

Min-Woo Ha

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Multi-floating-zone JTE for 4.5kV SiC power devices with exponentially modulated dimensions. Japanese Journal of Applied Physics, 2021, 60, SCCE01.	1.5	0
2	Effects of incomplete ionization on forward current-voltage characteristics of p-type diamond Schottky barrier diodes based on numerical simulation. Japanese Journal of Applied Physics, 2021, 60, SCCE08.	1.5	3
3	Sensible design of open-porous spherical architectures for hybrid supercapacitors with improved high-rate capability. Current Applied Physics, 2020, 20, 419-424.	2.4	14
4	Accelerated Degradation of IGBTs Due to High Gate Voltage at Various Temperature Environments. IEEE Transactions on Device and Materials Reliability, 2020, 20, 731-736.	2.0	9
5	TEOS-based low-pressure chemical vapor deposition for gate oxides in 4H-SiC MOSFETs using nitric oxide post-deposition annealing. Current Applied Physics, 2020, 20, 1386-1390.	2.4	9
6	Double p-base structure for 1.2-kV SiC trench MOSFETs with the suppression of electric-field crowding at gate oxide. Microelectronic Engineering, 2020, 225, 111280.	2.4	9
7	Mobility Models Based on Forward Current-Voltage Characteristics of P-type Pseudo-Vertical Diamond Schottky Barrier Diodes. Micromachines, 2020, 11, 598.	2.9	4
8	Gate Current and Snapback of 4H-SiC Thyristors on N+ Substrate for Power-Switching Applications. Electronics (Switzerland), 2020, 9, 332.	3.1	2
9	Enhancement of cortisol measurement sensitivity by laser illumination for AlGaIn/GaN transistor biosensor. Biosensors and Bioelectronics, 2020, 159, 112186.	10.1	23
10	Effect of sweeping direction on the capacitance-voltage behavior of sputtered SiO ₂ /4H-SiC metal-oxide semiconductors after nitric oxide post-deposition annealing. Physica Scripta, 2019, 94, 125811.	2.5	3
11	Effects of junction profiles in bottom protection p-well on electrical characteristics of 1.2kV SiC trench-gate MOSFETs. EPJ Applied Physics, 2019, 88, 30103.	0.7	1
12	Sulfur Incorporation at Interface Between Atomic-Layer-Deposited Al ₂ O ₃ Thin Film and AlGaIn/GaN Heterostructure. Electronic Materials Letters, 2019, 15, 179-185.	2.2	5
13	Forward Current-Voltage Characteristics for P-type Diamond Schottky Barrier Diodes Using Low-Field Mobility Model. Transactions of the Korean Institute of Electrical Engineers, 2019, 68, 310-312.	0.1	0
14	Electrochemical Behavior Depending on Designed-Anode and Cathodes of Hybrid Supercapacitors. Korean Journal of Materials Research, 2019, 29, 774-780.	0.2	3
15	Densification of silicon dioxide formed by plasma-enhanced atomic layer deposition on 4H-silicon carbide using argon post-deposition annealing. Ceramics International, 2018, 44, 13565-13571.	4.8	7
16	Effects of post-deposition annealing on sputtered SiO ₂ /4H-SiC metal-oxide-semiconductor. Solid-State Electronics, 2018, 139, 115-120.	1.4	7
17	Effects of trench profile and self-aligned ion implantation on electrical characteristics of 1.2 kV 4H-SiC trench MOSFETs using bottom protection p-well. Japanese Journal of Applied Physics, 2018, 57, 06HC07.	1.5	6
18	Robust SiNx/GaN MIS-HEMTs With Crystalline Interfacial Layer Using Hollow Cathode PEALD. IEEE Electron Device Letters, 2018, 39, 1195-1198.	3.9	10

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19	PCBM-blended chlorobenzene hybrid anti-solvent engineering for efficient planar perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 2017, 5, 10143-10151.	5.5	18
20	Numerical simulation of p-type diamond Schottky barrier diodes for high breakdown voltage. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 06GE09.	1.5	3
