

# Cunjun Ruan

## List of Publications by Year in descending order

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150  
papers

1,194  
citations

361045

20  
h-index

454577

30  
g-index

150  
all docs

150  
docs citations

150  
times ranked

806  
citing authors

#	ARTICLE	IF	CITATIONS
1	<i>G</i> -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
2	A dual-mode microwave sensor for edible oil characterization using magnetic-LC Resonators. Sensors and Actuators A: Physical, 2022, 333, 113275.	2.0	9
3	Research on a high-sensitivity asymmetric metamaterial structure and its application as microwave sensor. Scientific Reports, 2022, 12, 1255.	1.6	15
4	A Terahertz Band TE <sub>20</sub> Mode Input/Output Coupling Structure for Dual-Sheet-Beam Traveling-Wave Tubes. IEEE Transactions on Plasma Science, 2022, 50, 1360-1368.	0.6	4
5	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
6	Design and Measurement of Terahertz-Band Rectangular TE <sub>10</sub> to Circular TE <sub>11</sub> /TE <sub>01</sub> /TE <sub>1q</sub> Mode Converters. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 3009-3019.	2.9	6
7	Demonstration of a Wideband and Compact Input-Output Coupling Structure for Subterahertz Sheet-Beam Traveling Wave Amplifiers. IEEE Transactions on Terahertz Science and Technology, 2022, 12, 401-408.	2.0	2
8	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
9	Transmissive Polarizer Metasurfaces: From Microwave to Optical Regimes. Nanomaterials, 2022, 12, 1705.	1.9	4
10	A High-Power and Broadband <i>G</i> -Band Extended Interaction Klystron Based on Mode Overlap. IEEE Transactions on Electron Devices, 2022, 69, 4611-4616.	1.6	7
11	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
12	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
13	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
14	Horizontal Polarized DC Grounded Omnidirectional Antenna for UAV Ground Control Station. Sensors, 2021, 21, 2763.	2.1	4
15	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
16	Submersible High Sensitivity Microwave Sensor for Edible Oil Detection and Quality Analysis. IEEE Sensors Journal, 2021, 21, 13230-13238.	2.4	26
17	A G-Band High Output Power and Wide Bandwidth Sheet Beam Extended Interaction Klystron Design Operating at TM <sub>31</sub> with 2 $\pi$ Mode. Electronics (Switzerland), 2021, 10, 1948.	1.8	4
18	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

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19	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
20	Robust and sensitive metamaterial-inspired microfluidic sensor for liquids with low dielectric constants. Sensors and Actuators A: Physical, 2021, 331, 112869.	2.0	14
21	Research of a metamaterial microfluidic sensor based on FANO resonance. , 2021, , .		0
22	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
23	Active tunable THz metamaterial array implemented in CMOS technology. Journal Physics D: Applied Physics, 2021, 54, 085107.	1.3	15
24	Mutual Coupling Reduction between Finite Spaced Planar Antenna Elements Using Modified Ground Structure. Electronics (Switzerland), 2021, 10, 19.	1.8	9
25	Researches on G-band High-Power and Broadband Extended Interaction Klystron. , 2021, , .		0
26	Studies on Planar Pencil Beam Staggered Double Vane Slow Wave Structures. , 2021, , .		0
27	Ultra-Sensitive Bio-sensor Based on Part Shape Asymmetric Structure. , 2021, , .		0
28	Compact single layer Dual-Band Dual Polarized Transmissive Linear-to-Circular Polarization Converter with High Angular Stability. , 2021, , .		2
29	An Easy-to-Fabricate Circular TE <sub>11</sub> Mode Generator. IEEE Transactions on Electron Devices, 2021, 68, 6532-6537.	1.6	7
30	Performance Enhancement of Photoconductive Antenna Using Saw-Toothed Plasmonic Contact Electrodes. Electronics (Switzerland), 2021, 10, 2693.	1.8	4
31	Research on Dielectric Constants of Non-polar Liquid and Mixture with Terahertz Frequency-domain Spectroscopy. , 2021, , .		0
32	Nano Gap Metamaterials promising for Virus Detection. , 2021, , .		2
33	Submersible Microwave Sensor for Heated Oil Characterization Using Complementary Multiple Split-Ring Resonator. , 2021, , .		0
34	Research on Improving the Efficiency of S-Band High Power Klystron. , 2021, , .		0
35	A Microwave Metamaterial-inspired Sensor for Nondestructive Evaluation of Dielectric Substrates. , 2021, , .		0
36	[PDF Not Yet Available In IEEE Xplore]. , 2021, , .		0

