

Zisis C Ioannidis

List of Publications by Year in descending order

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105
docs citations

105
times ranked

430
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Eigenvalues and Ohmic Losses in Coaxial Gyrotron Cavity. IEEE Transactions on Plasma Science, 2006, 34, 1516-1522. | 1.3 | 44 |
| 2 | 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 |
| 3 | 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 |
| 4 | Dispersion characteristics of a rectangular waveguide grating. IEEE Transactions on Plasma Science, 2003, 31, 1075-1082. | 1.3 | 33 |
| 5 | 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 |
| 6 | Azimuthal Mode Coupling in Coaxial Waveguides and Cavities With Longitudinally Corrugated Insert. IEEE Transactions on Plasma Science, 2011, 39, 1213-1221. | 1.3 | 24 |
| 7 | Computational studies on scattering of radio frequency waves by density filaments in fusion plasmas. Physics of Plasmas, 2017, 24, . | 1.9 | 24 |
| 8 | KIT coaxial gyrotron development: from ITER toward DEMO. International Journal of Microwave and Wireless Technologies, 2018, 10, 547-555. | 1.9 | 24 |
| 9 | 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 |
| 10 | Status and future development of Heating and Current Drive for the EU DEMO. Fusion Engineering and Design, 2022, 180, 113159. | 1.9 | 22 |
| 11 | Conceptual design of the EU DEMO EC-system: main developments and R&D achievements. Nuclear Fusion, 2017, 57, 116009. | 3.5 | 21 |
| 12 | 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 |
| 13 | Overview of recent gyrotron R&D towards DEMO within EUROfusion Work Package Heating and Current Drive. Nuclear Fusion, 2019, 59, 066014. | 3.5 | 18 |
| 14 | Selectivity Properties of Coaxial Gyrotron Cavities With Mode Converting Corrugations. IEEE Transactions on Electron Devices, 2016, 63, 1299-1306. | 3.0 | 17 |
| 15 | 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 |
| 16 | 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 |
| 17 | A comparative study on the modeling of dynamic after-cavity interaction in gyrotrons. Physics of Plasmas, 2015, 22, 053106. | 1.9 | 14 |
| 18 | Dependence of Parasitic Modes on Geometry and Attenuation in Gyrotron Beam Tunnels. IEEE Transactions on Plasma Science, 2012, 40, 1538-1544. | 1.3 | 13 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Design of Waveguide Microwave Pulse Compressors Using Equivalent Circuits. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 125-134. | 4.6 | 13 |
| 20 | 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 |
| 21 | 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 |
| 22 | 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 |
| 23 | 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 |
| 24 | Open-ended Coaxial Cavities with Corrugated Inner and Outer Walls. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 461-473. | 2.2 | 10 |
| 25 | Triode magnetron injection gun for the KIT 2 MW 170 GHz coaxial cavity gyrotron. Physics of Plasmas, 2020, 27, . | 1.9 | 10 |
| 26 | 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 |
| 27 | 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 |
| 28 | Calculations on the Beamâ€“Wave Interactions in Coaxial Gyrotron Beam Tunnels. IEEE Transactions on Plasma Science, 2010, 38, 1185-1192. | 1.3 | 9 |
| 29 | 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 |
| 30 | 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 |
| 31 | Experimental Classification and Enhanced Suppression of Parasitic Oscillations in Gyrotron Beam Tunnels. IEEE Transactions on Electron Devices, 2020, 67, 5783-5789. | 3.0 | 9 |
| 32 | Dispersion Characteristics of Arbitrary Periodic Structures with Rectangular Grooves. Journal of Infrared, Millimeter and Terahertz Waves, 2008, 29, 432-442. | 0.6 | 8 |
| 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 | Design of the EU-1MW gyrotron for ITER. , 2013, , . | | 7 |
| 35 | Parasitic Oscillations in Coaxial Gyrotron Beam Tunnels. IEEE Transactions on Electron Devices, 2013, 60, 1469-1475. | 3.0 | 7 |
| 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 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Axisymmetric Waves in Re-Entrant Cavities. Radiophysics and Quantum Electronics, 2003, 46, 860-867. | 0.5 | 6 |
| 38 | Development and First Operation of the 170 GHz, 2 MW Longer-Pulse Coaxial-Cavity Modular Gyrotron Prototype at KIT. , 2018, , . | | 6 |
| 39 | Studies towards an upgraded 1.5 MW gyrotron for W7-X. EPJ Web of Conferences, 2019, 203, 04003. | 0.3 | 6 |
| 40 | 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 |
| 41 | Dispersion properties of rectangularly corrugated waveguide structures by the in-house 3D FDTD code COCHLEA in cylindrical coordinates. IET Microwaves, Antennas and Propagation, 2019, 13, 28-34. | 1.4 | 6 |
| 42 | Transmission line modeling of active microwave pulse compression systems. , 2013, , . | | 5 |
| 43 | Equivalent circuit/transmission line model of microwave pulse-compression cavities. , 2014, , . | | 5 |
| 44 | Status of Europe's contribution to the ITER EC system. EPJ Web of Conferences, 2015, 87, 04004. | 0.3 | 5 |
| 45 | Numerical studies on the influence of cavity thermal expansion on the performance of a high-power gyrotron. , 2017, , . | | 5 |
| 46 | First CW experiments with the EU ITER 1 MW, 170 GHz industrial prototype gyrotron. , 2017, , . | | 5 |
| 47 | THALES TH1507 140 GHz 1 MW CW Gyrotron for W7-X Stellarator. , 2019, , . | | 5 |
| 48 | 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 |
| 49 | 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 |
| 50 | 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 |
| 51 | TM Modes in Coaxial Cavities With Inner Surface Corrugations. IEEE Transactions on Plasma Science, 2008, 36, 2613-2617. | 1.3 | 4 |
| 52 | Numerical investigations on the effects of electron beam misalignment on beam-wave interaction in a high-power coaxial gyrotron. , 2013, , . | | 4 |
| 53 | Eigenvalue spectrum of coaxial cavities with corrugations on the inner and the outer wall. , 2013, , . | | 4 |
| 54 | 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 |

