Mattias Thorsell

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/7379709/publications.pdf

Version: 2024-02-01

66	927	430754	501076
papers	citations	18 h-index	28 g-index

66	66	66	790
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Application Relevant Evaluation of Trapping Effects in AlGaN/GaN HEMTs With Fe-Doped Buffer. IEEE Transactions on Electron Devices, 2016, 63, 326-332.	1.6	62
2	Dispersive Effects in Microwave AlGaN/AlN/GaN HEMTs With Carbon-Doped Buffer. IEEE Transactions on Electron Devices, 2015, 62, 2162-2169.	1.6	59
3	A GaNâ€“SiC hybrid material for high-frequency and power electronics. Applied Physics Letters, 2018, 113, .	1.5	56
4	Electron Trapping in Extended Defects in Microwave AlGaN/GaN HEMTs With Carbon-Doped Buffers. IEEE Transactions on Electron Devices, 2018, 65, 2446-2453.	1.6	55
5	Thermal Study of the High-Frequency Noise in GaN HEMTs. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 19-26.	2.9	50
6	An AlGaN/GaN HEMT-Based Microstrip MMIC Process for Advanced Transceiver Design. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 1827-1833.	2.9	49
7	An X-Band AlGaN/GaN MMIC Receiver Front-End. IEEE Microwave and Wireless Components Letters, 2010, 20, 55-57.	2.0	42
8	Microwave Performance of â€˜Buffer-Freeâ€™ GaN-on-SiC High Electron Mobility Transistors. IEEE Electron Device Letters, 2020, 41, 828-831.	2.2	40
9	High-Efficiency LDMOS Power-Amplifier Design at 1 GHz Using an Optimized Transistor Model. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 1647-1654.	2.9	35
10	Impact of Channel Thickness on the Large-Signal Performance in InAlGaN/AlN/GaN HEMTs With an AlGaN Back Barrier. IEEE Transactions on Electron Devices, 2019, 66, 364-371.	1.6	33
11	Fast Multiharmonic Active Loadâ€“Pull System With Waveform Measurement Capabilities. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 149-157.	2.9	28
12	A Single-Ended Resistive X-Band AlGaN/GaN HEMT MMIC Mixer. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 2201-2206.	2.9	25
13	Suppression of Dispersive Effects in AlGaN/GaN High-Electron-Mobility Transistors Using Bilayer SiN_x Grown by Low Pressure Chemical Vapor Deposition. IEEE Electron Device Letters, 2015, 36, 537-539.	2.2	25
14	Electrothermal Access Resistance Model for GaN-Based HEMTs. IEEE Transactions on Electron Devices, 2011, 58, 466-472.	1.6	24
15	Impact of Trapping Effects on the Recovery Time of GaN Based Low Noise Amplifiers. IEEE Microwave and Wireless Components Letters, 2016, 26, 31-33.	2.0	23
16	Accurate Modeling of GaN HEMT RF Behavior Using an Effective Trapping Potential. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 845-857.	2.9	22
17	Evaluation of Thermal Versus Plasma-Assisted ALD Al₂O₃ as Passivation for InAlN/AlN/GaN HEMTs. IEEE Electron Device Letters, 2015, 36, 235-237.	2.2	20
18	High frequency electromagnetic detection by nonlinear conduction modulation in graphene nanowire diodes. Applied Physics Letters, 2015, 107, .	1.5	19

#	Article	IF	Citations
19	Evaluation of an InAlN/AlN/GaN HEMT with Taâ€based ohmic contacts and PECVD SiN passivation. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 924-927.	0.8	18
20	Performance Enhancement of Microwave GaN HEMTs Without an AlN-Exclusion Layer Using an Optimized AlGaN/GaN Interface Growth Process. IEEE Transactions on Electron Devices, 2016, 63, 333-338.	1.6	17
21	SiC Varactors for Dynamic Load Modulation of High Power Amplifiers. IEEE Electron Device Letters, 2008, 29, 728-730.	2.2	15
22	Symmetrical Large-Signal Modeling of Microwave Switch FETs. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 1590-1598.	2.9	15
23	An Oscilloscope Correction Method for Vector-Corrected RF Measurements. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 2541-2547.	2.4	13
24	Design Equations for Lumped Element Balun With Inherent Complex Impedance Transformation. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 5162-5170.	2.9	13
25	Small- and Large-Signal Analyses of Different Low-Pressure-Chemical-Vapor-Deposition SiN_x Passivations for Microwave GaN HEMTs. IEEE Transactions on Electron Devices, 2018, 65, 908-914.	1.6	11
26	On the Large Signal Evaluation and Modeling of GaN FET. IEICE Transactions on Electronics, 2010, E93-C, 1225-1233.	0.3	9
27	Extraction of an Electrothermal Mobility Model for AlGaN/GaN Heterostructures. IEEE Transactions on Electron Devices, 2012, 59, 3344-3349.	1.6	9
28	A novel active load-pull system with multi-band capabilities. , 2013, , .		9
29	Influence on Noise Performance of GaN HEMTs With In Situ and Low-Pressure-Chemical-Vapor-Deposition SiN_x Passivation. IEEE Transactions on Electron Devices, 2016, 63, 3887-3892.	1.6	9
30	High Voltage and Low Leakage GaN-on-SiC MISHEMTs on a â€œBuffer-Freeâ€•Heterostructure. IEEE Electron Device Letters, 2022, 43, 781-784.	2.2	9
31	Investigation of Push-Pull Microwave Power Amplifiers Using an Advanced Measurement Setup. IEEE Microwave and Wireless Components Letters, 2013, 23, 220-222.	2.0	8
32	The Effect of Forward Gate Bias Stress on the Noise Performance of Mesa Isolated GaN HEMTs. IEEE Transactions on Device and Materials Reliability, 2015, 15, 40-46.	1.5	8
33	Impact of in situ NH3 pre-treatment of LPCVD SiN passivation on GaN HEMT performance. Semiconductor Science and Technology, 2022, 37, 035011.	1.0	8
34	Thermal characterization of the intrinsic noise parameters for AlGaN/GaN HEMTs. , 2008, , .		6
35	Nonlinear Characterization of Varactors for Tunable Networks by Active Sourceâ€“Pull and Loadâ€“Pull. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 1753-1760.	2.9	6
36	A Novel Technique for GaN HEMT Trap States Characterisation. , 2013, , .		6

