

Wen-Yan Yin

List of Publications by Year in descending order

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111
papers

2,418
citations

257450

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112
all docs

112
docs citations

112
times ranked

3442
citing authors

#	ARTICLE	IF	CITATIONS
1	Contacts between Two- and Three-Dimensional Materials: Ohmic, Schottky, and <i>p-n</i> Heterojunctions. ACS Nano, 2016, 10, 4895-4919.	14.6	308
2	Full-Polarization 3D Metasurface Cloak with Preserved Amplitude and Phase. Advanced Materials, 2016, 28, 6866-6871.	21.0	259
3	18.5% efficient graphene/GaAs van der Waals heterostructure solar cell. Nano Energy, 2015, 16, 310-319.	16.0	180
4	A Miniaturized Dual-Band Frequency Selective Surface (FSS) With Closed Loop and Its Complementary Pattern. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 1374-1377.	4.0	137
5	A Broadband Fluorographene Photodetector. Advanced Materials, 2017, 29, 1700463.	21.0	110
6	Gradient Chiral Metamirrors for Spin-Selective Anomalous Reflection. Laser and Photonics Reviews, 2017, 11, 1700115.	8.7	89
7	Tuning of the Contact Properties for High-Efficiency Si/PEDOT:PSS Heterojunction Solar Cells. ACS Energy Letters, 2017, 2, 556-562.	17.4	75
8	Characterization of Average Power Handling Capability of Bandpass Filters Using Planar Half-Wavelength Microstrip Resonators. IEEE Microwave and Wireless Components Letters, 2009, 19, 686-688.	3.2	58
9	Multiphysics Characterization of Transient Electrothermomechanical Responses of Through-Silicon Vias Applied With a Periodic Voltage Pulse. IEEE Transactions on Electron Devices, 2010, 57, 1382-1389.	3.0	56
10	Designing an Efficient Multimode Environmental Sensor Based on Graphene-Silicon Heterojunction. Advanced Materials Technologies, 2017, 2, 1600262.	5.8	55
11	Transient Electrothermal Analysis of Multilevel Interconnects in the Presence of ESD Pulses Using the Nonlinear Time-Domain Finite-Element Method. IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 774-783.	2.2	41
12	Tunable THz Multiband Frequency-Selective Surface Based on Hybrid Metal-Graphene Structures. IEEE Nanotechnology Magazine, 2017, 16, 1132-1137.	2.0	41
13	Analysis and Equivalent-Circuit Model for CMOS On-Chip Multiple Coupled Inductors in the Millimeter-Wave Region. IEEE Transactions on Electron Devices, 2015, 62, 3957-3964.	3.0	40
14	Electro-Thermo-Mechanical Characterizations of Various Wire Bonding Interconnects Illuminated by an Electromagnetic Pulse. IEEE Transactions on Advanced Packaging, 2010, 33, 729-737.	1.6	39
15	Massively Parallel Simulation of Large-Scale Electromagnetic Problems Using One High-Performance Computing Scheme and Domain Decomposition Method. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1523-1531.	2.2	34
16	Carbon Nanotube Vias: Does Ballistic Electron-Phonon Transport Imply Improved Performance and Reliability?. IEEE Transactions on Electron Devices, 2011, 58, 2689-2701.	3.0	31
17	Electrothermal Cosimulation of 3-D Carbon-Based Heterogeneous Interconnects. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2016, 6, 518-526.	2.5	30
18	Characterization of Electromagnetic Wave Coupling With a Twisted Bundle of Twisted Wire Pairs (TBTWPs) Above a Ground Plane. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 251-260.	2.2	30

