Yonghui Zhang

List of Publications by Year
in descending order

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80 papers	1,387 citations	361045 20 h-index	414034 32 g-index
82 all docs	82 docs citations	82 times ranked	902 citing authors

#	Article	IF	Citations
1	Study of Optical and Thermal Properties of SiO₂ Encapsulated CdSe/ZnS Coreâ€“Shell Quantum Dots. IEEE Transactions on Electron Devices, 2022, 69, 575-581.	1.6	5
2	Simulation study for GaN-based hybrid trench MOS barrier Schottky diode with an embedded p-type NiO termination: increased forward current density and enhanced breakdown voltage. Japanese Journal of Applied Physics, 2022, 61, 014002.	0.8	2
3	Enhanced performance of an AlGaN-based deep ultraviolet light-emitting diode using a p⁺-GaN/SiO₂/ITO tunnel junction. Optics Letters, 2022, 47, 798.	1.7	3
4	Hybrid metal/Ga₂O₃/GaN ultraviolet detector for obtaining low dark current and high responsivity. Optics Letters, 2022, 47, 1561.	1.7	8
5	A Buried HighkInsulator for Suppressing the Surface Recombination for GaN-Based Micro-Light-Emitting Diodes. IEEE Transactions on Electron Devices, 2022, 69, 3213-3216.	1.6	3
6	Improving the performance for flip-chip AlGaN-based deep ultraviolet light-emitting diodes using surface textured Ga-face n-AlGaN. Optics Express, 2022, 30, 17781.	1.7	2
7	GaN-based quasi-vertical Schottky barrier diode hybridized with p-NiO layer to achieve 1.1 kV breakdown voltage and enhance the current spreading effect. Applied Physics Express, 2022, 15, 084001.	1.1	2
8	Tuning the plasmonic resonance peak for Al nanorods on AlGaN layer to deep ultraviolet band. IEEE Photonics Journal, 2021, , 1-1.	1.0	0
9	A review on the low external quantum efficiency and the remedies for GaN-based micro-LEDs. Journal Physics D: Applied Physics, 2021, 54, 153002.	1.3	42
10	Different scattering effect of nano-patterned sapphire substrate for TM- and TE-polarized light emitted from AlGaN-based deep ultraviolet light-emitting diodes. Optical Materials Express, 2021, 11, 729.	1.6	16
11	Polarization assisted self-powered GaN-based UV photodetector with high responsivity. Photonics Research, 2021, 9, 734.	3.4	28
12	Advances of beveled mesas for GaN-based trench Schottky barrier diodes. AIP Advances, 2021, 11, 045316.	0.6	3
13	Step-type quantum wells with slightly varied InN composition for GaN-based yellow micro light-emitting diodes. Applied Optics, 2021, 60, 3006.	0.9	2
14	Reducing the polarization mismatch between the last quantum barrier and p-EBL to enhance the carrier injection for AlGaN-based DUV LEDs. Optical Materials Express, 2021, 11, 1713.	1.6	2
15	Efficient and Stable Blue Perovskite Light-Emitting Devices Based on Inorganic Cs₄PbBr₆ Spaced Low-Dimensional CsPbBr₃ through Synergistic Control of Amino Alcohols and Polymer Additives. ACS Applied Materials & Interfaces, 2021, 13, 33199-33208.	4.0	12
16	Is a thin p-GaN layer possible for making high-efficiency AlGaN-based deep-ultraviolet light-emitting diodes?. Optics Express, 2021, 29, 29651.	1.7	14
17	Artificially formed resistive ITO/p-GaN junction to suppress the current spreading and decrease the surface recombination for GaN-based micro-light emitting diodes. Optics Express, 2021, 29, 31201.	1.7	16
18	Enhancing the light extraction efficiency for AlGaN-based DUV LEDs with a laterally over-etched p-GaN layer at the top of truncated cones. Optics Express, 2021, 29, 30532.	1.7	16

