

# Liu-An Li

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Charge Control in Schottky-Type p-GaN Gate HEMTs With Partially and Fully Depleted p-GaN Conditions. <i>IEEE Transactions on Electron Devices</i> , <b>2022</b> , 1-8	2.9	0
84	Metal-nitride dual-anode AlGaN/GaN heterostructure Schottky barrier diodes with tunable turn-on voltage and reverse leakage current. <i>Semiconductor Science and Technology</i> , <b>2022</b> , 37, 045013	1.8	
83	Analysis of electrical properties in Ni/GaN schottky contacts on nonpolar/semipolar GaN free-standing substrates. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 898, 162817	5.7	0
82	Effect of Anode Material on the Sensitivity of GaN Schottky Barrier Diode Temperature Sensor. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1	4	4
81	Vertical GaN Schottky barrier diodes with area-selectively deposited p-NiO guard ring termination structure. <i>Superlattices and Microstructures</i> , <b>2021</b> , 151, 106820	2.8	2
80	Application of p-type NiO deposited by magnetron reactive sputtering on GaN vertical diodes. <i>Materials Science in Semiconductor Processing</i> , <b>2021</b> , 125, 105628	4.3	7
79	Threshold Voltage Engineering in Al <sub>2</sub> O <sub>3</sub> /AlGaN/GaN MISHEMTs with Thin Barrier Layer: MIS-gate Charge Control and High Threshold Voltage Achievement <b>2021</b> ,		1
78	Band alignment between NiO x and nonpolar/semipolar GaN planes for selective-area-doped termination structure*. <i>Chinese Physics B</i> , <b>2021</b> , 30, 067701	1.2	1
77	Vertical GaN-Based Temperature Sensor by Using TiN Anode Schottky Barrier Diode. <i>IEEE Sensors Journal</i> , <b>2021</b> , 21, 1273-1278	4	7
76	Impact of dislocation pits on device performances and interface quality degradation for E-mode recessed-gate Al <sub>2</sub> O <sub>3</sub> /GaN MOSFETs. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 854, 157144	5.7	2
75	Correlating device behaviors with semiconductor lattice damage at MOS interface by comparing plasma-etching and regrown recessed-gate Al <sub>2</sub> O <sub>3</sub> /GaN MOS-FETs. <i>Applied Surface Science</i> , <b>2021</b> , 546, 148710	6.7	4
74	Effect of geometry on the sensing mechanism of GaN Schottky barrier diode temperature sensor. <i>IEICE Electronics Express</i> , <b>2021</b> , 18,	0.5	2
73	Vertical GaN Shottky barrier diode with thermally stable TiN anode*. <i>Chinese Physics B</i> , <b>2021</b> , 30, 038101	1.2	1
72	MoOx-Si heterojunction with wide-band-gap MoOx contact layer in the application of low-intensity visible-light sensing. <i>Materials Science in Semiconductor Processing</i> , <b>2021</b> , 131, 105879	4.3	1
71	Recessed-anode AlGaN/GaN diode with a high Baliga $\omega$ FOM by combining a p-GaN cap layer and an anode-connected p-GaN buried layer. <i>Superlattices and Microstructures</i> , <b>2021</b> , 156, 106986	2.8	1
70	Ohmic and Schottky contacts of hydrogenated and oxygenated boron-doped single-crystal diamond with hill-like polycrystalline grains*. <i>Chinese Physics B</i> , <b>2021</b> , 30, 096803	1.2	
69	Design of bevel junction termination extension structure for high-performance vertical GaN Schottky barrier diode. <i>Superlattices and Microstructures</i> , <b>2021</b> , 159, 107048	2.8	2

68	Surface sensibility and stability of AlGa <sub>N</sub> /Ga <sub>N</sub> ion-sensitive field-effect transistors with high Al-content AlGa <sub>N</sub> barrier layer. <i>Applied Surface Science</i> , <b>2021</b> , 570, 151190	6.7	1
67	Thermal Analysis of AlGa <sub>N</sub> /Ga <sub>N</sub> Hetero-Structural Gunn Diodes on Different Substrates Through Numerical Simulation. <i>IEEE Journal of the Electron Devices Society</i> , <b>2020</b> , 8, 134-139	2.3	1
66	Correlation Between Anode Area and Sensitivity for the TiN/Ga <sub>N</sub> Schottky Barrier Diode Temperature Sensor. <i>IEEE Transactions on Electron Devices</i> , <b>2020</b> , 67, 1171-1175	2.9	14
65	Enhanced Sensitivity of Ga <sub>N</sub> -Based Temperature Sensor by Using the Series Schottky Barrier Diode Structure. <i>IEEE Electron Device Letters</i> , <b>2020</b> , 41, 601-604	4.4	15