21	Diamond Schottky Barrier Diodes With Field Plate. <i>Transactions of the Korean Institute of Electrical Engineers</i> , 2017, 66, 659-665.	0.1	0
22	7-Octenyltrichlorosilane/trimethylaluminum hybrid dielectrics fabricated by molecular-atomic layer deposition on ZnO thin film transistors. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 06GK04.	1.5	6
23	Fabrication of single TiO ₂ nanotube devices with Pt interconnections using electron- and ion-beam-assisted deposition. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 06GG11.	1.5	1
24	Contact Resistance and Leakage Current of GaN Devices with Annealed Ti/Al/Mo/Au Ohmic Contacts. <i>Journal of Semiconductor Technology and Science</i> , 2016, 16, 179-184.	0.4	0
25	AlGa _N /Ga _N MOS-HEMTs-on-Si employing sputtered TaN-based electrodes and HfO ₂ gate insulator. <i>Solid-State Electronics</i> , 2015, 105, 1-5.	1.4	7
26	Hydroquinone-ZnO nano-laminate deposited by molecular-atomic layer deposition. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	14
27	High-voltage AlGa _N /Ga _N Schottky barrier diodes on silicon using a post-process O ₂ treatment. <i>Solid-State Electronics</i> , 2015, 103, 49-53.	1.4	66
28	Triangular-Pulse Measurement for Hysteresis of High-Performance and Flexible Graphene Field-Effect Transistors. <i>IEEE Electron Device Letters</i> , 2014, 35, 277-279.	3.9	1
29	Graphene-ferroelectric hybrid devices for multi-valued memory system. <i>Applied Physics Letters</i> , 2013, 103, 022903.	3.3	18
30	High on/off current ratio AlGa _N /Ga _N MOS-HEMTs employing RF-sputtered HfO ₂ gate insulators. <i>Semiconductor Science and Technology</i> , 2013, 28, 025001.	2.0	28
31	Effects of post-oxidation on leakage current of high-voltage AlGa _N /Ga _N Schottky barrier diodes on Si(111) substrates. <i>Solid-State Electronics</i> , 2013, 81, 1-4.	1.4	6
32	Normally-off AlGa _N /Ga _N MOS-HEMTs by KOH wet etch and rf-sputtered HfO ₂ gate insulator. , 2013, , .		3
33	High breakdown voltage AlGa _N /Ga _N MOS-HEMTs-on-Si with atomic-layer-deposited Al ₂ O ₃ gate insulator. , 2013, , .		0
34	High breakdown voltage and low on-resistance AlGa _N /Ga _N on Si MOS-HEMTs employing an extended TaN gate on HfO ₂ gate insulator. <i>Electronics Letters</i> , 2013, 49, 425-427.	1.0	7
35	Effects of annealing in oxygen on electrical properties of AlGa _N /Ga _N heterostructures grown on Si. <i>Journal of Alloys and Compounds</i> , 2013, 575, 17-23.	5.5	10
36	High-performance AlGa _N /Ga _N High-electron-mobility transistors employing H ₂ O annealing. <i>Journal of Crystal Growth</i> , 2013, 378, 600-603.	1.5	6

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37	Various Schottky Contacts of AlGaIn/GaN Schottky Barrier Diodes (SBDs). ECS Transactions, 2013, 53, 171-176.	0.5	5
38	Effect of Ga ₂ O ₃ sputtering power on breakdown voltage of AlGaIn/GaN high-electron-mobility transistors. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, 011203.	1.2	8
39	Surface Degradation of GaN after Thermal Processes. ECS Transactions, 2013, 53, 185-190.	0.5	1
40	RF-Sputtered HfO ₂ Gate Insulator in High-Performance AlGaIn/GaN MOS-HEMTs. ECS Transactions, 2013, 53, 191-196.	0.5	0
41	High-Voltage AlGaIn/GaN High-Electron-Mobility Transistors Using Thermal Oxidation for NiO _x Passivation. Journal of Electrical Engineering and Technology, 2013, 8, 1157-1162.	2.0	3
42	1.5-kV (reverse breakdown) AlGaIn/GaN lateral Schottky barrier diode on a Si substrate by surface-O ₂ treatment. , 2012, , .		1
43	AlGaIn/GaN Schottky Barrier Diode on Si Substrate Employing NiO _x /Ni/Au Contact. Japanese Journal of Applied Physics, 2012, 51, 09MC01.	1.5	1