#	ARTICLE	IF	CITATIONS
19	Dual-Band Differential Shifted-Feed Microstrip Grid Array Antenna With Two Parasitic Patches. IEEE Transactions on Antennas and Propagation, 2020, 68, 2434-2439.	5.1	30
20	Analysis of Frequency- and Temperature-Dependent Substrate Eddy Currents in On-Chip Spiral Inductors Using the Complex Image Method. IEEE Transactions on Magnetics, 2007, 43, 3243-3253.	2.1	29
21	An Adaptive Marching-on-in-Order Method With FFT-Based Blocking Scheme. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 436-439.	4.0	29
22	Fully Coupled Multiphysics Simulation of Crosstalk Effect in Bipolar Resistive Random Access Memory. IEEE Transactions on Electron Devices, 2017, 64, 3647-3653.	3.0	29
23	Electrothermal Characterization in 3-D Resistive Random Access Memory Arrays. IEEE Transactions on Electron Devices, 2016, 63, 4720-4728.	3.0	28
24	Carbon-coated graphene/antimony composite with a sandwich-like structure for enhanced sodium storage. Journal of Materials Chemistry A, 2017, 5, 20623-20630.	10.3	27
25	Electrothermal Effects on Hot-Carrier Reliability in SOI MOSFETsâ€™AC Versus Circuit-Speed Random Stress. IEEE Transactions on Electron Devices, 2016, 63, 3669-3676.	3.0	24
26	Design of Ultracompact Graphene-Based Superscatterers. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 130-137.	2.9	23
27	Study on High-Density Integration Resistive Random Access Memory Array From Multiphysics Perspective by Parallel Computing. IEEE Transactions on Electron Devices, 2019, 66, 1747-1753.	3.0	21
28	A dual-band filter using stepped-impedance resonator (SIR) embedded into substrate integrated waveguide (SIW). , 2010, , .		20
29	Electrothermal modelling and characterisation of submicron throughâ€silicon carbon nanotube bundle vias for threeâ€dimensional ICs. Micro and Nano Letters, 2014, 9, 123-126.	1.3	20
30	An Adaptive High-Order Transient Algorithm to Solve Large-Scale Anisotropic Maxwellâ€™s Equations. IEEE Transactions on Antennas and Propagation, 2022, 70, 2082-2092.	5.1	20
31	Immunity Analysis and Experimental Investigation of a Low-Noise Amplifier Using a Transient Voltage Suppressor Diode Under Direct Current Injection of HPM Pulses. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 1715-1718.	2.2	19
32	All-Two-Dimensional-Material Hot Electron Transistor. IEEE Electron Device Letters, 2018, 39, 634-637.	3.9	19
33	Notice of Retraction: A Novel Electromagnetic Bandgap Power Plane Etched With Multiring CSRRs for Suppressing Simultaneous Switching Noise. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 733-737.	2.2	19
34	Electrothermal Effects on Hot Carrier Injection in n-Type SOI FinFET Under Circuit-Speed Bias. IEEE Transactions on Electron Devices, 2017, 64, 3802-3807.	3.0	18
35	Substrate Integrated Waveguide Filter With Flat Passband Based on Complex Couplings. IEEE Microwave and Wireless Components Letters, 2018, 28, 494-496.	3.2	18
36	An Improved Ultrawideband Open-Short De-Embedding Method Applied up to 220 GHz. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 269-276.	2.5	17

