

Tetsuzo Ueda

List of Publications by Year in descending order

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citing authors

#	ARTICLE	IF	CITATIONS
1	Hot-Electron Effects in GaN GITs and HD-GITs: A Comprehensive Analysis. , 2019, , .		5
2	Influence of Donor-Type Hole Traps Under P-GaN Gate in GaN-Based Gate Injection Transistor (GIT). , 2019, , .		5
3	GaN power devices: current status and future challenges. Japanese Journal of Applied Physics, 2019, 58, SC0804.	1.5	67
4	Effects of post-deposition annealing in O ₂ on threshold voltage of Al ₂ O ₃ /AlGaIn/GaN MOS heterojunction field-effect transistors. Japanese Journal of Applied Physics, 2019, 58, 030902.	1.5	8
5	Characteristics of Isolated DC-DC Converter With Class Phi-2 Inverter Under Various Load Conditions. IEEE Transactions on Power Electronics, 2019, 34, 10887-10897.	7.9	16
6	Hot-Electron Trapping and Hole-Induced Detrapping in GaN-Based GITs and HD-GITs. IEEE Transactions on Electron Devices, 2019, 66, 337-342.	3.0	22
7	Development of GaN Power Devices for High Switching Frequency. Journal of the Institute of Electrical Engineers of Japan, 2019, 139, 80-83.	0.0	0
8	High power 3-phase to 3-phase matrix converter using dual-gate GaN bidirectional switches. , 2018, , .		30
9	Lifetime evaluation for Hybrid-Drain-embedded Gate Injection Transistor (HD-GIT) under practical switching operations. , 2018, , .		20
10	A Study on Load Fluctuation of Isolated DC-DC Converter with Class Phi-2 Inverter using GaN-HFET. , 2018, , .		3
11	Investigation of Peak Voltage Suppression Method at Startup in Isolated DC-DC Converter with Class Phi-2 Inverter. , 2018, , .		1
12	Implementation of atomic layer deposition-based AlON gate dielectrics in AlGaIn/GaN MOS structure and its physical and electrical properties. Japanese Journal of Applied Physics, 2018, 57, 06KA02.	1.5	16
13	SiO ₂ /AlON stacked gate dielectrics for AlGaIn/GaN MOS heterojunction field-effect transistors. Japanese Journal of Applied Physics, 2018, 57, 06KA03.	1.5	4
14	Validating GaN Robustness. Integrated Circuits and Systems, 2018, , 101-122.	0.2	1
15	Reduction of RonA retaining high threshold voltage in SiC DioMOS by improved channel design. , 2018, , .		4
16	Physical and electrical characterizations of AlGaIn/GaN MOS gate stacks with AlGaIn surface oxidation treatment. Japanese Journal of Applied Physics, 2018, 57, 06KA07.	1.5	5
17	Drain current enhancement induced by hole injection from gate of 600-V-class normally off gate injection transistor under high temperature conditions up to 200 Å°C. Japanese Journal of Applied Physics, 2018, 57, 06KC03.	1.5	0
18	Vertical GaN-based power devices on bulk GaN substrates for future power switching systems. , 2018, , .		1

