

Maria De Souza

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76
papers

1,831
citations

19
h-index

42
g-index

84
ext. papers

2,171
ext. citations

3.1
avg, IF

4.74
L-index

#	Paper	IF	Citations
76	The 2018 GaN power electronics roadmap. <i>Journal Physics D: Applied Physics</i> , 2018 , 51, 163001	3	527
75	Investigating the stability of zinc oxide thin film transistors. <i>Applied Physics Letters</i> , 2006 , 89, 263513	3.4	260
74	A low temperature combination method for the production of ZnO nanowires. <i>Nanotechnology</i> , 2005 , 16, 2188-92	3.4	167
73	Surface intercalation of gold underneath a graphene monolayer on SiC(0001) studied by scanning tunneling microscopy and spectroscopy. <i>Applied Physics Letters</i> , 2009 , 94, 263115	3.4	97
72	Nanoionics-Based Three-Terminal Synaptic Device Using Zinc Oxide. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 1609-1618	9.5	91
71	A Comparison of the Performance and Stability of ZnO-TFTs With Silicon Dioxide and Nitride as Gate Insulators. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 1109-1115	2.9	81
70	Communication: electronic band gaps of semiconducting zig-zag carbon nanotubes from many-body perturbation theory calculations. <i>Journal of Chemical Physics</i> , 2012 , 136, 181101	3.9	35
69	Diffusion-Controlled Faradaic Charge Storage in High-Performance Solid Electrolyte-Gated Zinc Oxide Thin-Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 9782-9791	9.5	30
68	The Effect of Gate-Bias Stress and Temperature on the Performance of ZnO Thin-Film Transistors. <i>IEEE Transactions on Device and Materials Reliability</i> , 2008 , 8, 277-282	1.6	26
67	A high performance RF LDMOSFET in thin film SOI technology with step drift profile. <i>Solid-State Electronics</i> , 2003 , 47, 1937-1941	1.7	25
66	Impact of aluminum nitride as an insulator on the performance of zinc oxide thin film transistors. <i>Applied Physics Letters</i> , 2008 , 92, 093509	3.4	24
65	Electronic properties of extended graphene nanomaterials from GW calculations. <i>Physica Status Solidi (B): Basic Research</i> , 2009 , 246, 2572-2576	1.3	23
64	Comparative study of drift region designs in RF LDMOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2004 , 51, 1296-1303	2.9	22
63	Experimental demonstration of an ultra-fast double gate inversion layer emitter transistor (DG-ILET). <i>IEEE Electron Device Letters</i> , 2002 , 23, 725-727	4.4	22
62	Design for Reliability: The RF Power LDMOSFET. <i>IEEE Transactions on Device and Materials Reliability</i> , 2007 , 7, 162-174	1.6	21
61	Experimental evidence for exciton scaling effects in self-assembled molecular wires. <i>Physical Review Letters</i> , 2004 , 93, 257401	7.4	21
60	A novel trench clustered insulated gate bipolar transistor (TCIGBT). <i>IEEE Electron Device Letters</i> , 2000 , 21, 613-615	4.4	21

