Wenxiang Wang

List of Publications by Year
in descending order

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150	1,302	430442	395343
papers	citations	18	33
		h-index	g-index

150	150	150	648
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The electronic applications of stable diradicaloids: present and future. Journal of Materials Chemistry C, 2018, 6, 11232-11242.	2.7	138
2	Sine Waveguide for 0.22-THz Traveling-Wave Tube. IEEE Electron Device Letters, 2011, 32, 1152-1154.	2.2	107
3	W-Band 1-kW Staggered Double-Vane Traveling-Wave Tube. IEEE Transactions on Electron Devices, 2012, 59, 496-503.	1.6	92
4	A Novel V-Shaped Microstrip Meander-Line Slow-Wave Structure for W-band MMPM. IEEE Transactions on Plasma Science, 2012, 40, 463-469.	0.6	87
5	A watt-class 1-THz backward-wave oscillator based on sine waveguide. Physics of Plasmas, 2012, 19, .	0.7	63
6	A 35-ghz low-voltage third-harmonic gyrotron with a permanent magnet system. IEEE Transactions on Plasma Science, 2003, 31, 264-271.	0.6	50
7	Dispersion Characteristics of a Rectangular Helix Slow-Wave Structure. IEEE Transactions on Electron Devices, 2008, 55, 3582-3589.	1.6	42
8	Experimental Verification of the Low Transmission Loss of a Flat-Roofed Sine Waveguide Slow-Wave Structure. IEEE Electron Device Letters, 2019, 40, 808-811.	2.2	40
9	Study of the ridge-loaded helical-groove slow-wave structure. IEEE Transactions on Microwave Theory and Techniques, 1997, 45, 1689-1695.	2.9	32
10	A Rectangular Groove-Loaded Folded Waveguide for Millimeter-Wave Traveling-Wave Tubes. IEEE Transactions on Plasma Science, 2010, 38, 1574-1578.	0.6	31
11	Review of the Novel Slow-Wave Structures for High-Power Traveling-Wave Tube. Journal of Infrared, Millimeter and Terahertz Waves, 2003, 24, 1469-1484.	0.6	28
12	An approach to the analysis of arbitrarily shaped helical groove waveguides. , 2000, 10, 4-6.		27
13	A Ridge-Loaded Sine Waveguide for G -Band Traveling-Wave Tube. IEEE Transactions on Plasma Science, 2016, 44, 2832-2837.	0.6	27
14	Effect of Attenuation on Backward-Wave Oscillation Start Oscillation Condition. IEEE Transactions on Plasma Science, 2004, 32, 2184-2188.	0.6	23
15	Study on 1-THz Sine Waveguide Traveling-Wave Tube. IEEE Transactions on Electron Devices, 2021, 68, 2509-2514.	1.6	21
16	A research of W-band folded waveguide traveling wave tube with elliptical sheet electron beam. Physics of Plasmas, 2012, 19, .	0.7	20
17	Analysis of Coaxial Ridged Disk-Loaded Slow-Wave Structures for Relativistic Traveling Wave Tubes. IEEE Transactions on Plasma Science, 2004, 32, 1086-1092.	0.6	19
18	Suppression of In-Band Power Holes in Helix Traveling-Wave Tubes. IEEE Transactions on Electron Devices, 2011, 58, 1556-1561.	1.6	19

