

Michael J. Uren

List of Publications by Year in descending order

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231
papers

10,080
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53660

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5737
citing authors

#	ARTICLE	IF	CITATIONS
1	Noise in solid-state microstructures: A new perspective on individual defects, interface states and low-frequency ($1/f$) noise. <i>Advances in Physics</i> , 1989, 38, 367-468.	35.9	1,198
2	The 2018 GaN power electronics roadmap. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 163001.	1.3	843
3	An experimental and theoretical study of the formation and microstructure of porous silicon. <i>Journal of Crystal Growth</i> , 1985, 73, 622-636.	0.7	497
4	Measurement of temperature in active high-power AlGaIn/GaN HFETs using Raman spectroscopy. <i>IEEE Electron Device Letters</i> , 2002, 23, 7-9.	2.2	295
5	$1/f$ random telegraph noise in silicon metal-oxide-semiconductor field-effect transistors. <i>Applied Physics Letters</i> , 1985, 47, 1195-1197.	1.5	286
6	Buffer Design to Minimize Current Collapse in GaN/AlGaIn HFETs. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 3327-3333.	1.6	271
7	Microstructure and formation mechanism of porous silicon. <i>Applied Physics Letters</i> , 1985, 46, 86-88.	1.5	246
8	Thermal Boundary Resistance Between GaN and Substrate in AlGaIn/GaN Electronic Devices. <i>IEEE Transactions on Electron Devices</i> , 2007, 54, 3152-3158.	1.6	231
9	Integrated micro-Raman/infrared thermography probe for monitoring of self-heating in AlGaIn/GaN transistor structures. <i>IEEE Transactions on Electron Devices</i> , 2006, 53, 2438-2447.	1.6	212
10	Self-heating effects in SOI MOSFETs and their measurement by small signal conductance techniques. <i>IEEE Transactions on Electron Devices</i> , 1996, 43, 2240-2248.	1.6	196
11	Capture and emission kinetics of individual Si:SiO ₂ interface states. <i>Applied Physics Letters</i> , 1986, 48, 1270-1272.	1.5	193
12	Punch-through in short-channel AlGaIn/GaN HFETs. <i>IEEE Transactions on Electron Devices</i> , 2006, 53, 395-398.	1.6	191
13	Leaky Dielectric Model for the Suppression of Dynamic R_{ON} in Carbon-Doped AlGaIn/GaN HEMTs. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 2826-2834.	1.6	170
14	Measurement of temperature distribution in multifinger AlGaIn/GaN heterostructure field-effect transistors using micro-Raman spectroscopy. <i>Applied Physics Letters</i> , 2003, 82, 124-126.	1.5	163
15	Individual defects at the Si:SiO ₂ interface. <i>Semiconductor Science and Technology</i> , 1989, 4, 1116-1126.	1.0	156
16	The observation of interaction and localisation effects in a two-dimensional electron gas at low temperatures. <i>Journal of Physics C: Solid State Physics</i> , 1980, 13, L985-L993.	1.5	133
17	Time-Resolved Temperature Measurement of AlGaIn/GaN Electronic Devices Using Micro-Raman Spectroscopy. <i>IEEE Electron Device Letters</i> , 2007, 28, 86-89.	2.2	114
18	Iron-induced deep-level acceptor center in GaN/AlGaIn high electron mobility transistors: Energy level and cross section. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	111

