Min-Woo Ha

List of Publications by Year
in descending order

90	514	840585	839398
papers	citations	11 h-index	18 g-index

90	90	90	676
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-voltage AlGaN/GaN Schottky barrier diodes on silicon using a post-process O2 treatment. Solid-State Electronics, 2015, 103, 49-53.	0.8	66
2	High on/off current ratio AlGaN/GaN MOS-HEMTs employing RF-sputtered HfO₂ gate insulators. Semiconductor Science and Technology, 2013, 28, 025001.	1.0	28
3	Enhancement of cortisol measurement sensitivity by laser illumination for AlGaN/GaN transistor biosensor. Biosensors and Bioelectronics, 2020, 159, 112186.	5.3	23
4	Graphene-ferroelectric hybrid devices for multi-valued memory system. Applied Physics Letters, 2013, 103, 022903.	1.5	18
5	PCBM-blended chlorobenzene hybrid anti-solvent engineering for efficient planar perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 10143-10151.	2.7	18
6	Effects of Nitride-Based Plasma Pretreatment Prior to SiNxPassivation in AlGaN/GaN High-Electron-Mobility Transistors on Silicon Substrates. Japanese Journal of Applied Physics, 2010, 49, 04DF05.	0.8	16
7	Suppression of Leakage Current of Ni/Au Schottky Barrier Diode Fabricated on AlGaN/GaN Heterostructure by Oxidation. Japanese Journal of Applied Physics, 2006, 45, 3398-3400.	0.8	15
8	A New Junction Termination Method Employing Shallow Trenches Filled With Oxide. IEEE Electron Device Letters, 2004, 25, 16-18.	2.2	14
9	Hydroquinone-ZnO nano-laminate deposited by molecular-atomic layer deposition. Applied Physics Letters, 2015, 106, .	1.5	14
10	Sensible design of open-porous spherical architectures for hybrid supercapacitors with improved high-rate capability. Current Applied Physics, 2020, 20, 419-424.	1.1	14
11	Ni/Au Schottky gate oxidation and BCB passivation for high-breakdown-voltage AlGaN/GaN HEMT. Superlattices and Microstructures, 2006, 40, 562-566.	1.4	11
12	New GaN Schottky barrier diode employing a trench on AlGaN/GaN heterostructure. Superlattices and Microstructures, 2006, 40, 567-573.	1.4	11
13	AlGaN/GaN High-Electron-Mobility Transistor Employing an Additional Gate for High-Voltage Switching Applications. Japanese Journal of Applied Physics, 2005, 44, 6385-6388.	0.8	10
14	SiO2Passivation Effects on the Leakage Current in AlGaN/GaN High-Electron-Mobility Transistors Employing Additional Schottky Gate. Japanese Journal of Applied Physics, 2007, 46, 2291-2295.	0.8	10
15	Effects of annealing in oxygen on electrical properties of AlGaN/GaN heterostructures grown on Si. Journal of Alloys and Compounds, 2013, 575, 17-23.	2.8	10
16	Robust SiNx/GaN MIS-HEMTs With Crystalline Interfacial Layer Using Hollow Cathode PEALD. IEEE Electron Device Letters, 2018, 39, 1195-1198.	2.2	10
17	High Breakdown Voltage GaN Schottky Barrier Diode employing Floating Metal Rings on AlGaN/GaN Hetero-junction. , 0, , .		9
18	Accelerated Degradation of IGBTs Due to High Gate Voltage at Various Temperature Environments. IEEE Transactions on Device and Materials Reliability, 2020, 20, 731-736.	1.5	9

#	Article	IF	Citations
19	TEOS-based low-pressure chemical vapor deposition for gate oxides in 4Hâ€“SiC MOSFETs using nitric oxide post-deposition annealing. Current Applied Physics, 2020, 20, 1386-1390.	1.1	9
20	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.	1.1	9
21	A new vertical GaN Schottky barrier diode with floating metal ring for high breakdown voltage. , 2004, , .		8
22	Effect of Ga2O3 sputtering power on breakdown voltage of AlGaN/GaN high-electron-mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 011203.	0.6	8
23	Silicon Dioxide Passivation of AlGaN/GaN HEMTs for High Breakdown Voltage. , 0, , .		7
24	Highâ€breakdown voltage and low onâ€resistance AlGaN/GaN on Si MOSâ€HEMTs employing an extended TaN gate on HfO 2 gate insulator. Electronics Letters, 2013, 49, 425-427.	0.5	7
25	AlGaN/GaN MOS-HEMTs-on-Si employing sputtered TaN-based electrodes and HfO2 gate insulator. Solid-State Electronics, 2015, 105, 1-5.	0.8	7
26	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.	2.3	7
27	Effects of post-deposition annealing on sputtered SiO 2 /4H-SiC metal-oxide-semiconductor. Solid-State Electronics, 2018, 139, 115-120.	0.8	7
28	High-Voltage Schottky Barrier Diode on Silicon Substrate. Japanese Journal of Applied Physics, 2011, 50, 06GF17.	0.8	7
29	New Inductively Coupled Plasmaâ€“Chemical Vapor Deposition SiO2Passivation for High-Voltage Switching AlGaN/GaN Heterostructure Field-Effect Transistors. Japanese Journal of Applied Physics, 2006, 45, 3391-3394.	0.8	6
30	Hot-Carrier-Stress-Induced Degradation of 1 kV AlGaN/GaN HEMTs by Employing SiO2 Passivation. , 2007, , .		6
31	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.	3.1	6
32	1-kV AlGaN/GaN schottky barrier diode on a Si substrate by oxidizing the Schottky contact. Journal of the Korean Physical Society, 2012, 60, 1629-1633.	0.3	6
33	Effects of post-oxidation on leakage current of high-voltage AlGaN/GaN Schottky barrier diodes on Si(111) substrates. Solid-State Electronics, 2013, 81, 1-4.	0.8	6
34	High-performance AlGaN/GaN High-electron-mobility transistors employing H2O annealing. Journal of Crystal Growth, 2013, 378, 600-603.	0.7	6
35	7-Octenyltrichrolosilane/trimethyaluminum hybrid dielectrics fabricated by molecular-atomic layer deposition on ZnO thin film transistors. Japanese Journal of Applied Physics, 2016, 55, 06GK04.	0.8	6
36	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.	0.8	6