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37	Microstrip Grid and Patch-Based Dual-Band Shared-Aperture Differentially Fed Array Antenna. IEEE Antennas and Wireless Propagation Letters, 2021, 20, 1043-1047.	4.0	17
38	Investigation on Time- and Frequency-Domain Responses of Some Complex Composite Structures in the Presence of High-Power Electromagnetic Pulses. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 1006-1016.	2.2	16
39	Electrothermal Investigation on Vertically Aligned Single-Walled Carbon Nanotube Contacted Phase-Change Memory Array for 3-D ICs. IEEE Transactions on Electron Devices, 2015, 62, 3258-3263.	3.0	15
40	Modeling and simulation of graphene-gated graphene-GaAs Schottky junction field-effect solar cell for its performance enhancement. IEEE Transactions on Electron Devices, 2015, 62, 3760-3766.	3.0	15
41	Efficient Analytical Model for the Transfer Impedance and Admittance of Noncoaxial/Twinax Braided-â€œShielded Cables. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 2725-2736.	2.2	14
42	Investigation of Carbon Nanotube-Based Through-Silicon Vias for PDN Applications. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 738-746.	2.2	13
43	Hybrid FDTD Method for Studying Electromagnetic Coupling Effects of Transmission Line Networks. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1650-1653.	2.2	12
44	Experiments and Comparisons of Power to Failure for SiGe-Based Low-Noise Amplifiers Under High-Power Microwave Pulses. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 1427-1435.	2.2	12
45	Massively Parallel Electromagnetic-â€œThermal Cosimulation of Large Antenna Arrays. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 1551-1555.	4.0	12
46	An Improved RF MOSFET Model Accounting Substrate Coupling Among Terminals. IEEE Microwave and Wireless Components Letters, 2018, 28, 138-140.	3.2	11
47	Fully Coupled Electrothermal Simulation of Large RRAM Arrays in the â€œThermal-Houseâ€œ IEEE Access, 2019, 7, 3897-3908.	4.2	11
48	Modeling and Simulation of Resistive Random Access Memory With Graphene Electrode. IEEE Transactions on Electron Devices, 2020, 67, 915-921.	3.0	11
49	Stochastic Analysis of Multitwisted Cables With Random Parameters Excited by Random Plane-Wave Fields. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 2084-2095.	2.2	11
50	Non-contact radio frequency shielding and wave guiding by multi-folded transformation optics method. Scientific Reports, 2016, 6, 36846.	3.3	10
51	Mn _{0.5} Co _{2.5} O ₄ nanofibers sandwiched in graphene sheets for efficient supercapacitor electrode materials. RSC Advances, 2016, 6, 103923-103929.	3.6	10
52	Effect of the Scattered Field on the Terminal Risers in Twisted-Wire Pairs With Floating Loads. IEEE Transactions on Electromagnetic Compatibility, 2020, 62, 291-295.	2.2	10
53	Design Considerations for Si- and Ge-Stacked Nanosheet pMOSFETs Based on Quantum Transport Simulations. IEEE Transactions on Electron Devices, 2020, 67, 26-32.	3.0	10
54	Characterization and Modeling of Multiple Coupled Inductors Based on On-Chip Four-Port Measurement. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 1696-1704.	2.5	9

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55	An Improved Algorithm for Drift Diffusion Transport and Its Application on Large Scale Parallel Simulation of Resistive Random Access Memory Arrays. IEEE Access, 2019, 7, 31273-31285.	4.2	9
56	Modeling electromagnetic wave coupling and mode conversion effects in multitwisted bundle of twistedâ€‘wire pairs (MTBâ€‘WTP) above ground plane. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2020, 33, e2539.	1.9	9
57	Improved Hybrid Leapfrog ADI-FDTD Method for Simulating Near-Field Coupling Effects Among Multiple Thin Wire Monopole Antennas on a Complex Platform. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 618-626.	2.2	8
58	Electrothermal-Stress Interactions of LDMOS FET Induced by DCI RF-Pulses. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 1178-1184.	2.2	7
59	A Multilevel Method With Novel Correction Strategy for Parallel Finite-Element Analysis of Electromagnetic Problems. IEEE Transactions on Antennas and Propagation, 2018, 66, 3787-3791.	5.1	7
60	Quantum Transport Study of Si Ultrathin-Body Double-Gate pMOSFETs: $\langle I \rangle$ and $\langle S \rangle$ vs V_g and V_d . IEEE Transactions on Electron Devices, 2019, 66, 655-663.	3.0	7
61	A Microstrip Dual-Split-Ring Antenna Array for 5G Millimeter-Wave Dual-Band Applications. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 2025-2029.	4.0	7
62	Terahertz frequency selective surface based on metalâ€‘graphene structure with independent frequency tuneability. IET Microwaves, Antennas and Propagation, 2019, 13, 911-916.	1.4	6
63	A Scalable Model of On-Chip Inductor Including Tunable Dummy Metal Density Factor. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 296-305.	2.5	6
64	EMI Analysis of Multiscale Transmission Line Network Using a Hybrid FDTD Method. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 1202-1211.	2.2	6
65	Transmission Line Model for a Shielded TWP With Apertures and Generalization to Braidedâ€‘Shielded TWP Cables. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 2115-2123.	2.2	6
66	Discontinuous Galerkin Method Using Laguerre Polynomials for Solving a Time-Domain Electric Field Integral Equation. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 865-868.	4.0	5
67	Ruggedness Characterization of Bonding Wire Arrays in LDMOSFET-Based Power Amplifiers. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 1032-1041.	2.5	5
68	High-Frequency Electrothermal Characterization of TSV-Based Power Delivery Network. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 2171-2179.	2.5	5
69	Time-Domain Discontinuous Galerkin PMCHW Integral Equation Method With MOD Scheme for Simulating Electromagnetic Pulse Responses of Arbitrarily Shaped Dielectric Objects. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 1157-1166.	2.2	5
70	Massively Parallel Simulation of Antenna Array Using Domain Decomposition Method and a High-Performance Computing Scheme. , 2019, , .		5
71	Broadband filter based on stub-loaded ridge substrate integrated waveguide (SIW) in low temperature cofired ceramic (LTCC). , 2011, , .		4
72	TDFIE-PMCHW Method Combined With an Adaptive Marching-On-in-Order Procedure for Studying on Time- and Frequency-Domain Responses of Some Composite Structures. IEEE Transactions on Electromagnetic Compatibility, 2013, 55, 1220-1230.	2.2	4