| # | ARTICLE | IF | CITATIONS |
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| 55 | 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 |
| 56 | 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 |
| 57 | 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 |
| 58 | 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 |
| 59 | Modeling of a waveguide microwave pulse compression system using transmission line theory and equivalent circuits. , 2015, , . | | 3 |
| 60 | Gyrotronâ€Forschung und â€Entwicklung am KIT. Vakuum in Forschung Und Praxis, 2016, 28, 21-27. | 0.1 | 3 |
| 61 | Status and experimental results of the European 1 MW, 170 GHz industrial CW prototype Gyrotron for ITER. , 2016, , . | | 3 |
| 62 | Simulations of the experimental operation of the EU 170 GHz, 1 MW short-pulse prototype gyrotron for ITER. , 2016, , . | | 3 |
| 63 | Developments of fusion gyrotrons for W7-X, ITER and EU DEMO: Ongoing activities and future plans of KIT. , 2017, , . | | 3 |
| 64 | European research activities towards a future DEMO gyrotron. EPJ Web of Conferences, 2017, 149, 04007. | 0.3 | 3 |
| 65 | KIT in-house manufacturing and first operation of a 170 GHz 2 MW longer-pulse coaxial-cavity pre-prototype gyrotron. , 2018, , . | | 3 |
| 66 | 2018 Status on KIT Gyrotron Activities. EPJ Web of Conferences, 2018, 187, 01009. | 0.3 | 3 |
| 67 | Current Status of the KIT Coaxial-Cavity Long-Pulse Gyrotron and its Key Components. EPJ Web of Conferences, 2018, 187, 01028. | 0.3 | 3 |
| 68 | Recent Status and Future Prospects of Coaxial-Cavity Gyrotron Development at KIT. EPJ Web of Conferences, 2019, 203, 04005. | 0.3 | 3 |
| 69 | From W7-X towards ITER and beyond: Status and progress in EU fusion gyrotron developments. , 2015, , . | | 2 |
| 70 | Experimental Results of the EU ITER Prototype Gyrotrons. EPJ Web of Conferences, 2017, 157, 03016. | 0.3 | 2 |
| 71 | Considerations on the selection of operating modes for future coaxial-cavity gyrotrons for DEMO. , 2018, , . | | 2 |
| 72 | 2018 Status of the Measurement Capabilities for Fusion Gyrotrons at KIT/IHM. EPJ Web of Conferences, 2018, 187, 01019. | 0.3 | 2 |

