

Liu-An Li

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85
papers

718
citations

15
h-index

21
g-index

95
ext. papers

892
ext. citations

3.2
avg, IF

4.21
L-index

#	Paper	IF	Citations
85	Investigation on crystalline structure, boron distribution, and residual stresses in freestanding boron-doped CVD diamond films. <i>Journal of Crystal Growth</i> , 2010 , 312, 1986-1991	1.6	55
84	Fabrication, structure, and photocatalytic activities of boron-doped ZnO nanorods hydrothermally grown on CVD diamond film. <i>Chemical Physics Letters</i> , 2012 , 539-540, 74-78	2.5	43
83	GaN Schottky Barrier Diode With TiN Electrode for Microwave Rectification. <i>IEEE Journal of the Electron Devices Society</i> , 2014 , 2, 168-173	2.3	33
82	Self-powered GaN ultraviolet photodetectors with p-NiO electrode grown by thermal oxidation. <i>Materials Science in Semiconductor Processing</i> , 2018 , 76, 61-64	4.3	25
81	Synthesis and properties of boron doped ZnO nanorods on silicon substrate by low-temperature hydrothermal reaction. <i>Applied Surface Science</i> , 2011 , 257, 5984-5988	6.7	25
80	High Threshold Voltage Uniformity and Low Hysteresis Recessed-Gate Al ₂ O ₃ /AlN/GaN MISFET by Selective Area Growth. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 1554-1560	2.9	24
79	Synthesis and characterization of p-type NiO films suitable for normally-off AlGa _N /Ga _N HFETs application. <i>Materials Science in Semiconductor Processing</i> , 2017 , 67, 141-146	4.3	23
78	NiO/GaN heterojunction diode deposited through magnetron reactive sputtering. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016 , 34, 02D104	2.9	21
77	Process dependency on threshold voltage of GaN MOSFET on AlGa _N /Ga _N heterostructure. <i>Solid-State Electronics</i> , 2014 , 99, 59-64	1.7	20
76	p-NiO/n-GaN Heterostructure Diode for Temperature Sensor Application. <i>IEEE Sensors Journal</i> , 2020 , 20, 62-66	4	20
75	Enhanced pH sensitivity of AlGa _N /Ga _N ion-sensitive field effect transistor with Al ₂ O ₃ synthesized by atomic layer deposition. <i>Applied Surface Science</i> , 2018 , 427, 1199-1202	6.7	19
74	Temperature sensor using thermally stable TiN anode GaN Schottky barrier diode for high power device application. <i>Superlattices and Microstructures</i> , 2018 , 123, 274-279	2.8	18
73	Dependence of reaction pressure on deposition and properties of boron-doped freestanding diamond films. <i>Applied Surface Science</i> , 2010 , 256, 1764-1768	6.7	17
72	Effect of thermal oxidation treatment on pH sensitivity of AlGa _N /Ga _N heterostructure ion-sensitive field-effect transistors. <i>Applied Surface Science</i> , 2017 , 411, 144-148	6.7	16
71	Electrical properties of TiN on gallium nitride grown using different deposition conditions and annealing. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2014 , 32, 02B116	2.9	16
70	Enhanced Sensitivity of GaN-Based Temperature Sensor by Using the Series Schottky Barrier Diode Structure. <i>IEEE Electron Device Letters</i> , 2020 , 41, 601-604	4.4	15
69	Threshold voltage tuning in AlGa _N /Ga _N HFETs with p-type Cu ₂ O gate synthesized by magnetron reactive sputtering. <i>Applied Surface Science</i> , 2018 , 437, 98-102	6.7	15