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73	Mn _{0.5} Co _{2.5} O ₄ Nanofibers Intercalated into Graphene Frameworks with Mesoporous Structure for Batteries and Supercapacitors. Energy Technology, 2017, 5, 2055-2064.	3.8	4
74	A Hybrid Streamline Upwind Finite Volume-Finite Element Method for Semiconductor Continuity Equations. IEEE Transactions on Electron Devices, 2021, 68, 5421-5429.	3.0	4
75	Transmission Line Modeling and Crosstalk Analysis of Multibraided Shielded TWP/Twinax Cables. IEEE Transactions on Electromagnetic Compatibility, 2022, 64, 1560-1573.	2.2	4
76	Study on cross-coupled substrate integrated evanescent-mode waveguide filter. , 2009, , .		3
77	Analysis of electro-thermal-stress failure of the LDMOS FET under HPM pulses. , 2013, , .		3
78	Topological Design of Planar Circularly Polarized Directional Antenna with Low Profile Using Particle Swarm Optimization. International Journal of Antennas and Propagation, 2017, 2017, 1-12.	1.2	3
79	Carrier Dynamics of Nanopillar Textured Ultrathin Si Film/PEDOT:PSS Heterojunction Solar Cell. IEEE Journal of Photovoltaics, 2018, 8, 757-762.	2.5	3
80	Accurate Simulation of Shielding Effectiveness of Metallic Cabins Using an Improved CalderÃn Preconditioner-Based Time-Domain Integral Equation Method. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 200-208.	2.2	3
81	Fully coupled electrothermal simulation of resistive random access memory (RRAM) array. Science China Information Sciences, 2020, 63, 1.	4.3	3
82	Optimum Design of Electron Gun for 0.22-THz Traveling Wave Tubes. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 307-314.	4.6	3
83	Stochastic Analysis of Braided-Shielded TWP/Twinax Cables with Random Nonuniform Shield Parameters. , 2021, , .		3
84	Multiphysics Computation for Resistive Random Access Memories With Different Metal Oxides. IEEE Transactions on Electron Devices, 2022, 69, 133-140.	3.0	3
85	Hexahedron-Based Control Volume Finite Element Method for Fully Coupled Nonlinear Drift-Diffusion Transport Equations in Semiconductor Devices. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 2965-2978.	4.6	3
86	Multiphysics characterization of polymer-filled through-hole silicon vias (TSVs) for three-dimensional integration. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2018, 31, e2348.	1.9	2
87	Stochastic Analysis of Multi-Twisted Bundle of Twisted-Wire Pairs (MTB-TWP) Above Ground Plane With Random Non-uniform Twisting. , 2019, , .		2
88	Mid-Infrared Nanofocusing Using Fragmented High-Order Transformation Optics. IEEE Transactions on Antennas and Propagation, 2019, 67, 6515-6522.	5.1	2
89	Study on Harmonic Spur Characteristics of AlGaIn/GaN HEMT PA at Different Temperatures. , 2019, , .		2
90	Transmission Line Model of Field-to-Wire Coupling with Transmission Line Cables From Near and Far Field Sources. , 2021, , .		2