59	Superlattice of resonators on monolayer graphene created by intercalated gold nanoclusters. <i>Europhysics Letters</i> , 2010 , 91, 66004	1.6	20
58	A novel double RESURF LDMOS for HVICB. <i>Microelectronics Journal</i> , 2004 , 35, 305-310	1.8	20
57	Innovation in power semiconductor industry: past and future. <i>IEEE Transactions on Engineering Management</i> , 2005 , 52, 429-439	2.6	18
56	High-Efficiency Modes Contiguous With Class B/J and Continuous Class F F^{-1} Amplifiers. <i>IEEE Microwave and Wireless Components Letters</i> , 2019 , 29, 137-139	2.6	17
55	. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 2991-2997	2.9	16
54	Transport mechanisms and effective Schottky barrier height of ZnO/a-Si:H and ZnO/B-Si:H heterojunction solar cells. <i>Journal of Applied Physics</i> , 2013 , 114, 184505	2.5	15
53	Design of Schottky Contacts for Optimum Performance of Thin-Film Silicon Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2015 , 5, 22-27	3.7	14
52	Striped anode engineering: a concept for fast switching power devices. <i>Solid-State Electronics</i> , 2002 , 46, 903-909	1.7	14
51	Planar Self-Interstitial in Silicon. <i>Physical Review Letters</i> , 1999 , 83, 1799-1801	7.4	12
50	A novel area efficient floating field limiting ring edge termination technique. <i>Solid-State Electronics</i> , 2000 , 44, 1381-1386	1.7	11
49	Extraction of Schottky barrier at the F-doped SnO ₂ /TiO ₂ interface in Dye Sensitized solar cells. <i>Journal of Renewable and Sustainable Energy</i> , 2014 , 6, 013142	2.5	10
48	A segmented anode, npn controlled lateral insulated gate bipolar transistor. <i>Solid-State Electronics</i> , 2001 , 45, 1055-1058	1.7	10
47	Negative Capacitance beyond Ferroelectric Switches. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 19812-19819	9.5	10
46	Evaluation of the Coulomb-limited mobility in high- ϵ dielectric metal oxide semiconductor field effect transistors. <i>Journal of Applied Physics</i> , 2010 , 107, 063706	2.5	9
45	A study of the performance of solar cells for indoor autonomous wireless sensors 2016 ,		8
44	Numerical Analysis of 3-D Scaling Rules on a 1.2-kV Trench Clustered IGBT. <i>IEEE Transactions on Electron Devices</i> , 2018 , 65, 1440-1446	2.9	7
43	. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 1642-1650	2.9	7
42	A novel gate geometry for the IGBT: the trench planar insulated gate bipolar transistor (TPIGBT). <i>IEEE Electron Device Letters</i> , 1999 , 20, 580-582	4.4	7

41	Modelling the threshold voltage of p-channel enhancement-mode GaN heterostructure field-effect transistors. <i>IET Power Electronics</i> , 2018 , 11, 675-680	2.2	6
40	Role of hybridization on the Schottky barrier height of carbon nanotube field effect transistors. <i>Physical Review B</i> , 2009 , 79,	3.3	6
39	Comparative Analysis of VDMOS/LDMOS Power Transistors for RF Amplifiers. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2009 , 57, 2643-2651	4.1	6
38	Analysis of the breakdown voltage in SOI and SOS technologies. <i>Solid-State Electronics</i> , 2002 , 46, 255-261.	7	6
37	MOS control device concepts for AC-AC matrix converter applications: the HCD concept for high-efficiency anode-gated devices. <i>IEEE Transactions on Electron Devices</i> , 2005 , 52, 2075-2080	2.9	6
36	Impact of channel thickness on the performance of an E-mode p-channel MOSHFET in GaN. <i>Applied Physics Letters</i> , 2018 , 112, 153503	3.4	5
35	Anomalous n-type electrical behaviour of Pd-contacted CNTFET fabricated on small-diameter nanotube. <i>Nanotechnology</i> , 2010 , 21, 215202	3.4	5
34	Analytic Large-Signal Modeling of Silicon RF Power MOSFETs. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2007 , 55, 829-837	4.1	5
33	A novel metal field plate edge termination for power devices. <i>Microelectronics Journal</i> , 2001 , 32, 323-326.	8	5
32	Are carbon nanotubes still a viable option for ITRS 2024? 2013 ,		4
31	An E-Mode p-Channel GaN MOSHFET for a CMOS Compatible PMIC. <i>IEEE Electron Device Letters</i> , 2017 , 38, 1449-1452	4.4	4
30	The 6.5 kV clustered insulated gate bipolar transistor in homogeneous base technology. <i>Solid-State Electronics</i> , 2001 , 45, 71-77	1.7	4
29	A p-Channel GaN Heterostructure Tunnel FET With High ON/OFF Current Ratio. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 2916-2922	2.9	3
28	. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 827-834	2.9	3
27	Understanding the role of the insulator in the performance of ZnO TFTs. <i>Thin Solid Films</i> , 2009 , 518, 1177-1179.	3	
26	Investigating the Stability of Thin Film Transistors with Zinc Oxide as the Channel Layer 2007 ,		3
25	Progress in MOS-controlled bipolar devices and edge termination technologies. <i>Microelectronics Journal</i> , 2004 , 35, 235-248	1.8	3
24	A study of fully coordinated precursors in silicon using the Ackland potential. <i>Physica B: Condensed Matter</i> , 2001 , 304, 483-488	2.8	3

