CITATION REPORT List of articles citing

Hole injection and efficiency droop improvement in InGaN/GaN light-emitting diodes by band-engineered electron blocking layer

DOI: 10.1063/1.3531753 Applied Physics Letters, 2010, 97, 261103.

Source: https://exaly.com/paper-pdf/49330596/citation-report.pdf

Version: 2024-04-28

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
180	Theoretical study of polarization-doped GaN-based light-emitting diodes. <i>Applied Physics Letters</i> , 2011 , 98, 101110	3.4	49
179	Numerical investigation on the enhanced carrier collection efficiency of Ga-face GaN/InGaN p-i-n solar cells with polarization compensation interlayers. 2011 , 36, 3500-2		21
178	Study of 375 nm ultraviolet InGaN/AlGaN light-emitting diodes with heavily Si-doped GaN transition layer in growth mode, internal quantum efficiency, and device performance. <i>Journal of Applied Physics</i> , 2011 , 110, 123102	2.5	5
177	Hole transport improvement in InGaN/GaN light-emitting diodes by graded-composition multiple quantum barriers. <i>Applied Physics Letters</i> , 2011 , 99, 171106	3.4	114
176	Droop improvement in blue InGaN/GaN multiple quantum well light-emitting diodes with indium graded last barrier. <i>Applied Physics Letters</i> , 2011 , 99, 233501	3.4	52
175	N-polar III-nitride quantum well light-emitting diodes with polarization-induced doping. <i>Applied Physics Letters</i> , 2011 , 99, 171104	3.4	55
174	Performance enhancement of blue light-emitting diodes with a special designed AlGaN/GaN superlattice electron-blocking layer. <i>Applied Physics Letters</i> , 2011 , 99, 221103	3.4	108
173	Improvement of Performance in p-Side Down InGaN/GaN Light-Emitting Diodes with Graded Electron Blocking Layer. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 080212	1.4	7
172	Improved efficiency droop characteristics in an InGaN/GaN light-emitting diode with a novel designed last barrier structure. <i>Chinese Physics B</i> , 2012 , 21, 128504	1.2	6
171	Efficiency enhancement of blue InGaN/GaN light-emitting diodes with an AlGaN-GaN-AlGaN electron blocking layer. <i>Journal of Applied Physics</i> , 2012 , 111, 094503	2.5	37
170	Experimental determination of current spill-over and its effect on the efficiency droop in InGaN/GaN blue-light-emitting-diodes. <i>Applied Physics Letters</i> , 2012 , 100, 031905	3.4	41
169	Improvement of characteristics of InGaN-based laser diodes with undoped InGaN upper waveguide layer. <i>Journal of Applied Physics</i> , 2012 , 112, 113105	2.5	18
168	Influence of polarization-matched AlGaInN barriers in blue InGaN light-emitting diodes. 2012, 37, 1574	-6	16
167	Polarization Matching in AlGaN-Based Multiple-Quantum-Well Deep Ultraviolet Laser Diodes on AlN Substrates Using Quaternary AlInGaN Barriers. 2012 , 30, 3017-3025		6
166	p-InGaN/AlGaN electron blocking layer for InGaN/GaN blue light-emitting diodes. <i>Applied Physics Letters</i> , 2012 , 101, 261106	3.4	27
165	Advantages of GaN based light-emitting diodes with a p-InGaN hole reservoir layer. <i>Applied Physics Letters</i> , 2012 , 100, 141106	3.4	69
164	Effect of the graded electron blocking layer on the emission properties of GaN-based green light-emitting diodes. <i>Applied Physics Letters</i> , 2012 , 100, 053504	3.4	35