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37	Design and Optimization of Electron Guns for a 220GHz Sheet Electron Beam EIK. , 2021, , .		1
38	Long-Periodic Cusped Magnet System for Planar-Distributed Multiple Beam Focusing. , 2021, , .		0
39	Optically and Voltage Reconfigurable Metamaterials. , 2021, , .		1
40	Design of a Metamaterial-inspired Microfluidic Sensor for High Permittivity Liquids. , 2021, , .		0
41	Design and Optimize of a G-band High-power Traveling Wave Tube. , 2021, , .		0
42	Matching and Stability Analyses of Planar Distributed Three-beam Electron Optics System. , 2021, , .		0
43	High Efficient and Ultra Wide Band Monopole Antenna for Microwave Imaging and Communication Applications. Sensors, 2020, 20, 115.	2.1	41
44	High current density photocathode for CW terahertz photoconductive vacuum devices. Vacuum, 2020, 180, 109587.	1.6	2
45	Multiple-beam and double-mode staggered double vane travelling wave tube with ultra-wide band. Scientific Reports, 2020, 10, 20159.	1.6	10
46	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
47	High Photocurrent Density and Continuous Electron Emission Characterization of a Multi-Alkali Antimonide Photocathode. Electronics (Switzerland), 2020, 9, 1991.	1.8	2
48	Triple-wide-band Ultra-thin Metasheet for transmission polarization conversion. Scientific Reports, 2020, 10, 8810.	1.6	25
49	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
50	Novel Coupling Cavities for Improving the Performance of <i>G</i> -Band Ladder-Type Multigap Extended Interaction Klystrons. IEEE Transactions on Plasma Science, 2020, 48, 1350-1356.	0.6	14
51	Study of <i>H</i> -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
52	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
53	Dual-Band Ultrathin Meta-Array for Polarization Conversion in <i>Ku</i> / <i>Ka</i> -Band With Broadband Transmission. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 856-860.	2.4	24
54	Triband Ultrathin Polarization Converter for <i>X</i> / <i>Ku</i> / <i>Ka</i> -Band Microwave Transmission. IEEE Microwave and Wireless Components Letters, 2020, 30, 351-354.	2.0	14

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55	Extremely Sensitive Microwave Sensor for Evaluation of Dielectric Characteristics of Low-Permittivity Materials. <i>Sensors</i> , 2020, 20, 1916.	2.1	28
56	Low Gain Ripple and DC-Grounded Slant-Polarized Formulation With 360° Broadbeam Coverage. <i>IEEE Access</i> , 2020, 8, 224190-224199.	2.6	2
57	Design of a Low-voltage 340 GHz TWT Amplifier with Stagger Double Vane Slow Wave Structure. , 2020, , .		0
58	Ultra-Wide Band Terahertz Filter using Dendritic Cell-Cluster Metasurfaces. , 2020, , .		0
59	Complementary Metamaterial based Dual Notch Microwave Sensor. , 2020, , .		1
60	Design and Analysis of High Power, Broadband Terahertz Vacuum Photomixer Device. , 2020, , .		0
61	High Sensitivity Microwave Sensor for Edible Oil Detection Using Complementary Multiple Split-Ring Resonators. , 2020, , .		1
62	Transmission line to waveguide transition at 220 GHz for vacuum photodiode. , 2020, , .		0
63	Design of a 220GHz TE <sub>20</sub> Higher Order Mode SDVSW TWT Amplifier. , 2020, , .		0
64	G-Band High-Power Wide-Band Staggered Double Vane Traveling Wave Tube. , 2020, , .		3
65	Air-gap separated ground double bow-tie antenna for Ka/K and partial Ku band imaging applications. , 2020, , .		0
66	Analysis of Circularly Polarized Terahertz Waves Scattered by Rough Surfaces for Wireless Communications. , 2020, , .		0
67	Design of W-Band Planar Distributed Three-Beam Gun with Uniform Magnetic Focusing. , 2020, , .		0
68	Investation on Broad Bandwidth and High Power Terahertz Traveling Wave Tube Based on Mult-Mode and High-Mode Beam Wave Interaction. , 2020, , .		0
69	Dual-Wide-Band Dual Polarization Terahertz Linear to Circular Polarization Converters based on Bi-Layered Transmissive Metasurfaces. <i>Electronics (Switzerland)</i> , 2019, 8, 869.	1.8	21
70	G-band Rectangular Beam Extended Interaction Klystron Based on Bi-Periodic Structure. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2019, 9, 498-504.	2.0	17
71	Broadband Spintronic Terahertz Emitter with Magnetic Field Manipulated Polarizations. <i>Advanced Optical Materials</i> , 2019, 7, 1900487.	3.6	77
72	A Wideband Terahertz Transmissive Polarization Manipulator Based on Metasurfaces. <i>Electronics (Switzerland)</i> , 2019, 8, 1068.	1.8	19

