Fan Ren

List of Publications by Year
in descending order

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576	21,511	12330	15732
papers	citations	69 h-index	125 g-index

583	583	583	12741
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A review of Ga2O3 materials, processing, and devices. Applied Physics Reviews, 2018, 5, .	11.3	1,816
2	GaN: Processing, defects, and devices. Journal of Applied Physics, 1999, 86, 1-78.	2.5	1,657
3	Hydrogen-selective sensing at room temperature with ZnO nanorods. Applied Physics Letters, 2005, 86, 243503.	3.3	524
4	Fabrication and performance of GaN electronic devices. Materials Science and Engineering Reports, 2000, 30, 55-212.	31.8	423
5	Perspective: Ga2O3 for ultra-high power rectifiers and MOSFETS. Journal of Applied Physics, 2018, 124, .	2.5	416
6	Perspectiveâ€"Opportunities and Future Directions for Ga₂O₃. ECS Journal of Solid State Science and Technology, 2017, 6, P356-P359.	1.8	352
7	Magnetic properties of n-GaMnN thin films. Applied Physics Letters, 2002, 80, 3964-3966.	3.3	328
8	Hydrogen sensing at room temperature with Pt-coated ZnO thin films and nanorods. Applied Physics Letters, 2005, 87, 222106.	3.3	262
9	Recent advances in wide bandgap semiconductor biological and gas sensors. Progress in Materials Science, 2010, 55, 1-59.	32.8	247
10	Reviewâ€"Ionizing Radiation Damage Effects on GaN Devices. ECS Journal of Solid State Science and Technology, 2016, 5, Q35-Q60.	1.8	243
11	Depletion-mode ZnO nanowire field-effect transistor. Applied Physics Letters, 2004, 85, 2274-2276.	3.3	228
12	Effect of temperature on Ga2O3(Gd2O3)/GaN metalâ€"oxideâ€"semiconductor field-effect transistors. Applied Physics Letters, 1998, 73, 3893-3895.	3.3	217
13	GaN Electronics. Advanced Materials, 2000, 12, 1571-1580.	21.0	208
14	Hydrogen incorporation and diffusivity in plasma-exposed bulk ZnO. Applied Physics Letters, 2003, 82, 385-387.	3.3	196
15	The control of cell adhesion and viability by zinc oxide nanorods. Biomaterials, 2008, 29, 3743-3749.	11.4	184
16	Radiation effects in GaN materials and devices. Journal of Materials Chemistry C, 2013, 1, 877-887.	5.5	171
17	A Review of Dry Etching of GaN and Related Materials. MRS Internet Journal of Nitride Semiconductor Research, 2000, 5, 1.	1.0	170
18	Review of radiation damage in GaN-based materials and devices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	2.1	170

#	Article	IF	Citations
19	2300V Reverse Breakdown Voltage Ga₂O₃Schottky Rectifiers. ECS Journal of Solid State Science and Technology, 2018, 7, Q92-Q96.	1.8	169
20	High Breakdown Voltage (â˜201) $eta $ -Ga2O3 Schottky Rectifiers. IEEE Electron Device Letters, 2017, 38, 906-909.	3.9	159
21	Radiation damage effects in Ga₂O₃ materials and devices. Journal of Materials Chemistry C, 2019, 7, 10-24.	5.5	154
22	Demonstration of enhancement-mode p- and n-channel GaAs MOSFETS with Ga2O3(Gd2O3) As gate oxide. Solid-State Electronics, 1997, 41, 1751-1753.	1.4	151
23	High reverse breakdown voltage Schottky rectifiers without edge termination on Ga2O3. Applied Physics Letters, 2017, 110, .	3.3	149
24	ZnO spintronics and nanowire devices. Journal of Electronic Materials, 2006, 35, 862-868.	2.2	148
25	Electrical transport properties of single ZnO nanorods. Applied Physics Letters, 2004, 85, 2002-2004.	3.3	146
26	pH measurements with single ZnO nanorods integrated with a microchannel. Applied Physics Letters, 2005, 86, 112105.	3.3	135
27	Low bias electron cyclotron resonance plasma etching of GaN, AlN, and InN. Applied Physics Letters, 1994, 64, 2294-2296.	3.3	134