44	New AlGaIn/GaN High Electron Mobility Transistors Employing Charge Accumulation in Multiple Al ₂ O ₃ /Ga ₂ O ₃ Stacks. Japanese Journal of Applied Physics, 2012, 51, 101001.	1.5	2
45	3.2 kV AlGaIn/GaN MIS-HEMTs employing RF sputtered Ga ₂ O ₃ films. , 2012, , .		1
46	High breakdown AlGaIn/GaN HEMTs employing double metal structure. , 2012, , .		0
47	1-kV AlGaIn/GaN schottky barrier diode on a Si substrate by oxidizing the Schottky contact. Journal of the Korean Physical Society, 2012, 60, 1629-1633.	0.7	6
48	AlGaIn/GaN High-Electron-Mobility Transistor Using a Trench Structure for High-Voltage Switching Applications. Applied Physics Research, 2012, 4, .	0.0	1
49	Effects of metal spikes on leakage current of high-voltage GaN Schottky barrier diode. Solid-State Electronics, 2012, 73, 1-6.	1.4	4
50	1.5 kV GaN Schottky Barrier Diode for Next-Generation Power Switches. Transactions of the Korean Institute of Electrical Engineers, 2012, 61, 1646-1649.	0.1	0
51	The field modulation effect of fluoride plasma treatment on blocking characteristics of AlGaIn/GaN HEMT. , 2011, , .		0
52	High-voltage GaN SBD on Si substrate by suppressing metal spikes. , 2011, , .		2
53	The Growth of GaN on Si by the Beam Flux Modulation. AIP Conference Proceedings, 2011, , .	0.4	0
54	Effect of Pt and Ti on Ni/Ag/(Pt or Ti)/Au p-ohmic contacts of GaN based flip-chip LEDs. Applied Surface Science, 2011, 257, 8102-8105.	6.1	6

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55	High-Voltage Schottky Barrier Diode on Silicon Substrate. Japanese Journal of Applied Physics, 2011, 50, 06GF17.	1.5	3
56	Effects of SiO ₂ Passivation on Oxygen Annealed AlGaIn/GaN HEMTs. ECS Transactions, 2011, 35, 185-190.	0.5	1
57	Suppression of Leakage Currents in AlGaIn/GaN HEMTs by Optimizing the Thermal Ramping Rate during the Ohmic RTP Process. Journal of the Korean Physical Society, 2011, 59, 439-442.	0.7	2
58	The Field Modulation Effect of a Fluoride Plasma Treatment on the Blocking Characteristics of AlGaIn/GaN High Electron Mobility Transistors. Transactions on Electrical and Electronic Materials, 2011, 12, 148-151.	1.9	2
59	High-Voltage Schottky Barrier Diode on Silicon Substrate. Japanese Journal of Applied Physics, 2011, 50, 06GF17.	1.5	7
60	Oxidation Process of GaN Schottky Diode for High-Voltage Applications. Transactions of the Korean Institute of Electrical Engineers, 2011, 60, 2265-2269.	0.1	1
61	Effects of Nitride-Based Plasma Pretreatment Prior to SiN _x Passivation in AlGaIn/GaN High-Electron-Mobility Transistors on Silicon Substrates. Japanese Journal of Applied Physics, 2010, 49, 04DF05.	1.5	16
62	A new fault current-sensing scheme for fast fault protection of the insulated gate bipolar transistor. Microelectronics Journal, 2008, 39, 908-913.	2.0	1
63	A New Silicon-on-Insulator Lateral Insulated Gate Bipolar Transistor and Lateral Diode Employing the Separated Schottky Anode for a Power Integrated Circuit. Japanese Journal of Applied Physics, 2007, 46, 2041-2045.	1.5	1
64	SiO ₂ Passivation Effects on the Leakage Current in AlGaIn/GaN High-Electron-Mobility Transistors Employing Additional Schottky Gate. Japanese Journal of Applied Physics, 2007, 46, 2291-2295.	1.5	10
65	New Field Plate Structure for Suppression of Leakage Current of AlGaIn/GaN High Electron Mobility Transistors. Japanese Journal of Applied Physics, 2007, 46, 2287-2290.	1.5	1
66	Hot-Carrier-Stress-Induced Degradation of 1 kV AlGaIn/GaN HEMTs by Employing SiO ₂ Passivation. , 2007, , .		6
67	An AlGaIn/GaN HEMT power switch employing a field plate and a floating gate. Physica Scripta, 2006, T126, 65-67.	2.5	3
