Zisis C Ioannidis

List of Publications by Year
in descending order

105	778	516710 16	642732 23
papers	citations	h-index	g-index

105	105	105	430
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Experimental Testing of the European TH1509U 170-GHz 1-MW CW Industrial Gyrotronâ€"Long Pulse Operation. IEEE Electron Device Letters, 2022, 43, 623-626.	3.9	10
2	Frequency and mode measurement techniques for megawatt-class gyrotrons. TM Technisches Messen, 2022, 89, 85-96.	0.7	2
3	Status and future development of Heating and Current Drive for the EU DEMO. Fusion Engineering and Design, 2022, 180, 113159.	1.9	22
4	Electromagnetic Susceptibility of Car Engine and Parts to Narrowband Microwaves in the 1â€"2.5 GHz Band. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 1366-1375.	2.2	2
5	Starting currents of modes in cylindrical cavities with mode-converting corrugations for second-harmonic gyrotrons. Journal of Infrared, Millimeter, and Terahertz Waves, 2021, 42, 260-274.	2.2	5
6	Towards a 1.5 MW, 140 GHz gyrotron for the upgraded ECRH system at W7-X. Fusion Engineering and Design, 2021, 164, 112173.	1.9	12
7	Multifaceted Simulations Reproducing Experimental Results From the 1.5-MW 140-GHz Preprototype Gyrotron for W7-X. IEEE Transactions on Electron Devices, 2021, 68, 3063-3069.	3.0	5
8	Generation of 1.5 MWâ€"140 GHz Pulses With the Modular Pre-Prototype Gyrotron for W7-X. IEEE Electron Device Letters, 2021, 42, 939-942.	3.9	10
9	Performance Expectation and Preparation of the First Experimental Campaign of the KIT 2 MW 170/204 GHz Coaxial-Cavity Gyrotron. , 2021, , .		1
10	Operations with spherical calorimetric loads in different configurations at gyrotron test stands at EPFL and QST. AIP Conference Proceedings, 2020, , .	0.4	1
11	Experimental Classification and Enhanced Suppression of Parasitic Oscillations in Gyrotron Beam Tunnels. IEEE Transactions on Electron Devices, 2020, 67, 5783-5789.	3.0	9
12	Design of Microwave Pulse Compressors Using Small Form-Factor Waveguide Cavities. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 3255-3262.	4.6	4
13	Experiments on the Pulse Repetition Frequency Optimization of 1.3-GHz, 100-kW Microwave Pulse Compressor. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 2374-2381.	4.6	4
14	Triode magnetron injection gun for the KIT 2 MW 170 GHz coaxial cavity gyrotron. Physics of Plasmas, 2020, 27, .	1.9	10
15	Recent Development of a 1.5 MW, 140 GHz Continuous-Wave Gyrotron for the Upgraded ECRH System at W7-X. , 2020, , .		1
16	Operating the KIT 170 GHz 2 MW Coaxial-Cavity Gyrotron at 204 GHz: Performance Expectations and First Cold Test of the Quasi-Optical System. , 2019, , .		1
17	From W7-X Towards ITER and Beyond: 2019 Status on EU Fusion Gyrotron Developments. , 2019, , .		2
18	DEMO-Relevant Gyrotron Research at KIT. , 2019, , .		1