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19	Channel Temperature Determination in High-Power AlGaIn/GaN HFETs Using Electrical Methods and Raman Spectroscopy. IEEE Transactions on Electron Devices, 2008, 55, 478-482.	1.6	109
20	Intentionally Carbon-Doped AlGaIn/GaN HEMTs: Necessity for Vertical Leakage Paths. IEEE Electron Device Letters, 2014, 35, 327-329.	2.2	108
21	Surface leakage currents in SiN/sub x/ passivated AlGaIn/GaN HFETs. IEEE Electron Device Letters, 2006, 27, 1-3.	2.2	107
22	Anomalous telegraph noise in small-area silicon metal-oxide-semiconductor field-effect transistors. Physical Review B, 1988, 37, 8346-8350.	1.1	102
23	High temperature performance of AlGaIn/GaN HEMTs on Si substrates. Solid-State Electronics, 2006, 50, 511-513.	0.8	89
24	Piezoelectric strain in AlGaIn δ -GaIn heterostructure field-effect transistors under bias. Applied Physics Letters, 2006, 88, 103502.	1.5	88
25	Buffer transport mechanisms in intentionally carbon doped GaIn heterojunction field effect transistors. Applied Physics Letters, 2014, 104, .	1.5	87
26	Anomalous Kink Effect in GaIn High Electron Mobility Transistors. IEEE Electron Device Letters, 2009, 30, 100-102.	2.2	86
27	Logarithmic corrections to two-dimensional transport in silicon inversion layers. Journal of Physics C: Solid State Physics, 1981, 14, 5737-5762.	1.5	82
28	Magnetic delocalisation of a two-dimensional electron gas and the quantum law of electron-electron scattering. Journal of Physics C: Solid State Physics, 1981, 14, L395-L402.	1.5	82
29	Structural and electrical characterization of AuTiAlTi/AlGaIn/GaN ohmic contacts. Journal of Applied Physics, 2002, 92, 94-100.	1.1	81
30	Micro-Raman Temperature Measurements for Electric Field Assessment in Active AlGaIn δ -GaIn HFETs. IEEE Electron Device Letters, 2004, 25, 456-458.	2.2	79
31	Conductance measurements onPbcenters at the (111) Si:SiO ₂ interface. Journal of Applied Physics, 1996, 80, 3915-3922.	1.1	75
32	Analysis of DC δ RF Dispersion in AlGaIn/GaN HFETs Using RF Waveform Engineering. IEEE Transactions on Electron Devices, 2009, 56, 13-19.	1.6	71
33	High-performance 40nm gate length InSb p-channel compressively strained quantum well field effect transistors for low-power (VCC=0.5V) logic applications. , 2008, , .		67
34	Measurements of Unity Gain Cutoff Frequency and Saturation Velocity of a GaIn HEMT Transistor. IEEE Transactions on Electron Devices, 2005, 52, 165-169.	1.6	63
35	On the temperature and carrier density dependence of electron saturation velocity in an AlGaIn/GaN HEMT. IEEE Transactions on Electron Devices, 2006, 53, 565-567.	1.6	63
36	The formation of porous silicon by chemical stain etches. Journal of Crystal Growth, 1986, 75, 408-414.	0.7	62

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37	Electric Field Reduction in C-Doped AlGaIn/GaN on Si High Electron Mobility Transistors. IEEE Electron Device Letters, 2015, 36, 826-828.	2.2	61
38	Impact of self-heating and thermal coupling on analog circuits in SOI CMOS. IEEE Journal of Solid-State Circuits, 1998, 33, 1037-1046.	3.5	60
39	On the impact of carbon-doping on the dynamic Ron and off-state leakage current of 650V GaN power devices. , 2015, , .		60
40	Direct demonstration of the "virtual gate"™ mechanism for current collapse in AlGaIn/GaN HFETs. Solid-State Electronics, 2005, 49, 279-282.	0.8	59
41	Reducing Thermal Resistance of AlGaIn/GaN Electronic Devices Using Novel Nucleation Layers. IEEE Electron Device Letters, 2009, 30, 103-106.	2.2	59
42	Simultaneous measurement of temperature and thermal stress in AlGaIn/GaN high electron mobility transistors using Raman scattering spectroscopy. Journal of Applied Physics, 2009, 106, .	1.1	58
43	Pulsed Large Signal RF Performance of Field-Plated Ga ₂ O ₃ MOSFETs. IEEE Electron Device Letters, 2018, 39, 1572-1575.	2.2	55
44	On the link between electroluminescence, gate current leakage, and surface defects in AlGaIn/GaN high electron mobility transistors upon off-state stress. Applied Physics Letters, 2012, 101, .	1.5	54
45	Raman Thermography of Peak Channel Temperature in $\text{Ga}_{2}\text{O}_{3}$ MOSFETs. IEEE Electron Device Letters, 2019, 40, 189-192.	2.2	54
46	Protection of selectively implanted and patterned silicon carbide surfaces with graphite capping layer during post-implantation annealing. Semiconductor Science and Technology, 2005, 20, 271-278.	1.0	51
47	Localisation in disordered two-dimensional systems and the universal dependence on diffusion length. Journal of Physics C: Solid State Physics, 1981, 14, L413-L419.	1.5	49
48	Operating channel temperature in GaN HEMTs: DC versus RF accelerated life testing. Microelectronics Reliability, 2015, 55, 2505-2510.	0.9	47
49	The electrical properties of porous silicon produced from n+ silicon substrates. Thin Solid Films, 1995, 255, 12-15.	0.8	46
50	Observation of "slow"™ states in conductance measurements on silicon metal-oxide-semiconductor capacitors. Applied Physics Letters, 1989, 54, 1448-1450.	1.5	44
51	Leakage mechanisms in GaN-on-GaN vertical pn diodes. Applied Physics Letters, 2018, 112, .	1.5	44
52	Correlation between kink and cathodoluminescence spectra in AlGaIn/GaN high electron mobility transistors. Applied Physics Letters, 2010, 96, .	1.5	40
53	Separation of two distinct fast interface state contributions at the (100)Si/SiO ₂ interface using the conductance technique. Applied Physics Letters, 1992, 60, 624-626.	1.5	39
54	A physically based compact model of partially depleted SOI MOSFETs for analog circuit simulation. IEEE Journal of Solid-State Circuits, 2001, 36, 110-121.	3.5	38