#	ARTICLE	IF	CITATIONS
19	GaN-on-Si Power Technology: Devices and Applications. IEEE Transactions on Electron Devices, 2017, 64, 779-795.	3.0	1,017
20	Comprehensive study on initial thermal oxidation of GaN(0001) surface and subsequent oxide growth in dry oxygen ambient. Journal of Applied Physics, 2017, 121, .	2.5	63
21	Improved hysteresis in a normally-off AlGaN/GaN MOS heterojunction field-effect transistor with a recessed gate structure formed by selective regrowth. Japanese Journal of Applied Physics, 2017, 56, 091003.	1.5	11
22	Design and control of interface reaction between Al-based dielectrics and AlGaN layer in AlGaN/GaN metal-oxide-semiconductor structures. Applied Physics Letters, 2017, 111, .	3.3	16
23	Design and control of interface reaction between Al-based dielectrics and AlGaN layer for hysteresis-free AlGaN/GaN MOS-HFETs. , 2017, , .		0
24	Gate Injection Transistors: E-mode Operation and Conductivity Modulation. Power Electronics and Power Systems, 2017, , 255-272.	0.6	1
25	Fast switching performance by 20 A / 730 V AlGaN/GaN MIS-HFET using AlON gate insulator. , 2017, , .		6
26	Reliability of hybrid-drain-embedded gate injection transistor. , 2017, , .		48
27	Fundamental Investigation of Isolated DC-DC Converter with Class-1/2 Inverter. Journal of the Japan Institute of Power Electronics, 2017, 43, 73-80.	0.0	2
28	High accuracy equivalent circuit model for GaN GIT bi-directional switch. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 378-381.	0.8	2
29	Mechanism of Current-Collapse-Free Operation in E-Mode GaN Gate Injection Transistors Employed for Efficient Power Conversion. , 2016, , .		4
30	Synchrotron radiation X-ray photoelectron spectroscopy of Ti/Al ohmic contacts to n-type GaN: Key role of Al capping layers in interface scavenging reactions. Applied Physics Express, 2016, 9, 105801.	2.4	6
31	Effect of nitrogen incorporation into Al-based gate insulators in AlON/AlGaN/GaN metal-oxide-semiconductor structures. Applied Physics Express, 2016, 9, 101002.	2.4	45
32	1.7 kV/1.0 m ² normally-off vertical GaN transistor on GaN substrate with regrown p-GaN/AlGaN/GaN semipolar gate structure. , 2016, , .		65
33	High-speed switching and current-collapse-free operation by GaN gate injection transistors with thick GaN buffer on bulk GaN substrates. , 2016, , .		17
34	GaN-based semiconductor devices for future power switching systems. , 2016, , .		9
35	Development of GaN-Based Gate-Injection Transistors and its Power Switching Application. Materials Science Forum, 2016, 858, 1165-1169.	0.3	0
36	Effects of hole traps on the temperature dependence of current collapse in a normally-OFF gate-injection transistor. Japanese Journal of Applied Physics, 2016, 55, 054101.	1.5	29

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37	A fully integrated GaN-based power IC including gate drivers for high-efficiency DC-DC Converters. , 2016, , .		19
38	A high-efficient driving isolated Drive-by-Microwave half-bridge gate driver for a GaN inverter. , 2016, , .		8
39	Reliability of Diode-Integrated SiC Power MOSFET(DioMOS). Microelectronics Reliability, 2016, 58, 158-163.	1.7	18
40	Conducted noise of GaN Schottky barrier diode in a DCâ€“DC converter. IEICE Electronics Express, 2015, 12, 20150912-20150912.	0.8	2
41	Novel high-current density GaN-based normally off transistor with tensile-strained quaternary InAlGa barrier. Japanese Journal of Applied Physics, 2015, 54, 04DF09.	1.5	12
42	Suppression of current collapse by hole injection from drain in a normally-off GaN-based hybrid-drain-embedded gate injection transistor. Applied Physics Letters, 2015, 107, .	3.3	104
43	Current-collapse-free operations up to 850 V by GaN-GIT utilizing hole injection from drain. , 2015, , .		112
44	High-efficiency thin and compact concentrator photovoltaics using micro-solar cells with via-holes sandwiched between thin lens-array and circuit board. Japanese Journal of Applied Physics, 2014, 53, 04ER01.	1.5	12
45	GaN-based Gate Injection Transistors for power switching applications. , 2014, , .		10
46	GaN transistors on Si for switching and high-frequency applications. Japanese Journal of Applied Physics, 2014, 53, 100214.	1.5	94
47	Gate frequency sweep: An effective method to evaluate the dynamic performance of AlGaIn/GaN power heterojunction field effect transistors. Applied Physics Letters, 2014, 105, 073507.	3.3	3
48	An Ultra Compact GaN 3x3 Matrix Converter. ECS Transactions, 2014, 64, 41-49.	0.5	0
49	A Novel Thin Concentrator Photovoltaic With Microsolar Cells Directly Attached to a Lens Array. IEEE Journal of Photovoltaics, 2014, 4, 709-712.	2.5	28
50	Recent advances and future prospects on GaN-based power devices. , 2014, , .		28
51	A compact GaN-based DC-DC converter IC with high-speed gate drivers enabling high efficiencies. , 2014, , .		61
52	Reliability issues in GaN and SiC power devices. , 2014, , .		31
53	Evaluation of radiated emission of GaN-HEMT switching circuit. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 936-939.	0.8	1
54	Single to two-phase matrix converter using GaN-based monolithic bidirectional switch for driving symmetrical two-phase motor. , 2014, , .		9