28	Ptâˆ•ZnO nanowire Schottky diodes. Applied Physics Letters, 2004, 85, 3107-3109.	3.3	129
29	Oxygen sensors made by monolayer graphene under room temperature. Applied Physics Letters, 2011, 99, 243502.	3.3	116
30	Electrical detection of biomaterials using AlGaN/GaN high electron mobility transistors. Journal of Applied Physics, 2008, 104, .	2.5	114
31	Pressure-induced changes in the conductivity of AlGaNâˆ•GaN high-electron mobility-transistor membranes. Applied Physics Letters, 2004, 85, 2962-2964.	3.3	111
32	Quasi-two-dimensional Î²-gallium oxide solar-blind photodetectors with ultrahigh responsivity. Journal of Materials Chemistry C, 2016, 4, 9245-9250.	5.5	111
33	UV photoresponse of single ZnO nanowires. Applied Physics A: Materials Science and Processing, 2005, 80, 497-499.	2.3	107
34	High performance indium gallium zinc oxide thin film transistors fabricated on polyethylene terephthalate substrates. Applied Physics Letters, 2008, 93, .	3.3	107
35	MgO/p-GaN enhancement mode metal-oxide semiconductor field-effect transistors. Applied Physics Letters, 2004, 84, 2919-2921.	3.3	104
36	Functionalizing Zn- and O-terminated ZnO with thiols. Journal of Applied Physics, 2007, 101, 104514.	2.5	104

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37	Hydrogen and ozone gas sensing using multiple ZnO nanorods. Applied Physics A: Materials Science and Processing, 2005, 80, 1029-1032.	2.3	101
38	Influence of High-Energy Proton Irradiation on Î²-Ga₂O₃ Nanobelt Field-Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 40471-40476.	8.0	100
39	Point defect induced degradation of electrical properties of Ga2O3 by 10â€‰MeV proton damage. Applied Physics Letters, 2018, 112, .	3.3	98
40	Gd2O3/GaN metal-oxide-semiconductor field-effect transistor. Applied Physics Letters, 2000, 77, 3230-3232.	3.3	96
41	Prostate specific antigen detection using AlGaNâˆ•GaN high electron mobility transistors. Applied Physics Letters, 2007, 91, .	3.3	94
42	Wide Bandgap Semiconductor One-Dimensional Nanostructures for Applications in Nanoelectronics and Nanosensors. Nanomaterials and Nanotechnology, 2013, 3, 1.	3.0	94
43	Lateral AlxGa1âˆ’xN power rectifiers with 9.7 kV reverse breakdown voltage. Applied Physics Letters, 2001, 78, 823-825.	3.3	93
44	Effect of front and back gates on Î²-Ga2O3 nano-belt field-effect transistors. Applied Physics Letters, 2016, 109, .	3.3	93
45	Room temperature hydrogen detection using Pd-coated GaN nanowires. Applied Physics Letters, 2008, 93, .	3.3	91
46	Electrical detection of deoxyribonucleic acid hybridization with AlGaNâˆ•GaN high electron mobility transistors. Applied Physics Letters, 2006, 89, 122102.	3.3	90
47	AlGaN/GaN-based metalâ€“oxideâ€“semiconductor diode-based hydrogen gas sensor. Applied Physics Letters, 2004, 84, 1123-1125.	3.3	89
48	Breakdown voltage and reverse recovery characteristics of free-standing GaN Schottky rectifiers. IEEE Transactions on Electron Devices, 2002, 49, 32-36.	3.0	88
49	High mobility InGaZnO4 thin-film transistors on paper. Applied Physics Letters, 2009, 94, .	3.3	87
50	Phosphorus doped ZnO light emitting diodes fabricated via pulsed laser deposition. Applied Physics Letters, 2008, 92, .	3.3	85
51	Zn0.9Mg0.1Oâˆ•ZnOpâ€“n junctions grown by pulsed-laser deposition. Applied Physics Letters, 2004, 85, 1169-1171.	3.3	84
52	Temperature-dependent characteristics of Pt Schottky contacts on n-type ZnO. Applied Physics Letters, 2004, 84, 2835-2837.	3.3	83