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55	Nanosecond Timescale Thermal Dynamics of AlGaIn/GaN Electronic Devices. IEEE Electron Device Letters, 2008, 29, 416-418.	2.2	38
56	Structural and electrical characterization of AuPdAlTi ohmic contacts to AlGaIn ^x GaN with varying Ti content. Journal of Applied Physics, 2004, 96, 5588-5595.	1.1	37
57	Localization of off-stress-induced damage in AlGaIn/GaN high electron mobility transistors by means of low frequency 1/f noise measurements. Applied Physics Letters, 2013, 103, .	1.5	37
58	“Kink” in AlGaIn/GaN-HEMTs: Floating Buffer Model. IEEE Transactions on Electron Devices, 2018, 65, 3746-3753.	1.6	37
59	Use of noise thermometry to study the effects of self-heating in submicrometer SOI MOSFETs. IEEE Electron Device Letters, 1992, 13, 279-281.	2.2	36
60	A gas-sensitive field effect transistor utilizing a thin film of lead phthalocyanine as the gate material. Thin Solid Films, 1987, 151, L111-L113.	0.8	35
61	Thermal mapping of defects in AlGaIn ^x GaN heterostructure field-effect transistors using micro-Raman spectroscopy. Applied Physics Letters, 2005, 87, 103508.	1.5	34
62	Impact of buffer leakage on intrinsic reliability of 650V AlGaIn/GaN HEMTs. , 2015, , .		34
63	Lateral Charge Transport in the Carbon-Doped Buffer in AlGaIn/GaN-on-Si HEMTs. IEEE Transactions on Electron Devices, 2017, 64, 977-983.	1.6	31
64	Magnetic separation of localisation and interaction effects in a two-dimensional electron gas at low temperatures. Journal of Physics C: Solid State Physics, 1981, 14, L531-L537.	1.5	30
65	Insights into electroluminescent emission from AlGaIn ^x GaN field effect transistors using micro-Raman thermal analysis. Applied Physics Letters, 2006, 88, 023507.	1.5	30
66	Direct extraction of MOSFET dynamic thermal characteristics from standard transistor structures using small signal measurements. Electronics Letters, 1993, 29, 1180.	0.5	29
67	Charge movement in a GaN-based hetero-structure field effect transistor structure with carbon doped buffer under applied substrate bias. Journal of Applied Physics, 2015, 118, .	1.1	29
68	Buffer-Induced Current Collapse in GaN HEMTs on Highly Resistive Si Substrates. IEEE Electron Device Letters, 2018, 39, 1556-1559.	2.2	29
69	Measurement of buried oxide thermal conductivity for accurate electrothermal simulation of SOI device. IEEE Transactions on Electron Devices, 1999, 46, 251-253.	1.6	28
70	Analysis of thin AlN carrier exclusion layers in AlGaIn/GaN microwave heterojunction field-effect transistors. Semiconductor Science and Technology, 2004, 19, L65-L67.	1.0	28
71	Transport behavior of holes in boron delta-doped diamond structures. Journal of Applied Physics, 2013, 113, .	1.1	28
72	Control of Buffer-Induced Current Collapse in AlGaIn/GaN HEMTs Using SiN _x Deposition. IEEE Transactions on Electron Devices, 2017, 64, 4044-4049.	1.6	28

