Dipendra Rawal

List of Publications by Year
in descending order

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60	460	759055 12	839398 18
papers	citations	h-index	g-index

60	60	60	435
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Emerging Device Architectures for Space Electronics. , 2023, , 181-208.		1
2	Advances in DC/RF Performance of AlGaN/GaN MIS-HEMT by Incorporating Dual Metal Gate Architecture. IETE Technical Review (Institution of Electronics and Telecommunication Engineers,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.1	1
3	Optimization of Ï€ â€“ Gate AlGaN/AlN/GaN HEMTs for Low Noise and High Gain Applications. Silicon, 2022, 14, 393-404.	1.8	12
4	Deep Trap Characterization and the Kink Effect in AlGaN/GaN HEMTs. IETE Technical Review (Institution) Tj ETQq0 0 0 rgBT /Overlock 10	2.1	6
5	Analysis of the post-stress recovery of reverse leakage current in GaN HEMTs. Materials Science in Semiconductor Processing, 2022, 137, 106222.	1.9	5
6	Interplay Between Î³â€“Ray Irradiation and 3DEG for Dosimeter Applications. IEEE Access, 2022, 10, 25811-25827.	2.6	2
7	Impact of Gamma Radiations on Static, Pulsed Iâ€“V, and RF Performance Parameters of AlGaN/GaN HEMT. IEEE Transactions on Electron Devices, 2022, 69, 2299-2306.	1.6	13
8	Suitability of thin-GaN for AlGaN/GaN HEMT material and device. Journal of Materials Science, 2022, 57, 5913-5923.	1.7	5
9	A Î-shaped p-GaN HEMT for reliable enhancement mode operation. Microelectronics Reliability, 2022, 133, 114544.	0.9	9
10	Ohmic contact morphology improvement with reduced resistance using Si/Au/Ti/Al/Ni/Au (AlGaN) and Si/Au/Ti/Al/Ni/Au (InAlN) stack layers in III-Nitride HEMTs. Semiconductor Science and Technology, 2022, 37, 085006.	1.0	2
11	Study of â€œThin Bufferâ€•GaN on SiC HEMT and Effect of Bulk Traps on it. Silicon, 2022, 14, 12505-12512.	1.8	2
12	HEMT Inspired GaN Optical Waveguides: Analysis Under Thermal Stress and Prospects. IEEE Transactions on Device and Materials Reliability, 2022, 22, 424-430.	1.5	1
13	Dependence of Gate Leakage Current on Efficacy of Gate Field Plate in AlGaN/GaN HEMT. , 2022, , .		0
14	Enhancement in Electrical Characteristics of AlGaN/GaN HEMT Using Gate Engineered Dielectric Pocket Dual-Metal Gate. Lecture Notes in Networks and Systems, 2021, , 369-374.	0.5	0
15	Proton irradiation effects on buffer-free gallium nitride on silicon carbide high electron mobility transistor-based radio frequency power amplifier. Semiconductor Science and Technology, 2021, 36, 045019.	1.0	10
16	Improvement in Schottky barrier inhomogeneities of Ni/AlGaN/GaN Schottky diodes after cumulative Î³-ray irradiation. Semiconductor Science and Technology, 2021, 36, 065012.	1.0	4
17	Degradation Mechanisms in a Proton Irradiated HEMT with 3DEG Conduction and 3DHG as a Back Barrier. , 2021, , .		3
18	Effect of Î³-ray irradiation on Schottky and ohmic contacts on AlGaN/GaN hetero-structures. Microelectronics Reliability, 2020, 105, 113565.	0.9	16

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19	TCAD Investigation of Gate - Lag Measurements on Conventional and Ï€ - Gate AlGaN/GaN HEMTs. , 2020, , .		6
20	Improvement in DC and pulse characteristics of AlGaN/GaN HEMT by employing dual metal gate structure. Semiconductor Science and Technology, 2019, 34, 105013.	1.0	13
21	Current collapse scaling in GaN/AlGaN/SiC high electron mobility transistors. Solid State Electronics Letters, 2019, 1, 30-37.	1.0	7
22	Memory effect in silicon nitride deposition using ICPCVD technique. Journal of Theoretical and Applied Physics, 2019, 13, 299-304.	1.4	3
23	Comparison of Linearity and Intermodulation Distortion Metrics for T - and Pi - Gate HEMT. , 2019, , .		6
24	Comparative study of Au and Ni/Au gated AlGaN/GaN high electron mobility transistors. AIP Advances, 2019, 9, .	0.6	17
25	Role of AlGaN/GaN interface traps on negative threshold voltage shift in AlGaN/GaN HEMT. Solid-State Electronics, 2018, 142, 8-13.	0.8	31
26	Effect of a thick buffer in the OFF state simulation of AlGaN/GaN HEMT. , 2018, , .		0
27	Cumulative dose 60Co gamma irradiation effects on AlGaN/GaN Schottky diodes and its area dependence. AIP Conference Proceedings, 2018, , .	0.3	4
28	Design and Fabrication of Multi-finger Field Plate for Enhancement of AlGaN/GaN HEMT Breakdown Voltage. Defence Science Journal, 2018, 68, 290.	0.5	16
29	Comparison of Two DC Extraction Methods for Mobility and Parasitic Resistances in a HEMT. IEEE Transactions on Electron Devices, 2017, 64, 1528-1534.	1.6	6
30	Investigation on de-trapping mechanisms related to non-monotonic kink pattern in GaN HEMT devices. AIP Advances, 2017, 7, .	0.6	10
31	Scaling of current collapse in GaN/AlGaN HEMT for microwave power applications. , 2015, , .		1
32	Molecular Beam Epitaxy growth and characterization of silicon â€“ Doped InAs dot in a well quantum dot infrared photo detector (DWELL-QDIP). Infrared Physics and Technology, 2015, 70, 6-11.	1.3	7
33	Evidence of Fowlerâ€“Nordheim Tunneling in Gate Leakage Current of AlGaN/GaN HEMTs at Room Temperature. IEEE Transactions on Electron Devices, 2014, 61, 4291-4294.	1.6	40
34	Development of GaAs Hyperabrupt Schottky Varactor Diode using Ion-Implanted Active Layer on SI GaAs. Environmental Science and Engineering, 2014, , 137-139.	0.1	0
35	Analysis of reverse leakage current in differently passivated AlGaN/GaN HEMTs: A case study. , 2014, , .		1
36	Comparative study of GaN mesa etch characteristics in Cl2 based inductively coupled plasma with Ar and BCl3 as additive gases. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	0.9	15