163	. 2012 , 24, 1737-1740		6
162	Enhanced Optical Power of InGaN/GaN Light-Emitting Diode by AlGaN Interlayer and Electron Blocking Layer. 2012 , 24, 1991-1994		11
161	Optimal number of quantum wells for blue InGaN/GaN light-emitting diodes. <i>Applied Physics Letters</i> , 2012 , 100, 263504	3.4	26
160	Efficiency droop due to electron spill-over and limited hole injection in III-nitride visible light-emitting diodes employing lattice-matched InAlN electron blocking layers. <i>Applied Physics Letters</i> , 2012 , 101, 161110	3.4	74
159	Suppression of electron overflow and efficiency droop in N-polar GaN green light emitting diodes. <i>Applied Physics Letters</i> , 2012 , 100, 111118	3.4	118
158	Improvement of hole injection and electron overflow by a tapered AlGaN electron blocking layer in InGaN-based blue laser diodes. <i>Applied Physics Letters</i> , 2012 , 100, 031105	3.4	37
157	. 2012 , 30, 61-67		226
156	Numerical Study of the Effects of Hetero-Interfaces, Polarization Charges, and Step-Graded Interlayers on the Photovoltaic Properties of (0001) Face GaN/InGaN p-i-n Solar Cell. <i>IEEE Journal of Quantum Electronics</i> , 2012 , 48, 367-374	2	22
155	Design and Analysis of 250-nm AllnN Laser Diodes on AlN Substrates Using Tapered Electron Blocking Layers. <i>IEEE Journal of Quantum Electronics</i> , 2012 , 48, 703-711	2	27
154	Efficiency droop in light-emitting diodes: Challenges and countermeasures. 2013 , 7, 408-421		322
153	Efficiency droop in InGaN/GaN blue light-emitting diodes: Physical mechanisms and remedies. <i>Journal of Applied Physics</i> , 2013 , 114, 071101	2.5	290
152	Optimal width of quantum well for reversed polarization blue InGaN light-emitting diodes. 2013 , 3, 072	2121	
151	Engineering of AlGaN-Delta-GaN Quantum-Well Gain Media for Mid- and Deep-Ultraviolet Lasers. <i>IEEE Photonics Journal</i> , 2013 , 5, 2600209-2600209	1.8	25
150	Advantages of Blue LEDs With Graded-Composition AlGaN/GaN Superlattice EBL. 2013 , 25, 2062-2065		26
149	Efficiency improvement of light-emitting diodes with a developed electron blocking layer structure and its optimization. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2013 , 47, 51-58	3	9
148	Enhanced performance of GaN based light-emitting diodes with a low temperature p-GaN hole injection layer. <i>Applied Physics Letters</i> , 2013 , 102, 011105	3.4	41
147	Effect of multiquantum barriers in performance enhancement of GaN-based light-emitting diodes. <i>Applied Physics Letters</i> , 2013 , 102, 013507	3.4	28
146	Efficiency droop improvement for InGaN-based light-emitting diodes with gradually increased In-composition across the active region. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2013 , 52, 8-13	3	5

145	Advantage of InGaN-based light-emitting diodes using AlGaInN electron blocking layer coupled with inserting InGaN layer. <i>Optik</i> , 2013 , 124, 5866-5870	2.5	4
144	Polarization doping for III-nitride optoelectronics. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013 , 210, 1369-1376	1.6	19
143	Optical Gain and Laser Characteristics of InGaN Quantum Wells on Ternary InGaN Substrates. <i>IEEE Photonics Journal</i> , 2013 , 5, 2600111-2600111	1.8	84
142	Effects of light extraction efficiency to the efficiency droop of InGaN-based light-emitting diodes. <i>Journal of Applied Physics</i> , 2013 , 113, 014502	2.5	24
141	. IEEE Photonics Journal, 2013 , 5, 2201011-2201011	1.8	107
140	Advantages of blue InGaN light-emitting diodes with composition-graded barriers and electron-blocking layer. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013 , 210, 1103-110	06 ^{1.6}	14
139	Projected Efficiency of Polarization-Matched p-In $\$ _{bm x}\$ Ga\$_{bm {1-x}}\$N/i-In \$_{bm y}\$Ga\$_{bm{1-y}}\$N/n-GaN Double Heterojunction Solar Cells. 2013 , 3, 985-990		8
138	n-ZnO/p-GaN heterojunction light-emitting diodes with a polarization-induced graded-p-AlxGa1\(\mathbb{U}\)N electron-blocking layer. <i>Journal Physics D: Applied Physics</i> , 2013 , 46, 065101	3	7
137	Tunneling-based carrier regeneration in cascaded GaN light emitting diodes to overcome efficiency droop. <i>Applied Physics Letters</i> , 2013 , 103, 081107	3.4	59
136	Dependence of InGaN solar cell performance on polarization-induced electric field and carrier lifetime. <i>Chinese Physics B</i> , 2013 , 22, 098801	1.2	3
135	Efficiency Droop Improvement in InGaN/GaN Light-Emitting Diodes by Graded-Composition Multiple Quantum Wells. <i>IEEE Photonics Journal</i> , 2013 , 5, 8200208-8200208	1.8	13
134	Dependence of Electron Overflow on Emission Wavelength and Crystallographic Orientation in Single-Quantum-Well IIINitride Light-Emitting Diodes. <i>Applied Physics Express</i> , 2013 , 6, 052103	2.4	3
133	Performance improvement of blue InGaN light-emitting diodes with a specially designed n-AlGaN hole blocking layer. <i>Chinese Physics B</i> , 2013 , 22, 088503	1.2	6
132	Performance improvement of blue light-emitting diodes with an AllnN/GaN superlattice electron-blocking layer. <i>Chinese Physics B</i> , 2013 , 22, 058503	1.2	2
131	Observation of Electroluminescence From Quantum Wells Far From p-GaN Layer in Nitride-Based Light-Emitting Diodes. <i>Journal of Display Technology</i> , 2013 , 9, 260-265		3
130	Enhanced Electro-Static Discharge Endurance of GaN-Based Light-Emitting Diodes with Specially Designed Electron Blocking Layer. <i>Japanese Journal of Applied Physics</i> , 2013 , 52, 102103	1.4	4
129	Enhancement of Radiative Recombination by Different Indium Composition of Multiple Quantum Barriers in GaN-Based Light-Emitting Diodes. <i>Japanese Journal of Applied Physics</i> , 2013 , 52, 06GE04	1.4	
128	Performance enhancement of InGaN light-emitting diodes with a leakage electron recombination quantum well. <i>Applied Physics A: Materials Science and Processing</i> , 2014 , 117, 1993-1996	2.6	2

