Xuanqi Huang

List of Publications by Year
in descending order

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50 papers	1,248 citations	279487 23 h-index	377514 34 g-index
50 all docs	50 docs citations	50 times ranked	1258 citing authors

#	Article	IF	Citations
1	Ultra-low turn-on voltage and on-resistance vertical GaN-on-GaN Schottky power diodes with high mobility double drift layers. Applied Physics Letters, 2017, 111, .	1.5	78
2	A Comparative Study on the Electrical Properties of Vertical (<inline-formula> <tex-math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7 <inline-formula> <tex-math notation="LaTeX">eta </tex-math> </inline-formula>-Ga₂O₃ Schottky Barrier Diodes on EFG Single-Crystal Substrates. IEEE Transactions on Electron Devices, 2018, 65, 3507-3513.	1.6	74
3	Demonstration of AlN Schottky Barrier Diodes With Blocking Voltage Over 1 kV. IEEE Electron Device Letters, 2017, 38, 1286-1289.	2.2	62
4	Investigation of GaN-on-GaN vertical p-n diode with regrown p-GaN by metalorganic chemical vapor deposition. Applied Physics Letters, 2018, 113, .	1.5	52
5	High Performance Vertical GaN-on-GaN p-n Power Diodes With Hydrogen-Plasma-Based Edge Termination. IEEE Electron Device Letters, 2018, 39, 1018-1021.	2.2	49
6	High Voltage Vertical GaN p-n Diodes With Hydrogen-Plasma Based Guard Rings. IEEE Electron Device Letters, 2020, 41, 127-130.	2.2	49
7	Effect of Buffer Layer Design on Vertical GaN-on-GaN p-n and Schottky Power Diodes. IEEE Electron Device Letters, 2017, 38, 763-766.	2.2	46
8	Demonstration of mechanically exfoliated Î²-Ga2O3/GaN p-n heterojunction. Applied Physics Letters, 2019, 114, .	1.5	46
9	Demonstration of 1.27 kV Etch-Then-Regrow GaN ${p}$ -${n}$ Junctions With Low Leakage for GaN Power Electronics. IEEE Electron Device Letters, 2019, 40, 1728-1731.	2.2	44
10	Discrete Li-occupation versus pseudo-continuous Na-occupation and their relationship with structural change behaviors in Fe2(MoO4)3. Scientific Reports, 2015, 5, 8810.	1.6	42
11	Active tracking system for visible light communication using a GaN-based micro-LED and NRZ-OOK. Optics Express, 2017, 25, 17971.	1.7	42
12	Reverse Leakage Analysis for As-Grown and Regrown Vertical GaN-on-GaN Schottky Barrier Diodes. IEEE Journal of the Electron Devices Society, 2020, 8, 74-83.	1.2	42
13	Low loss GaN waveguides at the visible spectral wavelengths for integrated photonics applications. Optics Express, 2017, 25, 31758.	1.7	37
14	Nonpolar and semipolar InGaN/GaN multiple-quantum-well solar cells with improved carrier collection efficiency. Applied Physics Letters, 2017, 110, .	1.5	36
15	Characterizations of the nonlinear optical properties for (010) and (2Â¯01) beta-phase gallium oxide. Optics Express, 2018, 26, 3938.	1.7	33
16	Analysis of low efficiency droop of semipolar InGaN quantum well light-emitting diodes by modified rate equation with weak phase-space filling effect. AIP Advances, 2016, 6, .	0.6	30
17	Temperature-dependent electrical properties of Î²-Ga₂O₃ Schottky barrier diodes on highly doped single-crystal substrates. Journal of Semiconductors, 2019, 40, 012801.	2.0	30
18	Crystal orientation dependent intersubband transition in semipolar AlGaN/GaN single quantum well for optoelectronic applications. Journal of Applied Physics, 2016, 119, .	1.1	29

