

Raphael Sommet

List of Publications by Year in descending order

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papers

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416
citing authors

#	ARTICLE	IF	CITATIONS
1	Identification of GaN Buffer Traps in Microwave Power AlGaIn/GaN HEMTs Through Low Frequency S-Parameters Measurements and TCAD-Based Physical Device Simulations. IEEE Journal of the Electron Devices Society, 2017, 5, 175-181.	1.2	76
2	Amplitude and phase noise of magnetic tunnel junction oscillators. Applied Physics Letters, 2010, 97, .	1.5	74
3	Steady state analysis of free or forced oscillators by harmonic balance and stability investigation of periodic and quasi-periodic regimes. The International Executive, 1995, 5, 210-223.	0.2	44
4	High-Performance 15-V Novel LDMOS Transistor Architecture in a 0.25- μm BiCMOS Process for RF-Power Applications. IEEE Transactions on Electron Devices, 2007, 54, 861-868.	1.6	34
5	Characterization of Parasitic Resistances of AlN/GaN/AlGaIn HEMTs Through TCAD-Based Device Simulations and On-Wafer Measurements. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 1351-1358.	2.9	20
6	Behavioral Thermal Modeling for Microwave Power Amplifier Design. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 2290-2297.	2.9	19
7	Thermal modeling and measurements of AlGaIn/GaN HEMTs including thermal boundary resistance. Microelectronics Journal, 2012, 43, 611-617.	1.1	19
8	Dynamic Performance and Characterization of Traps Using Different Measurements Techniques for the New AlGaIn/GaN HEMT of 0.15- μm Ultrashort Gate Length. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 2475-2482.	2.9	17
9	Characterization and modeling of bias dependent breakdown and self-heating in GaInP/GaAs power HBT to improve high power amplifier design. IEEE Transactions on Microwave Theory and Techniques, 2002, 50, 2811-2819.	2.9	16
10	An Improved Physics-Based Formulation of the Microwave p-i-n Diode Impedance. IEEE Microwave and Wireless Components Letters, 2007, 17, 211-213.	2.0	14
11	Experimental Characterization and Modeling of the Thermal Behavior of SiGe HBTs. IEEE Transactions on Electron Devices, 2012, 59, 1921-1927.	1.6	14
12	Identification of Buffer and Surface Traps in Fe-Doped AlGaIn/GaN HEMTs Using Y21 Frequency Dispersion Properties. Electronics (Switzerland), 2021, 10, 3096.	1.8	13
13	Electrical Measurement of the Thermal Impedance of Bipolar Transistors. IEEE Electron Device Letters, 2010, 31, 939-941.	2.2	9
14	Model order reduction of linear and nonlinear 3D thermal finite-element description of microwave devices for circuit analysis. International Journal of RF and Microwave Computer-Aided Engineering, 2005, 15, 398-411.	0.8	8
15	On the determination of the thermal impedance of microwave bipolar transistors. , 2010, , .		7
16	Low frequency parasitic effects in RF transistors and their impact on power amplifier performances. , 2012, , .		7
17	A Microwave Modeling Oxymoron?: Low-Frequency Measurements for Microwave Device Modeling. IEEE Microwave Magazine, 2014, 15, 92-107.	0.7	7
18	Design of an Integrated cascode cell for compact Ku-band power amplifiers. , 2012, , .		5

#	ARTICLE	IF	CITATIONS
19	Investigation of electron trapping in AlGaIn/GaN HEMT with Fe-doped buffer through DCT characterization and TCAD device simulations. AIP Advances, 2021, 11, .	0.6	5
20	High power S band limiter simulation with a physics-based accurate nonlinear PIN diode model. , 2007, , .		4
21	Time Domain Drain Lag Measurement and TCAD-based Device Simulations of AlGaIn/GaN HEMT: Investigation of Physical Mechanism. , 2019, , .		4
22	Understanding the Thermal Time Constants of GaN HEMTs through Model Order Reduction Technique. Electronics (Switzerland), 2021, 10, 3138.	1.8	4
23	Nonlinear characterization and modeling of dispersive effects in high-frequency power transistors. , 0, , 206-256.		3
24	Novel AlN/GaN HEMT Electrical Model including Trapping Effects. , 2018, , .		3
25	Impact of the Location of Iron Buffer Doping on Trap Signatures in GaN HEMTs. , 2020, , .		3
26	Comparison of GaN HEMTs Thermal Results through different measurements methodologies: Validation with 3D simulation. , 2021, , .		2
27	Trap Characterization in InAlN/GaN and AlN/GaN based HEMTs with Fe- and C-doped Buffers. , 2022, , .		2
28	Semiconductor device and noise sources modeling: design methods and tools oriented to nonlinear H.F. oscillator CAD. , 2004, , .		1
29	A Physics-Based Nonlinear Model of Microwave P-I-N Diode for CAD. , 2006, , .		1
30	New electrothermal system level model for RF power amplifier. , 2007, , .		1
31	Characterization and Modeling of Impact Ionization Effects on Small and Large Signal Characteristics of AlGaAs/GaInAs/GaAs PHEMTs. , 2008, , .		1
32	Characterization of Different Technologies of GaN HEMTs of 0,15 μ m Ultra-Short Gate Length: Identification of Traps Using TCAD Based 2D Physics-based Simulation. , 2019, , .		1
33	Coherent tools for physics-based simulation and characterization of noise in semiconductor devices oriented to nonlinear microwave circuit CAD. , 2004, 5470, 507.		0
34	Implementation of electrothermal system-level model for RF power amplifiers in Scilab/Scicos environment. International Journal of Microwave and Wireless Technologies, 2009, 1, 489-495.	1.5	0
35	Compact RF non-linear electro thermal model of SiGe HBT for the design of broadband ADC's. International Journal of Microwave and Wireless Technologies, 2012, 4, 569-578.	1.5	0
36	Characterization and Electrical Modeling Including Trapping Effects of AlN/GaN HEMT 4 μ m–50 μ m on Silicon Substrate. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
37	Characterization and Electrical Modeling Including Trapping Effects of Al _{1-n} GaN HEMT 4 ^{1/4} mon Silicon Substrate. , 2018, , .		0
38	Dual Approach for the characterization of the thermal impedance using 3omega and thermoreflectance methods. , 2020, , .		0
39	Evaluation of Thermal Impedance by 3omega Method for Power Amplifier Behavioral Modeling. , 2020, , .		0
40	GaN HEMTs thermal time constants: Theory and Measurements. , 2022, , .		0