127	Enhancement of performance of GaN-based light-emitting diodes by insertion and optimization of n-InGaN/GaN composite current-spreading layers. <i>Japanese Journal of Applied Physics</i> , 2014 , 53, 022107	1 ^{1.4}	2
126	Investigation of Efficiency and Droop Behavior Comparison for InGaN/GaN Super Wide-Well Light Emitting Diodes Grown on Different Substrates. <i>IEEE Photonics Journal</i> , 2014 , 6, 1-10	1.8	20
125	Nitride LEDs based on quantum wells and quantum dots. 2014 , 368-408		3
124	Carrier Transport Improvement in Blue InGaN Light-Emitting Diodes Via Reduced Polarization Using a Band-Engineered Electron Blocking Layer. <i>Journal of Display Technology</i> , 2014 , 10, 1101-1105		4
123	GaN-Based LEDs With Hot/Cold Factor Improved by the Electron Blocking Layer. <i>Journal of Display Technology</i> , 2014 , 10, 1078-1082		4
122	Hole injection and electron overflow improvement in InGaN/GaN light-emitting diodes by a tapered AlGaN electron blocking layer. <i>Optics Express</i> , 2014 , 22, 463-9	3.3	42
121	Efficiency improvement by polarization-reversed electron blocking structure in GaN-based Light-emitting diodes. <i>Optics Express</i> , 2014 , 22 Suppl 3, A1001-8	3.3	9
120	Enhanced light output power of thin film GaN-based high voltage light-emitting diodes. <i>Optics Express</i> , 2014 , 22 Suppl 6, A1462-8	3.3	11
119	Effects of polarization field distribution on photoelectric properties of InGaN light-emitting diodes. <i>Optical Materials Express</i> , 2014 , 4, 1848	2.6	2
118	Improving hole injection efficiency by manipulating the hole transport mechanism through p-type electron blocking layer engineering. 2014 , 39, 2483-6		33
117	Modulating emission intensity of GaN-based green light emitting diodes on c-plane sapphire. <i>Applied Physics Letters</i> , 2014 , 104, 151102	3.4	7
116	Advantages of GaN-Based Light-Emitting Diodes With Polarization-Reduced Chirped Multiquantum Barrier. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 2849-2853	2.9	7
115	III-nitride tunnel junctions for efficient solid state lighting. 2014 ,		1
114	Light-emitting-diodes based on ordered InGaN nanocolumns emitting in the blue, green and yellow spectral range. 2014 , 25, 435203		18
113	Improvement of light power and efficiency droop in GaN-based LEDs using graded InGaN hole reservoir layer. <i>Applied Physics A: Materials Science and Processing</i> , 2014 , 114, 1055-1059	2.6	7
112	Study of InGaN/GaN Light Emitting Diodes With Step-Graded Electron Blocking Layer. 2014 , 26, 134-13	7	19
111	High efficiency InGaN/GaN light emitting diodes with asymmetric triangular multiple quantum wells. <i>Applied Physics Letters</i> , 2014 , 104, 091111	3.4	16
110	Fabrication and Improved Performance of GaN LEDs With Finger-Type Structure. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 4128-4131	2.9	7