68	Fast and slow interface traps in transparent NiO gated AlGa _N /Ga _N heterostructure field-effect transistors. <i>Applied Surface Science</i> , 2019 , 475, 1043-1047	6.7	15
67	Correlation Between Anode Area and Sensitivity for the TiN/GaN Schottky Barrier Diode Temperature Sensor. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 1171-1175	2.9	14
66	Temperature-dependent electrical transport characteristics of a NiO/GaN heterojunction diode. <i>Surfaces and Interfaces</i> , 2016 , 5, 15-18	4.1	13
65	Effect of nitrogen on deposition and field emission properties of boron-doped micro- and nano-crystalline diamond films. <i>Nano-Micro Letters</i> , 2010 , 2, 154-159	19.5	13
64	Hydrothermal synthesis, characterization and properties of TiO ₂ nanorods on boron-doped diamond film. <i>Materials Letters</i> , 2010 , 64, 2012-2015	3.3	13
63	Normally off AlGa _N /Ga _N ion-sensitive field effect transistors realized by photoelectrochemical method for pH sensor application. <i>Superlattices and Microstructures</i> , 2019 , 128, 99-104	2.8	12
62	Reduction of leakage current by O ₂ plasma treatment for device isolation of AlGa _N /Ga _N heterojunction field-effect transistors. <i>Applied Surface Science</i> , 2015 , 351, 1155-1160	6.7	12
61	Determination of band offsets between p-NiO gate electrode and unintentionally doped GaN for normally-off GaN power device. <i>Journal of Alloys and Compounds</i> , 2017 , 728, 400-403	5.7	12
60	High-Mobility Normally OFF Al ₂ O ₃ /AlGa _N /Ga _N MISFET With Damage-Free Recessed-Gate Structure. <i>IEEE Electron Device Letters</i> , 2018 , 39, 1720-1723	4.4	12
59	Characterization of GaN MOSFETs on AlGa _N /Ga _N Heterostructure With Variation in Channel Dimensions. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 498-504	2.9	11
58	Synthesis of titanium nitride for self-aligned gate AlGa _N /Ga _N heterostructure field-effect transistors. <i>Nanoscale Research Letters</i> , 2014 , 9, 590	5	11
57	Effects of recess process and surface treatment on the threshold voltage of GaN MOSFETs fabricated on a AlGa _N /Ga _N heterostructure. <i>Semiconductor Science and Technology</i> , 2015 , 30, 065004	1.8	10
56	Positive threshold voltage shift in AlGa _N /Ga _N HEMTs with p-type NiO gate synthesized by magnetron reactive sputtering. <i>Applied Surface Science</i> , 2018 , 462, 799-803	6.7	10
55	Evaluation of a Gate-First Process for AlGa _N /Ga _N Heterostructure Field-Effect Transistors. <i>Japanese Journal of Applied Physics</i> , 2013 , 52, 11NH01	1.4	10
54	Quasi-vertical GaN heterojunction diodes with p-NiO anodes deposited by sputtering and post-annealing. <i>Vacuum</i> , 2020 , 182, 109784	3.7	10
53	Normally-Off AlGa _N /Ga _N Heterojunction Metal-Insulator-Semiconductor Field-Effect Transistors With Gate-First Process. <i>IEEE Electron Device Letters</i> , 2019 , 40, 185-188	4.4	10
52	GaN Schottky barrier diode with thermally stable nickel nitride electrode deposited by reactive sputtering. <i>Materials Science in Semiconductor Processing</i> , 2019 , 93, 1-5	4.3	8
51	The effect of CO ₂ on the high-rate homoepitaxial growth of CVD single crystal diamonds. <i>Diamond and Related Materials</i> , 2011 , 20, 496-500	3.5	8