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19	A Novel Slow-Wave Structureâ€"Folded Rectangular Groove Waveguide for Millimeter-Wave TWT. IEEE Transactions on Electron Devices, 2012, 59, 510-515.	1.6	19
20	Novel W-Band Ridge-Loaded Folded Waveguide Traveling Wave Tube. IEEE Electron Device Letters, 2014, 35, 1058-1060.	2.2	18
21	Study on W-band sheet-beam traveling-wave tube based on flat-roofed sine waveguide. AIP Advances, 2018, 8, .	0.6	18
22	Investigation on a W Band Ridge-Loaded Folded Waveguide TWT. IEEE Transactions on Plasma Science, 2011, 39, 1660-1664.	0.6	17
23	A Novel Winding Microstrip Meander-Line Slow-Wave Structure for V-Band TWT. IEEE Electron Device Letters, 2013, 34, 1325-1327.	2.2	17
24	Dispersion Equations of a Rectangular Tape Helix Slow-Wave Structure. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 1445-1456.	2.9	16
25	Mode discriminator based on mode-selective coupling. IEEE Transactions on Microwave Theory and Techniques, 2003, 51, 55-63.	2.9	15
26	Study of Corrugated Elliptical Waveguides for Slow-Wave Structures. IEEE Transactions on Electron Devices, 2007, 54, 151-156.	1.6	14
27	A Tapered Ridge-loaded Folded Waveguide Slow-wave Structure for Millimeter-wave Traveling-wave Tube. Journal of Infrared, Millimeter, and Terahertz Waves, 2012, 33, 131-140.	1.2	12
28	Analysis of the coaxial helical-groove slow-wave structure. IEEE Transactions on Microwave Theory and Techniques, 2002, 50, 191-200.	2.9	11
29	Impact of attenuator models on computed traveling wave tube performances. Physics of Plasmas, 2007, 14, .	0.7	11
30	V-Shape Folded Rectangular Groove Waveguide for Millimeter-Wave Traveling-Wave Tube. IEEE Transactions on Plasma Science, 2012, 40, 1027-1031.	0.6	10
31	A Modified Slow-Wave Structure for Backward-Wave Oscillator Design in THz Band. IEEE Transactions on Terahertz Science and Technology, 2014, 4, 741-748.	2.0	10
32	Full-wave analysis of the high frequency characteristics of the sine waveguide slow-wave structure. AIP Advances, 2017, 7, 085111.	0.6	10
33	Design and Experiment of 1 THz Slow Wave Structure Fabricated by Nano-CNC Technology. IEEE Transactions on Electron Devices, 2022, 69, 2656-2661.	1.6	10
34	Analysis of the Dispersion Characteristic and Interaction Impedance of a Tape Helix Slow Wave Structure with Novel Supporting Mode. International Journal of Electronics, 2004, 91, 309-318.	0.9	9
35	Design and fabrication of Q-band folded waveguide Traveling-Wave Tube. , 2012, , .		9
36	Investigation of the Slow-Wave Properties of a Dielectric-Lined Azimuthally Periodic Circular Waveguide for TWT. IEEE Transactions on Electron Devices, 2010, 57, 2019-2026.	1.6	8

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37	Design and Cold Test of Flat-Roofed Sine Waveguide Circuit for W-Band Traveling-Wave Tube. IEEE Transactions on Plasma Science, 2020, 48, 4021-4028.	0.6	8
38	Analysis of the instability in relativistic traveling wave tube. Journal of Infrared, Millimeter and Terahertz Waves, 1997, 18, 2219-2232.	0.6	7
39	Left-Handed/Right-Handed Transmission Line Subwavelength Cavity Resonators. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 80-83.	2.4	7
40	Linear analysis of a W band groove-loaded folded waveguide traveling wave tube. Physics of Plasmas, 2010, 17, 113305.	0.7	7
41	A Novel Folded Waveguide for V-Band TWT. IEEE Transactions on Plasma Science, 2015, 43, 4088-4091.	0.6	7
42	A W-Band Rectangular Waveguide TE₁₀ to Circular Waveguide TE₀₂ Mode Converter. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 3023-3029.	2.9	7
43	Characteristic Study of the Periodically Iris-Loaded Elliptical Waveguide for Slow-Wave Structures. Journal of Infrared, Millimeter and Terahertz Waves, 2005, 26, 1355-1368.	0.6	6
44	Experimental demonstration of the effect of groove shape on the wave properties of the helical groove waveguide. IEEE Microwave and Wireless Components Letters, 2003, 13, 484-486.	2.0	5
45	Approach to a Coaxial Arbitrary-Shaped Groove Cylindrical Waveguide for Application in Wideband Gyro-TWTs. IEEE Transactions on Plasma Science, 2007, 35, 551-558.	0.6	5
46	Design of wide-band mode discriminator based on mode-selective coupling. International Journal of Electronics, 2008, 95, 99-110.	0.9	5
47	Linear Analysis of Dielectric-Lined Azimuthally Periodic Circular Waveguide for TWT. IEEE Transactions on Plasma Science, 2011, 39, 1673-1679.	0.6	5
48	Quinonoid Zwitterion: An Amphiphilic Cathode Interlayer with Initial Thickness-Insensitive and Self-Organizing Properties for Inverted Polymer Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 3792-3799.	4.0	5
49	Design of a Pseudoperiodic Slow Wave Structure for a 6-kW-Level Broadband Helix Traveling-Wave Tube Amplifier. IEEE Transactions on Plasma Science, 2020, 48, 1910-1916.	0.6	5
50	A new approach of using low magnetic field to focus SEB. Physics of Plasmas, 2021, 28, .	0.7	5
51	Improved design of a high power mode selective directional coupler. International Journal of Electronics, 1994, 76, 131-142.	0.9	4
52	Effect of Attenuator on BWO Start Oscillation Condition in a Helix Millimeter Wave TWT Under Magnetic Focusing. Journal of Infrared, Millimeter and Terahertz Waves, 2004, 25, 1175-1182.	0.6	4
53	Analysis of Elliptical Ridged Waveguide. , 2006, , .		4
54	The Small Signal Analysis of a Centered Dielectric-Rod Loaded, Arbitrarily-Shaped Helical Groove Traveling-Wave-Tube. Journal of Infrared, Millimeter and Terahertz Waves, 2007, 28, 1051-1062.	0.6	4

