Yonghui Zhang

List of Publications by Year
in descending order

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

#	Article	IF	Citations
1	Impact of the surface recombination on InGaN/GaN-based blue micro-light emitting diodes. Optics Express, 2019, 27, A643.	1.7	105
2	Hole Transport Manipulation To Improve the Hole Injection for Deep Ultraviolet Light-Emitting Diodes. ACS Photonics, 2017, 4, 1846-1850.	3.2	96
3	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
4	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
5	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
6	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
7	On the electric-field reservoir for III-nitride based deep ultraviolet light-emitting diodes. Optics Express, 2017, 25, 16550.	1.7	47
8	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
9	On the Hole Injection for III-Nitride Based Deep Ultraviolet Light-Emitting Diodes. Materials, 2017, 10, 1221.	1.3	38
10	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
11	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
12	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
13	UVA light-emitting diode grown on Si substrate with enhanced electron and hole injections. Optics Letters, 2017, 42, 4533.	1.7	29
14	Polarization assisted self-powered GaN-based UV photodetector with high responsivity. Photonics Research, 2021, 9, 734.	3.4	28
15	Synthesis of highly stable quantum-dot silicone nanocomposites via in situ zinc-terminated polysiloxane passivation. Nanoscale, 2017, 9, 16836-16842.	2.8	26
16	Hydrothermal synthesis and fast photoresponsive characterization of SnS2 hexagonal nanoflakes. Journal of Materials Science, 2019, 54, 2059-2065.	1.7	26
17	Enhanced Photoresponse of Indium-Doped Tin Disulfide Nanosheets. ACS Applied Materials & Interfaces, 2020, 12, 2607-2614.	4.0	23
18	On the hole accelerator for III-nitride light-emitting diodes. Applied Physics Letters, 2016, 108, .	1.5	22

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19	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
20	High-performance nanoporous-GaN metal-insulator-semiconductor ultraviolet photodetectors with a thermal oxidized Î²-Ga₂O₃ layer. Optics Letters, 2019, 44, 2197.	1.7	22
21	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
22	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
23	Improving hole injection from <i>p</i>-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
24	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
25	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
26	A charge inverter for III-nitride light-emitting diodes. Applied Physics Letters, 2016, 108, 133502.	1.5	17
27	Formation and characteristics of AlGaN-based three-dimensional hexagonal nanopyramid semi-polar multiple quantum wells. Nanoscale, 2016, 8, 11012-11018.	2.8	17
28	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
29	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
30	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
31	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
32	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
33	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
34	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
35	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
36	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

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37	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
38	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
39	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
40	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
41	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
42	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
43	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
44	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
45	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
46	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
47	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
48	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
49	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
50	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
51	Hybrid metal/Ga₂O₃/GaN ultraviolet detector for obtaining low dark current and high responsivity. Optics Letters, 2022, 47, 1561.	1.7	8
52	Phosphor-Free Three-Dimensional Hybrid White LED With High Color-Rendering Index. IEEE Photonics Journal, 2019, 11, 1-8.	1.0	7
53	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
54	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

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55	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
56	On the Carrier Transport for InGaN/GaN Core-Shell Nanorod Green Light-Emitting Diodes. IEEE Nanotechnology Magazine, 2019, 18, 176-182.	1.1	5
57	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
58	Synthesis of Quantum Dot-ZnS Nanosheet Inorganic Assembly with Low Thermal Fluorescent Quenching for LED Application. Materials, 2017, 10, 1242.	1.3	4
59	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
60	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
61	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
62	On the impact of a metalâ€“insulatorâ€“semiconductor structured n-electrode for AlGaN-based DUV LEDs. Applied Optics, 2021, 60, 11222.	0.9	4
63	Advances of beveled mesas for GaN-based trench Schottky barrier diodes. AIP Advances, 2021, 11, 045316.	0.6	3
64	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
65	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
66	A Buried High<i>k</i>Insulator for Suppressing the Surface Recombination for GaN-Based Micro-Light-Emitting Diodes. IEEE Transactions on Electron Devices, 2022, 69, 3213-3216.	1.6	3
67	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
68	Fabrication and Growth Mechanism of Uniform Suspended Perovskite Thin Films. Crystal Growth and Design, 2018, 18, 5770-5779.	1.4	2
69	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
70	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
71	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
72	Numerical investigations into polarization-induced self-powered GaN-based MSM photodetectors. Applied Optics, 2021, 60, 10975.	0.9	2

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73	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
74	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
75	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
76	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
77	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
78	The Light Extraction Efficiency for DUV LEDs. SpringerBriefs in Applied Sciences and Technology, 2019, , 61-65.	0.2	0
79	Tuning the plasmonic resonance peak for Al nanorods on AlGaN layer to deep ultraviolet band. IEEE Photonics Journal, 2021, , 1-1.	1.0	0
80	GaN-based quasi-vertical Schottky barrier diodes with the sidewall field plate termination for obtaining low leakage current and high breakdown voltage. , 2021, , .		0