109	Effect of Stair-Case Electron Blocking Layer on the Performance of Blue InGaN Based LEDs. <i>Journal of Display Technology</i> , 2014 , 10, 146-150		3
108	Self-heating dependent characteristic of GaN-based light-emitting diodes with and without AlGaInN electron blocking layer. 2014 , 59, 2460-2469		4
107	A GaNAlGaNInGaN last quantum barrier in an InGaN/GaN multiple-quantum-well blue LED. <i>Chinese Physics B</i> , 2014 , 23, 048502	1.2	2
106	Advantages of the Blue InGaN/GaN Light-Emitting Diodes with an AlGaN/GaN/AlGaN Quantum Well Structured Electron Blocking Layer. 2014 , 1, 377-381		28
105	Effect of n-type barrier doping on steady and dynamic performance of InGaN light-emitting diodes. 2014 , 10, 250-252		2
104	Performance enhancement of blue light-emitting diodes by adjusting the p-type doped last barrier. <i>Applied Physics A: Materials Science and Processing</i> , 2014 , 115, 1115-1119	2.6	6
103	Enhanced performances of InGaN/GaN-based blue light-emitting diode with InGaN/AlInGaN superlattice electron blocking layer. <i>Chinese Physics B</i> , 2014 , 23, 068502	1.2	2
102	Design and fabrication of a InGaN vertical-cavity surface-emitting laser with a composition-graded electron-blocking layer. 2014 , 11, 085002		3
101	Enhancement of luminous efficiency by hybrid structure for warm white light-emitting diodes. 2014 , 1, 9		1
100	. IEEE Photonics Journal, 2014 , 6, 1-9	1.8	967
100	. <i>IEEE Photonics Journal</i> , 2014 , 6, 1-9 Modulation of hole-injection in GaInN-light emitting triodes and its effect on carrier recombination behavior. 2015 , 5, 107104	1.8	967
	Modulation of hole-injection in GaInN-light emitting triodes and its effect on carrier recombination	1.8	967 4
99	Modulation of hole-injection in GalnN-light emitting triodes and its effect on carrier recombination behavior. 2015 , 5, 107104 Polarization-Engineered High-Efficiency GalnN Light-Emitting Diodes Optimized by Genetic		967
99 98	Modulation of hole-injection in GaInN-light emitting triodes and its effect on carrier recombination behavior. 2015 , 5, 107104 Polarization-Engineered High-Efficiency GaInN Light-Emitting Diodes Optimized by Genetic Algorithm. <i>IEEE Photonics Journal</i> , 2015 , 7, 1-9 Improved carrier injection in GaN-based VCSEL via AlGaN/GaN multiple quantum barrier electron	1.8	4
99 98 97	Modulation of hole-injection in GaInN-light emitting triodes and its effect on carrier recombination behavior. 2015 , 5, 107104 Polarization-Engineered High-Efficiency GaInN Light-Emitting Diodes Optimized by Genetic Algorithm. <i>IEEE Photonics Journal</i> , 2015 , 7, 1-9 Improved carrier injection in GaN-based VCSEL via AlGaN/GaN multiple quantum barrier electron blocking layer. <i>Optics Express</i> , 2015 , 23, 27145-51 Engineering the carrier dynamics of InGaN nanowire white light-emitting diodes by distributed	1.8	4 25
99 98 97 96	Modulation of hole-injection in GalnN-light emitting triodes and its effect on carrier recombination behavior. 2015, 5, 107104 Polarization-Engineered High-Efficiency GalnN Light-Emitting Diodes Optimized by Genetic Algorithm. IEEE Photonics Journal, 2015, 7, 1-9 Improved carrier injection in GaN-based VCSEL via AlGaN/GaN multiple quantum barrier electron blocking layer. Optics Express, 2015, 23, 27145-51 Engineering the carrier dynamics of InGaN nanowire white light-emitting diodes by distributed p-AlGaN electron blocking layers. 2015, 5, 7744 Promotion of electron confinement and hole injection in GaN-based green light-emitting diodes	3.3	4 25 74
99 98 97 96	Modulation of hole-injection in GalnN-light emitting triodes and its effect on carrier recombination behavior. 2015, 5, 107104 Polarization-Engineered High-Efficiency GalnN Light-Emitting Diodes Optimized by Genetic Algorithm. IEEE Photonics Journal, 2015, 7, 1-9 Improved carrier injection in GaN-based VCSEL via AlGaN/GaN multiple quantum barrier electron blocking layer. Optics Express, 2015, 23, 27145-51 Engineering the carrier dynamics of InGaN nanowire white light-emitting diodes by distributed p-AlGaN electron blocking layers. 2015, 5, 7744 Promotion of electron confinement and hole injection in GaN-based green light-emitting diodes with a hybrid electron blocking layer. Journal Physics D: Applied Physics, 2015, 48, 045101 Enhanced Performance of GalnN LEDs by Abrupt Mg Doped p-AlGaN Electron Blocking Layer. ECS	3.3	4 25 74 2