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19	Polarization Self-Screened Multiple Quantum Wells for Deep Ultraviolet Light-Emitting Diodes to Enhance the Optical Power. IEEE Photonics Journal, 2021, 13, 1-5.	1.0	8
20	On the impact of a metalâ€“insulatorâ€“semiconductor structured n-electrode for AlGaN-based DUV LEDs. Applied Optics, 2021, 60, 11222.	0.9	4
21	Numerical investigations into polarization-induced self-powered GaN-based MSM photodetectors. Applied Optics, 2021, 60, 10975.	0.9	2
22	GaN-based quasi-vertical Schottky barrier diodes with the sidewall field plate termination for obtaining low leakage current and high breakdown voltage. , 2021, , .		0
23	Enhanced Photoresponse of Indium-Doped Tin Disulfide Nanosheets. ACS Applied Materials & Interfaces, 2020, 12, 2607-2614.	4.0	23
24	Understanding omni-directional reflectors and nominating more dielectric materials for deep ultraviolet light-emitting diodes with inclined sidewalls. Journal of Applied Physics, 2020, 128, .	1.1	13
25	Advantage of SiO₂ Intermediate Layer on the Electron Injection for Ti/n-Al_{0.60}Ga_{0.40}N Structure. IEEE Transactions on Electron Devices, 2020, 67, 3548-3552.	1.6	2
26	Improving the Currentâ€Spreading Effect for GaNâ€Based Quasiâ€Vertical PIN Diode by Using an Embedded PN Junction. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000146.	0.8	4
27	Alternative Strategy to Reduce Surface Recombination for InGaN/GaN Micro-light-Emitting Diodesâ€”Thinning the Quantum Barriers to Manage the Current Spreading. Nanoscale Research Letters, 2020, 15, 160.	3.1	21
28	Doping-induced energy barriers to improve the current spreading effect for AlGaN-based ultraviolet-B light-emitting diodes. IEEE Electron Device Letters, 2020, , 1-1.	2.2	15
29	Effectively Confining the Lateral Current Within the Aperture for GaN Based VCSELs by Using a Reverse Biased NP Junction. IEEE Journal of Quantum Electronics, 2020, 56, 1-7.	1.0	4
30	Enhancing the lateral current injection by modulating the doping type in the p-type hole injection layer for InGaN/GaN vertical cavity surface emitting lasers. Optics Express, 2020, 28, 18035.	1.7	6
31	Visible Phototransistors Based on Vertical Nanolayered Heterostructures of SnS/SnS₂ pâ€“n and SnSe₂/SnS₂ nâ€“n Nanoflakes. ACS Applied Nano Materials, 2020, 3, 6847-6854.	2.4	19
32	Design Strategies for Mesa-Type GaN-Based Schottky Barrier Diodes for Obtaining High Breakdown Voltage and Low Leakage Current. IEEE Transactions on Electron Devices, 2020, 67, 1931-1938.	1.6	15
33	Improving hole injection from p-EBL down to the end of active region by simply playing with polarization effect for AlGaN based DUV light-emitting diodes. AIP Advances, 2020, 10, .	0.6	21
34	On the Impact of Electron Leakage on the Efficiency Droop for AlGaN Based Deep Ultraviolet Light Emitting Diodes. IEEE Photonics Journal, 2020, 12, 1-7.	1.0	12
35	On the origin for the hole confinement into apertures for GaN-based VCSELs with buried dielectric insulators. Optics Express, 2020, 28, 8668.	1.7	11
36	Integrating remote reflector and air cavity into inclined sidewalls to enhance the light extraction efficiency for AlGaN-based DUV LEDs. Optics Express, 2020, 28, 17035.	1.7	13

