Xinbo Zou

List of Publications by Year in descending order

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49	803	471371 17	526166 27
papers	citations	h-index	g-index

49	49	49	837
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	InP-Based Broadband Photodetectors With InGaAs/GaAsSb Type-II Superlattice. IEEE Electron Device Letters, 2022, 43, 757-760.	2.2	5
2	Timing Performance Simulation for 3D 4H-SiC Detector. Micromachines, 2022, 13, 46.	1.4	3
3	Temperature-Dependent Dynamic Performance of p-GaN Gate HEMT on Si. IEEE Transactions on Electron Devices, 2022, 69, 3302-3309.	1.6	8
4	Demonstration and modeling of frequency tripler based on GaN Schottky diode pair. Microelectronics Journal, 2022, 125, 105464.	1.1	2
5	Study of minority carrier traps in p-GaN gate HEMT by optical deep level transient spectroscopy. Applied Physics Letters, 2022, 120, .	1.5	11
6	Power Compression and Phase Analysis of GaN HEMT for Microwave Receiver Protection. Electronics (Switzerland), 2022, 11, 1958.	1.8	0
7	Output Phase and Amplitude Analysis of GaN-Based HEMT at Cryogenic Temperatures. IEEE Microwave and Wireless Components Letters, 2021, 31, 1219-1222.	2.0	3
8	Submonolayer quantum dot quantum cascade long-wave infrared photodetector grown on Ge substrate. Applied Physics Letters, 2021, 118, .	1.5	7
9	Long-Wave Infrared Sub-Monolayer Quantum dot Quantum Cascade Photodetector. Journal of Lightwave Technology, 2021, 39, 1489-1496.	2.7	8
10	Single-trap emission kinetics of vertical Î²-Ga₂O₃ Schottky diodes by deep-level transient spectroscopy. Semiconductor Science and Technology, 2021, 36, 055015.	1.0	9
11	Temperature-Dependent Dynamic Degradation of Carbon-Doped GaN HEMTs. IEEE Transactions on Electron Devices, 2021, 68, 3290-3295.	1.6	15
12	A review on GaN-based two-terminal devices grown on Si substrates. Journal of Alloys and Compounds, 2021, 869, 159214.	2.8	13
13	Trap Characterization of InGaN/GaN Blue Light Emitting Diode Grown on Si Substrate. , 2021, , .		0
14	Vertical Î²â€Ga₂O₃ Schottky Barrier Diodes with Enhanced Breakdown Voltage and High Switching Performance. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900497.	0.8	34
15	InP-Based Near Infrared/Extended-Short Wave Infrared Dual-Band Photodetector. IEEE Photonics Technology Letters, 2020, 32, 1003-1006.	1.3	19
16	Simulation study of front-illuminated GaN avalanche photodiodes with hole-initiated multiplication. Cogent Engineering, 2020, 7, 1764171.	1.1	2
17	Forward Conduction Instability of Quasi-Vertical GaN p-i-n Diodes on Si Substrates. IEEE Transactions on Electron Devices, 2020, 67, 3992-3998.	1.6	7
18	Comparative Study on Dynamic Characteristics of GaN HEMT at 300K and 150K. IEEE Journal of the Electron Devices Society, 2020, 8, 850-856.	1.2	6