#	Article	IF	Citations
19	Experimental Study of the Emission Properties of Magnetron Injection Guns for High-Power Gyrotrons. , 2019, , .		0
20	THALES TH1507 140 GHz 1 MW CW Gyrotron for W7-X Stellarator. , 2019, , .		5
21	Towards Advanced Fusion Gyrotrons: 2018 Update on Activities within EUROfusion. EPJ Web of Conferences, 2019, 203, 04007.	0.3	1
22	Studies towards an upgraded 1.5 MW gyrotron for W7-X. EPJ Web of Conferences, 2019, 203, 04003.	0.3	6
23	Recent Status and Future Prospects of Coaxial-Cavity Gyrotron Development at KIT. EPJ Web of Conferences, 2019, 203, 04005.	0.3	3
24	Report of recent experiments with the European 1 MW, 170 GHz CW and SP prototype gyrotrons for ITER. EPJ Web of Conferences, 2019, 203, 04006.	0.3	5
25	Overview on recent progress in magnetron injection gun theory and design for high power gyrotrons. EPJ Web of Conferences, 2019, 203, 04011.	0.3	6
26	Theoretical Study on the Operation of the EU/KIT TE34,19-Mode Coaxial-Cavity Gyrotron at 170/204/238 GHz. EPJ Web of Conferences, 2019, 203, 04014.	0.3	4
27	Metrology techniques for the verification of the alignment of the EU gyrotron prototype for ITER. EPJ Web of Conferences, 2019, 203, 04015.	0.3	2
28	Automated Generation of High-Order Modes for Tests of Quasi-Optical Systems of Gyrotrons for W7-X Stellarator. , 2019, , .		0
29	Development and Experimental Verification of an XY-Table for the Optimization of the Alignment of High-Power Gyrotrons. IEEE Transactions on Electron Devices, 2019, 66, 1954-1959.	3.0	11
30	Overview of recent gyrotron R&D towards DEMO within EUROfusion Work Package Heating and Current Drive. Nuclear Fusion, 2019, 59, 066014.	3.5	18
31	A NEW PREDICTION METHOD OF RAIN ATTENUATION ALONG MILLIMETER WAVE LINKS BASED ON A BIVARIATE MODEL FOR THE EFFECTIVE PATH LENGTH AND WEIBULL DISTRIBUTION. Progress in Electromagnetics Research C, 2019, 97, 29-41.	0.9	1
32	Dispersion properties of rectangularlyâ€corrugated waveguide structures by the inâ€house 3D FDTD code COCHLEA in cylindrical coordinates. IET Microwaves, Antennas and Propagation, 2019, 13, 28-34.	1.4	6
33	New trends of gyrotron development at KIT: An overview on recent investigations. Fusion Engineering and Design, 2019, 146, 341-344.	1.9	8
34	Recent experiments with the European 1MW, 170GHz industrial CW and short-pulse gyrotrons for ITER. Fusion Engineering and Design, 2019, 146, 349-352.	1.9	11
35	Computer-Controlled Test System for the Excitation of Very High-Order Modes in Highly Oversized Waveguides. Journal of Infrared, Millimeter, and Terahertz Waves, 2019, 40, 257-268.	2.2	9
36	Tests and developments of a long-pulse high-power 170 GHz absorbing matched load. Fusion Engineering and Design, 2019, 146, 36-39.	1.9	7

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37	Improved Suppression of Parasitic Oscillations in Gyrotron Beam Tunnels by Proper Selection of the Lossy Ceramic Material. IEEE Transactions on Electron Devices, 2018, 65, 2301-2307.	3.0	16
38	An Improved Diagnostic Device for Magnetron Injection Guns of High-Power Gyrotrons. IEEE Transactions on Electron Devices, 2018, 65, 2294-2300.	3.0	1
39	Numerical Investigation on Spent Beam Deceleration Schemes for Depressed Collector of a High-Power Gyrotron. IEEE Transactions on Electron Devices, 2018, 65, 2321-2326.	3.0	4
40	Numerical Studies on the Influence of Cavity Thermal Expansion on the Performance of a High-Power Gyrotron. IEEE Transactions on Electron Devices, 2018, 65, 2308-2315.	3.0	17
41	Considerations on the selection of operating modes for future coaxial-cavity gyrotrons for DEMO. , 2018, , .		2
42	KIT in-house manufacturing and first operation of a 170 GHz 2 MW longer-pulse coaxial-cavity pre-prototype gyrotron. , 2018, , .		3
43	2018 Status of the Measurement Capabilities for Fusion Gyrotrons at KIT/IHM. EPJ Web of Conferences, 2018, 187, 01019.	0.3	2
44	Magnetron Injection Gun for the 2 MW 170 GHz Modular Coaxial Cavity Gyrotron. , 2018, , .		0
45	Development and First Operation of the 170 GHz, 2 MW Longer-Pulse Coaxial-Cavity Modular Gyrotron Prototype at KIT. , 2018, , .		6
46	2018 Status on KIT Gyrotron Activities. EPJ Web of Conferences, 2018, 187, 01009.	0.3	3
47	Overview of Recent Gyrotron R&D at KIT in View of the EU DEMO. , 2018, , .		0
48	Current Status of the KIT Coaxial-Cavity Long-Pulse Gyrotron and its Key Components. EPJ Web of Conferences, 2018, 187, 01028.	0.3	3
49	KIT coaxial gyrotron development: from ITER toward DEMO. International Journal of Microwave and Wireless Technologies, 2018, 10, 547-555.	1.9	24
50	Experimental verification of the European 1 MW, 170 GHz industrial CW prototype gyrotron for ITER. Fusion Engineering and Design, 2017, 123, 490-494.	1.9	19
51	Conceptual design of the EU DEMO EC-system: main developments and R&D achievements. Nuclear Fusion, 2017, 57, 116009.	3.5	21
52	Design considerations for future DEMO gyrotrons: A review on related gyrotron activities within EUROfusion. Fusion Engineering and Design, 2017, 123, 241-246.	1.9	37
53	CW Experiments With the EU 1-MW, 170-GHz Industrial Prototype Gyrotron for ITER at KIT. IEEE Transactions on Electron Devices, 2017, 64, 3885-3892.	3.0	23
54	Computational studies on scattering of radio frequency waves by density filaments in fusion plasmas. Physics of Plasmas, 2017, 24, .	1.9	24