23	Radial confinement in lateral power devices. <i>Microelectronics Journal</i> , 2001 , 32, 481-484	1.8	3
22	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. <i>Microelectronics Reliability</i> , 2001 , 41, 169-177	1.2	3
21	A local charge control technique to improve the forward bias safe operating area of LIGBT. <i>Solid-State Electronics</i> , 2000 , 44, 1213-1218	1.7	3
20	1200 V fully implanted JI technology. <i>Electronics Letters</i> , 2000 , 36, 1587	1.1	3
19	A Monte Carlo study of the kickout mechanism of boron diffusion in silicon. <i>Journal of Applied Physics</i> , 1996 , 79, 2418-2425	2.5	3
18	Trade-off between the Kirk effect and the breakdown performance in resurfed lateral bipolar transistors for high voltage, high frequency applications. <i>Solid-State Electronics</i> , 2000 , 44, 1869-1873	1.7	2
17	An analysis of the kickout mechanism in silicon. <i>Solid-State Electronics</i> , 1995 , 38, 867-872	1.7	2
16	A methodology to design broadband matching networks for continuum mode PAs 2019 ,		2
15	Reactive inkjet printing of graphene based flexible circuits and radio frequency antennas. <i>Journal of Materials Chemistry C</i> ,	7.1	2
14	An Integrated On-Chip Flux Concentrator for Galvanic Current Sensing. <i>IEEE Electron Device Letters</i> , 2018 , 39, 1752-1755	4.4	2
13	Separation of bulk and contact interface degradation in thin film silicon solar cells. <i>Journal of Renewable and Sustainable Energy</i> , 2015 , 7, 063115	2.5	1
12	Designing high power RF amplifiers: An analytic approach 2014 ,		1
11	New analytical expressions for the design of linear power amplifier using GaN HEMTs 2009 ,		1
10	Influence of mobility model on extraction of stress dependent source-drain series resistance. <i>Microelectronics Reliability</i> , 2004 , 44, 25-32	1.2	1
9	Designing a Broadband Amplifier Without Load Bull. <i>IEEE Microwave and Wireless Components Letters</i> , 2021 , 31, 593-596	2.6	1
8	Development of GaN Transducer and On-Chip Concentrator for Galvanic Current Sensing. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 4367-4372	2.9	1
7	Hierarchically Interlaced 2D Copper Iodide/MXene Composite for High Thermoelectric Performance. <i>Physica Status Solidi - Rapid Research Letters</i> , 2100419	2.5	1
6	Investigation of the Effect of Weak Non-Linearities on P1dB and Efficiency of Class B/J/J* Amplifiers. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2018 , 65, 1159-1163	3.5	0

5	Off-State Operation of a Three Terminal Ionic FET for Logic-in-Memory. <i>IEEE Journal of the Electron Devices Society</i> , 2019 , 7, 1232-1238	2.3	o
4	3D Microstructured Frequency Selective Surface Based on Carbonized Polyimide Films for Terahertz Applications. <i>Advanced Optical Materials</i> , 2102178	8.1	o
3	Analysis of $\{P\}_b$ Centers in Ultrathin Hafnium Silicate Gate Stacks. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 2551-2555	2.9	
2	Impact of the size 4 cluster on low temperature indium diffusion in silicon. <i>Journal of Physics Condensed Matter</i> , 2005 , 17, S2165-S2170	1.8	
1	Necessary conditions for steep switching in a constant Resistor-Capacitor RCFET. <i>MRS Advances</i> , 2021 , 6, 540-545	0.7	