50	Application of p-type NiO deposited by magnetron reactive sputtering on GaN vertical diodes. <i>Materials Science in Semiconductor Processing</i> , 2021 , 125, 105628	4.3	7
49	Vertical GaN-Based Temperature Sensor by Using TiN Anode Schottky Barrier Diode. <i>IEEE Sensors Journal</i> , 2021 , 21, 1273-1278	4	7
48	Dependence of carbon doping concentration on the strain-state and properties of GaN grown on Si substrate. <i>Superlattices and Microstructures</i> , 2018 , 120, 720-726	2.8	6
47	Transparent ohmic contact for boron doped diamond using p-type NiO film synthesized through oxidation. <i>Materials Science in Semiconductor Processing</i> , 2020 , 105, 104740	4.3	6
46	GaN Schottky barrier diodes with nickel nitride anodes sputtered at different nitrogen partial pressure. <i>Vacuum</i> , 2019 , 162, 72-77	3.7	5
45	Improvement of device isolation using field implantation for GaN MOSFETs. <i>Semiconductor Science and Technology</i> , 2016 , 31, 035019	1.8	5
44	The influence of Al composition in AlGa _N back barrier layer on leakage current and dynamic RON characteristics of AlGa _N /GaN HEMTs. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017 , 214, 1600824	1.6	4
43	Gate-first GaN MOSFET based on dry-etching-assisted non-annealing ohmic process. <i>Applied Physics Express</i> , 2015 , 8, 046501	2.4	4
42	Normally-off AlGa _N /GaN heterostructure junction field-effect transistors with blocking layers. <i>Superlattices and Microstructures</i> , 2018 , 120, 448-453	2.8	4
41	Synthesis and Application of Metal Nitrides as Schottky Electrodes for Gallium Nitride Electron Devices. <i>Science of Advanced Materials</i> , 2014 , 6, 1645-1649	2.3	4
40	Effect of Anode Material on the Sensitivity of GaN Schottky Barrier Diode Temperature Sensor. <i>IEEE Sensors Journal</i> , 2021 , 1-1	4	4
39	Correlating device behaviors with semiconductor lattice damage at MOS interface by comparing plasma-etching and regrown recessed-gate Al ₂ O ₃ /GaN MOS-FETs. <i>Applied Surface Science</i> , 2021 , 546, 148710	6.7	4
38	Plasma-assisted surface treatment for low-temperature annealed ohmic contact on AlGa _N /GaN heterostructure field-effect transistors. <i>Chinese Physics B</i> , 2017 , 26, 037201	1.2	3
37	Metal-oxide-semiconductor AlGa _N /GaN heterostructure field-effect transistors using TiN/AlO stack gate layer deposited by reactive sputtering. <i>Semiconductor Science and Technology</i> , 2015 , 30, 015019	1.8	3
36	Evaluation of a gate-first process for AlGa _N /GaN metal-oxide-semiconductor heterostructure field-effect transistors with low ohmic annealing temperature. <i>Chinese Physics B</i> , 2016 , 25, 038503	1.2	3
35	Plasma-assisted ohmic contact for AlGa _N /GaN heterostructure field-effect transistors. <i>Semiconductor Science and Technology</i> , 2016 , 31, 035015	1.8	3
34	Field isolation for GaN MOSFETs on AlGa _N /GaN heterostructure with boron ion implantation. <i>Semiconductor Science and Technology</i> , 2014 , 29, 055002	1.8	3
33	Synthesis of thermally stable HfO _x N _y as gate dielectric for AlGa _N /GaN heterostructure field-effect transistors. <i>Chinese Physics B</i> , 2018 , 27, 078503	1.2	2

32	A review of selective area grown recess structure for insulated-gate E-mode GaN transistors. <i>Japanese Journal of Applied Physics</i> , 2020 , 59, SA0806	1.4	2
31	Effect of overdrive voltage on PBTI trapping behavior in GaN MIS-HEMT with LPCVD SiN x gate dielectric. <i>Chinese Physics B</i> , 2020 , 29, 037201	1.2	2
30	Influence of metal-insulator-semiconductor gate structure on normally-off p-GaN heterojunction field-effect transistors. <i>Journal of Crystal Growth</i> , 2020 , 532, 125395	1.6	2
29	Vertical GaN Schottky barrier diodes with area-selectively deposited p-NiO guard ring termination structure. <i>Superlattices and Microstructures</i> , 2021 , 151, 106820	2.8	2
28	A novel normally-off GaN MISFET with an in-situ AlN space layer using selective area growth 2016 ,		2
27	Impact of dislocation pits on device performances and interface quality degradation for E-mode recessed-gate Al ₂ O ₃ /GaN MOSFETs. <i>Journal of Alloys and Compounds</i> , 2021 , 854, 157144	5.7	2
26	Effect of geometry on the sensing mechanism of GaN Schottky barrier diode temperature sensor. <i>IEICE Electronics Express</i> , 2021 , 18,	0.5	2
25	Design of bevel junction termination extension structure for high-performance vertical GaN Schottky barrier diode. <i>Superlattices and Microstructures</i> , 2021 , 159, 107048	2.8	2
24	A self-aligned gate GaN MOSFET using an ICP-assisted low-temperature Ohmic process. <i>Semiconductor Science and Technology</i> , 2015 , 30, 075003	1.8	1
23	GaN metal-oxide-semiconductor field-effect transistors on AlGa _N /GaN heterostructure with recessed gate. <i>Frontiers of Materials Science</i> , 2015 , 9, 151-155	2.5	1
22	Thermal Analysis of AlGa _N /GaN Hetero-Structural Gunn Diodes on Different Substrates Through Numerical Simulation. <i>IEEE Journal of the Electron Devices Society</i> , 2020 , 8, 134-139	2.3	1
21	A balancing method for low Ron and high Vth normally-off GaN MISFET by preserving a damage-free thin AlGa _N barrier layer 2018 ,		1
20	Enhanced voltage blocking ability of AlGa _N /GaN heterojunction FETs-on-Si by eliminating leakage path introduced by low-temperature-AlN interlayers. <i>Japanese Journal of Applied Physics</i> , 2017 , 56, 065503	1.4	1
19	Growth and Characteristics of Freestanding Hemispherical Diamond Films by Microwave Plasma Chemical Vapor Deposition. <i>Chinese Physics Letters</i> , 2010 , 27, 047802	1.8	1
18	Evaluation of stress voltage on off-state time-dependent breakdown for GaN MIS-HEMT with SiN x gate dielectric. <i>Chinese Physics B</i> , 2020 , 29, 107201	1.2	1
17	Experimental evaluation of interface states during time-dependent dielectric breakdown of GaN-based MIS-HEMTs with LPCVD-SiN x gate dielectric. <i>Chinese Physics B</i> , 2020 , 29, 067203	1.2	1
16	Threshold Voltage Engineering in Al ₂ O ₃ /AlGa _N /GaN MISHEMTs with Thin Barrier Layer: MIS-gate Charge Control and High Threshold Voltage Achievement 2021 ,		1
15	Band alignment between NiO x and nonpolar/semipolar GaN planes for selective-area-doped termination structure*. <i>Chinese Physics B</i> , 2021 , 30, 067701	1.2	1