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73	Determination of the Self-Compensation Ratio of Carbon in AlGa _N for HEMTs. IEEE Transactions on Electron Devices, 2018, 65, 1838-1842.	1.6	28
74	Entropy measurements on slow Si/SiO ₂ interface states. Applied Physics Letters, 1990, 56, 1245-1247.	1.5	26
75	Degradation in thin-film SOI MOSFET's caused by single-transistor latch. IEEE Electron Device Letters, 1990, 11, 359-361.	2.2	26
76	Surface Induced Instabilities in 4H-SiC Microwave MESFETs. Materials Science Forum, 2000, 338-342, 1251-1254.	0.3	26
77	Recent progress and current issues in SiC semiconductor devices for power applications. IET Circuits, Devices and Systems, 2001, 148, 101.	0.6	26
78	On the incorporation mechanism of Fe in GaN grown by metal-organic vapour phase epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1429-1434.	0.8	26
79	Temperature analysis of AlGa _N /Ga _N based devices using photoluminescence spectroscopy: Challenges and comparison to Raman thermography. Journal of Applied Physics, 2010, 107, .	1.1	26
80	Time-dependent thermal crosstalk in multifinger AlGa _N /Ga _N HEMTs and implications on their electrical performance. Solid-State Electronics, 2011, 57, 14-18.	0.8	26
81	Impact of carbon in the buffer on power switching Ga _N -on-Si and RF Ga _N -on-SiC HEMTs. Japanese Journal of Applied Physics, 2021, 60, SB0802.	0.8	26
82	Modulation speed of an efficient porous silicon light emitting device. Journal of Applied Physics, 1999, 86, 2764-2773.	1.1	25
83	(Invited) Intrinsic Reliability Assessment of 650V Rated AlGa _N /Ga _N Based Power Devices: An Industry Perspective. ECS Transactions, 2016, 72, 65-76.	0.3	25
84	On the interface states generated under different stress conditions. Applied Physics Letters, 2001, 79, 3092-3094.	1.5	24
85	Control of Short-Channel Effects in Ga _N /AlGa _N HFETs. , 2006, , .		24
86	Impact of Silicon Nitride Stoichiometry on the Effectiveness of AlGa _N /Ga _N HEMT Field Plates. IEEE Transactions on Electron Devices, 2017, 64, 1197-1202.	1.6	24
87	AlGa _N /Ga _N microwave HFET including a thin AlN carrier exclusion layer. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2331-2334.	0.8	23
88	High spatial resolution micro-Raman temperature measurements of nitride devices (FETs and light emitting diodes). Applied Physics Letters, 2008, 93, 121101.	0.8	22
89	Quantifying Temperature-Dependent Substrate Loss in Ga _N -on-Si RF Technology. IEEE Transactions on Electron Devices, 2019, 66, 1681-1687.	1.6	22
90	Infra-red reflectivity of ion-implanted and pulsed excimer laser irradiated 4H-SiC. Thin Solid Films, 2000, 364, 200-203.	0.8	21

