

Maria De Souza

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6130329/publications.pdf>

Version: 2024-02-01

83
papers

2,476
citations

411340

20
h-index

232693

48
g-index

84
all docs

84
docs citations

84
times ranked

3684
citing authors

#	ARTICLE	IF	CITATIONS
1	The 2018 GaN power electronics roadmap. Journal Physics D: Applied Physics, 2018, 51, 163001.	1.3	843
2	Investigating the stability of zinc oxide thin film transistors. Applied Physics Letters, 2006, 89, 263513.	1.5	288
3	A low temperature combination method for the production of ZnO nanowires. Nanotechnology, 2005, 16, 2188-2192.	1.3	187
4	Nanoionics-Based Three-Terminal Synaptic Device Using Zinc Oxide. ACS Applied Materials & Interfaces, 2017, 9, 1609-1618.	4.0	128
5	Surface intercalation of gold underneath a graphene monolayer on SiC(0001) studied by scanning tunneling microscopy and spectroscopy. Applied Physics Letters, 2009, 94, .	1.5	107
6	A Comparison of the Performance and Stability of ZnO-TFTs With Silicon Dioxide and Nitride as Gate Insulators. IEEE Transactions on Electron Devices, 2008, 55, 1109-1115.	1.6	88
7	Diffusion-Controlled Faradaic Charge Storage in High-Performance Solid Electrolyte-Gated Zinc Oxide Thin-Film Transistors. ACS Applied Materials & Interfaces, 2018, 10, 9782-9791.	4.0	51
8	Communication: Electronic band gaps of semiconducting zig-zag carbon nanotubes from many-body perturbation theory calculations. Journal of Chemical Physics, 2012, 136, 181101.	1.2	43
9	A high performance RF LDMOSFET in thin film SOI technology with step drift profile. Solid-State Electronics, 2003, 47, 1937-1941.	0.8	37
10	High-Efficiency Modes Contiguous With Class B/J and Continuous Class F Amplifiers. IEEE Microwave and Wireless Components Letters, 2019, 29, 137-139.	2.0	32
11	Comparative Study of Drift Region Designs in RF LDMOSFETs. IEEE Transactions on Electron Devices, 2004, 51, 1296-1303.	1.6	29
12	Experimental demonstration of an ultra-fast double gate inversion layer emitter transistor (DG-ILET). IEEE Electron Device Letters, 2002, 23, 725-727.	2.2	28
13	The Effect of Gate-Bias Stress and Temperature on the Performance of ZnO Thin-Film Transistors. IEEE Transactions on Device and Materials Reliability, 2008, 8, 277-282.	1.5	28
14	A novel double RESURF LDMOS for HVIC's. Microelectronics Journal, 2004, 35, 305-310.	1.1	26
15	Impact of aluminum nitride as an insulator on the performance of zinc oxide thin film transistors. Applied Physics Letters, 2008, 92, 093509.	1.5	26
16	Electronic properties of extended graphene nanomaterials from GW calculations. Physica Status Solidi (B): Basic Research, 2009, 246, 2572-2576.	0.7	26
17	Innovation in Power Semiconductor Industry: Past and Future. IEEE Transactions on Engineering Management, 2005, 52, 429-439.	2.4	25
18	Experimental Evidence for Exciton Scaling Effects in Self-Assembled Molecular Wires. Physical Review Letters, 2004, 93, 257401.	2.9	24