64	Evaluation of stress voltage on off-state time-dependent breakdown for Ga <sub>N</sub> MIS-HEMT with Si <sub>N</sub> x gate dielectric. <i>Chinese Physics B</i> , <b>2020</b> , 29, 107201	1.2	1
63	Experimental evaluation of interface states during time-dependent dielectric breakdown of Ga <sub>N</sub> -based MIS-HEMTs with LPCVD-Si <sub>N</sub> x gate dielectric. <i>Chinese Physics B</i> , <b>2020</b> , 29, 067203	1.2	1
62	p-NiO/n-Ga <sub>N</sub> Heterostructure Diode for Temperature Sensor Application. <i>IEEE Sensors Journal</i> , <b>2020</b> , 20, 62-66	4	20
61	A review of selective area grown recess structure for insulated-gate E-mode Ga <sub>N</sub> transistors. <i>Japanese Journal of Applied Physics</i> , <b>2020</b> , 59, SA0806	1.4	2
60	Effect of overdrive voltage on PBTI trapping behavior in Ga <sub>N</sub> MIS-HEMT with LPCVD Si <sub>N</sub> x gate dielectric. <i>Chinese Physics B</i> , <b>2020</b> , 29, 037201	1.2	2
59	Influence of metal-insulator-semiconductor gate structure on normally-off p-Ga <sub>N</sub> heterojunction field-effect transistors. <i>Journal of Crystal Growth</i> , <b>2020</b> , 532, 125395	1.6	2
58	Quasi-vertical Ga <sub>N</sub> heterojunction diodes with p-NiO anodes deposited by sputtering and post-annealing. <i>Vacuum</i> , <b>2020</b> , 182, 109784	3.7	10
57	Study on Self-Parallel Ga <sub>N</sub> -Based Terahertz Hetero-Structural Gunn Diode. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 5777	2.6	
56	Transparent ohmic contact for boron doped diamond using p-type NiO film synthesized through oxidation. <i>Materials Science in Semiconductor Processing</i> , <b>2020</b> , 105, 104740	4.3	6
55	Normally off AlGa <sub>N</sub> /Ga <sub>N</sub> ion-sensitive field effect transistors realized by photoelectrochemical method for pH sensor application. <i>Superlattices and Microstructures</i> , <b>2019</b> , 128, 99-104	2.8	12
54	Ga <sub>N</sub> Schottky barrier diode with thermally stable nickel nitride electrode deposited by reactive sputtering. <i>Materials Science in Semiconductor Processing</i> , <b>2019</b> , 93, 1-5	4.3	8
53	Ga <sub>N</sub> Schottky barrier diodes with nickel nitride anodes sputtered at different nitrogen partial pressure. <i>Vacuum</i> , <b>2019</b> , 162, 72-77	3.7	5
52	Ga <sub>N</sub> Schottky Barrier Diodes with TiN Electrode for Microwave Power Transmission. <i>Materials Science Forum</i> , <b>2019</b> , 954, 126-132	0.4	
51	Normally-Off AlGa <sub>N</sub> /Ga <sub>N</sub> Heterojunction Metal-Insulator-Semiconductor Field-Effect Transistors With Gate-First Process. <i>IEEE Electron Device Letters</i> , <b>2019</b> , 40, 185-188	4.4	10

50	Fast and slow interface traps in transparent NiO gated AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructure field-effect transistors. <i>Applied Surface Science</i> , <b>2019</b> , 475, 1043-1047	6.7	15
49	Threshold voltage tuning in AlGa <sub>N</sub> /Ga <sub>N</sub> HFETs with p-type Cu <sub>2</sub> O gate synthesized by magnetron reactive sputtering. <i>Applied Surface Science</i> , <b>2018</b> , 437, 98-102	6.7	15
48	Self-powered Ga <sub>N</sub> ultraviolet photodetectors with p-NiO electrode grown by thermal oxidation. <i>Materials Science in Semiconductor Processing</i> , <b>2018</b> , 76, 61-64	4.3	25
47	Enhanced pH sensitivity of AlGa <sub>N</sub> /Ga <sub>N</sub> ion-sensitive field effect transistor with Al <sub>2</sub> O <sub>3</sub> synthesized by atomic layer deposition. <i>Applied Surface Science</i> , <b>2018</b> , 427, 1199-1202	6.7	19
46	Dependence of carbon doping concentration on the strain-state and properties of Ga <sub>N</sub> grown on Si substrate. <i>Superlattices and Microstructures</i> , <b>2018</b> , 120, 720-726	2.8	6
45	Synthesis of thermally stable HfO <sub>x</sub> N <sub>y</sub> as gate dielectric for AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructure field-effect transistors. <i>Chinese Physics B</i> , <b>2018</b> , 27, 078503	1.2	2