(2016-2015)

The beneficial effects of a p-type GaInN spacer layer on the efficiency of GaInN/GaN light-emitting 91 diodes. 2015, 15, 1222-1225 Performance Enhancement of Ultraviolet Light-Emitting Diodes by Incorporating a Thin Al(In)GaN 90 Interlayer in Multiquantum-Well Region. IEEE Journal of Quantum Electronics, 2015, 51, 1-6 Investigation of degraded efficiency in blue InGaN multiple-quantum well light-emitting diodes. 89 2 2015, 450-nm GaN laser diode enables high-speed visible light communication with 9-Gbps QAM-OFDM. 88 185 3.3 Optics Express, 2015, 23, 13051-9 The Advantages of AlGaN-Based Ultraviolet Light-Emitting Diodes With Al Content Graded AlGaN 87 7 Barriers. Journal of Display Technology, 2015, 11, 677-681 High optical power and low-efficiency droop blue light-emitting diodes using compositionally 86 17 step-graded InGaN barrier. **2015**, 51, 1187-1189 Enhanced Light Output of UVA GaN Vertical LEDs With Novel DBR Mirrors. IEEE Journal of Quantum 85 7 *Electronics*, **2015**, 51, 1-5 Performance enhancement of InGaN-based light-emitting diodes with InGaN/AlInN/InGaN 1.8 84 2 composition-graded barriers. Semiconductor Science and Technology, 2015, 30, 125014 Advantage of InGaN-based light-emitting diodes with trapezoidal electron blocking layer. 2015, 29, 95-101 83 16 Lasing Characteristics of a Metal-Coated GaN Shallow Grating Structure at Room Temperature. 82 7 **2015**, 21, 475-479 Effect of lattice-matched InAlGaN electron-blocking layer on hole transport and distribution in InGaN/GaN multiple quantum wells of visible light-emitting diodes. Physica Status Solidi (A) 81 1.6 2 Applications and Materials Science, 2016, 213, 1296-1301 Study on Optical Properties of Indium-Graded Semipolar InGaN/GaN Quantum Well. IEEE Photonics 80 1.8 Journal, **2016**, 8, 1-13 Investigating the origin of efficiency droop by profiling the voltage across the multi-quantum well 6 79 3.4 of an operating light-emitting diode. Applied Physics Letters, 2016, 108, 231101 Structural design and optimization of near-ultraviolet light-emitting diodes with wide wells. Journal 78 2.5 2 of Applied Physics, 2016, 119, 094503 Polarity in GaN and ZnO: Theory, measurement, growth, and devices. Applied Physics Reviews, 2016, 85 17.3 77 3,041303 Performance Enhancement of Blue Light-Emitting Diodes With an Undoped AlGaN 76 7 Electron-Blocking Layer in the Active Region. Journal of Display Technology, 2016, 12, 573-576 Influences of Si-doped graded short-period superlattice on green InGaN/GaN light-emitting diodes. 75 3.3 19 Optics Express, 2016, 24, 7743-51 Photon management of GaN-based optoelectronic devices via nanoscaled phenomena. Progress in 9.1 23 74 *Quantum Electronics*, **2016**, 49, 1-25