68	Experimental study on short-circuit characteristics of the new protection circuit of insulated gate bipolar transistor. Physica Scripta, 2006, T126, 50-52.	2.5	0
69	Ni/Au Schottky gate oxidation and BCB passivation for high-breakdown-voltage AlGaIn/GaN HEMT. Superlattices and Microstructures, 2006, 40, 562-566.	3.1	11
70	New GaN Schottky barrier diode employing a trench on AlGaIn/GaN heterostructure. Superlattices and Microstructures, 2006, 40, 567-573.	3.1	11
71	A New 600 V Punch Through-Insulated Gate Bipolar Transistor with the Monolithic Fault Protection Circuit Using the Floating p-Well Voltage Detection. Japanese Journal of Applied Physics, 2006, 45, 7587-7591.	1.5	1
72	Suppression of Leakage Current of Ni/Au Schottky Barrier Diode Fabricated on AlGaIn/GaN Heterostructure by Oxidation. Japanese Journal of Applied Physics, 2006, 45, 3398-3400.	1.5	15

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73	New Inductively Coupled Plasma-Chemical Vapor Deposition SiO ₂ Passivation for High-Voltage Switching AlGaIn/GaN Heterostructure Field-Effect Transistors. Japanese Journal of Applied Physics, 2006, 45, 3391-3394.	1.5	6
74	Hot Carrier Stress Effects of SiO ₂ Passivated AlGaIn/GaN High Electron Mobility Transistors. ECS Transactions, 2006, 3, 213-220.	0.5	2
75	An Improved Junction Termination Design Employing Shallow Trenches and Field Limiting Rings for Power Devices. Japanese Journal of Applied Physics, 2006, 45, 626-629.	1.5	2
76	An annealing method for switching AlGaIn/GaN field effect transistors employing an excimer laser. Physica Scripta, 2006, T126, 27-30.	2.5	2
77	AlGaIn/GaN High-Electron-Mobility Transistor Employing an Additional Gate for High-Voltage Switching Applications. Japanese Journal of Applied Physics, 2005, 44, 6385-6388.	1.5	10
78	Annealing Effects on AlGaIn-GaN HEMTs Employing Excimer Laser Pulses. Electrochemical and Solid-State Letters, 2005, 8, G352.	2.2	4
79	A New Post Annealing Method for AlGaIn/GaN Heterostructure Field-Effect Transistors Employing XeCl Excimer Laser Pulses. Materials Research Society Symposia Proceedings, 2005, 864, 921.	0.1	0
80	A New Conductivity Modulated LDMOSFET Employing Buried P Region and P+Drain. Japanese Journal of Applied Physics, 2004, 43, 6917-6919.	1.5	0
81	Trench Insulated Gate Bipolar Transistor for the Improved Short Circuit Capability Employing Curved Junction and Wide Cell Pitch. Japanese Journal of Applied Physics, 2004, 43, 1752-1755.	1.5	2
82	A New Voltage between Collector and Emitter (VCE) Sensing Scheme for Short-Circuit Withstanding Capability of the Insulated Gate Bipolar Transistor. Japanese Journal of Applied Physics, 2004, 43, 1677-1679.	1.5	1
83	The Novel Junction Termination Method Employing Shallow Trench. Physica Scripta, 2004, T114, 120-122.	2.5	1
84	A New Junction Termination Method Employing Shallow Trenches Filled With Oxide. IEEE Electron Device Letters, 2004, 25, 16-18.	3.9	14
85	Improvement of the Short Circuit Immunity for the Trench IGBT Employing the Curved P-body Junction and the Wide Cell Pitch. Physica Scripta, 2004, T114, 73-76.	2.5	1
86	A new vertical GaN Schottky barrier diode with floating metal ring for high breakdown voltage. , 2004, , .		8
87	A new lateral insulated gate bipolar transistor for suppressing parasitic thyristor latch-up by employing a folded gate. , 0, , .		0
88	High Breakdown Voltage GaN Schottky Barrier Diode employing Floating Metal Rings on AlGaIn/GaN Hetero-junction. , 0, , .		9
89	High Performance AlGaIn/GaN HEMT Switches Employing 500Å°C Oxidized Ni/Au Gate for Very Low Leakage Current and Improvement of Uniformity. , 0, , .		3
90	Silicon Dioxide Passivation of AlGaIn/GaN HEMTs for High Breakdown Voltage. , 0, , .		7