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37	Modulating the Layer Resistivity by Band-Engineering to Improve the Current Spreading for DUV LEDs. IEEE Photonics Technology Letters, 2019, 31, 1201-1204.	1.3	11
38	Polarization Engineering to Manipulate the Breakdown Voltage for GaNâ€Based PIN Diodes. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900210.	0.8	4
39	Effects of Meshed p-type Contact Structure on the Light Extraction Effect for Deep Ultraviolet Flip-Chip Light-Emitting Diodes. Nanoscale Research Letters, 2019, 14, 149.	3.1	19
40	Influence of an Insulator Layer on the Charge Transport in a Metal/Insulator/nâ€AlGaN Structure. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800810.	0.8	5
41	Phosphor-Free Three-Dimensional Hybrid White LED With High Color-Rendering Index. IEEE Photonics Journal, 2019, 11, 1-8.	1.0	7
42	The Light Extraction Efficiency for DUV LEDs. SpringerBriefs in Applied Sciences and Technology, 2019, , 61-65.	0.2	0
43	Interplay between various active regions and the interband transition for AlGaN-based deep-ultraviolet light-emitting diodes to enable a reduced TM-polarized emission. Journal of Applied Physics, 2019, 126, 245702.	1.1	9
44	The Effect of Sapphire Substrates on Omni-Directional Reflector Design for Flip-Chip Near-Ultraviolet Light-Emitting Diodes. IEEE Photonics Journal, 2019, 11, 1-9.	1.0	11
45	On the Carrier Transport for InGaN/GaN Core-Shell Nanorod Green Light-Emitting Diodes. IEEE Nanotechnology Magazine, 2019, 18, 176-182.	1.1	5
46	Progress in External Quantum Efficiency for IIIâ€Nitride Based Deep Ultraviolet Lightâ€Emitting Diodes. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800815.	0.8	33
47	Hydrothermal synthesis and fast photoresponsive characterization of SnS2 hexagonal nanoflakes. Journal of Materials Science, 2019, 54, 2059-2065.	1.7	26
48	On the origin of enhanced hole injection for AlGaN-based deep ultraviolet light-emitting diodes with AlN insertion layer in p-electron blocking layer. Optics Express, 2019, 27, A620.	1.7	73
49	Impact of the surface recombination on InGaN/GaN-based blue micro-light emitting diodes. Optics Express, 2019, 27, A643.	1.7	105
50	High-performance nanoporous-GaN metal-insulator-semiconductor ultraviolet photodetectors with a thermal oxidized Î²-Ga₂O₃ layer. Optics Letters, 2019, 44, 2197.	1.7	22
51	Increasing the hole energy by grading the alloy composition of the p-type electron blocking layer for very high-performance deep ultraviolet light-emitting diodes. Photonics Research, 2019, 7, B1.	3.4	52
52	On the polarization self-screening effect in multiple quantum wells for nitride-based near ultraviolet light-emitting diodes. Chinese Optics Letters, 2019, 17, 122301.	1.3	3
53	Investigations on AlGaNâ€Based Deepâ€Ultraviolet Lightâ€Emitting Diodes With Siâ€Doped Quantum Barriers of Different Doping Concentrations. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1700346.	1.2	31
54	On the AlxGa1-xN/AlyGa1-yN/AlxGa1-xN (x>y) p-electron blocking layer to improve the hole injection for AlGaN based deep ultraviolet light-emitting diodes. Superlattices and Microstructures, 2018, 113, 472-477.	1.4	31