73	Effect of composition-graded interlayers in double-heterostructure blue InGaN light-emitting diodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016 , 213, 154-157	1.6	3
72	High-performance InGaN-based green light-emitting diodes with quaternary InAlGaN/GaN superlattice electron blocking layer. <i>Optics Express</i> , 2016 , 24, 11387-95	3.3	19
71	Simulation and Experimental Study on Barrier Thickness of Superlattice Electron Blocking Layer in Near-Ultraviolet Light-Emitting Diodes. <i>IEEE Journal of Quantum Electronics</i> , 2016 , 52, 1-6	2	13
70	Efficiency droop enhancement in AlGaN deep ultraviolet light-emitting diodes by making whole barriers but the bottom Mg doped. <i>Superlattices and Microstructures</i> , 2016 , 97, 371-377	2.8	3
69	Advances and prospects in nitrides based light-emitting-diodes. <i>Journal of Semiconductors</i> , 2016 , 37, 061001	2.3	37
68	Efficiency droop suppression of InGaN-based blue light-emitting diodes using dip-shaped quantum wells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016 , 213, 1187-1192	1.6	1
67	A new structure of p-GaN/InGaN heterojunction to enhance hole injection for blue GaN-based LEDs. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 285106	3	3
66	Tailoring of Energy Band in Electron-Blocking Structure Enhancing the Efficiency of AlGaN-Based Deep Ultraviolet Light-Emitting Diodes. <i>IEEE Photonics Journal</i> , 2016 , 8, 1-7	1.8	12
65	Investigation of whether uniform carrier distribution in quantum wells can lead to higher performance in InGaN light-emitting diodes. <i>Optical and Quantum Electronics</i> , 2016 , 48, 1	2.4	3
64	Bridging the "green gap" of LEDs: giant light output enhancement and directional control of LEDs via embedded nano-void photonic crystals. <i>Nanoscale</i> , 2016 , 8, 1192-9	7.7	22
63	Advantages of InGaN/GaN Light-Emitting Diodes With GaN-InGaN Last Barrier. <i>Journal of Display Technology</i> , 2016 , 12, 594-598		3
62	Investigation of p-type depletion doping for InGaN/GaN-based light-emitting diodes. <i>Applied Physics Letters</i> , 2017 , 110, 033506	3.4	15
61	Vertical transport through AlGaN barriers in heterostructures grown by ammonia molecular beam epitaxy and metalorganic chemical vapor deposition. <i>Semiconductor Science and Technology</i> , 2017 , 32, 025010	1.8	8
60	InGaN/GaN light-emitting diode having direct hole injection plugs and its high-current operation. <i>Optics Express</i> , 2017 , 25, 6440-6449	3.3	6
59	Internal Quantum Efficiency. <i>Topics in Applied Physics</i> , 2017 , 163-207	0.5	1
58	Performance enhancement of InGaN LEDs with Al-graded GaN/AlGaN multiple electron-blocking layers. <i>Japanese Journal of Applied Physics</i> , 2017 , 56, 062102	1.4	
57	Numerical Investigation of InGaN Light-Emitting Diode with Al/In-Graded p-AlGaN/InGaN Superlattice Electron-Blocking Layer. <i>Journal of Electronic Materials</i> , 2017 , 46, 1100-1106	1.9	2
56	Enhanced Performance of GaN/InGaN Multiple Quantum Well LEDs by Shallow First Well and Stepped Electron-Blocking Layer. <i>Lecture Notes in Electrical Engineering</i> , 2017 , 207-215	0.2	