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55	GaN on Si Technologies for Power Switching Devices. IEEE Transactions on Electron Devices, 2013, 60, 3053-3059.	3.0	341
56	A compact isolated gate driver using GaN HFETs on sapphire substrate integrated with a 5.8GHz electro-magnetic resonant coupler. , 2013, , .		0
57	High-Voltage Isolation Technique Using Fe Ion Implantation for Monolithic Integration of AlGaN/GaN Transistors. IEEE Transactions on Electron Devices, 2013, 60, 771-775.	3.0	26
58	Effects of Deep Trapping States at High Temperatures on Transient Performance of AlGaN/GaN Heterostructure Field-Effect Transistors. Japanese Journal of Applied Physics, 2013, 52, 04CF07.	1.5	49
59	200 W Output Power at S-Band in AlGaN/GaN Heterojunction Field Effect Transistors with Field Plates on Si Substrates. Japanese Journal of Applied Physics, 2012, 51, 081801.	1.5	4
60	Nonpolar AlGaN/GaN HFETs with a normally off operation. Semiconductor Science and Technology, 2012, 27, 024019.	2.0	10
61	GaN Gate Injection Transistor with integrated Si Schottky barrier diode for highly efficient DC-DC converters. , 2012, , .		26
62	Equivalent Circuit Model for a GaN Gate Injection Transistor Bidirectional Switch. IEEE Transactions on Electron Devices, 2012, 59, 2643-2649.	3.0	9
63	Time- and Field-Dependent Trapping in GaN-Based Enhancement-Mode Transistors With p-Gate. IEEE Electron Device Letters, 2012, 33, 375-377.	3.9	93
64	Drive-by-Microwave technologies for isolated direct gate drivers. , 2012, , .		6
65	A one-chip isolated gate driver with Drive-by-Microwave technologies. , 2012, , .		6
66	Equivalent-circuit-model for GaN-GIT bi-directional switch including influence of gate resistance. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 887-890.	0.8	1
67	A DC-isolated gate drive IC with drive-by-microwave technology for power switching devices. , 2012, , .		34
68	A one-chip isolated gate driver with an electromagnetic resonant coupler using a SPDT switch. , 2012, , .		12
69	K-Band AlGaN/GaN MIS-HFET on Si with High Output Power over 10W. IEICE Transactions on Electronics, 2012, E95.C, 1327-1331.	0.6	6
70	200 W Output Power at S-Band in AlGaN/GaN Heterojunction Field Effect Transistors with Field Plates on Si Substrates. Japanese Journal of Applied Physics, 2012, 51, 081801.	1.5	3
71	Effects of Growth Temperatures on Crystal Quality of GaN by Vapor Phase Epitaxy Using GaCl ₃ and NH ₃ . Japanese Journal of Applied Physics, 2011, 50, 085501.	1.5	6
72	GaN-based multi-junction diode with low reverse leakage current using P-type barrier controlling layer. , 2011, , .		9

