

David P Chernin

List of Publications by Year in descending order

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Version: 2024-02-01

23
papers

290
citations

840776

11
h-index

888059

17
g-index

23
all docs

23
docs citations

23
times ranked

153
citing authors

#	ARTICLE	IF	CITATIONS
1	Resistive destabilization of cycloidal electron flow and universality of (near- π) Brillouin flow in a crossed-field gap. <i>Physics of Plasmas</i> , 1996, 3, 4455-4462.	1.9	38
2	Modeling Vacuum Electronic Devices Using Generalized Impedance Matrices. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 536-542.	3.0	34
3	Effect of Nonuniform Emission on Miram Curves. <i>IEEE Transactions on Plasma Science</i> , 2020, 48, 146-155.	1.3	32
4	1-D Large Signal Model of Folded-Waveguide Traveling Wave Tubes. <i>IEEE Transactions on Electron Devices</i> , 2014, 61, 1699-1706.	3.0	29
5	Effect of Random Circuit Fabrication Errors on Small-Signal Gain and Phase in Traveling-Wave Tubes. <i>IEEE Transactions on Electron Devices</i> , 2008, 55, 916-924.	3.0	26
6	Analysis of Anode Current From a Thermionic Cathode With a 2-D Work Function Distribution. <i>IEEE Transactions on Plasma Science</i> , 2021, 49, 749-755.	1.3	20
7	Harmonic Content in the Beam Current in a Traveling-Wave Tube. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 4285-4292.	3.0	17
8	Effects of Multiple Internal Reflections on the Small-Signal Gain and Phase of a TWT. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 1542-1550.	3.0	16
9	Nonperiodic Perturbations in Periodic RF Structures. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2012, 60, 915-929.	4.6	15
10	Adjoint approach to beam optics sensitivity based on Hamiltonian particle dynamics. <i>Physics of Plasmas</i> , 2019, 26, .	1.9	13
11	Effects of Random Circuit Fabrication Errors on the Mean and Standard Deviation of Small Signal Gain and Phase of a Traveling Wave Tube. <i>IEEE Journal of the Electron Devices Society</i> , 2013, 1, 117-128.	2.1	11
12	Thermal Electron Flow in a Planar Crossed-Field Diode. <i>IEEE Transactions on Plasma Science</i> , 2020, 48, 3109-3114.	1.3	10
13	Calculation and Application of Impedance Matrices for Vacuum Electronic Devices. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 2409-2414.	3.0	6
14	Theory of Traveling-Wave Tube Including Space Charge Effects on the Circuit Mode and Distributed Cold Tube Loss. <i>IEEE Transactions on Plasma Science</i> , 2020, 48, 665-668.	1.3	5
15	Efficient Calculation of Impedance Matrices for Vacuum Electronic Device Circuit Structures. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 2264-2271.	3.0	4
16	A Relativistic and Electromagnetic Correction to the Ramo-Shockley Theorem. <i>IEEE Transactions on Plasma Science</i> , 2021, 49, 2661-2669.	1.3	4
17	Adjoint Equations for Beam-Wave Interaction and Optimization of TWT Design. <i>IEEE Transactions on Plasma Science</i> , 2022, 50, 2568-2577.	1.3	4
18	Extensions of Johnson's Theory of Backward-Wave Oscillations in a Traveling-Wave Tube. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 1519-1524.	3.0	3

#	ARTICLE	IF	CITATIONS
19	Adjoint Approach to Optimization and Sensitivity Analysis of Beam Wave Interaction in Vacuum Electronic Devices. , 2020, , .		2
20	Adjoint Approach to Optimization and Sensitivity Analysis of External Circuit Effects in Vacuum Electronic Devices. , 2021, , .		1
21	Adjoint Approach to Analysis of External Circuit Effects in Vacuum Electronic Devices*. , 2021, , .		0
22	Including the Effects of Spatially Varying Work Functions in Electron Gun Design. , 2021, , .		0
23	Adjoint Approach to Optimization of Beam Wave Interaction. , 2020, , .		0