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73	A Compact, Mechanically rugged, DC Grounded 45° Slant Polarized Low Gain Ripple Omnidirectional Antenna. , 2019, , .		2
74	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
75	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
76	Complementary Metamaterial Sensor for Nondestructive Evaluation of Dielectric Substrates. Sensors, 2019, 19, 2100.	2.1	44
77	Broadband and high-power terahertz radiation source based on extended interaction klystron. Scientific Reports, 2019, 9, 4584.	1.6	21
78	High-Sensitivity Microwave Sensor for Liquid Characterization Using a Complementary Circular Spiral Resonator. Sensors, 2019, 19, 787.	2.1	76
79	High Power Terahertz Source Based on Planar Antenna Integrated Vacuum Photodiode. , 2019, , .		3
80	S-shaped High Efficient Meander Monopole Antenna for WLAN/WIMAX/Ultra Wide Band (UWB) Applications. , 2019, , .		0
81	Triple-wide-band Linear to Circular Polarization Converters Using Bi-layered Metasurfaces. , 2019, , .		0
82	Comparison of Complementary Metamaterials in Microstrip Transmission Line and Applications. , 2019, , .		1
83	Bandwidth Enhancement for Transmissive Linear to Circular Polarization Converters using Direct Coupling between Metasurfaces. , 2019, , .		0
84	Investigation of W-band High Power TWT Amplifier with Broadband Output Window. , 2019, , .		4
85	Simulation of the Photoconductive Vacuum Diode Arrays. , 2019, , .		0
86	Design of Arm Asymmetry Structure Based on Metamaterial for THz Sensor. , 2019, , .		0
87	DC Grounded 45° Band Switchable Slant Polarized Antenna. , 2019, , .		0
88	Design of a Simple Inter-connected U-shaped Circular Polarized Monopole Antenna for THz Communication Applications. , 2019, , .		0
89	Measurement and Research of Liquid Transmission Spectrum Based on Continuous-wave Terahertz Spectroscopy. , 2019, , .		0
90	High-power and Broadband Terahertz TWT Amplifier Based on High Order Mode Staggered Double Vane Structure. , 2019, , .		3

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91	High Sensitivity Quadrupole Fano Resonances Using Terahertz Metamaterials with Its Application as Biosensor. , 2019, , .		0
92	Terahertz Distributed Amplifiers Based on Nanoscale Vacuum Phototubes. , 2019, , .		2
93	Dual Notch Microwave Sensors Based on Complementary Metamaterial Resonators. IEEE Access, 2019, 7, 153489-153498.	2.6	31
94	Generation and manipulation of chiral broadband terahertz waves from cascade spintronic terahertz emitters. Applied Physics Letters, 2019, 115, .	1.5	51
95	Tri-band Linear to Circular Polarization Converter based on Transmissive Metasurfaces. , 2019, , .		2
96	Enhanced Spintronic Terahertz Emission in W/CoFeB Heterostructures Through Annealing Effect. , 2019, , .		0
97	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
98	Design and optimization of G-band extended interaction klystron with high output power. Physics of Plasmas, 2018, 25, .	0.7	13
99	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
100	Reconfigurable Antenna Based on Graphene at Terahertz Frequency. , 2018, , .		5
101	The Data Analysis of Continuous Wave Terahertz Spectrometer in Time Domain. , 2018, , .		0
102	Investigation on Stability of the Beam-wave Interactions for G-band Staggered Double Vane TWT. , 2018, , .		9
103	Simulation and Analysis of Photoconductive Vacuum Diode Arrays in Terahertz Band. , 2018, , .		1
104	Magnifying Near-field Image Structure Based on Monolayer Graphene. , 2018, , .		0
105	Characteristics of 340 GHz Slow Wave Structure for Staggered Double-Vane Traveling Wave Tube. , 2018, , .		2
106	Reconfigurable Ultra Wide Band Notch Filter based on Complementary Metamaterial. , 2018, , .		8
107	Design of High Efficiency Multiband Rectenna for RF Energy Harvesting. , 2018, , .		3
108	Frequency and Radiation Pattern Reconfigurable Graphene Square Spiral Antenna at Terahertz Band. , 2018, , .		3

