

Shiping Guo

List of Publications by Year in descending order

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citing authors

#	ARTICLE	IF	CITATIONS
1	Conductive SiO ₂ /HfO ₂ distributed Bragg reflector achieved by electrical breakdown and its application in GaN-based light emitters. Journal of Applied Physics, 2022, 131, 045301.	1.1	2
2	Fast-Response Amorphous Ga ₂ O ₃ Solar-Blind Ultraviolet Photodetectors Tuned by a Polar AlN Template. IEEE Electron Device Letters, 2022, 43, 68-71.	2.2	24
3	Structural and optical properties of AlN sputtering deposited on sapphire substrates with various orientations. Journal of Semiconductors, 2022, 43, 022801.	2.0	6
4	High-Efficiency E-Beam Pumped Deep-Ultraviolet Surface Emitter Based on AlGaN Ultra-Thin Staggered Quantum Wells. Advanced Optical Materials, 2022, 10, .	3.6	5
5	Polarization modulation of 2DEG toward plasma-damage-free GaN HEMT isolation. Applied Physics Letters, 2022, 121, 012104.	1.5	6
6	Carrier localization and defect-insensitive optical behaviors of ultraviolet multiple quantum wells grown on patterned AlN nucleation layer. Journal of Alloys and Compounds, 2021, 861, 157589.	2.8	0
7	AlGa _{0.15} N-Based Deep Ultraviolet Vertical-Cavity Surface-Emitting Laser. IEEE Electron Device Letters, 2021, 42, 375-378.	2.2	19
8	Evidence of Carrier Localization in AlGa _{0.15} N-Based UV Multiple Quantum Wells with Opposite Polarity Domains Provided by Nanoscale Imaging. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100035.	1.2	3
9	Transverse Electric Lasing at a Record Short Wavelength 244.63 nm from GaN Quantum Wells with Weak Exciton Localization. ACS Photonics, 2021, 8, 1264-1270.	3.2	3
10	Role of Interface Induced Gap States in Polar Al _x Ga _{1-x} N (0 ≤ x ≤ 1) Schottky Diodes. Journal of Electronic Materials, 2021, 50, 3731-3738.	1.0	4
11	Efficient Carrier Recombination in InGa _{0.15} N Pyramidal μ-LEDs Obtained through Selective Area Growth. Photonics, 2021, 8, 157.	0.9	1
12	Self-powered ultraviolet MSM photodetectors with high responsivity enabled by a lateral n ⁺ /n ⁺ homojunction from opposite polarity domains. Optics Letters, 2021, 46, 3203.	1.7	20
13	Ultra-High Performance Amorphous Ga ₂ O ₃ Photodetector Arrays for Solar-Blind Imaging. Advanced Science, 2021, 8, e2101106.	5.6	91
14	Self-powered ultraviolet photodiode based on lateral polarity structure GaN films. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2021, 39, .	0.6	8
15	Efficiency Droop Suppression and Light Output Power Enhancement of Deep Ultraviolet Light-Emitting Diode by Incorporating Inverted-V-Shaped Quantum Barriers. IEEE Transactions on Electron Devices, 2020, 67, 4958-4962.	1.6	9
16	Polarity Control and Nanoscale Optical Characterization of AlGa _{0.15} N-Based Multiple-Quantum-Well for Ultraviolet C Emitters. ACS Applied Nano Materials, 2020, 3, 5335-5342.	2.4	10
17	On the Luminescence Properties and Surface Passivation Mechanism of III- and N-Polar Nanopillar Ultraviolet Multiple-Quantum-Well Light Emitting Diodes. Micromachines, 2020, 11, 572.	1.4	0
18	Polarity control and fabrication of lateral polarity structures of III-nitride thin films and devices: progress and prospects. Journal Physics D: Applied Physics, 2020, 53, 483002.	1.3	14