53	Inductively coupled plasma-induced etch damage of GaN p-n junctions. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 1139-1143.	2.1	82
54	Gadolinium Oxide and Scandium Oxide: Gate Dielectrics for GaN MOSFETs. Physica Status Solidi A, 2001, 188, 239-242.	1.7	82

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55	Synthesis and microstructure of vertically aligned ZnO nanowires grown by high-pressure-assisted pulsed-laser deposition. Journal of Materials Science, 2008, 43, 6925-6932.	3.7	80
56	High voltage GaN Schottky rectifiers. IEEE Transactions on Electron Devices, 2000, 47, 692-696.	3.0	77
57	Detection of hydrogen at room temperature with catalyst-coated multiple ZnO nanorods. Applied Physics A: Materials Science and Processing, 2005, 81, 1117-1119.	2.3	77
58	Electrical properties of bulk semi-insulating Î²-Ga2O3 (Fe). Applied Physics Letters, 2018, 113, .	3.3	77
59	Influence of 60Co Î³-rays on dc performance of AlGaN/GaN high electron mobility transistors. Applied Physics Letters, 2002, 80, 604-606.	3.3	76
60	Temperature-Dependent Characteristics of Ni/Au and Pt/Au Schottky Diodes on Î²-Ga₂O₃. ECS Journal of Solid State Science and Technology, 2017, 6, P68-P72.	1.8	76
61	Artificial Neuron and Synapse Devices Based on 2D Materials. Small, 2021, 17, e2100640.	10.0	75
62	Comparison of MOS and Schottky W/Ptâ€“GaN diodes for hydrogen detection. Sensors and Actuators B: Chemical, 2005, 104, 232-236.	7.8	74
63	Low-voltage indium gallium zinc oxide thin film transistors on paper substrates. Applied Physics Letters, 2010, 96, .	3.3	74
64	Randomized clinical study of wear of enamel antagonists against polished monolithic zirconia crowns. Journal of Dentistry, 2018, 68, 19-27.	4.1	73
65	Hole traps and persistent photocapacitance in proton irradiated Î²-Ga2O3 films doped with Si. APL Materials, 2018, 6, .	5.1	73
66	Ga2O3 Schottky rectifiers with 1 ampere forward current, 650 V reverse breakdown and 26.5 MW.cm-2 figure-of-merit. AIP Advances, 2018, 8, .	1.3	73
67	Comparison of GaN p-i-n and Schottky rectifier performance. IEEE Transactions on Electron Devices, 2001, 48, 407-411.	3.0	71
68	Tuning the thickness of exfoliated quasi-two-dimensional Î²-Ga2O3 flakes by plasma etching. Applied Physics Letters, 2017, 110, .	3.3	71
69	300Â°C GaN/AlGaN Heterojunction Bipolar Transistor. MRS Internet Journal of Nitride Semiconductor Research, 1998, 3, 1.	1.0	70
70	Carrier concentration dependence of Ti/Al/Pt/Au contact resistance on n-type ZnO. Applied Physics Letters, 2004, 84, 544-546.	3.3	70
71	GaN n- and p-type Schottky diodes: Effect of dry etch damage. IEEE Transactions on Electron Devices, 2000, 47, 1320-1324.	3.0	65
72	Energy band offsets of dielectrics on InGaZnO4. Applied Physics Reviews, 2017, 4, .	11.3	65

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73	Improved Ptâˆ•Au and Wâˆ•Ptâˆ•Au Schottky contacts on n-type ZnO using ozone cleaning. Applied Physics Letters, 2004, 84, 5133-5135.	3.3	64
74	Vertical and lateral GaN rectifiers on free-standing GaN substrates. Applied Physics Letters, 2001, 79, 1555-1557.	3.3	63
75	Transport properties of InN nanowires. Applied Physics Letters, 2005, 87, 093112.	3.3	62
76	c-erbB-2 sensing using AlGaNâˆ•GaN high electron mobility transistors for breast cancer detection. Applied Physics Letters, 2008, 92, .	3.3	62
77	Defects responsible for charge carrier removal and correlation with deep level introduction in irradiated Î²-Ga2O3. Applied Physics Letters, 2018, 113, .	3.3	62
78	Electrical transport properties of single GaN and InN nanowires. Journal of Electronic Materials, 2006, 35, 738-743.	2.2	61