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73	Current status on GaN-based RF-power devices. , 2011, , .		7
74	Current status on GaN-based RF-power devices. , 2011, , .		0
75	99.3% Efficiency of three-phase inverter for motor drive using GaN-based Gate Injection Transistors. , 2011, , .		111
76	A 26 GHz Transceiver Chipset for Short Range Radar Using Post-Passivation Interconnection. Japanese Journal of Applied Physics, 2011, 50, 04DE04.	1.5	1
77	Integrated power design platform based on modeling dynamic behavior of GaN devices. , 2011, , .		4
78	(Invited) GaN Power Electron Devices. ECS Transactions, 2011, 41, 51-70.	0.5	7
79	Separation of Thin GaN from Sapphire by Laser Lift-Off Technique. Japanese Journal of Applied Physics, 2011, 50, 041001.	1.5	40
80	Separation of Thin GaN from Sapphire by Laser Lift-Off Technique. Japanese Journal of Applied Physics, 2011, 50, 041001.	1.5	31
81	Polarization Engineering in GaN Power Devices. Journal of the Vacuum Society of Japan, 2011, 54, 393-397.	0.3	1
82	A 26 GHz Transceiver Chipset for Short Range Radar Using Post-Passivation Interconnection. Japanese Journal of Applied Physics, 2011, 50, 04DE04.	1.5	1
83	Effects of Growth Temperatures on Crystal Quality of GaN by Vapor Phase Epitaxy Using GaCl ₃ and NH ₃ . Japanese Journal of Applied Physics, 2011, 50, 085501.	1.5	1
84	Electron and hole-related luminescence processes in gate injection transistors. Applied Physics Letters, 2010, 97, .	3.3	30
85	High-Brightness 350 nm Ultraviolet InAlGa _N Light Emitting Diodes on Si(111) Substrate with Transparent AlN/AlGa _N Buffer Structure. Japanese Journal of Applied Physics, 2010, 49, 032101.	1.5	3
86	Nonpolar AlGa _N /Ga _N Metal-Insulator-Semiconductor Heterojunction Field-Effect Transistors With a Normally Off Operation. IEEE Transactions on Electron Devices, 2010, 57, 368-372.	3.0	30
87	AlN Passivation Over AlGa _N /Ga _N HFETs for Surface Heat Spreading. IEEE Transactions on Electron Devices, 2010, 57, 980-985.	3.0	57
88	Fabrication of normally-off mode Ga _N and AlGa _N /Ga _N MOSFETs with HfO ₂ gate insulator. Solid-State Electronics, 2010, 54, 79-83.	1.4	32
89	Polarization engineering in Ga _N power transistors. Physica Status Solidi (B): Basic Research, 2010, 247, 1735-1739.	1.5	5
90	Highly efficient Ga _N power transistors and integrated circuits with high breakdown voltages. , 2010, , .		5