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55	Experimental study on further performance optimization of the European 1 MW, 170 GHz gyrotron prototype for ITER. , 2017, , .		1
56	Developments of fusion gyrotrons for W7-X, ITER and EU DEMO: Ongoing activities and future plans of KIT. , 2017, , .		3
57	Experimental Studies On Two Types Of Magnetic Potential Wells. , 2017, , .		0
58	Progress of The Experiments With the European 1Mw, 170Ghz Industrial Cw Prototype Gyrotron For Iter. , 2017, , .		0
59	Experimental Results of the EU ITER Prototype Gyrotrons. EPJ Web of Conferences, 2017, 157, 03016.	0.3	2
60	Numerical studies on the influence of cavity thermal expansion on the performance of a high-power gyrotron. , 2017, , .		5
61	First CW experiments with the EU ITER 1 MW, 170 GHz industrial prototype gyrotron. , 2017, , .		5
62	European research activities towards a future DEMO gyrotron. EPJ Web of Conferences, 2017, 149, 04007.	0.3	3
63	Heading From W7-X Gyrotrons Towards Gyrotrons for Demo: Research Strategy and Recent Developments at Kit. , 2017, , .		0
64	Recent Trends in Fusion Gyrotron Development at KIT. EPJ Web of Conferences, 2017, 157, 03017.	0.3	1
65	Gyrotronâ€Forschung und â€Entwicklung am KIT. Vakuum in Forschung Und Praxis, 2016, 28, 21-27.	0.1	3
66	Status and experimental results of the European 1 MW, 170 GHz industrial CW prototype Gyrotron for ITER. , 2016, , .		3
67	Simulations of the experimental operation of the EU 170 GHz, 1 MW short-pulse prototype gyrotron for ITER. , 2016, , .		3
68	Sensitivity analysis of a 140-GHz coaxial gyrotron cavity with corrugations on the inner and outer walls. , 2016, , .		1
69	Microwave pulse compression experiments in a waveguide cavity with RF breakdown triggered switch. , 2016, , .		1
70	Selectivity Properties of Coaxial Gyrotron Cavities With Mode Converting Corrugations. IEEE Transactions on Electron Devices, 2016, 63, 1299-1306.	3.0	17
71	Modeling of a waveguide microwave pulse compression system using transmission line theory and equivalent circuits. , 2015, , .		3
72	Status of Europeâ€™s contribution to the ITER EC system. EPJ Web of Conferences, 2015, 87, 04004.	0.3	5