79	Inductively coupled plasma etching of bulk 6H-SiC and thin-film SiCN in NF3 chemistries. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 2204-2209.	2.1	57
80	Ultradeep, low-damage dry etching of SiC. Applied Physics Letters, 2000, 76, 739-741.	3.3	57
81	REVIEW OF RECENT ADVANCES IN TRANSITION AND LANTHANIDE METALâ€“DOPED GaN AND ZnO. Chemical Engineering Communications, 2009, 196, 1030-1053.	2.6	57
82	Band alignment of Al2O3 with (âˆ’201) Î²-Ga2O3. Vacuum, 2017, 142, 52-57.	3.5	57
83	Temperature-Dependent Electrical Characteristics of Î²-Ga₂O₃Diodes with W Schottky Contacts up to 500Â°C. ECS Journal of Solid State Science and Technology, 2019, 8, Q3007-Q3012.	1.8	56
84	Reviewâ€”Radiation Damage in Wide and Ultra-Wide Bandgap Semiconductors. ECS Journal of Solid State Science and Technology, 2021, 10, 055008.	1.8	56
85	Improved Ni based composite Ohmic contact to n-SiC for high temperature and high power device applications. Journal of Applied Physics, 2000, 88, 2652-2657.	2.5	55
86	Pt-coated InN nanorods for selective detection of hydrogen at room temperature. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 1891.	1.6	55
87	Low Hg(II) ion concentration electrical detection with AlGaN/GaN high electron mobility transistors. Sensors and Actuators B: Chemical, 2008, 134, 386-389.	7.8	55
88	Effect of 5â€‰MeV proton irradiation damage on performance of Î²-Ga2O3 photodetectors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	1.2	55
89	Effect of 1.5â€‰MeV electron irradiation on Î²-Ga2O3 carrier lifetime and diffusion length. Applied Physics Letters, 2018, 112, .	3.3	55
90	Electrical detection of kidney injury molecule-1 with AlGaNâˆ•GaN high electron mobility transistors. Applied Physics Letters, 2007, 91, .	3.3	54

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91	Enzyme-based lactic acid detection using AlGaNâˆ•GaN high electron mobility transistors with ZnO nanorods grown on the gate region. Applied Physics Letters, 2008, 93, .	3.3	54
92	Gamma irradiation impact on electronic carrier transport in AlGaN/GaN high electron mobility transistors. Applied Physics Letters, 2013, 102, .	3.3	54
93	A comparative study of wet etching and contacts on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mover) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 657 Td and (010) oriented Î²-Ga2O3. Journal of Alloys and Compounds, 2018, 731, 118-125.	5.8	53
94	Comparison of gate and drain current detection of hydrogen at room temperature with AlGaNâˆ•GaN high electron mobility transistors. Applied Physics Letters, 2005, 87, 172105.	3.3	52
95	Measurement of Zn0.95Cd0.05Oâˆ•ZnO (0001) heterojunction band offsets by x-ray photoelectron spectroscopy. Applied Physics Letters, 2005, 87, 192106.	3.3	52
96	ZnO and Related Materials for Sensors and Light-Emitting Diodes. Journal of Electronic Materials, 2008, 37, 1426-1432.	2.2	52
97	Wireless hydrogen sensor network using AlGaN/GaN high electron mobility transistor differential diode sensors. Sensors and Actuators B: Chemical, 2008, 135, 188-194.	7.8	51
98	Improved hydrogen detection sensitivity in N-polar GaN Schottky diodes. Applied Physics Letters, 2009, 94, 212108.	3.3	51
99	1.5â€‰MeV electron irradiation damage in Î²-Ga2O3 vertical rectifiers. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	1.2	51
100	Novel insulators for gate dielectrics and surface passivation of GaN-based electronic devices. Materials Science and Engineering Reports, 2004, 44, 151-184.	31.8	50