44	A balancing method for low Ron and high Vth normally-off Ga <sub>N</sub> MISFET by preserving a damage-free thin AlGa <sub>N</sub> barrier layer <b>2018</b> ,		1
43	Positive threshold voltage shift in AlGa <sub>N</sub> /Ga <sub>N</sub> HEMTs with p-type NiO gate synthesized by magnetron reactive sputtering. <i>Applied Surface Science</i> , <b>2018</b> , 462, 799-803	6.7	10
42	Normally-off AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructure junction field-effect transistors with blocking layers. <i>Superlattices and Microstructures</i> , <b>2018</b> , 120, 448-453	2.8	4
41	High-Mobility Normally OFF Al <sub>2</sub> O <sub>3</sub> /AlGa <sub>N</sub> /Ga <sub>N</sub> MISFET With Damage-Free Recessed-Gate Structure. <i>IEEE Electron Device Letters</i> , <b>2018</b> , 39, 1720-1723	4.4	12
40	Temperature sensor using thermally stable TiN anode Ga <sub>N</sub> Schottky barrier diode for high power device application. <i>Superlattices and Microstructures</i> , <b>2018</b> , 123, 274-279	2.8	18
39	High Threshold Voltage Uniformity and Low Hysteresis Recessed-Gate Al <sub>2</sub> O <sub>3</sub> /AlN/Ga <sub>N</sub> MISFET by Selective Area Growth. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 1554-1560	2.9	24
38	The influence of Al composition in AlGa <sub>N</sub> back barrier layer on leakage current and dynamic RON characteristics of AlGa <sub>N</sub> /Ga <sub>N</sub> HEMTs. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2017</b> , 214, 1600824	1.6	4
37	Effect of thermal oxidation treatment on pH sensitivity of AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructure ion-sensitive field-effect transistors. <i>Applied Surface Science</i> , <b>2017</b> , 411, 144-148	6.7	16
36	Plasma-assisted surface treatment for low-temperature annealed ohmic contact on AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructure field-effect transistors. <i>Chinese Physics B</i> , <b>2017</b> , 26, 037201	1.2	3
35	Determination of band offsets between p-NiO gate electrode and unintentionally doped Ga <sub>N</sub> for normally-off Ga <sub>N</sub> power device. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 728, 400-403	5.7	12
34	Enhanced voltage blocking ability of AlGa <sub>N</sub> /Ga <sub>N</sub> heterojunction FETs-on-Si by eliminating leakage path introduced by low-temperature-AlN interlayers. <i>Japanese Journal of Applied Physics</i> , <b>2017</b> , 56, 065503	1.4	1
33	Synthesis and characterization of p-type NiO films suitable for normally-off AlGa <sub>N</sub> /Ga <sub>N</sub> HFETs application. <i>Materials Science in Semiconductor Processing</i> , <b>2017</b> , 67, 141-146	4.3	23

32	Temperature-dependent electrical transport characteristics of a NiO/GaN heterojunction diode. <i>Surfaces and Interfaces</i> , <b>2016</b> , 5, 15-18	4.1	13
31	Evaluation of a gate-first process for AlGaIn/GaN metal-oxide-semiconductor heterostructure field-effect transistors with low ohmic annealing temperature. <i>Chinese Physics B</i> , <b>2016</b> , 25, 038503	1.2	3
30	Plasma-assisted ohmic contact for AlGaIn/GaN heterostructure field-effect transistors. <i>Semiconductor Science and Technology</i> , <b>2016</b> , 31, 035015	1.8	3
29	Improvement of device isolation using field implantation for GaN MOSFETs. <i>Semiconductor Science and Technology</i> , <b>2016</b> , 31, 035019	1.8	5
28	NiO/GaN heterojunction diode deposited through magnetron reactive sputtering. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2016</b> , 34, 02D104	2.9	21
27	Influence of AlGaIn back barrier layer thickness on the dynamic ron characteristics of AlGaIn/GaN HEMTs <b>2016</b> ,		1
26	Influence of interface contamination on transport properties of two-dimensional electron gas in selective area growth AlGaIn/GaN heterostructure. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2016</b> , 27, 9061-9066	2.1	1
25	A novel normally-off GaN MISFET with an in-situ AlN space layer using selective area growth <b>2016</b> ,		2
24	Self-aligned-gate AlGaIn/GaN heterostructure field-effect transistor with titanium nitride gate. <i>Chinese Physics B</i> , <b>2016</b> , 25, 087308	1.2	0