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55	On the p-AlGaN/n-AlGaN/p-AlGaN Current Spreading Layer for AlGaN-based Deep Ultraviolet Light-Emitting Diodes. Nanoscale Research Letters, 2018, 13, 355.	3.1	22
56	High-performance photodetectors based on two-dimensional tin(<scp>ii</scp>) sulfide (SnS) nanoflakes. Journal of Materials Chemistry C, 2018, 6, 10036-10041.	2.7	54
57	Establishment of the relationship between the electron energy and the electron injection for AlGaN based ultraviolet light-emitting diodes. Optics Express, 2018, 26, 17977.	1.7	21
58	Enhancing Both TM- and TE-Polarized Light Extraction Efficiency of AlGaN-Based Deep Ultraviolet Light-Emitting Diode via Air Cavity Extractor With Vertical Sidewall. IEEE Photonics Journal, 2018, 10, 1-9.	1.0	14
59	Manipulation of Si Doping Concentration for Modification of the Electric Field and Carrier Injection for AlGaN-Based Deep-Ultraviolet Light-Emitting Diodes. Crystals, 2018, 8, 258.	1.0	8
60	Nearly Efficiency-Droop-Free AlGaN-Based Ultraviolet Light-Emitting Diodes with a Specifically Designed Superlattice p-Type Electron Blocking Layer for High Mg Doping Efficiency. Nanoscale Research Letters, 2018, 13, 122.	3.1	57
61	Fabrication and Growth Mechanism of Uniform Suspended Perovskite Thin Films. Crystal Growth and Design, 2018, 18, 5770-5779.	1.4	2
62	Hole Transport Manipulation To Improve the Hole Injection for Deep Ultraviolet Light-Emitting Diodes. ACS Photonics, 2017, 4, 1846-1850.	3.2	96
63	A dielectricâ€constantâ€controlled tunnel junction for IIIâ€nitride lightâ€emitting diodes. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600937.	0.8	15
64	Synthesis of highly stable quantum-dot silicone nanocomposites via in situ zinc-terminated polysiloxane passivation. Nanoscale, 2017, 9, 16836-16842.	2.8	26
65	Numerical Investigations on the n⁺â€GaN/AlGaN/p⁺â€GaN Tunnel Junction for IIIâ€Nitride UV Lightâ€Emitting Diodes. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700624.	0.8	6
66	Formation of â€œSteady Sizeâ€•State for Accurate Size Control of CdSe and CdS Quantum Dots. Journal of Physical Chemistry Letters, 2017, 8, 3576-3580.	2.1	13
67	Effects of Inclined Sidewall Structure With Bottom Metal Air Cavity on the Light Extraction Efficiency for AlGaN-Based Deep Ultraviolet Light-Emitting Diodes. IEEE Photonics Journal, 2017, 9, 1-9.	1.0	11
68	On the electric-field reservoir for III-nitride based deep ultraviolet light-emitting diodes. Optics Express, 2017, 25, 16550.	1.7	47
69	UVA light-emitting diode grown on Si substrate with enhanced electron and hole injections. Optics Letters, 2017, 42, 4533.	1.7	29
70	Synthesis of Quantum Dot-ZnS Nanosheet Inorganic Assembly with Low Thermal Fluorescent Quenching for LED Application. Materials, 2017, 10, 1242.	1.3	4
71	On the Hole Injection for III-Nitride Based Deep Ultraviolet Light-Emitting Diodes. Materials, 2017, 10, 1221.	1.3	38
72	A charge inverter for III-nitride light-emitting diodes. Applied Physics Letters, 2016, 108, 133502.	1.5	17

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73	On the hole accelerator for III-nitride light-emitting diodes. Applied Physics Letters, 2016, 108, .	1.5	22
74	On the Importance of the Polarity for GaN/InGaN Last Quantum Barriers in III-Nitride-Based Light-Emitting Diodes. IEEE Photonics Journal, 2016, 8, 1-7.	1.0	2
75	Formation and characteristics of AlGaN-based three-dimensional hexagonal nanopyramid semi-polar multiple quantum wells. Nanoscale, 2016, 8, 11012-11018.	2.8	17
76	On the internal quantum efficiency for InGaN/GaN light-emitting diodes grown on insulating substrates. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 3078-3102.	0.8	17
77	Embeded photonic crystal at the interface of p-GaN and Ag reflector to improve light extraction of GaN-based flip-chip light-emitting diode. Applied Physics Letters, 2014, 105, 251103.	1.5	14
78	Enhancing optical power of GaN-based light-emitting diodes by nanopatterning on indium tin oxide with tunable fill factor using multiple-exposure nanosphere-lens lithography. Journal of Applied Physics, 2014, 116, .	1.1	11
79	Enhanced optical output of GaN-based near-ultraviolet light-emitting diodes using an ultra-thin air cavity nanopatterned sapphire substrate. CrystEngComm, 0, , .	1.3	2
80	A local dielectric tunnel junction to manage the current distribution for AlGaN-based deep-ultraviolet light-emitting diodes with thin p-GaN layer. Optics Letters, 0, , .	1.7	1