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55	Investigation into the Effect of Dielectric Loss on RF Characteristics of Helical SWS. Journal of Infrared, Millimeter and Terahertz Waves, 2008, 29, 23-34.	0.6	4
56	Investigation of the Dielectric-Loaded Folded Waveguide Traveling-Wave Tube Amplifier. Journal of Infrared, Millimeter, and Terahertz Waves, 2009, 30, 1027-1037.	1.2	4
57	20.3: High power Ka-band Folded Waveguide Traveling-Wave Tube. , 2010, , .		4
58	Beam-wave interaction study on a novel Ka-band ring-shaped microstrip meander-line slow wave structure. , 2014, , .		4
59	0.85 THz truncated sine waveguide travelingâ€wave tube with sheet beam tunnel. Journal of Engineering, 2018, 2018, 665-668.	0.6	4
60	Investigation of the Half-Circular Helical Groove Slow-Wave Structure. Journal of Infrared, Millimeter and Terahertz Waves, 1998, 19, 1089-1101.	0.6	3
61	8mm TE 13 Mode Gyrotron. Journal of Infrared, Millimeter and Terahertz Waves, 2003, 24, 661-668.	0.6	3
62	Discrimination and Analysis of Microwave Modes in High Power Systems. Journal of Infrared, Millimeter and Terahertz Waves, 2005, 26, 147-161.	0.6	3
63	A 140-GHz sheet electron beam sine waveguide traveling-wave tube. , 2011, , .		3
64	Dual-band antenna and high efficiency rectifier for RF energy harvesting system. , 2015, , .		3
65	A D-band backward-wave oscillator based on quasi-parallel-plate slow-wave structure. , 2015, , .		3
66	2-dimensional microstrip meander-line for broad band planar TWTs. , 2016, , .		3
67	Preliminary Design and Experiment of a Ridge-Loaded Staggered Single-Slot Rectangular Coupled-Cavity Structure for -Band Traveling-Wave Tube. IEEE Transactions on Plasma Science, 2016, 44, 587-593.	0.6	3
68	Novel Rectangular-Ring Vertex Double-Bar Slow Wave Structure for High-Power High-Efficiency Traveling-Wave Tubes. IEEE Transactions on Electron Devices, 2021, 68, 6512-6517.	1.6	3
69	Broadband-Printed Traveling-Wave Tube Based on a Staggered Rings Microstrip Line Slow-Wave Structure. Electronics (Switzerland), 2022, 11, 384.	1.8	3
70	The design of a waveguide-coaxial line directional coupler. International Journal of Electronics, 1993, 74, 111-120.	0.9	2
71	Wave Propagation Along a Helical Step-Loaded Groove Waveguide. Journal of Infrared, Millimeter and Terahertz Waves, 1999, 20, 1581-1592.	0.6	2
72	Title is missing!. Journal of Infrared, Millimeter and Terahertz Waves, 2001, 22, 737-756.	0.6	2