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37	Characterization of AlGaN Thickness and Sheet Carrier Concentration of AlGaN/GaN Based HEMT Using Electrical Measurement. Environmental Science and Engineering, 2014, , 91-93.	0.1	2
38	Cl2/Ar based inductively coupled plasma etching of GaN/AlGaN structure. Proceedings of SPIE, 2012, , .	0.8	2
39	$hbox{BCl}_{3}/hbox{Cl}_{2}$-Based Inductively Coupled Plasma Etching of GaN/AlGaN Using Photoresist Mask. IEEE Transactions on Plasma Science, 2012, 40, 2211-2220.	0.6	27
40	Effect of BCl3 concentration and process pressure on the GaN mesa sidewalls in BCl3/Cl2 based inductively coupled plasma etching. Vacuum, 2012, 86, 1844-1849.	1.6	24
41	GaN etch rate and surface roughness evolution in Cl2/Ar based inductively coupled plasma etching. Thin Solid Films, 2012, 520, 7212-7218.	0.8	13
42	Experimental Study of the Influence of Process Pressure and Gas Composition on GaAs Etching Characteristics in Cl₂/BCl₃-Based Inductively Coupled Plasma. Plasma Science and Technology, 2011, 13, 223-229.	0.7	18
43	Study of inductively coupled Cl2/BCl3 plasma process for high etch rate selective etching of via-holes in GaAs. Vacuum, 2010, 85, 452-457.	1.6	7
44	Study of Cl2/BCl3 inductively coupled plasma for selective etching of GaAs. , 2009, , .		2
45	Dry Etching of GaAs to Fabricate Via-Hole Grounds in Monolithic Microwave Integrated Circuits. Defence Science Journal, 2009, 59, 363-370.	0.5	2
46	A Reproducible High Etch Rate ICP Process for Etching of Via-Hole Grounds in 200Î¼m Thick GaAs MMICs. Journal of Semiconductor Technology and Science, 2008, 8, 244-250.	0.1	0
47	Silicon nitride films for passivation of pHEMT based MMIC. , 2007, , .		1
48	Elimination of current non-uniformity in carbon nanotube field emitters. Journal of Materials Science: Materials in Electronics, 2007, 18, 677-680.	1.1	11
49	Quick Thermal Evaluation Software for GaAs Power MESFET's. , 2006, , .		1
50	COMPARISON OF PROPERTIES OF PLZT SYSTEM WITH DIFFERENT FORMULATIONS. Modern Physics Letters B, 2006, 20, 1883-1892.	1.0	2
51	Improved properties of Sm substituted PCT ceramics using microwave sintering. Materials Letters, 2005, 59, 768-772.	1.3	12
52	Etching of mesa structures in HgCdTe. Journal of Electronic Materials, 2005, 34, 1440-1445.	1.0	13
53	Review: Back-Side via Hole Etching Process for Grounding GaAs Based Monolithic Microwave Integrated Circuits. Journal of the Electrochemical Society, 2005, 152, G567.	1.3	11
54	Inverse modeling of delta doped pseudomorphic high electron mobility transistors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2004, 22, 1036.	0.9	2

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55	RF parameter extraction of MMIC nichrome resistors. Microwave and Optical Technology Letters, 2003, 39, 409-412.	0.9	15
56	Anisotropic Etching of GaAs Using CCl[sub 2]F[sub 2]/CCl[sub 4] Gases to Fabricate 200 Î¼m Deep Via Holes for Grounding MMICs. Journal of the Electrochemical Society, 2003, 150, G395.	1.3	10
57	(n)GaAs/Ti/Pt/Au Schottky contacts and their effect on MESFET's dc parameters. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1997, 48, 229-233.	1.7	3
58	Parametral dependence of bilevel-interconnect formation in GaAs ICs/MMICs. , 1995, , .		0
59	Nanoscale material parameters based modeling of thermal noise in GaN HEMTs. Semiconductor Science and Technology, 0, , .	1.0	1
60	Extraction of the Edge / Areal Components and Path of the Reverse Gate Leakage in a GaN HEMT from Measurements. Semiconductor Science and Technology, 0, , .	1.0	0