101	Diffusion length of non-equilibrium minority charge carriers in Î²-Ga2O3 measured by electron beam induced current. Journal of Applied Physics, 2018, 123, .	2.5	50
102	Vertical geometry 33.2 A, 4.8 MWâ€‰cm2 Ga2O3 field-plated Schottky rectifier arrays. Applied Physics Letters, 2019, 114, .	3.3	50
103	Al composition dependence of breakdown voltage in AlxGa1â€“xN Schottky rectifiers. Applied Physics Letters, 2000, 76, 1767-1769.	3.3	49
104	Development of enhancement mode AlN/GaN high electron mobility transistors. Applied Physics Letters, 2009, 94, .	3.3	49
105	Isolation blocking voltage of nitrogen ion-implanted AlGaN/GaN high electron mobility transistor structure. Applied Physics Letters, 2010, 97, .	3.3	49
106	Inductively coupled plasma etch damage in (-201) Ga2O3 Schottky diodes. Applied Physics Letters, 2017, 110, .	3.3	49
107	Effect of surface treatments on electrical properties of Î²-Ga2O3. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, .	1.2	49
108	Comparison of dry etch chemistries for SiC. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 885-889.	2.1	48

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109	Determination of MgOâˆ•GaN heterojunction band offsets by x-ray photoelectron spectroscopy. Applied Physics Letters, 2006, 88, 042113.	3.3	48
110	Ohmic contacts on n-type Î²-Ga2O3 using AZO/Ti/Au. AIP Advances, 2017, 7, .	1.3	48
111	Annealing of dry etch damage in metallized and bare (-201) Ga2O3. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	1.2	48
112	Radiation Effects in GaN-Based High Electron Mobility Transistors. Jom, 2015, 67, 1601-1611.	1.9	47
113	Band offsets in ITO/Ga2O3 heterostructures. Applied Surface Science, 2017, 422, 179-183.	6.1	46
114	Optical and electrical properties of GaMnN films grown by molecular-beam epitaxy. Journal of Applied Physics, 2002, 92, 4989-4993.	2.5	45
115	Effects of Sc2O3 and MgO passivation layers on the output power of AlGaN/GaN HEMTs. IEEE Electron Device Letters, 2002, 23, 505-507.	3.9	45
116	Contacts to p-type ZnMgO. Applied Physics Letters, 2004, 84, 1904-1906.	3.3	45
117	High-energy proton irradiation effects on AlGaN/GaN high-electron mobility transistors. Journal of Electronic Materials, 2002, 31, 437-441.	2.2	44
118	Robust detection of hydrogen using differential AlGaNâˆ•GaN high electron mobility transistor sensing diodes. Applied Physics Letters, 2006, 89, 242111.	3.3	44
119	Sensitivity of Pt/ZnO Schottky diode characteristics to hydrogen. Applied Physics Letters, 2004, 84, 1698-1700.	3.3	43
120	Botulinum toxin detection using AlGaNâˆ•GaN high electron mobility transistors. Applied Physics Letters, 2008, 93, .	3.3	43
121	C O 2 detection using polyethylenimine/starch functionalized AlGaNâˆ•GaN high electron mobility transistors. Applied Physics Letters, 2008, 92, .	3.3	43
122	Toward conductive traces: Dip Pen NanolithographyÂ® of silver nanoparticle-based inks. Applied Physics Letters, 2008, 93, 143105.	3.3	43
123	Capacitance pressure sensor based on GaN high-electron-mobility transistor-on-Si membrane. Applied Physics Letters, 2005, 86, 253502.	3.3	42
124	Growth and Characterization of GaN Nanowires for Hydrogen Sensors. Journal of Electronic Materials, 2009, 38, 490-494.	2.2	42
125	Wireless Detection System for Glucose and pH Sensing in Exhaled Breath Condensate Using AlGaN/GaN High Electron Mobility Transistors. IEEE Sensors Journal, 2010, 10, 64-70.	4.7	42
126	Improvement of Ohmic contacts on Ga2O3 through use of ITO-interlayers. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	1.2	42