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73	Analysis of the Coaxial Ridge-Loaded Helical Groove Waveguide. Journal of Infrared, Millimeter and Terahertz Waves, 2002, 23, 425-434.	0.6	2
74	1 KW Ka-band folded waveguide Traveling-Wave Tube. , 2011, , .		2
75	A V-band folded waveguide TWT. , 2015, , .		2
76	A Research of 140â€GHz Folded Rectangular Groove Waveguide Travelingâ€Wave Tube. Chinese Journal of Electronics, 2015, 24, 873-876.	0.7	2
77	A 0.22 THz sine waveguide traveling-wave tube. , 2015, , .		2
78	A Study of the Effects of Helix Misalignment on the Cold Parameters of a Sheath Helix Slow-Wave Structure. IEEE Transactions on Electron Devices, 2015, 62, 1334-1341.	1.6	2
79	0.22THz Ridged Sine Waveguide BWO and Sheet Beam Electron Optical System. , 2018, , .		2
80	The Properties of A V-shaped Double-Staggered Grating Slow Wave Structure. , 2020, , .		2
81	A 0.67THz Sheet Electron Beam TWT Based upon Sine Waveguide. , 2020, , .		2
82	Study of a Ka-band Helix TWT with Semi-Metallic Rod. , 2020, , .		2
83	Study of sectorial grooveâ€"gap RF structure for cusptron. Journal of Infrared, Millimeter and Terahertz Waves, 1996, 17, 747-757.	0.6	1
84	Dispersion relation of Îâ€"line slow wave structure. Journal of Infrared, Millimeter and Terahertz Waves, 1997, 18, 665-674.	0.6	1
85	Computation for the gain of ridge loaded ring-plane traveling wave tube. Journal of Infrared, Millimeter and Terahertz Waves, 1997, 18, 2205-2217.	0.6	1
86	The Linear Analysis of Coaxial Helical-Groove Slow-Wave Structure. Journal of Infrared, Millimeter and Terahertz Waves, 2001, 22, 1503-1509.	0.6	1
87	Self-consistent theory of ring-plane traveling wave tube. , 0, , .		1
88	Attenuation Theory of the Attenuator-Coated Helical Slow-Wave Structure. , 2006, , .		1
89	DIELECTRIC EFFECT ON THE RADIO-FREQUENCY CHARACTERISTICS OF A RECTANGULAR WAVEGUIDE GRATING TRAVELING WAVE TUBE. Journal of Infrared, Millimeter and Terahertz Waves, 2007, 27, 1095-1108.	0.6	1
90	Analysis of Elliptical Thin Ridged Waveguide. Journal of Infrared, Millimeter and Terahertz Waves, 2007, 28, 733-739.	0.6	1

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91	Study on rectangular waveguide grating Slow-Wave Structure with cosine-shaped grooves. Journal of Electronics, 2007, 24, 384-389.	0.2	1
92	16.5: The suppression of BWO power holes in the TWTs using the helix pitch taper method. , 2010, , .		1
93	Sine waveguide with a grating reflector for 1-THz backward wave oscillator. , 2012, , .		1
94	Propagation properties of an elliptical anisotropic metamaterial cylinder. Journal of Modern Optics, 2012, 59, 778-783.	0.6	1
95	Narrow-band THz coherent Cherenkov radiation in planar dielectric structure. , 2012, , .		1
96	Analysis of 140â€‰gigahertz folded frame travelling wave tube. Physics of Plasmas, 2013, 20, .	0.7	1
97	A novel omega-shaped microstrip slow-wave structure for 60-GHz traveling-wave tube. , 2013, , .		1
98	A 0.34THz sine waveguide TWT with cylindrical beam tunnel. , 2015, , .		1
99	Reentrant double-staggered ladder coupled-cavity structure for X-band traveling-wave tube. , 2017, , .		1
100	Design of 0.27-0.37THz Wideband Coaxial Line to Double-ridge Waveguide Window for Traveling-Wave Tube Amplifier. , 2018, , .		1
101	The Study of Q-band Sheet Beam Backward Wave Oscillator Based on a Planar U-shaned Slot-line Slow-wave Structure. , 2018, , .		1
102	A New Method to Focus SEBs Using the Periodic Magnetic Field and the Electrostatic Field. Electronics (Switzerland), 2021, 10, 2118.	1.8	1
103	The Study of Traveling Wave Tube Large Signal Model Based on Machine Learning. , 2021, , .		1
104	Design and Cold Test of a Ka-band Fan-Shaped Metal Loaded Helix Traveling Wave Tube. , 2020, , .		1
105	Analytical Analysis of Saturation Output Power for Traveling-Wave Tube. , 2020, , .		1
106	Research on a 3-D Microstrip Meander-line Slow-wave Structure Traveling Wave Tube. , 2021, , .		1
107	An Approach to Focus the Sheet Electron Beam in the Planar Microstrip Line Slow Wave Structure. IEEE Transactions on Electron Devices, 2022, 69, 3373-3379.	1.6	1
108	Attempt on Applying Semi-Metallic Supporting Rods to a Wideband Ka-Band Helix TWT. IEEE Transactions on Electron Devices, 2022, 69, 3933-3940.	1.6	1