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91	Interface State Artefact in Long Gate-Length AlGaIn/GaN HEMTs. IEEE Transactions on Electron Devices, 2015, 62, 2464-2469.	1.6	21
92	GaN-on-diamond technology platform: Bonding-free membrane manufacturing process. AIP Advances, 2020, 10, .	0.6	21
93	The Wigner glass and conductance oscillations in silicon inversion layers. Journal of Physics C: Solid State Physics, 1982, 15, L617-L625.	1.5	20
94	Surface preparation for Schottky metal - 4H-SiC contacts formed on plasma-etched SiC. Semiconductor Science and Technology, 2000, 15, 1107-1114.	1.0	20
95	A physically based relation between extracted threshold voltage and surface potential flat band voltage for MOSFET compact modeling. IEEE Transactions on Electron Devices, 2001, 48, 1019-1021.	1.6	20
96	Current collapse in AlGaIn/GaN transistors studied using time-resolved Raman thermography. Applied Physics Letters, 2008, 93, 203510.	1.5	20
97	Time evolution of off-state degradation of AlGaIn/GaN high electron mobility transistors. Applied Physics Letters, 2014, 104, .	1.5	20
98	Mechanism of hot electron electroluminescence in GaN-based transistors. Journal Physics D: Applied Physics, 2016, 49, 435101.	1.3	20
99	Characterization of layout dependent thermal coupling in SOI CMOS current mirrors. IEEE Transactions on Electron Devices, 1996, 43, 2227-2232.	1.6	19
100	Quality and reliability of wet and dry oxides on n-type 4H-SiC. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1999, 61-62, 460-463.	1.7	19
101	Effect of post-implantation anneal on the electrical characteristics of Ni 4H-SiC Schottky barrier diodes terminated using self-aligned argon ion implantation. Solid-State Electronics, 2000, 44, 1879-1885.	0.8	19
102	The Effect of Proton Irradiation in Suppressing Current Collapse in AlGaIn/GaN High-Electron-Mobility Transistors. IEEE Transactions on Electron Devices, 2019, 66, 372-377.	1.6	19
103	Low Field Vertical Charge Transport in the Channel and Buffer Layers of GaN-on-Si High Electron Mobility Transistors. IEEE Electron Device Letters, 2020, 41, 1754-1757.	2.2	19
104	The Impact of Hot Electrons and Self-Heating During Hard-Switching in AlGaIn/GaN HEMTs. IEEE Transactions on Electron Devices, 2020, 67, 869-874.	1.6	19
105	Dynamic Transconductance Dispersion Characterization of Channel Hot-Carrier Stressed 0.25- μm AlGaIn/GaN HEMTs. IEEE Electron Device Letters, 2012, 33, 1550-1552.	2.2	18
106	High Voltage Silicon Carbide Schottky Diodes with Single Zone Junction Termination Extension. Materials Science Forum, 2007, 556-557, 873-876.	0.3	17
107	High-Temperature Microwave Performance of Submicron AlGaIn/GaN HEMTs on SiC. IEEE Electron Device Letters, 2009, 30, 808-810.	2.2	17
108	Electroluminescence of hot electrons in AlGaIn/GaN high-electron-mobility transistors under radio frequency operation. Applied Physics Letters, 2015, 106, .	1.5	17