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109	Improvement of Output Performance in G-Band Extended Interaction Klystron. , 2018, , .		1
110	High Q Dual Band Super High Frequency Notch Filter Based on Complementary Metamaterial. , 2018, , .		8
111	A Miniaturize and High Efficient Quadband Rectenna Design for RF Energy Harvesting. , 2018, , .		1
112	Optimization of Output Power and Bandwidth in G-band Extended Interaction Klystron. , 2018, , .		1
113	Design and Analysis of High Selectivity THz Filters for Astronomical Observation System Including Power Handling Analysis. , 2018, , .		0
114	Design of the planar distributed three-beam gun for W-band staggered double vane TWT. , 2018, , .		2
115	Theoretical Design and Numerical Simulation of Beam-Wave Interaction for $\text{LaTeX}$ & $\text{TeX}$ Band Unequal-Length Slots EIK With Rectangular Electron Beam. IEEE Transactions on Electron Devices, 2018, 65, 3500-3506.	1.6	22
116	Design of the Terahertz Near Field Imaging Discreteer Based on Graphene Monolayer Strip Structure. , 2018, , .		0
117	Development of the ultra-wide band millimeter wave TWT with two stage SDV-SWS. , 2017, , .		0
118	Study of a rectangular beam extended interaction klystron in G-band. , 2017, , .		1
119	Primary investigation of a rectangular beam EIK with high output power and broad bandwidth in G-band. , 2017, , .		0
120	Optimization of electric field distribution in unequal-length slots extended interaction klystron. , 2017, , .		0
121	Study of a multi-gap extended interaction cavity for G-band EIK. , 2016, , .		2
122	The design of W-band broadband output window for TWT. , 2016, , .		1
123	Design of a G-Band sheet electron beam travelling wave tube. , 2016, , .		4
124	Investigation on ultra-wide band plan alignment multiple beam W-band travelling wave tube with two stage staggered double-vane structure. , 2016, , .		1
125	An Extended Theoretical Method Used for Design of Sheet Beam Electron Gun. IEEE Transactions on Electron Devices, 2016, 63, 4484-4492.	1.6	17
126	A narrow sheet beam electron gun designed by approximate Pierce method for the millimeter wave TWT. , 2016, , .		0



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127	Investigation on the strong-coupling multiple-gap cavities for the W-band sheet beam extended interaction klystron. , 2015, , .		0
128	Investigation on the high gain sheet beam extended interaction klystron with strong-coupling multiple-gap cavities in W-band. , 2015, , .		0
129	\$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
130	Design of a W-band plan alignment multiple beam travelling wave tube. , 2015, , .		0
131	Researches on an \$X\$-Band Sheet Beam Klystron. IEEE Transactions on Electron Devices, 2014, 61, 151-158.	1.6	25
132	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
133	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
134	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
135	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
136	Research on W-Band sheet beam electron optics system. , 2013, , .		1
137	The design considerations of W-band broad band output window. , 2013, , .		0
138	Structure design and simulation of extended interaction oscillator. , 2013, , .		0
139	The circuit design and particle-in-cell simulation for W-band high-power extended interaction klystron. , 2013, , .		3
140	Design and coldtest of high frequency interaction structure for X-band sheet beam klystron. , 2013, , .		0
141	Experimental investigation on sheet electron beam transport with Electron Beam Measuring and Analyzing System developed in IECAS. , 2013, , .		0
142	Theory and experimental investigation on the high performance transport of sheet electron beam for the XSBK and WSBK. , 2012, , .		2
143	The design of W-band Extended Interaction Klystron Electron optics system. , 2012, , .		0
144	Simulation and analysis of the beam-wave interaction for the high power W-band sheet beam klystron. , 2012, , .		1

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145	Research on X-band sheet beam electron optics system. , 2012, , .		4
146	Design and particle-in-cell simulation of sub-terahertz CW extended interaction klystron. , 2012, , .		0
147	Analysis of a two-section folded waveguide of extend interaction oscillator. , 2011, , .		11
148	Linear analysis of a rectangular waveguide cyclotron maser with a sheet electron beam. Physics of Plasmas, 2010, 17, .	0.7	12
149	Interaction simulation of an X-band sheet beam klystron. , 2009, , .		0
150	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