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73	Status of the development of the EU 170 GHz/1 MW/CW gyrotron. Fusion Engineering and Design, 2015, 96-97, 149-154.	1.9	33
74	From W7-X towards ITER and beyond: Status and progress in EU fusion gyrotron developments. , 2015, , .		2
75	Design of Waveguide Microwave Pulse Compressors Using Equivalent Circuits. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 125-134.	4.6	13
76	Reflection and transmission calculations in a multilayer structure with coherent, incoherent, and partially coherent interference, using the transmission line method. Applied Optics, 2015, 54, 1492.	1.8	9
77	Open-ended Coaxial Cavities with Corrugated Inner and Outer Walls. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 461-473.	2.2	10
78	A comparative study on the modeling of dynamic after-cavity interaction in gyrotrons. Physics of Plasmas, 2015, 22, 053106.	1.9	14
79	Progress on the development of the EU-1 MW gyrotron for ITER. , 2014, , .		0
80	Equivalent circuit/transmission line model of microwave pulse-compression cavities. , 2014, , .		5
81	From Series Production of Gyrotrons for W7-X Toward EU-1 MW Gyrotrons for ITER. IEEE Transactions on Plasma Science, 2014, 42, 1135-1144.	1.3	41
82	Design of the EU-1MW gyrotron for ITER. , 2013, , .		7
83	From series production of gyrotrons for W7-X towards EU-1 MW gyrotrons for ITER. , 2013, , .		1
84	Numerical investigations on the effects of electron beam misalignment on beam-wave interaction in a high-power coaxial gyrotron. , 2013, , .		4
85	Transmission line modeling of active microwave pulse compression systems. , 2013, , .		5
86	Parasitic Oscillations in Coaxial Gyrotron Beam Tunnels. IEEE Transactions on Electron Devices, 2013, 60, 1469-1475.	3.0	7
87	Eigenvalue spectrum of coaxial cavities with corrugations on the inner and the outer wall. , 2013, , .		4
88	Dependence of Parasitic Modes on Geometry and Attenuation in Gyrotron Beam Tunnels. IEEE Transactions on Plasma Science, 2012, 40, 1538-1544.	1.3	13
89	Parametric study of a coaxial gyrotron stacked beam tunnel. , 2012, , .		0
90	Hybrid Field/Transmission-Line Model for the Study of Coaxial Corrugated Waveguides. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 2972-2978.	4.6	3

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91	Azimuthal Mode Coupling in Coaxial Waveguides and Cavities With Longitudinally Corrugated Insert. IEEE Transactions on Plasma Science, 2011, 39, 1213-1221.	1.3	24
92	THE EUROPEAN 2 MW GYROTRON FOR ITER. , 2011, , .		0
93	Parametric study on the effect of the dielectric and geometry properties on the parasitics in gyrotron beam tunnels. , 2010, , .		0
94	The contribution of higher-order spatial harmonics in eigenvalues and ohmic losses calculations in coaxial corrugated cavities. , 2010, , .		1
95	Calculations on the Beamâ€“Wave Interactions in Coaxial Gyrotron Beam Tunnels. IEEE Transactions on Plasma Science, 2010, 38, 1185-1192.	1.3	9
96	Linear and Non-Linear Inserts for Genuinely Wideband Continuous Frequency Tunable Coaxial Gyrotron Cavities. Journal of Infrared, Millimeter and Terahertz Waves, 2008, 29, 416-423.	0.6	11
97	Dispersion Characteristics of Arbitrary Periodic Structures with Rectangular Grooves. Journal of Infrared, Millimeter and Terahertz Waves, 2008, 29, 432-442.	0.6	8
98	TM Modes in Coaxial Cavities With Inner Surface Corrugations. IEEE Transactions on Plasma Science, 2008, 36, 2613-2617.	1.3	4
99	Wideband continuous frequency tunable coaxial gyrotron oscillators. , 2007, , .		0
100	Reflectivity properties of an anisotropic slab waveguide with isolated substrate. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 493.	1.5	0
101	Eigenvalues and Ohmic Losses in Coaxial Gyrotron Cavity. IEEE Transactions on Plasma Science, 2006, 34, 1516-1522.	1.3	44
102	Studies of the Electromagnetic Spectrum of Corrugated Waveguides. AIP Conference Proceedings, 2006, , .	0.4	1
103	Axisymmetric Waves in Re-Entrant Cavities. Radiophysics and Quantum Electronics, 2003, 46, 860-867.	0.5	6
104	Dispersion characteristics of a rectangular waveguide grating. IEEE Transactions on Plasma Science, 2003, 31, 1075-1082.	1.3	33
105	Waveguide structures with surface corrugations. , 0, , .		0