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19	Electrical characterization of GaN Schottky barrier diode at cryogenic temperatures. Applied Physics Letters, 2020, 116, .	1.5	16
20	GaN Single Nanowire pâ€“iâ€“n Diode for High-Temperature Operations. ACS Applied Electronic Materials, 2020, 2, 719-724.	2.0	7
21	Active Matrix Monolithic LED Micro-Display Using GaN-on-Si Epilayers. IEEE Photonics Technology Letters, 2019, 31, 865-868.	1.3	66
22	Device Design Assessment of GaN Merged P-i-N Schottky Diodes. Electronics (Switzerland), 2019, 8, 1550.	1.8	7
23	Vertical Schottky barrier diodes based on a bulk eta -Ga2O3 substrate with high switching performance. , 2019, , .		0
24	Voltage-Controlled GaN HEMT-LED Devices as Fast-Switching and Dimmable Light Emitters. IEEE Electron Device Letters, 2018, 39, 224-227.	2.2	42
25	Fully- and Quasi-Vertical GaN-on-Si p-i-n Diodes: High Performance and Comprehensive Comparison. IEEE Transactions on Electron Devices, 2017, 64, 809-815.	1.6	45
26	Switching performance of quasi-vertical GaN-based p-i-n diodes on Si. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600817.	0.8	15
27	Transistors and tunnel diodes enabled by large-scale MoS₂ nanosheets grown on GaN. Semiconductor Science and Technology, 2017, 32, 075011.	1.0	5
28	High Performance Monolithically Integrated GaN Driving VMOSFET on LED. IEEE Electron Device Letters, 2017, 38, 752-755.	2.2	18
29	Low-Flicker Lighting From High-Voltage LEDs Driven by a Single Converter-Free Driver. IEEE Photonics Technology Letters, 2017, 29, 1675-1678.	1.3	3
30	Optimization of electrode structure for flipâ€chip HVLED via twoâ€level metallization. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1199-1203.	0.8	6
31	Off-state leakage current reduction in AlGaN/GaN high electron mobility transistors by combining surface treatment and post-gate annealing. Semiconductor Science and Technology, 2016, 31, 055019.	1.0	29
32	Monolithic integration of enhancement-mode vertical driving transistorson a standard InGaN/GaN light emitting diode structure. Applied Physics Letters, 2016, 109, .	1.5	28
33	Fully Vertical GaN p-i-n Diodes Using GaN-on-Si Epilayers. IEEE Electron Device Letters, 2016, 37, 636-639.	2.2	86
34	Efficient use of uniform GaN HVLEDs for small-flicker general illumination applications with converter-free LED drivers. , 2016, , .		0
35	Breakdown Ruggedness of Quasi-Vertical GaN-Based p-i-n Diodes on Si Substrates. IEEE Electron Device Letters, 2016, 37, 1158-1161.	2.2	30
36	Compound Semiconductor Materials and Devices. Synthesis Lectures on Emerging Engineering Technologies, 2016, 2, 1-73.	0.2	2

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37	Fabrication and Characterization of High-Voltage LEDs Using Photoresist-Filled-Trench Technique. Journal of Display Technology, 2016, 12, 397-401.	1.3	6
38	Low-Leakage High-Breakdown Laterally Integrated HEMT-LED via n-GaN Electrode. IEEE Photonics Technology Letters, 2016, 28, 1130-1133.	1.3	39
39	Vertical LEDs on Rigid and Flexible Substrates Using GaN-on-Si Epilayers and Au-Free Bonding. IEEE Transactions on Electron Devices, 2016, 63, 1587-1593.	1.6	17
40	Ultralow reverse leakage current in AlGaN/GaN lateral Schottky barrier diodes grown on bulk GaN substrate. Applied Physics Express, 2016, 9, 031001.	1.1	14
41	InAlGaAs/InAlAs MQWs on Si Substrate. IEEE Photonics Technology Letters, 2015, 27, 748-751.	1.3	13
42	Highâ€efficiency blue and green LEDs grown on Si with 5 micrometer thick GaN buffer. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 730-733.	0.8	8
43	Growth and characterization of horizontal GaN wires on silicon. Applied Physics Letters, 2014, 104, 262101.	1.5	2
44	High-Performance Green and Yellow LEDs Grown on ${m SiO}_{2}$ Nanorod Patterned GaN/Si Templates. IEEE Electron Device Letters, 2013, 34, 903-905.	2.2	20
45	Improved GaN-based LED grown on silicon (111) substrates using stress/dislocation-engineered interlayers. Journal of Crystal Growth, 2013, 370, 265-268.	0.7	41
46	Improved crystalline quality and light output power of GaNâ€based lightâ€emitting diodes grown on Si substrate by buffer optimization. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 572-575.	0.8	6
47	Performance improvement of GaN-based light-emitting diodes grown on patterned Si substrate transferred to copper. Optics Express, 2011, 19, A956.	1.7	38
48	InGaN-based light-emitting diodes grown and fabricated on nanopatterned Si substrates. Applied Physics Letters, 2010, 96, .	1.5	18
49	Transfer of GaN-Based Light-Emitting Diodes From Silicon Growth Substrate to Copper. IEEE Electron Device Letters, 2010, 31, 132-134.	2.2	24