#	ARTICLE	IF	CITATIONS
19	Design for Reliability: The RF Power LDMOSFET. IEEE Transactions on Device and Materials Reliability, 2007, 7, 162-174.	1.5	24
20	A novel trench clustered insulated gate bipolar transistor (TCIGBT). IEEE Electron Device Letters, 2000, 21, 613-615.	2.2	22
21	Superlattice of resonators on monolayer graphene created by intercalated gold nanoclusters. Europhysics Letters, 2010, 91, 66004.	0.7	22
22	Negative Capacitance beyond Ferroelectric Switches. ACS Applied Materials & Interfaces, 2018, 10, 19812-19819.	4.0	19
23	Striped anode engineering: a concept for fast switching power devices. Solid-State Electronics, 2002, 46, 903-909.	0.8	18
24	Impact of a Nonideal Metal Gate on Surface Optical Phonon-Limited Mobility in High- κ Gated MOSFETs. IEEE Transactions on Electron Devices, 2007, 54, 2991-2997.	1.6	18
25	Reactive inkjet printing of graphene based flexible circuits and radio frequency antennas. Journal of Materials Chemistry C, 2021, 9, 13182-13192.	2.7	17
26	Transport mechanisms and effective Schottky barrier height of ZnO/a-Si:H and ZnO/ $\sqrt{1/4}$ c-Si:H heterojunction solar cells. Journal of Applied Physics, 2013, 114, .	1.1	16
27	A novel gate geometry for the IGBT: the trench planar insulated gate bipolar transistor (TPIGBT). IEEE Electron Device Letters, 1999, 20, 580-582.	2.2	14
28	Design of Schottky Contacts for Optimum Performance of Thin-Film Silicon Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 22-27.	1.5	14
29	Extraction of Schottky barrier at the F-doped SnO ₂ /TiO ₂ interface in Dye Sensitized solar cells. Journal of Renewable and Sustainable Energy, 2014, 6, .	0.8	13
30	Hierarchically Interlaced 2D Copper Iodide/MXene Composite for High Thermoelectric Performance. Physica Status Solidi - Rapid Research Letters, 2022, 16, 2100419.	1.2	13
31	Planar Self-Interstitial in Silicon. Physical Review Letters, 1999, 83, 1799-1801.	2.9	12
32	A novel area efficient floating field limiting ring edge termination technique. Solid-State Electronics, 2000, 44, 1381-1386.	0.8	12
33	A segmented anode, npn controlled lateral insulated gate bipolar transistor. Solid-State Electronics, 2001, 45, 1055-1058.	0.8	12
34	A study of the performance of solar cells for indoor autonomous wireless sensors. , 2016, , .		12
35	Evaluation of the Coulomb-limited mobility in high- $\hat{\epsilon}$ dielectric metal oxide semiconductor field effect transistors. Journal of Applied Physics, 2010, 107, 063706.	1.1	10
36	Numerical Analysis of 3-D Scaling Rules on a 1.2-kV Trench Clustered IGBT. IEEE Transactions on Electron Devices, 2018, 65, 1440-1446.	1.6	10

#	ARTICLE	IF	CITATIONS
37	MOS Control Device Concepts for AC-AC Matrix Converter Applications: The HCD Concept for High-Efficiency Anode-Gated Devices. IEEE Transactions on Electron Devices, 2005, 52, 2075-2080.	1.6	9
38	Comparative Analysis of VDMOS/LDMOS Power Transistors for RF Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 2643-2651.	2.9	9
39	Modelling the threshold voltage of p-channel enhancement-mode GaN heterostructure field-effect transistors. IET Power Electronics, 2018, 11, 675-680.	1.5	9
40	Designing a Broadband Amplifier Without Load Pull. IEEE Microwave and Wireless Components Letters, 2021, 31, 593-596.	2.0	9
41	Role of hybridization on the Schottky barrier height of carbon nanotube field effect transistors. Physical Review B, 2009, 79, .	1.1	7
42	A Methodology for Extraction of the Density of Interface States in the Presence of Frequency Dispersion via the Conductance Technique. IEEE Transactions on Electron Devices, 2010, 57, 1642-1650.	1.6	7
43	A p-Channel GaN Heterostructure Tunnel FET With High ON/OFF Current Ratio. IEEE Transactions on Electron Devices, 2019, 66, 2916-2922.	1.6	7
44	Analysis of the breakdown voltage in SOI and SOS technologies. Solid-State Electronics, 2002, 46, 255-261.	0.8	6
45	Progress in MOS-controlled bipolar devices and edge termination technologies. Microelectronics Journal, 2004, 35, 235-248.	1.1	6
46	Anomalous n-type electrical behaviour of Pd-contacted CNTFET fabricated on small-diameter nanotube. Nanotechnology, 2010, 21, 215202.	1.3	6
47	Impact of channel thickness on the performance of an E-mode p-channel MOSHFET in GaN. Applied Physics Letters, 2018, 112, .	1.5	6
48	Reservoir Computing for Temporal Data Classification Using a Dynamic Solid Electrolyte ZnO Thin Film Transistor. Frontiers in Electronics, 2022, 3, .	2.0	6
49	Optimization of normally-off AlGaN/GaN MOSFET with high I_{on} and BFOM: A TCAD study. AIP Advances, 2022, 12, .	0.6	6
50	A novel metal field plate edge termination for power devices. Microelectronics Journal, 2001, 32, 323-326.	1.1	5
51	Analytic Large-Signal Modeling of Silicon RF Power MOSFETs. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 829-837.	2.9	5
52	An E-Mode p-Channel GaN MOSHFET for a CMOS Compatible PMIC. IEEE Electron Device Letters, 2017, 38, 1449-1452.	2.2	5
53	Development of GaN Transducer and On-Chip Concentrator for Galvanic Current Sensing. IEEE Transactions on Electron Devices, 2019, 66, 4367-4372.	1.6	5
54	3D Microstructured Frequency Selective Surface Based on Carbonized Polyimide Films for Terahertz Applications. Advanced Optical Materials, 2022, 10, .	3.6	5

