

Raphael Sommet

List of Publications by Year in descending order

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416
citing authors

#	ARTICLE	IF	CITATIONS
1	GaN HEMTs thermal time constants: Theory and Measurements. , 2022, , .		0
2	Trap Characterization in InAlN/GaN and AlN/GaN based HEMTs with Fe- and C-doped Buffers. , 2022, , .		2
3	Comparison of GaN HEMTs Thermal Results through different measurements methodologies: Validation with 3D simulation. , 2021, , .		2
4	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
5	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
6	Understanding the Thermal Time Constants of GaN HEMTs through Model Order Reduction Technique. Electronics (Switzerland), 2021, 10, 3138.	1.8	4
7	Dual Approach for the characterization of the thermal impedance using 3omega and thermoreflectance methods. , 2020, , .		0
8	Evaluation of Thermal Impedance by 3omega Method for Power Amplifier Behavioral Modeling. , 2020, , .		0
9	Impact of the Location of Iron Buffer Doping on Trap Signatures in GaN HEMTs. , 2020, , .		3
10	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
11	Time Domain Drain Lag Measurement and TCAD-based Device Simulations of AlGaIn/GaN HEMT: Investigation of Physical Mechanism. , 2019, , .		4
12	Characterization of Different Technologies of GaN HEMTs of 0,15 $\hat{1}$ / ₄ m Ultra-Short Gate Length: Identification of Traps Using TCAD Based 2D Physics-based Simulation. , 2019, , .		1
13	Characterization and Electrical Modeling Including Trapping Effects of AlN/GaN HEMT 4 \hat{A} –50 $\hat{1}$ / ₄ m on Silicon Substrate. , 2018, , .		0
14	Characterization and Electrical Modeling Including Trapping Effects of Al ₁ n/GaN HEMT 4 \hat{a} –50 $\hat{1}$ / ₄ m on Silicon Substrate. , 2018, , .		0
15	Novel AlN/GaN HEMT Electrical Model including Trapping Effects. , 2018, , .		3
16	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
17	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
18	A Microwave Modeling Oxymoron?: Low-Frequency Measurements for Microwave Device Modeling. IEEE Microwave Magazine, 2014, 15, 92-107.	0.7	7

#	ARTICLE	IF	CITATIONS
19	Low frequency parasitic effects in RF transistors and their impact on power amplifier performances. , 2012, , .		7
20	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
21	Thermal modeling and measurements of AlGaIn/GaN HEMTs including thermal boundary resistance. Microelectronics Journal, 2012, 43, 611-617.	1.1	19
22	Design of an Integrated cascode cell for compact Ku-band power amplifiers. , 2012, , .		5
23	Experimental Characterization and Modeling of the Thermal Behavior of SiGe HBTs. IEEE Transactions on Electron Devices, 2012, 59, 1921-1927.	1.6	14
24	Amplitude and phase noise of magnetic tunnel junction oscillators. Applied Physics Letters, 2010, 97, .	1.5	74
25	Electrical Measurement of the Thermal Impedance of Bipolar Transistors. IEEE Electron Device Letters, 2010, 31, 939-941.	2.2	9
26	On the determination of the thermal impedance of microwave bipolar transistors. , 2010, , .		7
27	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
28	Characterization and Modeling of Impact Ionization Effects on Small and Large Signal Characteristics of AlGaAs/GaInAs/GaAs PHEMTs. , 2008, , .		1
29	New electrothermal system level model for RF power amplifier. , 2007, , .		1
30	High power S band limiter simulation with a physics-based accurate nonlinear PIN diode model. , 2007, , .		4
31	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
32	Behavioral Thermal Modeling for Microwave Power Amplifier Design. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 2290-2297.	2.9	19
33	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
34	A Physics-Based Nonlinear Model of Microwave P-I-N Diode for CAD. , 2006, , .		1
35	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
36	Semiconductor device and noise sources modeling: design methods and tools oriented to nonlinear H.F. oscillator CAD. , 2004, , .		1

#	ARTICLE	IF	CITATIONS
37	Coherent tools for physics-based simulation and characterization of noise in semiconductor devices oriented to nonlinear microwave circuit CAD. , 2004, 5470, 507.		0
38	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
39	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
40	Nonlinear characterization and modeling of dispersive effects in high-frequency power transistors. , 0, , 206-256.		3