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109	On the origin of dynamic Ron in commercial GaN-on-Si HEMTs. <i>Microelectronics Reliability</i> , 2018, 81, 306-311.	0.9	16
110	Thermal Design Rules of AlGaIn/GaN-Based Microwave Transistors on Diamond. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 1530-1536.	1.6	16
111	Effect of Plasma Etching and Sacrificial Oxidation on 4H-SiC Schottky Barrier Diodes. <i>Materials Science Forum</i> , 2000, 338-342, 1199-1202.	0.3	15
112	Low temperature annealing of 4H-SiC Schottky diode edge terminations formed by 30 keV Ar+ implantation. <i>Journal of Applied Physics</i> , 2000, 87, 3973-3977.	1.1	15
113	Determination of the dielectric constant of GaN in the kHz frequency range. <i>Semiconductor Science and Technology</i> , 2011, 26, 085006.	1.0	15
114	Origin of kink effect in AlGaIn/GaN high electron mobility transistors: Yellow luminescence and Fe doping. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	15
115	Negative dynamic Ron in AlGaIn/GaN power devices. , 2017, , .		15
116	Individual interface states and their implications for low-frequency noise in MOSFETs. <i>Applied Surface Science</i> , 1987, 30, 148-152.	3.1	14
117	A multibit \uparrow modulator in floating-body SOS/SOI CMOS for extreme radiation environments. <i>IEEE Journal of Solid-State Circuits</i> , 1999, 34, 937-948.	3.5	14
118	Low frequency drain noise comparison of AlGaIn/GaN HEMTs grown on silicon, SiC and sapphire substrates. <i>Microelectronics Reliability</i> , 2003, 43, 1713-1718.	0.9	14
119	Analysis of DC-RF dispersion in AlGaIn/GaN HFETs using pulsed I-V and time-domain waveform measurements. , 2005, , .		14
120	Integrated Raman - IR Thermography on AlGaIn/GaN Transistors. , 2006, , .		14
121	Thermal Properties and Reliability of GaN Microelectronics: Sub-Micron Spatial and Nanosecond Time Resolution Thermography. , 2007, , .		14
122	X-Band GaN SPDT MMIC with over 25 Watt Linear Power Handling. , 2008, , .		14
123	Interface State Capture Cross Section Measurements on Vacuum Annealed and Radiation Damaged SiO ₂ Surfaces. <i>Journal of the Electrochemical Society</i> , 1998, 145, 683-689.	1.3	13
124	Hole trap generation in gate dielectric during substrate hole injection. <i>Semiconductor Science and Technology</i> , 2004, 19, L1-L3.	1.0	13
125	Progressive failure site generation in AlGaIn/GaN high electron mobility transistors under OFF-state stress: Weibull statistics and temperature dependence. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	13
126	Neutron Irradiation Impact on AlGaIn/GaN HEMT Switching Transients. <i>IEEE Transactions on Nuclear Science</i> , 2018, 65, 2862-2869.	1.2	13

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127	Variable range hopping mechanism and modeling of isolation leakage current in GaN-based high-electron-mobility transistors. Applied Physics Letters, 2020, 116, .	1.5	13
128	Electric field mapping of wide-bandgap semiconductor devices at a submicrometre resolution. Nature Electronics, 2021, 4, 478-485.	13.1	13
129	Dissipative tunneling in two-state systems at the Si/SiO ₂ interface. Physical Review Letters, 1993, 71, 4230-4233.	2.9	12
130	An improved technique for the evaluation of surface Fermi energy in metal-oxide-semiconductor capacitors. Semiconductor Science and Technology, 1994, 9, 1504-1510.	1.0	12
131	Plasma-grown oxides on silicon with extremely low interface state densities. Microelectronics Journal, 1994, 25, 485-489.	1.1	12
132	Converse piezoelectric strain in undoped and Fe-doped AlGa _N /Ga _N heterostructure field effect transistors studied by Raman scattering. Semiconductor Science and Technology, 2010, 25, 085004.	1.0	12
133	Evaluation of Pulsed I_{DC} vs V_{DC} Analysis as Validation Tool of Nonlinear RF Models of GaN-Based HFETs. IEEE Transactions on Electron Devices, 2018, 65, 5307-5313.	1.6	12
134	Monte Carlo simulations of AlGa _N /Ga _N heterojunction field-effect transistors (HFETs). Journal of Physics Condensed Matter, 2002, 14, 3479-3497.	0.7	11
135	Detailed Analysis of DC-RF Dispersion in AlGa _N /Ga _N HFETs using Waveform Measurements. , 2006, , .		11
136	High Temperature Operation of Silicon Carbide Schottky Diodes with Recoverable Avalanche Breakdown. Materials Science Forum, 2006, 527-529, 931-934.	0.3	11
137	DRAM concept based on the hole gas transient effect in a AlGa _N /Ga _N HEMT. Solid-State Electronics, 2010, 54, 616-620.	0.8	11
138	Implications of gate-edge electric field in AlGa _N /Ga _N high electron mobility transistors during OFF-state degradation. Microelectronics Reliability, 2014, 54, 2650-2655.	0.9	11
139	Random telegraph signals from liquid helium to room temperature. Microelectronic Engineering, 1993, 22, 163-170.	1.1	10
140	Fast and slow interface state distributions on (100) and (111) Si:SiO ₂ surfaces following negative bias stress. Microelectronic Engineering, 1995, 28, 11-14.	1.1	10
141	Experimental gallium nitride microwave Doherty amplifier. Electronics Letters, 2005, 41, 1284.	0.5	10
142	Structural and electrical characterization of AuPtAlTi Ohmic contacts to AlGa _N /Ga _N with varying annealing temperature and Al content. Journal of Applied Physics, 2008, 103, .	1.1	10
143	Impact ionization in N-polar AlGa _N /Ga _N high electron mobility transistors. Applied Physics Letters, 2014, 105, .	1.5	10
144	Enhancement-mode metal-insulator-semiconductor Ga _N /AlInN/Ga _N heterostructure field-effect transistors on Si with a threshold voltage of +3.0 V and blocking voltage above 1000 V. Applied Physics Express, 2015, 8, 036502.	1.1	10