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91	Blocking-voltage boosting technology for GaN transistors by widening depletion layer in Si substrates. , 2010, , .		36
92	GaN power switching devices. , 2010, , .		49
93	Recent Advances in GaN Power Switching Devices. , 2010, , .		24
94	Recent advances of high voltage AlGaIn/GaN power HFETs. Proceedings of SPIE, 2009, , .	0.8	13
95	GaN TRANSISTORS FOR POWER SWITCHING AND MILLIMETER-WAVE APPLICATIONS. International Journal of High Speed Electronics and Systems, 2009, 19, 145-152.	0.7	29
96	Recent advances in GaN transistors for future emerging applications. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1221-1227.	1.8	86
97	GaN monolithic inverter IC using normally-off gate injection transistors with planar isolation on Si substrate. , 2009, , .		55
98	Normally-off AlGaIn/GaN MOSHFETs with HfO ₂ gate oxide. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1923-1925.	0.8	34
99	Present and future prospects of gan-based power electronics. , 2008, , .		15
100	Integration of Photonic Crystals on GaN-Based Blue LEDs Using Silicon Mold Substrates. IEEE Journal of Quantum Electronics, 2008, 44, 984-989.	1.9	9
101	Crystalline SiN _x Ultrathin Films Grown on AlGaIn/GaN Using In Situ Metalorganic Chemical Vapor Deposition. Journal of Electronic Materials, 2008, 37, 628-634.	2.2	23
102	GaN-based natural super junction diodes with multi-channel structures. , 2008, , .		28
103	High f _{max} with High Breakdown Voltage in AlGaIn/GaN MIS-HFETs using In-Situ SiN _x as Gate Insulators. Compound Semiconductor Integrated Circuit Symposium (CSICS), IEEE, 2008, , .	0.0	5
104	Unlimited High Breakdown Voltage by Natural Super Junction of Polarized Semiconductor. IEEE Electron Device Letters, 2008, 29, 1087-1089.	3.9	57
105	GaN Transistors for Power Switching and High Frequency Applications. Compound Semiconductor Integrated Circuit Symposium (CSICS), IEEE, 2008, , .	0.0	1
106	A K-band AlGaIn/GaN-based MMIC amplifier with microstrip lines on sapphire. , 2008, , .		1
107	Enhancement-Mode n-Channel GaN MOSFETs Using HfO ₂ as a Gate Oxide. IEICE Transactions on Electronics, 2008, E91-C, 1001-1003.	0.6	1
108	Enhancement-mode n-channel GaN MOSFETs fabricated on p-GaN using HfO ₂ as gate oxide. Electronics Letters, 2007, 43, 952.	1.0	15

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109	Chemical and Potential Bending Characteristics of SiN _x /AlGaIn Interfaces Prepared by In situ Metal-Organic Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2007, 46, L590-L592.	1.5	24
110	Temperature-Stable Operating Current of Surface Plasmon VCSELs with Metal Nanohole Arrays. , 2007, , .		0
111	Surface Plasmon VCSEL with Metal Nanohole Arrays. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
112	Temperature-stable operating current of surface plasmon VCSELs with metal nanohole arrays. , 2007, , .		0
113	Depth profiles of strain in AlGaIn/GaN heterostructures grown on Si characterized by electron backscatter diffraction technique. IEICE Electronics Express, 2007, 4, 775-781.	0.8	15
114	Polarization Control of Vertical-Cavity Surface-Emitting Lasers by Utilizing Surface Plasmon Resonance. IEEE Journal of Quantum Electronics, 2007, 43, 1123-1128.	1.9	12
115	8300V Blocking Voltage AlGaIn/GaN Power HFET with Thick Poly-AlN Passivation. , 2007, , .		37
116	Nonpolar (11-20) plane AlGaIn [~] GaN heterojunction field effect transistors on (1-102) plane sapphire. Journal of Applied Physics, 2007, 102, .	2.5	67
117	AlGaIn/GaN MIS-HEMTs with HfO ₂ gate insulator. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2700-2703.	0.8	38
118	Gate Injection Transistor (GIT)â€”A Normally-Off AlGaIn/GaN Power Transistor Using Conductivity Modulation. IEEE Transactions on Electron Devices, 2007, 54, 3393-3399.	3.0	833
119	650 V 3.1 m&#x003A9;cm<sup>2</sup>; GaN-based monolithic bidirectional switch using normally-off gate injection transistor. , 2007, , .		34
120	Maskless Lateral Epitaxial Growth of Gallium Nitride Using Dimethylhydrazine as a Nitrogen Precursor. Journal of Electronic Materials, 2007, 36, 403-408.	2.2	0
121	A Normally-off AlGaIn/GaN Transistor with R_{on}A=2.6m&#x003A9;cm² and BV_{ds}=640V Using Conductivity Modulation. , 2006, , .		25
122	12.5-Gbps Operation of 850-nm Vertical-Cavity Surface-Emitting Lasers With Reduced Parasitic Capacitance by BCB Planarization Technique. IEEE Journal of Quantum Electronics, 2006, 42, 785-790.	1.9	14
123	Low threshold current 850nm surface plasmon VCSEL with sub-micron metal hole arrays. , 2006, , .		0
124	Highly Efficient GaN-Based LEDs with Photonic Crystals Replicated from Patterned Si Substrates. , 2006, , .		0
125	AlGaIn/GaN Power HFET on Silicon Substrate With Source-Via Grounding (SVG) Structure. IEEE Transactions on Electron Devices, 2005, 52, 1963-1968.	3.0	77
126	Recessed-Gate AlGaIn/GaN HFETs With Lattice-Matched InAlGaIn Quaternary Alloy Capping Layers. IEEE Transactions on Electron Devices, 2005, 52, 2124-2128.	3.0	15