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91	Wideband Integrated Log-Periodic Antenna Array for 5G Q-Band Applications. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1428-1432.	4.0	2
92	Transmission Line Model of Field-to-wire Coupling with Shielded TWP/Twinax Cables with line Apertures. , 2022, , .		2
93	Substrate integrated high-Q dielectric resonators for low phase noise oscillator. , 2009, , .		1
94	Plasmonic transmission lines with zero crosstalk. , 2016, , .		1
95	Photodetectors: A Broadband Fluorographene Photodetector (Adv. Mater. 22/2017). Advanced Materials, 2017, 29, .	21.0	1
96	Hybrid non-uniform lossy filters with substrate integrated waveguide and microstrip resonators. IET Microwaves, Antennas and Propagation, 2018, 12, 92-98.	1.4	1
97	Multiphysics Modeling and Simulation of Carrier Dynamics and Thermal Transport in Monolayer MoS ₂ /WSe ₂ Heterojunction. IEEE Transactions on Electron Devices, 2018, 65, 4542-4547.	3.0	1
98	An Improved MOD Discontinuous Galerkin Method for Solving Time-Domain Electric Field Integral Equation. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 851-855.	4.0	1
99	Lumped-Network FDTD Method for Simulating Transient Responses of RF Amplifiers Excited by Intentional Electromagnetic Interference Signals. IEEE Transactions on Electromagnetic Compatibility, 2021, , 1-10.	2.2	1
100	Performance Analysis of Ultra-thin-Body, DoubleGate pMOSFETs at 5 nm Technology Node. , 2020, , .		1
101	An Efficient Domain Decomposition Method in Multi-physics Simulation of Package Systems. , 2020, , .		1
102	Dynamic power consumption of distributed RLC trees. , 2007, , .		0
103	A miniaturized broadband four-port antenna located on a cylindrical conductor. , 2009, , .		0
104	Electrothermal breakdown of an intentional electromagnetic pulse injected into Ku-band GaAs MESFET-based low noise amplifier(LNA). , 2012, , .		0
105	Investigation on conductive electromagnetic pulse (EMP) effects on the breakdown of GaAs MESFET-built power amplifiers (PA). , 2012, , .		0
106	Experimental investigation and electro-thermal-stress modeling of GaAs and LDMOS FET under conductive electromagnetic pulse (EMP). , 2014, , .		0
107	Study on electro-thermo-mechanical responses of bonding wires arrays used for the package design of LDMOSFET-based RF Amplifier. , 2016, , .		0
108	An improved multifilamentary conduction model for multiphysics analysis of reset process in resistive random access memory. AIP Advances, 2019, 9, 045310.	1.3	0

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109	Efficient Evaluation of the Scattered Field Radiated by Transmission Line Cables. , 2019, , .		0
110	Investigation on harmonic spur characteristics of hybrid integrated LDMOS and AlGaN / GaN power amplifiers at different temperatures. International Journal of RF and Microwave Computer-Aided Engineering, 2020, 30, e22345.	1.2	0
111	Electrothermal Modeling and Simulation of Resistive Random Access Memory (RRAM) with Different Resistive Switching Oxides. , 2020, , .		0