23	Metal-oxide-semiconductor AlGaIn/GaN heterostructure field-effect transistors using TiN/AlO stack gate layer deposited by reactive sputtering. <i>Semiconductor Science and Technology</i> , <b>2015</b> , 30, 015019	1.8	3
22	Reduction of leakage current by O <sub>2</sub> plasma treatment for device isolation of AlGaIn/GaN heterojunction field-effect transistors. <i>Applied Surface Science</i> , <b>2015</b> , 351, 1155-1160	6.7	12
21	A self-aligned gate GaN MOSFET using an ICP-assisted low-temperature Ohmic process. <i>Semiconductor Science and Technology</i> , <b>2015</b> , 30, 075003	1.8	1
20	GaN metal-oxide-semiconductor field-effect transistors on AlGaIn/GaN heterostructure with recessed gate. <i>Frontiers of Materials Science</i> , <b>2015</b> , 9, 151-155	2.5	1
19	Effects of recess process and surface treatment on the threshold voltage of GaN MOSFETs fabricated on a AlGaIn/GaN heterostructure. <i>Semiconductor Science and Technology</i> , <b>2015</b> , 30, 065004	1.8	10
18	Gate-first GaN MOSFET based on dry-etching-assisted non-annealing ohmic process. <i>Applied Physics Express</i> , <b>2015</b> , 8, 046501	2.4	4
17	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> , <b>2014</b> , 32, 02B116	2.9	16
16	Process dependency on threshold voltage of GaN MOSFET on AlGaIn/GaN heterostructure. <i>Solid-State Electronics</i> , <b>2014</b> , 99, 59-64	1.7	20
15	Characterization of GaN MOSFETs on AlGaIn/GaN Heterostructure With Variation in Channel Dimensions. <i>IEEE Transactions on Electron Devices</i> , <b>2014</b> , 61, 498-504	2.9	11

14	Synthesis of titanium nitride for self-aligned gate AlGaIn/GaN heterostructure field-effect transistors. <i>Nanoscale Research Letters</i> , <b>2014</b> , 9, 590	5	11
13	GaN Schottky Barrier Diode With TiN Electrode for Microwave Rectification. <i>IEEE Journal of the Electron Devices Society</i> , <b>2014</b> , 2, 168-173	2.3	33
12	Field isolation for GaN MOSFETs on AlGaIn/GaN heterostructure with boron ion implantation. <i>Semiconductor Science and Technology</i> , <b>2014</b> , 29, 055002	1.8	3
11	Synthesis and Application of Metal Nitrides as Schottky Electrodes for Gallium Nitride Electron Devices. <i>Science of Advanced Materials</i> , <b>2014</b> , 6, 1645-1649	2.3	4
10	Evaluation of a Gate-First Process for AlGaIn/GaN Heterostructure Field-Effect Transistors. <i>Japanese Journal of Applied Physics</i> , <b>2013</b> , 52, 11NH01	1.4	10
9	Fabrication, structure, and photocatalytic activities of boron-doped ZnO nanorods hydrothermally grown on CVD diamond film. <i>Chemical Physics Letters</i> , <b>2012</b> , 539-540, 74-78	2.5	43
8	The effect of CO <sub>2</sub> on the high-rate homoepitaxial growth of CVD single crystal diamonds. <i>Diamond and Related Materials</i> , <b>2011</b> , 20, 496-500	3.5	8
7	Synthesis and properties of boron doped ZnO nanorods on silicon substrate by low-temperature hydrothermal reaction. <i>Applied Surface Science</i> , <b>2011</b> , 257, 5984-5988	6.7	25
6	Growth and Characteristics of Freestanding Hemispherical Diamond Films by Microwave Plasma Chemical Vapor Deposition. <i>Chinese Physics Letters</i> , <b>2010</b> , 27, 047802	1.8	1
5	Effect of nitrogen on deposition and field emission properties of boron-doped micro- and nano-crystalline diamond films. <i>Nano-Micro Letters</i> , <b>2010</b> , 2, 154-159	19.5	13
4	Investigation on crystalline structure, boron distribution, and residual stresses in freestanding boron-doped CVD diamond films. <i>Journal of Crystal Growth</i> , <b>2010</b> , 312, 1986-1991	1.6	55
3	Hydrothermal synthesis, characterization and properties of TiO <sub>2</sub> nanorods on boron-doped diamond film. <i>Materials Letters</i> , <b>2010</b> , 64, 2012-2015	3.3	13
2	Dependence of reaction pressure on deposition and properties of boron-doped freestanding diamond films. <i>Applied Surface Science</i> , <b>2010</b> , 256, 1764-1768	6.7	17
1	Normally-Off GaN Power Device Based on Stack AlGaIn Barrier Structure and P-Type NiO Gate Electrode. <i>Materials Science Forum</i> , <b>2014</b> , 1014, 86-92	0.4	