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| 73 | From W7-X Towards ITER and Beyond: 2019 Status on EU Fusion Gyrotron Developments. , 2019, , . | | 2 |
| 74 | 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 |
| 75 | 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 |
| 76 | Frequency and mode measurement techniques for megawatt-class gyrotrons. TM Technisches Messen, 2022, 89, 85-96. | 0.7 | 2 |
| 77 | Studies of the Electromagnetic Spectrum of Corrugated Waveguides. AIP Conference Proceedings, 2006, , . | 0.4 | 1 |
| 78 | The contribution of higher-order spatial harmonics in eigenvalues and ohmic losses calculations in coaxial corrugated cavities. , 2010, , . | | 1 |
| 79 | From series production of gyrotrons for W7-X towards EU-1 MW gyrotrons for ITER. , 2013, , . | | 1 |
| 80 | Sensitivity analysis of a 140-GHz coaxial gyrotron cavity with corrugations on the inner and outer walls. , 2016, , . | | 1 |
| 81 | Microwave pulse compression experiments in a waveguide cavity with RF breakdown triggered switch. , 2016, , . | | 1 |
| 82 | Experimental study on further performance optimization of the European 1 MW, 170 GHz gyrotron prototype for ITER. , 2017, , . | | 1 |
| 83 | Recent Trends in Fusion Gyrotron Development at KIT. EPJ Web of Conferences, 2017, 157, 03017. | 0.3 | 1 |
| 84 | An Improved Diagnostic Device for Magnetron Injection Guns of High-Power Gyrotrons. IEEE Transactions on Electron Devices, 2018, 65, 2294-2300. | 3.0 | 1 |
| 85 | 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 |
| 86 | DEMO-Relevant Gyrotron Research at KIT. , 2019, , . | | 1 |
| 87 | Towards Advanced Fusion Gyrotrons: 2018 Update on Activities within EUROfusion. EPJ Web of Conferences, 2019, 203, 04007. | 0.3 | 1 |
| 88 | 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 |
| 89 | Operations with spherical calorimetric loads in different configurations at gyrotron test stands at EPFL and QST. AIP Conference Proceedings, 2020, , . | 0.4 | 1 |
| 90 | Recent Development of a 1.5 MW, 140 GHz Continuous-Wave Gyrotron for the Upgraded ECRH System at W7-X. , 2020, , . | | 1 |

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| 91 | Performance Expectation and Preparation of the First Experimental Campaign of the KIT 2 MW 170/204 GHz Coaxial-Cavity Gyrotron. , 2021, , . | | 1 |
| 92 | Waveguide structures with surface corrugations. , 0, , . | | 0 |
| 93 | Wideband continuous frequency tunable coaxial gyrotron oscillators. , 2007, , . | | 0 |
| 94 | 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 |
| 95 | Parametric study on the effect of the dielectric and geometry properties on the parasitics in gyrotron beam tunnels. , 2010, , . | | 0 |
| 96 | Parametric study of a coaxial gyrotron stacked beam tunnel. , 2012, , . | | 0 |
| 97 | Progress on the development of the EU-1 MW gyrotron for ITER. , 2014, , . | | 0 |
| 98 | Experimental Studies On Two Types Of Magnetic Potential Wells. , 2017, , . | | 0 |
| 99 | Progress of The Experiments With the European 1Mw, 170Ghz Industrial Cw Prototype Gyrotron For Iter. , 2017, , . | | 0 |
| 100 | Heading From W7-X Gyrotrons Towards Gyrotrons for Demo: Research Strategy and Recent Developments at Kit. , 2017, , . | | 0 |
| 101 | Magnetron Injection Gun for the 2 MW 170 GHz Modular Coaxial Cavity Gyrotron. , 2018, , . | | 0 |
| 102 | Overview of Recent Gyrotron R&D at KIT in View of the EU DEMO. , 2018, , . | | 0 |
| 103 | Experimental Study of the Emission Properties of Magnetron Injection Guns for High-Power Gyrotrons. , 2019, , . | | 0 |
| 104 | Automated Generation of High-Order Modes for Tests of Quasi-Optical Systems of Gyrotrons for W7-X Stellarator. , 2019, , . | | 0 |
| 105 | THE EUROPEAN 2 MW GYROTRON FOR ITER. , 2011, , . | | 0 |