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127	Low-temperature-fabricated InGaZnO4 thin film transistors on polyimide clean-room tape. Applied Physics Letters, 2008, 93, .	3.3	41
128	Vertical Geometry, 2-A Forward Current Ga₂O₃ Schottky Rectifiers on Bulk Ga₂O₃ Substrates. IEEE Transactions on Electron Devices, 2018, 65, 2790-2796.	3.0	41
129	Electrical Properties, Deep Trap and Luminescence Spectra in Semi-Insulating, Czochralski Î²-Ga₂O₃ (Mg). ECS Journal of Solid State Science and Technology, 2019, 8, Q3019-Q3023.	1.8	41
130	Design of edge termination for GaN power Schottky diodes. Journal of Electronic Materials, 2005, 34, 370-374.	2.2	40
131	Tiâ•Au n-type Ohmic contacts to bulk ZnO substrates. Applied Physics Letters, 2005, 87, 212106.	3.3	40
132	Studies of minority carrier diffusion length increase in p-type ZnO:Sb. Journal of Applied Physics, 2006, 100, 086101.	2.5	40
133	Dielectric passivation effects on ZnO light emitting diodes. Applied Physics Letters, 2008, 92, .	3.3	40
134	InGaAsN/AlGaAs P-n-p heterojunction bipolar transistor. Applied Physics Letters, 2000, 76, 2788-2790.	3.3	39
135	Band-edge electroluminescence from N+-implanted bulk ZnO. Applied Physics Letters, 2006, 88, 102107.	3.3	39
136	Hydrogen plasma treatment of Î² -Ga2O3: Changes in electrical properties and deep trap spectra. Applied Physics Letters, 2019, 115, .	3.3	39
137	Temperature dependence and current transport mechanisms in AlxGa1â^'xN Schottky rectifiers. Applied Physics Letters, 2000, 76, 3816-3818.	3.3	38
138	Electric-Field-Driven Degradation in off-State Step-Stressed AlGaN/GaN High-Electron Mobility Transistors. IEEE Transactions on Device and Materials Reliability, 2011, 11, 187-193.	2.0	38
139	Review of Graphene as a Solid State Diffusion Barrier. Small, 2016, 12, 120-134.	10.0	38
140	Valence and conduction band offsets in AZO/Ga2O3 heterostructures. Vacuum, 2017, 141, 103-108.	3.5	38
141	Thermal degradation of electrical properties and morphology of bulk single-crystal ZnO surfaces. Applied Physics Letters, 2004, 85, 3468-3470.	3.3	37
142	Effect of humidity on hydrogen sensitivity of Pt-gated AlGaN/GaN high electron mobility transistor based sensors. Applied Physics Letters, 2010, 96, 232106.	3.3	37
143	Measurement of SiO2/InZnGaO4 heterojunction band offsets by x-ray photoelectron spectroscopy. Applied Physics Letters, 2011, 98, .	3.3	36
144	UV ozone treatment for improving contact resistance on graphene. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, .	1.2	36

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145	Defects at the surface of Î²-Ga2O3 produced by Ar plasma exposure. APL Materials, 2019, 7, .	5.1	36
146	Operation Up to 500 Â°C of Al_{0.85}Ga_{0.15}N/Al_{0.7}Ga_{0.3}N High Electron Mobility Transistors. IEEE Journal of the Electron Devices Society, 2019, 7, 444-452.	2.1	36
147	Reverse Breakdown in Large Area, Field-Plated, Vertical Î²-Ga₂O₃Rectifiers. ECS Journal of Solid State Science and Technology, 2019, 8, Q3159-Q3164.	1.8	36
148	Dynamic Switching Characteristics of 1 A Forward Current $oldsymbol{eta}$ -Ga₂O₃ Rectifiers. IEEE Journal of the Electron Devices Society, 2019, 7, 57-61.	2.1	36
149	Contact resistivity and transport mechanisms in W contacts to p- and n-GaN. Journal of Applied Physics, 2000, 88, 2048-2053.	2.5	35
150	Improved morphology for ohmic contacts to AlGaN/GaN high electron mobility transistors using WSix- or W-based metallization. Applied Physics Letters, 2003, 82, 3910-3912.	3.3	35