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19	Demonstration of ohmic contact using MoO_x/Al on p-GaN and the proposal of a reflective electrode for AlGaIn-based DUV-LEDs. <i>Optics Letters</i> , 2020, 45, 2427.	1.7	3
20	Strain modulated nanostructure patterned AlGaIn-based deep ultraviolet multiple-quantum-wells for polarization control and light extraction efficiency enhancement. <i>Nanotechnology</i> , 2019, 30, 435202.	1.3	13
21	Mechanism of Improved Luminescence Intensity of Ultraviolet Light Emitting Diodes (UV-LEDs) Under Thermal and Chemical Treatments. <i>IEEE Photonics Journal</i> , 2019, 11, 1-8.	1.0	5
22	Unambiguously Enhanced Ultraviolet Luminescence of AlGaIn Wavy Quantum Well Structures Grown on Large Misoriented Sapphire Substrate. <i>Advanced Functional Materials</i> , 2019, 29, 1905445.	7.8	128
23	Deep UV Laser at 249 nm Based on GaN Quantum Wells. <i>ACS Photonics</i> , 2019, 6, 2387-2391.	3.2	20
24	Deep Ultraviolet Light Source from Ultrathin GaN/AlN MQW Structures with Output Power Over 2 Watt. <i>Advanced Optical Materials</i> , 2019, 7, 1801763.	3.6	43
25	GaN based UV-LEDs with Ni/Au Nanomeshes as Transparent π -type Electrodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1800684.	0.8	2
26	Omnidirectional whispering-gallery-mode lasing in GaN microdisk obtained by selective area growth on sapphire substrate. <i>Optics Express</i> , 2019, 27, 16195.	1.7	10
27	Three-dimensional band diagram in lateral polarity junction III-nitride heterostructures. <i>Optica</i> , 2019, 6, 1058.	4.8	13
28	Tuning photonic crystal fabrication by nanosphere lithography and surface treatment of AlGaIn-based ultraviolet light-emitting diodes. <i>Materials and Design</i> , 2018, 160, 661-670.	3.3	18
29	Performance enhancement of ultraviolet light emitting diode incorporating Al nanohole arrays. <i>Nanotechnology</i> , 2018, 29, 45LT01.	1.3	8
30	Lateral π -Polarity Structure of AlGaIn Quantum Wells: A Promising Approach to Enhancing the Ultraviolet Luminescence. <i>Advanced Functional Materials</i> , 2018, 28, 1802395.	7.8	51
31	Tuning of the Contact Properties for High-Efficiency Si/PEDOT:PSS Heterojunction Solar Cells. <i>ACS Energy Letters</i> , 2017, 2, 556-562.	8.8	75
32	Polarity Control of GaN and Realization of GaN Schottky Barrier Diode Based on Lateral Polarity Structure. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 4424-4429.	1.6	12
33	Enhancing light coupling and emission efficiencies of AlGaIn thin film and AlGaIn/GaN multiple quantum wells with periodicity-wavelength matched nanostructure array. <i>Nanoscale</i> , 2017, 9, 15477-15483.	2.8	16
34	Atomically Thin MoS_2 Narrowband and Broadband Light Superabsorbers. <i>ACS Nano</i> , 2016, 10, 7493-7499.	7.3	82
35	Growth and characterization of $\text{Al}_x\text{Ga}_{1-x}\text{N}$ lateral polarity structures. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 1039-1042.	0.8	15
36	Nanostructure surface patterning of GaN thin films and application to AlGaIn/AlN multiple quantum wells: A way towards light extraction efficiency enhancement of III-nitride based light emitting diodes. <i>Journal of Applied Physics</i> , 2015, 117, 113107.	1.1	29

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37	Stimulated emission and optical gain in AlGaIn heterostructures grown on bulk AlN substrates. Journal of Applied Physics, 2014, 115, .	1.1	56
38	Sapphire decomposition and inversion domains in N-polar aluminum nitride. Applied Physics Letters, 2014, 104, .	1.5	29
39	The effect of polarity and surface states on the Fermi level at III-nitride surfaces. Journal of Applied Physics, 2014, 116, .	1.1	75
40	Direct Observation of the Polarity Control Mechanism in Aluminum Nitride Grown on Sapphire by Aberration Corrected Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2014, 20, 162-163.	0.2	2
41	Polarity control and growth of lateral polarity structures in AlN. Applied Physics Letters, 2013, 102, .	1.5	60