#	ARTICLE	IF	CITATIONS
55	A Monte Carlo study of the kickout mechanism of boron diffusion in silicon. Journal of Applied Physics, 1996, 79, 2418-2425.	1.1	4
56	1200 V fully implanted JI technology. Electronics Letters, 2000, 36, 1587.	0.5	4
57	The 6.5 kV clustered insulated gate bipolar transistor in homogeneous base technology. Solid-State Electronics, 2001, 45, 71-77.	0.8	4
58	A study of fully coordinated precursors in silicon using the Ackland potential. Physica B: Condensed Matter, 2001, 304, 483-488.	1.3	4
59	A comparison of early stage hot carrier degradation behaviour in 5 and 3 V sub-micron low doped drain metal oxide semiconductor field effect transistors. Microelectronics Reliability, 2001, 41, 169-177.	0.9	4
60	Investigating the Stability of Thin Film Transistors with Zinc Oxide as the Channel Layer. , 2007, , .		4
61	D_{it} Extraction From Conductance-Frequency Measurements using a Transmission-Line Model in Weak Inversion of poly/TiN/HfO_2 nMOSFETs. IEEE Transactions on Electron Devices, 2012, 59, 827-834.	1.6	4
62	Are carbon nanotubes still a viable option for ITRS 2024?. , 2013, , .		4
63	Off-State Operation of a Three Terminal Ionic FET for Logic-in-Memory. IEEE Journal of the Electron Devices Society, 2019, 7, 1232-1238.	1.2	4
64	A local charge control technique to improve the forward bias safe operating area of LIGBT. Solid-State Electronics, 2000, 44, 1213-1218.	0.8	3
65	Radial confinement in lateral power devices. Microelectronics Journal, 2001, 32, 481-484.	1.1	3
66	Influence of mobility model on extraction of stress dependent source-drain series resistance. Microelectronics Reliability, 2004, 44, 25-32.	0.9	3
67	Understanding the role of the insulator in the performance of ZnO TFTs. Thin Solid Films, 2009, 518, 1177-1179.	0.8	3
68	An Integrated On-Chip Flux Concentrator for Galvanic Current Sensing. IEEE Electron Device Letters, 2018, 39, 1752-1755.	2.2	3
69	An analysis of the kickout mechanism in silicon. Solid-State Electronics, 1995, 38, 867-872.	0.8	2
70	Trade-off between the Kirk effect and the breakdown performance in resurfed lateral bipolar transistors for high voltage, high frequency applications. Solid-State Electronics, 2000, 44, 1869-1873.	0.8	2
71	Designing high power RF amplifiers: An analytic approach. , 2014, , .		2
72	Investigation of the Effect of Weak Non-Linearities on P1dB and Efficiency of Class B/AB Amplifiers. IEEE Transactions on Circuits and Systems II: Express Briefs, 2018, 65, 1159-1163.	2.2	2

#	ARTICLE	IF	CITATIONS
73	A methodology to design broadband matching networks for continuum mode PAs. , 2019, , .		2
74	Analysis of $\{m P\}_{b}$ Centers in Ultrathin Hafnium Silicate Gate Stacks. IEEE Transactions on Electron Devices, 2007, 54, 2551-2555.	1.6	1
75	New analytical expressions for the design of linear power amplifier using GaN HEMTs. , 2009, , .		1
76	Separation of bulk and contact interface degradation in thin film silicon solar cells. Journal of Renewable and Sustainable Energy, 2015, 7, 063115.	0.8	1
77	Impact of the size 4 cluster on low temperature indium diffusion in silicon. Journal of Physics Condensed Matter, 2005, 17, S2165-S2170.	0.7	0
78	Class-D power amplifiers using LDMOS and GaN power devices: a comparative analysis. , 2010, , .		0
79	Analytical techniques for the simulation of electron transport in semiconductor systems. , 2012, , .		0
80	RF power amplifier: pushing the boundaries of performance versus cost. Proceedings of SPIE, 2012, , .	0.8	0
81	A Ta2O5/ZnO Synaptic SE-FET for supervised learning in a crossbar. , 2021, , .		0
82	Necessary conditions for steep switching in a constant Resistor-Capacitor RCFET. MRS Advances, 2021, 6, 540-545.	0.5	0
83	Characterization of traps in a Power Amplifier using a time domain approach. , 2022, , .		0