#	Article	IF	Citations
37	On the modeling of high power FET transistors. , 2016, , .		6
38	Achieving Low-Recovery Time in AlGaN/GaN HEMTs With AlN Interlayer Under Low- Noise Amplifiers Operation. IEEE Electron Device Letters, 2017, 38, 926-928.	2.2	6
39	Impact of AlGaN/GaN Interface and Passivation on the Robustness of Low-Noise Amplifiers. IEEE Transactions on Electron Devices, 2020, 67, 2297-2303.	1.6	6
40	Electric-Based Thermal Characterization of GaN Technologies Affected by Trapping Effects. IEEE Transactions on Electron Devices, 2020, 67, 1952-1958.	1.6	6
41	Characterization setup for device level dynamic load modulation measurements. , 2009, , .		5
42	Wideband RF characterization setup with high dynamic range low frequency measurement capabilities. , 2016, , .		5
43	Instinctual Interference-Adaptive Low-Power Receiver With Combined Feedforward and Feedback Control. IEEE Microwave and Wireless Components Letters, 2021, 31, 771-774.	2.0	4
44	Characterization of the temperature dependent access resistances in AlGaN/GaN HEMTs. , 2008, , .		3
45	Extending the Best Linear Approximation to Characterize the Nonlinear Distortion in GaN HEMTs. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 3087-3094.	2.9	3
46	High efficiency RF pulse width modulation with tunable load network class-E PA. , 2011, , .		3
47	Semi-physical nonlinear circuit model with device/physical parameters for HEMTs. International Journal of Microwave and Wireless Technologies, 2011, 3, 25-33.	1.5	3
48	Symmetry based nonlinear model for GaN HEMTs. , 2015, , .		3
49	Vector-corrected nonlinear multi-port IQ-mixer characterization using modulated signals. , 2017, , .		3
50	Differential Transmission Line Loop for RFID Reactive Near-Field Coupling. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 2141-2153.	2.9	3
51	A DC Comparison Study between H-Intercalated and Native Epi-Graphenes on SiC Substrates. Materials Science Forum, 0, 740-742, 129-132.	0.3	2
52	Carbon-Doped GaN on SiC Materials for Low-Memory-Effect Devices. ECS Transactions, 2016, 75, 61-65.	0.3	2
53	Optimizing the Signal-to-Noise and Distortion Ratio of a GaN LNA using Dynamic Bias. , 2018, , .		2
54	A new baseband measurement system for characterization of memory effects in nonlinear microwave devices. , 2012, , .		1

#	Article	IF	Citations
55	Symmetrical Modeling of GaN HEMTS. , 2014, , .		1
56	Low-Pressure-Chemical-Vapor-Deposition SiNx passivated AlGaN/GaN HEMTs for power amplifier application. , 2015, , .		1
57	Shifted Source Impedance and Nonlinearity Impact on RFID Transponder Communication for Drive-Level Offsets. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 299-309.	2.9	1
58	Lumped element balun with inherent complex impedance transformation. , 2017, , .		1
59	Analysis of Lateral Thermal Coupling for GaN MMIC Technologies. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 4430-4438.	2.9	1
60	Noise temperature of an electronic tuner for noise parameter measurement systems. , 2012, , .		0
61	Compensation of Performance Degradation due to Thermal Effects in GaN LNA Using Dynamic Bias. , 2018, , .		0
62	Compensation of Performance Degradation Due to Thermal Effects in GaN LNA Using Dynamic Bias. , 2018, , .		0
63	Analysis of thermal effects in integrated radio transmitters. , 2018, , .		0
64	Analysis of thermal effects in integrated radio transmitters. , 2018, , .		0
65	Thermal Analysis of GaN/SiC-on-Si Assemblies: Effect of Bump Pitch and Thickness of SiC Layer. , 2020, , .		0
66	Analyzing The Back-Gating Effect in GaN HEMTs with Field-Plates Using an Empirical Trap Model. , 2021, , .		0