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145	Morphological and electrical comparison of Ti and Ta based ohmic contacts for AlGaN/GaN-on-SiC HFETs. <i>Microelectronics Reliability</i> , 2017, 68, 2-4.	0.9	10
146	Electrical and Thermal Performance of Ga _{0.5} Al _{0.5} Diamond Super-Junction Schottky Barrier Diodes. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 5055-5061.	1.6	10
147	Insight into Buffer Trap-Induced Current Saturation and Current Collapse in GaN RF Heterojunction Field-Effect Transistors. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 5460-5465.	1.6	10
148	Conductance oscillations and source-drain-limited conduction in Si MOSFETs. <i>Journal of Physics C: Solid State Physics</i> , 1979, 12, L897-L900.	1.5	9
149	Electrical characterisation of AlGaN/GaN heterostructure wafers for high-power HFETs. <i>Journal of Crystal Growth</i> , 2001, 230, 579-583.	0.7	9
150	Surface Control of 4H-SiC MESFETs. <i>Materials Science Forum</i> , 2002, 389-393, 1387-1390.	0.3	9
151	Characterization of gate recessed GaN/AlGaN/GaN high electron mobility transistors fabricated using a SiCl ₄ /SF ₆ dry etch recipe. <i>Journal of Applied Physics</i> , 2010, 108, 013711.	1.1	9
152	Effects of gate shaping and consequent process changes on AlGaN/GaN HEMT reliability. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 2646-2652.	0.8	9
153	Thermal Transport in Superlattice Castellated Field Effect Transistors. <i>IEEE Electron Device Letters</i> , 2019, 40, 1374-1377.	2.2	9
154	Breakdown Mechanisms in In _{0.2} Ga _{0.8} O ₃ Trench-MOS Schottky-Barrier Diodes. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 75-81.	1.6	9
155	GaN transistor reliability and instabilities. , 2014, , .		8
156	Surface Morphology Improvement of SiC Epitaxy by Sacrificial Oxidation. <i>Materials Science Forum</i> , 1998, 264-268, 367-370.	0.3	7
157	GaN devices for microwave applications [FET/HEMT]. , 0, , .		7
158	Direct optical measurement of hot phonons in active AlGaN/GaN devices. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 910-912.	0.7	7
159	Investigation of the GaN-on-GaAs interface for vertical power device applications. <i>Journal of Applied Physics</i> , 2014, 116, .	1.1	7
160	Study of hot electrons in AlGaN/GaN HEMTs under RF Class B and Class J operation using electroluminescence. <i>Microelectronics Reliability</i> , 2015, 55, 2493-2498.	0.9	7
161	The Impact of Ti/Al Contacts on AlGaN/GaN HEMT Vertical Leakage and Breakdown. <i>IEEE Electron Device Letters</i> , 2018, 39, 1580-1583.	2.2	7
162	Reliability and lifetime estimations of GaN-on-GaN vertical pn diodes. <i>Microelectronics Reliability</i> , 2019, 95, 48-51.	0.9	7

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163	Impact of thinning the GaN buffer and interface layer on thermal and electrical performance in GaN-on-diamond electronic devices. Applied Physics Express, 2019, 12, 024003.	1.1	7
164	Characterization of trap states in buried nitrogen-implanted AlGaN/GaN . Applied Physics Letters, 2020, 117, .	1.5	7
165	Polarity dependence in Cl_2 -based plasma etching of GaN, AlGaN and AlN. Applied Surface Science, 2020, 521, 146297.	3.1	7
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