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19	Energy band engineering of InGaN/GaN multi-quantum-well solar cells via AlGaN electron- and hole-blocking layers. Applied Physics Letters, 2018, 113, .	1.5	29
20	High-Temperature Polarization-Free III-Nitride Solar Cells with Self-Cooling Effects. ACS Photonics, 2019, 6, 2096-2103.	3.2	28
21	Implantation-and etching-free high voltage vertical GaN pâ€“n diodes terminated by plasma-hydrogenated p-GaN: revealing the role of thermal annealing. Applied Physics Express, 2019, 12, 051015.	1.1	28
22	Optical properties of highly polarized InGaN light-emitting diodes modified by plasmonic metallic grating. Optics Express, 2016, 24, A856.	1.7	25
23	GaN Vertical-Channel Junction Field-Effect Transistors With Regrown p-GaN by MOCVD. IEEE Transactions on Electron Devices, 2020, 67, 3972-3977.	1.6	25
24	Characterizations of nonlinear optical properties on GaN crystals in polar, nonpolar, and semipolar orientations. Applied Physics Letters, 2017, 110, .	1.5	24
25	Reliability analysis of InGaN/GaN multi-quantum-well solar cells under thermal stress. Applied Physics Letters, 2017, 111, .	1.5	22
26	Selective area regrowth and doping for vertical gallium nitride power devices: Materials challenges and recent progress. Materials Today, 2021, 49, 296-323.	8.3	21
27	Threshold Switching and Memory Behaviors of Epitaxially Regrown GaN-on-GaN Vertical <italic>p</italic>-<italic>n</italic> Diodes With High Temperature Stability. IEEE Electron Device Letters, 2019, 40, 375-378.	2.2	20
28	InGaN/GaN multiâ€quantumâ€well solar cells under high solar concentration and elevated temperatures for hybrid solar thermalâ€photovoltaic power plants. Progress in Photovoltaics: Research and Applications, 2020, 28, 1167-1174.	4.4	20
29	Analysis of loss mechanisms in InGaN solar cells using a semi-analytical model. Journal of Applied Physics, 2016, 119, 213101.	1.1	19
30	Fabrication and Characterization of Ultra-wide Bandgap AlN-Based Schottky Diodes on Sapphire by MOCVD. IEEE Journal of the Electron Devices Society, 2017, 5, 518-524.	1.2	19
31	Theoretical analysis of modulation doping effects on intersubband transition properties of semipolar AlGaN/GaN quantum well. Journal of Applied Physics, 2017, 121, .	1.1	17
32	Deep level transient spectroscopy investigation of ultra-wide bandgap (2Ì„01) and (001) Î²-Ga2O3. Journal of Applied Physics, 2020, 128, .	1.1	14
33	Supercontinuum Generation in High Order Waveguide Mode with near-Visible Pumping Using Aluminum Nitride Waveguides. ACS Photonics, 2021, 8, 1344-1352.	3.2	14
34	Experimental demonstration of non-line-of-sight visible light communication with different reflecting materials using a GaN-based micro-LED and modified IEEE 802.11ac. AIP Advances, 2018, 8, .	0.6	13
35	Nonpolar vertical GaN-on-GaN pâ€“n diodes grown on free-standing $(10ar{1}0)$ m-plane GaN substrates. Applied Physics Express, 2018, 11, 111003.	1.1	13
36	Vertical GaN-on-GaN Schottky Barrier Diodes With Multi-Floating Metal Rings. IEEE Journal of the Electron Devices Society, 2020, 8, 857-863.	1.2	13

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37	Steep-slope field-effect transistors with AlGaN/GaN HEMT and oxide-based threshold switching device. Nanotechnology, 2019, 30, 215201.	1.3	12
38	Demonstration of low loss Î² -Ga2O3 optical waveguides in the UVâ€“NIR spectra. Applied Physics Letters, 2019, 115, .	1.5	10
39	Temperature and intensity dependence of the open-circuit voltage of InGaN/GaN multi-quantum well solar cells. Solar Energy Materials and Solar Cells, 2021, 230, 111253.	3.0	10
40	InGaN-based solar cells for space applications. , 2017, , .		7
41	Demonstration of GaN-based metalâ€“insulatorâ€“semiconductor junction by hydrogen plasma treatment. Applied Physics Letters, 2020, 117, .	1.5	7
42	Quantum efficiency of InGaNâ€“GaN multi-quantum well solar cells: Experimental characterization and modeling. Journal of Applied Physics, 2022, 131, .	1.1	4
43	Optical Cavity Effects in InGaN Micro-Light-Emitting Diodes With Metallic Coating. IEEE Photonics Journal, 2017, 9, 1-8.	1.0	3
44	Anomalous carrier dynamics and localization effects in nonpolar m-plane InGaN/GaN quantum wells at high temperatures. Nano Energy, 2020, 76, 105013.	8.2	3
45	Study of crystalline defect induced optical scattering loss inside photonic waveguides in UVâ€“visible spectral wavelengths using volume current method. Optics Express, 2019, 27, 17262.	1.7	3
46	Effect of Proton Radiation on Ultrawide Bandgap AlN Schottky Barrier Diodes. IEEE Transactions on Nuclear Science, 2019, 66, 91-96.	1.2	2
47	Analysis of loss mechanisms in InGaN solar cells using a semi-analytical model. , 2016, , .		1
48	GaN-based solar cells degradation kinetics investigated at high temperature under high-intensity 405nm optical stress. , 2022, , .		1
49	Supercontinuum Generation from Dispersion Engineered AlN Nanophotonic Waveguide Arrays. , 2019, , .		0
50	Study of Crystalline Defect Induced Optical Scattering Loss inside AlN Waveguides in UV-Visible Spectral Wavelengths. , 2019, , .		0