151	High dose Co-60 gamma irradiation of InGaN quantum well light-emitting diodes. Applied Physics Letters, 2005, 87, 212107.	3.3	35
152	Selective-hydrogen sensing at room temperature with Pt-coated InN nanobelts. Applied Physics Letters, 2008, 93, .	3.3	35
153	Deep level defect states in Î²-, Î±-, and É-Ga2O3 crystals and films: Impact on device performance. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	2.1	35
154	Characterization of bulk GaN rectifiers for hydrogen gas sensing. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2373.	1.6	34
155	Detection of halide ions with AlGaNâˆ•GaN high electron mobility transistors. Applied Physics Letters, 2005, 86, 173502.	3.3	34
156	Role of Gate Oxide in AlGaN/GaN High-Electron-Mobility Transistor pH Sensors. Journal of Electronic Materials, 2008, 37, 550-553.	2.2	34
157	Characterization of the gate oxide of an AlGaN/GaN high electron mobility transistor. Applied Physics Letters, 2011, 98, 122103.	3.3	34
158	Modeling Proton Irradiation in AlGaN/GaN HEMTs: Understanding the Increase of Critical Voltage. IEEE Transactions on Nuclear Science, 2013, 60, 4103-4108.	2.0	34
159	AlGaN/GaN high electron mobility transistors for proteinâ€“peptide binding affinity study. Biosensors and Bioelectronics, 2013, 41, 717-722.	10.1	34
160	Dependence on proton energy of degradation of AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, .	1.2	34
161	High-Power GaN Electronic Devices. Critical Reviews in Solid State and Materials Sciences, 2002, 27, 1-71.	12.3	33
162	Band alignment of atomic layer deposited SiO₂and HfSiO₄with $(ar{2}01)$ Î²-Ga₂O₃. Japanese Journal of Applied Physics, 2017, 56, 071101.	1.5	33

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163	Role of annealing conditions and surface treatment on ohmic contacts to p-GaN and p-Al0.1Ga0.9N/GaN superlattices. Applied Physics Letters, 2001, 79, 3636-3638.	3.3	32
164	Degradation Mechanisms for GaN and GaAs High Speed Transistors. Materials, 2012, 5, 2498-2520.	2.9	32
165	Highly sensitive AlGaN/GaN diode-based hydrogen sensors using platinum nanonetworks. Sensors and Actuators B: Chemical, 2012, 164, 64-68.	7.8	32
166	Inductively coupled plasma etching of bulk, single-crystal Ga2O3. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, .	1.2	32
167	Pt-AlGaN/GaN Hydrogen Sensor With Water-Blocking PMMA Layer. IEEE Electron Device Letters, 2017, 38, 657-660.	3.9	32
168	Materials Characterization of WSi Contacts to n+â€GaN as a Function of Rapid Thermal Annealing Temperatures. Journal of the Electrochemical Society, 1997, 144, L275-L277.	2.9	31
169	Plasma damage in p-GaN. Journal of Electronic Materials, 2000, 29, 256-261.	2.2	31
170	High density plasma via hole etching in SiC. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 1878-1881.	2.1	31
171	Carrier concentration dependence of Tiâ•Au specific contact resistance on n-type amorphous indium zinc oxide thin films. Applied Physics Letters, 2008, 92, .	3.3	31
172	Detection of chloride ions using an integrated Agâ•AgCl electrode with AlGaNâ•GaN high electron mobility transistors. Applied Physics Letters, 2008, 92, 193903.	3.3	31
173	Fast detection of a protozoan pathogen, Perkinsus marinus, using AlGaN/GaN high electron mobility transistors. Applied Physics Letters, 2009, 94, .	3.3	31
174	Band offsets in HfO2/InGaZnO4 heterojunctions. Applied Physics Letters, 2012, 100, .	3.3	31
175	10 MeV proton damage in Î²-Ga2O3 Schottky rectifiers. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, .	1.2	31
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