Field Imaging Discreteer Based on Graphene Monolayer Strip Structure. , 2018, , .		0
133	Design of a Low-voltage 340 GHz TWT Amplifier with Stagger Double Vane Slow Wave Structure. , 2020, , .		0
134	Ultra-Wide Band Terahertz Filter using Dendritic Cell-Cluster Metasurfaces. , 2020, , .		0
135	Design and Analysis of High Power, Broadband Terahertz Vacuum Photomixer Device. , 2020, , .		0
136	Transmission line to waveguide transition at 220 GHz for vacuum photodiode. , 2020, , .		0
137	Design of a 220GHz TE20 Higher Order Mode SDVSWS TWT Amplifier. , 2020, , .		0
138	Research on Dielectric Constants of Non-polar Liquid and Mixture with Terahertz Frequency-domain Spectroscopy. , 2021, , .		0
139	Submersible Microwave Sensor for Heated Oil Characterization Using Complementary Multiple Split-Ring Resonator. , 2021, , .		0
140	Research on Improving the Efficiency of S-Band High Power Klystron. , 2021, , .		0
141	Air-gap separated ground double bow-tie antenna for Ka/K and partial Ku band imaging applications. , 2020, , .		0
142	Analysis of Circularly Polarized Terahertz Waves Scattered by Rough Surfaces for Wireless Communications. , 2020, , .		0
143	A Microwave Metamaterial-inspired Sensor for Nondestructive Evaluation of Dielectric Substrates. , 2021, , .		0
144	[PDF Not Yet Available In IEEE Xplore]. , 2021, , .		0

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145	Long-Periodic Cusped Magnet System for Planar-Distributed Multiple Beam Focusing. , 2021, , .		0
146	Design of a Metamaterial-inspired Microfluidic Sensor for High Permittivity Liquids. , 2021, , .		0
147	Design and Optimize of a G-band High-power Traveling Wave Tube. , 2021, , .		0
148	Matching and Stability Analyses of Planar Distributed Three-beam Electron Optics System. , 2021, , .		0
149	Design of W-Band Planar Distributed Three-Beam Gun with Uniform Magnetic Focusing. , 2020, , .		0
150	Investation on Broad Bandwidth and High Power Terahertz Traveling Wave Tube Based on Mulit-Mode and High-Mode Beam Wave Interaction. , 2020, , .		0