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37	Various Schottky Contacts of AlGaN/GaN Schottky Barrier Diodes (SBDs). ECS Transactions, 2013, 53, 171-176.	0.3	5
38	Sulfur Incorporation at Interface Between Atomic-Layer-Deposited Al2O3 Thin Film and AlGaN/GaN Heterostructure. Electronic Materials Letters, 2019, 15, 179-185.	1.0	5
39	Annealing Effects on AlGaNâˆ•GaN HEMTs Employing Excimer Laser Pulses. Electrochemical and Solid-State Letters, 2005, 8, G352.	2.2	4
40	Effects of metal spikes on leakage current of high-voltage GaN Schottky barrier diode. Solid-State Electronics, 2012, 73, 1-6.	0.8	4
41	Mobility Models Based on Forward Current-Voltage Characteristics of P-type Pseudo-Vertical Diamond Schottky Barrier Diodes. Micromachines, 2020, 11, 598.	1.4	4
42	High Performance AlGaN/GaN HEMT Switches Employing 500Â°C Oxidized Ni/Au Gate for Very Low Leakage Current and Improvement of Uniformity. , 0, , .		3
43	An AlGaN/GaN HEMT power switch employing a field plate and a floating gate. Physica Scripta, 2006, T126, 65-67.	1.2	3
44	High-Voltage Schottky Barrier Diode on Silicon Substrate. Japanese Journal of Applied Physics, 2011, 50, 06GF17.	0.8	3
45	Normally-off AlGaN/GaN MOS-HEMTs by KOH wet etch and rf-sputtered HfO<inf>2</inf> gate insulator. , 2013, , .		3
46	Numerical simulation of p-type diamond Schottky barrier diodes for high breakdown voltage. Japanese Journal of Applied Physics, 2017, 56, 06GE09.	0.8	3
47	Effect of sweeping direction on the capacitanceâˆ’voltage behavior of sputtered SiO2/4H-SiC metal-oxide semiconductors after nitric oxide post-deposition annealing. Physica Scripta, 2019, 94, 125811.	1.2	3
48	Effects of incomplete ionization on forward currentâ€“voltage characteristics of p-type diamond Schottky barrier diodes based on numerical simulation. Japanese Journal of Applied Physics, 2021, 60, SCCE08.	0.8	3
49	High-Voltage AlGaN/GaN High-Electron-Mobility Transistors Using Thermal Oxidation for NiO_xPassivation. Journal of Electrical Engineering and Technology, 2013, 8, 1157-1162.	1.2	3
50	Electrochemical Behavior Depending on Designed-Anode and Cathodes of Hybrid Supercapacitors. Korean Journal of Materials Research, 2019, 29, 774-780.	0.1	3
51	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.	0.8	2
52	Hot Carrier Stress Effects of SiO2 Passivated AlGaN/GaN High Electron Mobility Transistors. ECS Transactions, 2006, 3, 213-220.	0.3	2
53	An Improved Junction Termination Design Employing Shallow Trenches and Field Limiting Rings for Power Devices. Japanese Journal of Applied Physics, 2006, 45, 626-629.	0.8	2
54	An annealing method for switching AlGaN/GaN field effect transistors employing an excimer laser. Physica Scripta, 2006, T126, 27-30.	1.2	2