14	Influence of AlGa _N back barrier layer thickness on the dynamic ron characteristics of AlGa _N /Ga _N HEMTs 2016 ,		1
13	Influence of interface contamination on transport properties of two-dimensional electron gas in selective area growth AlGa _N /Ga _N heterostructure. <i>Journal of Materials Science: Materials in Electronics</i> , 2016 , 27, 9061-9066	2.1	1
12	Vertical Ga _N Schottky barrier diode with thermally stable TiN anode*. <i>Chinese Physics B</i> , 2021 , 30, 038101	1.2	1
11	MoO _x -Si heterojunction with wide-band-gap MoO _x contact layer in the application of low-intensity visible-light sensing. <i>Materials Science in Semiconductor Processing</i> , 2021 , 131, 105879	4.3	1
10	Recessed-anode AlGa _N /Ga _N diode with a high Baliga W/FOM by combining a p-Ga _N cap layer and an anode-connected p-Ga _N buried layer. <i>Superlattices and Microstructures</i> , 2021 , 156, 106986	2.8	1
9	Surface sensibility and stability of AlGa _N /Ga _N ion-sensitive field-effect transistors with high Al-content AlGa _N barrier layer. <i>Applied Surface Science</i> , 2021 , 570, 151190	6.7	1
8	Charge Control in Schottky-Type p-Ga _N Gate HEMTs With Partially and Fully Depleted p-Ga _N Conditions. <i>IEEE Transactions on Electron Devices</i> , 2022 , 1-8	2.9	0
7	Analysis of electrical properties in Ni/Ga _N schottky contacts on nonpolar/semipolar Ga _N free-standing substrates. <i>Journal of Alloys and Compounds</i> , 2021 , 898, 162817	5.7	0
6	Self-aligned-gate AlGa _N /Ga _N heterostructure field-effect transistor with titanium nitride gate. <i>Chinese Physics B</i> , 2016 , 25, 087308	1.2	0
5	Ga _N Schottky Barrier Diodes with TiN Electrode for Microwave Power Transmission. <i>Materials Science Forum</i> , 2019 , 954, 126-132	0.4	
4	Normally-Off Ga _N Power Device Based on Stack AlGa _N Barrier Structure and P-Type NiO Gate Electrode. <i>Materials Science Forum</i> , 1014, 86-92	0.4	
3	Study on Self-Parallel Ga _N -Based Terahertz Hetero-Structural Gunn Diode. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 5777	2.6	
2	Ohmic and Schottky contacts of hydrogenated and oxygenated boron-doped single-crystal diamond with hill-like polycrystalline grains*. <i>Chinese Physics B</i> , 2021 , 30, 096803	1.2	
1	Metal-nitride dual-anode AlGa _N /Ga _N heterostructure Schottky barrier diodes with tunable turn-on voltage and reverse leakage current. <i>Semiconductor Science and Technology</i> , 2022 , 37, 045013	1.8	