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127	High-Extraction-Efficiency Blue Light-Emitting Diode Using Extended-Pitch Photonic Crystal. Japanese Journal of Applied Physics, 2004, 43, 5809-5813.	1.5	70
128	Laser lift-off of very thin AlGaIn film from sapphire using selective decomposition of GaN interlayer. Applied Surface Science, 2003, 216, 512-518.	6.1	15
129	Vertical InGaIn-based blue light emitting diode with plated metal base fabricated using laser lift-off technique. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2219-2222.	0.8	22
130	Vapor phase epitaxy growth of GaN on pulsed laser deposited ZnO buffer layer. Journal of Crystal Growth, 1998, 187, 340-346.	1.5	20
131	Calculation of Unstable Mixing Region In Wurtzite InGaIn. Materials Research Society Symposia Proceedings, 1998, 512, 291.	0.1	4
132	Localised impurity induced layer disordering for lithographic control of the lateral oxidation of AlAs. Electronics Letters, 1997, 33, 1087.	1.0	3
133	Growth and effects of single-crystalline ZnO buffer layer on GaN epitaxy. , 1997, , .		0
134	Low-voltage operation GaAs spike-gate power FET with high power-added efficiency. IEEE Transactions on Electron Devices, 1997, 44, 354-359.	3.0	13
135	Growth of thick gan films on rf sputtered ain buffer layer by hydride vapor phase epitaxy. Journal of Electronic Materials, 1997, 26, 898-902.	2.2	11
136	High power-added efficiency and low distortion GaAs power FET employing spike-gate structure. Solid-State Electronics, 1997, 41, 1599-1604.	1.4	4
137	Photoluminescence Study of Chloride Vpe-Grown Gan. Materials Research Society Symposia Proceedings, 1996, 421, 189.	0.1	1
138	Thermodynamic Analysis and Growth Characterization of thick GaN films grown by Chloride VPE using GaCl ₃ /N ₂ and NH ₃ /N ₂ . Materials Research Society Symposia Proceedings, 1996, 423, 233.	0.1	4
139	Temperature-independent transconductance in 0.05 μ m-gate MODFET. Solid-State Electronics, 1996, 39, 21-26.	1.4	1
140	GaAs MMIC Chip-sets for mobile communication systems with on-chip ferroelectric capacitors. Integrated Ferroelectrics, 1995, 7, 45-60.	0.7	31
141	Solid-phase epitaxial growth of Ge on H-terminated and oxidized Si(100) surfaces. Surface Science, 1995, 327, 225-232.	1.9	5
142	Photoluminescence of Ti Doped 6H-SiC Grown by Vapor Phase Epitaxy. Japanese Journal of Applied Physics, 1991, 30, L289-L291.	1.5	10
143	Crystal growth of SiC by step-controlled epitaxy. Journal of Crystal Growth, 1990, 104, 695-700.	1.5	100
144	Status of GaN-Based Power Switching Devices. Materials Science Forum, 0, 600-603, 1257-1262.	0.3	0

#	ARTICLE	IF	CITATIONS
145	40mÂ© / 1700V DioMOS (Diode in SiC MOSFET) for High Power Switching Applications. Materials Science Forum, 0, 778-780, 911-914.	0.3	13