55	Performance Improvement of Light-Emitting Diodes with W-Shaped InGaN/GaN Multiple Quantum Wells. <i>Lecture Notes in Electrical Engineering</i> , 2017 , 241-251	0.2	1
54	Efficient Carrier Confinement in Deep-Ultraviolet Light-Emitting Diodes With Composition-Graded Configuration. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 4980-4984	2.9	20
53	Effects of Nanoscale V-Shaped Pits on GaN-Based Light Emitting Diodes. <i>Materials</i> , 2017 , 10,	3.5	6
52	A Review on Experimental Measurements for Understanding Efficiency Droop in InGaN-Based Light-Emitting Diodes. <i>Materials</i> , 2017 , 10,	3.5	23
51	Fundamental Limitations of Wide-Bandgap Semiconductors for Light-Emitting Diodes. <i>ACS Energy Letters</i> , 2018 , 3, 655-662	20.1	35
50	Tunnel injection from WS quantum dots to InGaN/GaN quantum wells RSC Advances, 2018, 8, 15399-1	54,0/4	2
49	Efficiency improvement of green light-emitting diodes by employing all-quaternary active region and electron-blocking layer. <i>Superlattices and Microstructures</i> , 2018 , 113, 585-591	2.8	26
48	Design and comparative study of vertical LEDs with graphene, ITO and Ni/Au as contact/current spreading layer. <i>Materials Research Express</i> , 2018 , 5, 016303	1.7	1
47	. IEEE Transactions on Electron Devices, 2018 , 65, 5373-5380	2.9	4
46	Theory and Design of Electron Blocking Layers for III-N-Based Laser Diodes by Numerical Simulation. <i>IEEE Journal of Quantum Electronics</i> , 2018 , 54, 1-11	2	7
45	Quantum Efficiency Enhancement of a GaN-Based Green Light-Emitting Diode by a Graded Indium Composition p-Type InGaN Layer. <i>Nanomaterials</i> , 2018 , 8,	5.4	5
44	Nitride LEDs based on quantum wells and quantum dots. 2018 , 377-413		5
43	High performance GaN/InGaN multiple quantum well LEDs through electron blocking layer engineering. <i>Microsystem Technologies</i> , 2018 , 1	1.7	2
42	Impedance Elements of Significant Junctions in InGaN Light-Emitting Diodes Studied by Electric Modulus Spectroscopy. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 3393-3398	2.9	2
41	Degradation processes of 280 nm high power DUV LEDs: impact on parasitic luminescence. Japanese Journal of Applied Physics, 2019 , 58, SCCC19	1.4	7
40	Improved Output Power of GaN-based VCSEL with Band-Engineered Electron Blocking Layer. <i>Micromachines</i> , 2019 , 10,	3.3	1
39	Epitaxial GaN films with ultralow threading dislocation densities grown on an SiO2-masked patterned sapphire substrate. <i>Applied Physics Express</i> , 2019 , 12, 105501	2.4	
38	Monolithic integration of GaN LEDs with vertical driving MOSFETs by selective area growth and band engineering of the p-AlGaN electron blocking layer though TCAD simulation. Semiconductor Science and Technology 2019, 34, 064002	1.8	5

37	Nanorod Array Structure Through a Nanomolding Process for Semiconductor Lighting and Display Applications. <i>Nano</i> , 2019 , 14, 1950153	1.1	1
36	Reducing Efficiency Droop for Si-Doped Barrier Model of GaN/InGaN Multi-quantum Well Light-Emitting Diode by Designing Electron Blocking Layer. <i>Lecture Notes in Electrical Engineering</i> , 2019 , 565-571	0.2	
35	The AlGaInP/AlGaAs Material System and Red/Yellow LED. <i>Solid State Lighting Technology and Application Series</i> , 2019 , 171-202	0.7	1
34	Improved optoelectronic performance of green light-emitting diodes by employing GaAlInN quantum wells without electron blocking layer. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2019 , 106, 68-72	3	10
33	Droop-free internal quantum efficiency of p-InGaN/p-GaN superlattice electron blocking layer. <i>Optik</i> , 2020 , 223, 165514	2.5	2
32	Constructive studies on the advantages of using Ga- and N-face polarities in conventional and staggered InGaN/GaN QW LEDs. <i>Optical Materials</i> , 2020 , 109, 110420	3.3	
31	Improvement of Light Extraction in Deep Ultraviolet GaN Light Emitting Diodes with Mesh P-Contacts. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 5783	2.6	5
30	Thickness-graded quantum barriers and composition-graded electron blocking layer for efficient green light-emitting diodes. <i>Optik</i> , 2020 , 215, 164767	2.5	1
29	Augmenting the internal quantum efficiency of GaN-based green light-emitting diodes by sandwiching active region with p-AlGaN layers. <i>Journal of Modern Optics</i> , 2020 , 67, 837-842	1.1	
28	Effectively Confining the Lateral Current Within the Aperture for GaN Based VCSELs by Using a Reverse Biased NP Junction. <i>IEEE Journal of Quantum Electronics</i> , 2020 , 56, 1-7	2	1
27	Increasing the internal quantum efficiency of green GaN-based light-emitting diodes by employing graded quantum well and electron blocking layer. <i>Optical and Quantum Electronics</i> , 2020 , 52, 1	2.4	O
26	High internal quantum efficiency of green GaN-based light-emitting diodes by thickness-graded last well/last barrier and composition-graded electron blocking layer. <i>Optical and Quantum Electronics</i> , 2020 , 52, 1	2.4	1
25	Review Survey of Simulations on Device Engineering of GaN-Based Light-Emitting Diodes. <i>ECS Journal of Solid State Science and Technology</i> , 2020 , 9, 066002	2	5
24	Wedge-shaped electron blocking layer to improve hole transport and efficiency in green light-emitting diodes. <i>Optics Communications</i> , 2020 , 464, 125493	2	14
23	Analysis of various electron blocking layers to improve efficiency in green light-emitting diodes. <i>Ceramics International</i> , 2020 , 46, 18464-18468	5.1	3
22	Upping the internal quantum efficiency of green light-emitting diodes by employing a graded AlGaN barrier and an electron blocking layer. <i>IET Optoelectronics</i> , 2021 , 15, 69-74	1.5	
21	The most optimal barrier height of InGaN light-emitting diodes. <i>Applied Physics A: Materials Science and Processing</i> , 2021 , 127, 1	2.6	1
20	Investigation of efficiency droop in InGaN/GaN-based LEDs with a gradually varying In composition in each InGaN well layer. <i>Chinese Physics B</i> ,	1.2	O