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55	High-voltage GaN SBD on Si substrate by suppressing metal spikes. , 2011, , .		2
56	New AlGaN/GaN High Electron Mobility Transistors Employing Charge Accumulation in Multiple Al₂O₃/Ga₂O₃Stacks. Japanese Journal of Applied Physics, 2012, 51, 101001.	0.8	2
57	Gate Current and Snapback of 4H-SiC Thyristors on N+ Substrate for Power-Switching Applications. Electronics (Switzerland), 2020, 9, 332.	1.8	2
58	Suppression of Leakage Currents in AlGaN/GaN HEMTs by Optimizing the Thermal Ramping Rate during the Ohmic RTP Process. Journal of the Korean Physical Society, 2011, 59, 439-442.	0.3	2
59	The Field Modulation Effect of a Fluoride Plasma Treatment on the Blocking Characteristics of AlGaN/GaN High Electron Mobility Transistors. Transactions on Electrical and Electronic Materials, 2011, 12, 148-151.	1.0	2
60	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.	0.8	1
61	The Novel Junction Termination Method Employing Shallow Trench. Physica Scripta, 2004, T114, 120-122.	1.2	1
62	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.	1.2	1
63	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.	0.8	1
64	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.	0.8	1
65	New Field Plate Structure for Suppression of Leakage Current of AlGaN/GaN High Electron Mobility Transistors. Japanese Journal of Applied Physics, 2007, 46, 2287-2290.	0.8	1
66	A new fault current-sensing scheme for fast fault protection of the insulated gate bipolar transistor. Microelectronics Journal, 2008, 39, 908-913.	1.1	1
67	Effects of SiO₂ Passivation on Oxygen Annealed AlGaN/GaN HEMTs. ECS Transactions, 2011, 35, 185-190.	0.3	1
68	1.5-kV (reverse breakdown) AlGaN/GaN lateral Schottky barrier diode on a Si substrate by surface-O<inf>2</inf> treatment. , 2012, , .		1
69	AlGaN/GaN Schottky Barrier Diode on Si Substrate Employing NiO$_{x}$/Ni/Au Contact. Japanese Journal of Applied Physics, 2012, 51, 09MC01.	0.8	1
70	3.2 kV AlGaN/GaN MIS-HEMTs employing RF sputtered Ga<inf>2</inf>O<inf>3</inf> films. , 2012, , .		1
71	AlGaN/GaN High-Electron-Mobility Transistor Using a Trench Structure for High-Voltage Switching Applications. Applied Physics Research, 2012, 4, .	0.2	1
72	Surface Degradation of GaN after Thermal Processes. ECS Transactions, 2013, 53, 185-190.	0.3	1

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73	Triangular-Pulse Measurement for Hysteresis of High-Performance and Flexible Graphene Field-Effect Transistors. IEEE Electron Device Letters, 2014, 35, 277-279.	2.2	1
74	Fabrication of single TiO2nanotube devices with Pt interconnections using electron- and ion-beam-assisted deposition. Japanese Journal of Applied Physics, 2016, 55, 06GG11.	0.8	1
75	Effects of junction profiles in bottom protection p-well on electrical characteristics of 1.2â€‰kV SiC trench-gate MOSFETs. EPJ Applied Physics, 2019, 88, 30103.	0.3	1
76	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
77	A new lateral insulated gate bipolar transistor for suppressing parasitic thyristor latch-up by employing a folded gate. , 0, , .		0
78	A New Conductivity Modulated LDMOSFET Employing Buried P Region and P+Drain. Japanese Journal of Applied Physics, 2004, 43, 6917-6919.	0.8	0
79	A New Post Annealing Method for AlGaN/GaN Heterostructure Field-Effect Transistors Employing XeCl Excimer Laser Pulses. Materials Research Society Symposia Proceedings, 2005, 864, 921.	0.1	0
80	Experimental study on short-circuit characteristics of the new protection circuit of insulated gate bipolar transistor. Physica Scripta, 2006, T126, 50-52.	1.2	0
81	The field modulation effect of fluoride plasma treatment on blocking characteristics of AlGaN/GaN HEMT. , 2011, , .		0
82	The Growth of GaN on Si by the Beam Flux Modulation. AIP Conference Proceedings, 2011, , .	0.3	0
83	High breakdown AlGaN/GaN HEMTs employing double metal structure. , 2012, , .		0
84	High breakdown voltage AlGaN/GaN MOS-HEMTs-on-Si with atomic-layer-deposited Al<inf>2</inf>O<inf>3</inf> gate insulator. , 2013, , .		0
85	RF-Sputtered HfO₂ Gate Insulator in High-Performance AlGaN/GaN MOS-HEMTs. ECS Transactions, 2013, 53, 191-196.	0.3	0
86	Multi-floating-zone JTE for 4.5ÂkV SiC power devices with exponentially modulated dimensions. Japanese Journal of Applied Physics, 2021, 60, SCCE01.	0.8	0
87	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
88	Contact Resistance and Leakage Current of GaN Devices with Annealed Ti/Al/Mo/Au Ohmic Contacts. Journal of Semiconductor Technology and Science, 2016, 16, 179-184.	0.1	0
89	Diamond Schottky Barrier Diodes With Field Plate. Transactions of the Korean Institute of Electrical Engineers, 2017, 66, 659-665.	0.1	0
90	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