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109	Study on microwave excited by virtual cathode oscillation in cavity. Journal of Infrared, Millimeter and Terahertz Waves, 1996, 17, 1219-1225.	0.6	0
110	Analysis of BWO start oscillation condition in the practical TWT. , 0, , .		0
111	Analysis of BWO start oscillation condition in a helix TWT with attenuator under magnetic focusing. , 0, , .		0
112	The way of depressing and eliminating the ion noise in microwave tubes. , 0, , .		0
113	Corrections on â€œMode Discriminator Based on Mode-Selective Couplingâ€• IEEE Transactions on Microwave Theory and Techniques, 2005, 53, 1833-1833.	2.9	0
114	Dispersion Characteristics of Coaxial Circular-Arc-Groove Slow-Wave Structure. Journal of Infrared, Millimeter and Terahertz Waves, 2005, 26, 107-116.	0.6	0
115	Wave Properties of A Free Elliptical Helix Slow-Wave Structure with Arbitrary Eccentricity. Journal of Infrared, Millimeter and Terahertz Waves, 2005, 26, 1473-1489.	0.6	0
116	Influence of Attenuator on the Performance of the Helix TWTs. , 0, , .		0
117	Study on Rectangular Waveguide Grating Slow-Wave Structure with Cosine-Shaped Grooves. , 2006, , .		0
118	Study of an Open Column Slow-Wave Grating Structure with Arbitrarily-Shaped Slots. , 2007, , .		0
119	Theoretical Determination of TWT Helix Loss. , 2007, , .		0
120	Analysis of a Coaxial Arbitrary-Shaped-Groove Cylindrical Waveguide for Wide-Band Gyro-TWTs. , 2007, , .		0
121	Study on an open column slow-wave grating structure with arbitrarily-shaped slots. , 2007, , .		0
122	3D simulation of Wiggler field focusing sheet electron beam. , 2008, , .		0
123	Electromagnetic scattering by a conducting circular cylinder coated by an elliptic lossy dielectric. , 2008, , .		0
124	Simulation research on the sheet electron beam gun. , 2009, , .		0
125	Investigation of a W band novel folded-waveguide TWT. , 2010, , .		0
126	Study of BWO power holes in helix traveling wave tubes. , 2011, , .		0

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127	The folded groove guide, an original slow-wave structure for millimeter-wave TWT. , 2012, , .		0
128	Study of high frequency characteristics of the coaxial-radial line. , 2013, , .		0
129	A novel sine ridge waveguide for 0.65THz backward wave oscillator. , 2014, , .		0
130	The spatial growth rate of a negative material involved Cherenkov free-electron laser. , 2015, , .		0
131	Ridge-Loaded staggered single-slot rectangular coupled-cavity structure for X-band traveling-wave tube. , 2015, , .		0
132	THz wakefield in dielectric PBG structure driven by electron bunches. , 2015, , .		0
133	Small-signal analysis of a square helix TWT. , 2016, , .		0
134	A 0.38THz sine waveguide traveling wave tube. , 2017, , .		0
135	Study on the beam-wave interaction in sine waveguide. , 2018, , .		0
136	Study of dangling U-shaped slot-line slow wave structure. , 2018, , .		0
137	Thermal Analysis of a Ka-band Helix TWT with Semi-metallic Rod. , 2021, , .		0
138	Investigation of 340GHz 10W Modified Sine Waveguide Traveling Wave Tube. , 2021, , .		0
139	Study on a W-Band U-shaped Microstrip Meander-line Slow-wave Structure. , 2021, , .		0
140	0.65 THz Sheet Beam Traveling-wave Tube Based upon Truncated Sine Waveguide. , 2018, , .		0
141	Stability Improvement of Electron Gun for Millimeter Wave TWTs by Immersed Flow Focusing System. , 2020, , .		0
142	Joint Simulation of Electron Optical System and Beam-wave Interaction of V Band Folded Waveguide TWT. , 2020, , .		0
143	1 THz Trapezoidal Staggered Grating Traveling Wave Tube. , 2020, , .		0
144	W-band Multi-Beam Sine Waveguide Traveling-Wave Tube with Low Current Density. , 2020, , .		0

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145	Research on a 6-18GHz High Power Helix Traveling-Wave Tube. , 2021, , .		0
146	Two-Stage 0.34 THz Sine Waveguide Slow Wave Structure. , 2021, , .		0
147	Circuit Design of a Broadband W-Band Extended Interaction Klystron. , 2021, , .		0
148	Design of a W-Band U-shaped Meander-line for Traveling-Wave Tube. , 2021, , .		0
149	Design of a coaxial coupler for an E-band Helix Traveling-wave Tube. , 2021, , .		0
150	Simulation of 1THz Sine Waveguide Traveling Wave Tubes. , 2020, , .		0