19	Near-white light-emitting diode from p-CuO/n-GaN heterojunction with an i-CuO electron blocking layer. <i>Journal of Alloys and Compounds</i> , 2021 , 867, 159145	5.7	8
18	Exploring superlattice DBR effect on a micro-LED as an electron blocking layer. <i>Optics Express</i> , 2021 , 29, 26255-26264	3.3	3
17	Performance Enhancement of InGaN Light-Emitting Diodes with InGaN/GaN/InGaN Triangular Barriers. <i>ECS Journal of Solid State Science and Technology</i> , 2021 , 10, 086004	2	
16	Deep Ultraviolet AlGaN-Based Light-Emitting Diodes with p-AlGaN/AlGaN Superlattice Hole Injection Structures. <i>Processes</i> , 2021 , 9, 1727	2.9	1
15	Double AlGaN/InGaN superlattice electron-blocking layer improved performance of InGaN/GaN light-emitting diodes. <i>Optical Engineering</i> , 2018 , 57, 1	1.1	1
14	High performance electron blocking layer-free InGaN/GaN nanowire white-light-emitting diodes. <i>Optics Express</i> , 2020 , 28, 665-675	3.3	15
13	Numerical investigation on the device performance of electron blocking layer free AlInN nanowire deep ultraviolet light-emitting diodes. <i>Optical Materials Express</i> , 2020 , 10, 472	2.6	8
12	Improvement of Performance in p-Side Down InGaN/GaN Light-Emitting Diodes with Graded Electron Blocking Layer. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 080212	1.4	4
11	Reduction of Electron Overflow Problem by Improved InGaN/GaN Based Multiple Quantum Well LEDs Structure with p- AlInGaN/AlGaN EBL Layer. <i>Environmental Science and Engineering</i> , 2014 , 189-192	0.2	
10	Efficiency Droop of Nitride-Based Light-Emitting Diodes. Series in Optics and Optoelectronics, 2017, 99-1	22	
9	Lighting Communications. Series in Optics and Optoelectronics, 2017, 645-659		
8	Efficiency enhancement of InGaN/GaN light-emitting diodes with a p-i-n electron blocking layer. 2019 ,		
7	Efficiency enhancement of GaN based light-emitting diodes with an n-i-p type last quantum barrier. 2020 ,		
6	Effects of polarized-induced doping and graded composition in an advanced multiple quantum well InGaN/GaN UV-LED for enhanced light technology. <i>Engineering Research Express</i> ,	0.9	O
5	Role of Strain-Induced Microscale Compositional Pulling on Optical Properties of High Al Content AlGaN Quantum Wells for Deep-Ultraviolet LED <i>Nanoscale Research Letters</i> , 2022 , 17, 13	5	0
4	Interplay between Auger recombination, carrier leakage, and polarization in InGaAlN multiple-quantum-well light-emitting diodes. <i>Journal of Applied Physics</i> , 2022 , 131, 193102	2.5	1
3	High radiative recombination in GaN-based yellow light-emitting diodes. <i>International Journal of Modern Physics B</i> ,	1.1	0
2	Theoretical Optical Output Power Improvement of InGaN-Based Violet Laser Diode Using AlGaN/GaN Composite Last Quantum Barrier. 2022 , 12, 3990		1

Ultra-low-current driven InGaN blue micro light-emitting diodes for electrically efficient and self-heating relaxed microdisplay. **2023**, 14,

О