

Xiaodong Hu

List of Publications by Year in descending order

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52
papers

569
citations

759233

12
h-index

677142

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52
all docs

52
docs citations

52
times ranked

686
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of optical gain property in the InGaN/GaN triangular shaped quantum well under the piezoelectric field. Applied Physics Letters, 2009, 94, 061120.	3.3	60
2	Improvement of hole injection and electron overflow by a tapered AlGaIn electron blocking layer in InGaIn-based blue laser diodes. Applied Physics Letters, 2012, 100, .	3.3	47
3	Origin of 3.45 eV Emission Line and Yellow Luminescence Band in GaN Nanowires: Surface Microwire and Defect. ACS Nano, 2015, 9, 9276-9283.	14.6	43
4	Influence of indium composition in the prestrained InGaIn interlayer on the strain relaxation of InGaIn/GaN multiple quantum wells in laser diode structures. Journal of Applied Physics, 2011, 109, .	2.5	34
5	Investigation of the light emission properties and carrier dynamics in dual-wavelength InGaIn/GaN multiple-quantum well light emitting diodes. Journal of Applied Physics, 2012, 112, .	2.5	31
6	Investigation of the electroluminescence spectrum shift of InGaIn/GaN multiple quantum well light-emitting diodes under direct and pulsed currents. Journal of Applied Physics, 2013, 113, .	2.5	31
7	Flexibly and Repeatedly Modulating Lasing Wavelengths in a Single Core-Shell Semiconductor Microrod. ACS Nano, 2017, 11, 5808-5814.	14.6	26
8	Dislocation Reduction and Stress Relaxation of GaN and InGaIn Multiple Quantum Wells with Improved Performance via Serpentine Channel Patterned Mask. ACS Applied Materials & Interfaces, 2016, 8, 21480-21489.	8.0	25
9	Strain modulation-enhanced Mg acceptor activation efficiency of Al _{0.14} Ga _{0.86} N/GaN superlattices with AlN interlayer. Applied Physics Letters, 2010, 96, .	3.3	19
10	The effects of different bedroom light environments in the evening on adolescents. Building and Environment, 2021, 206, 108321.	6.9	16
11	Advantage of tapered and graded AlGaIn electron blocking layer in InGaIn-based blue laser diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 346-349.	0.8	15
12	Stimulated emission in GaN-based laser diodes far below the threshold region. Optics Express, 2014, 22, 2536.	3.4	12
13	Temperature-dependent current-voltage-capacitance characteristics of GaN-based light-emitting diodes under high forward bias. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 714-717.	0.8	12
14	Optical properties of a novel parabolic quantum well structure in InGaIn/GaN light emitters. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 925-929.	1.8	12
15	Grouped and Multistep Nanoheteroepitaxy: Toward High-Quality GaN on Quasi-Periodic Nano-Mask. ACS Applied Materials & Interfaces, 2016, 8, 18208-18214.	8.0	12
16	Defect Reduction via Selective Lateral Epitaxy of GaN on an Innovative Masked Structure with Serpentine Channels. Applied Physics Express, 2012, 5, 051001.	2.4	11
17	Stimulated emission related anomalous change of electrical parameters at threshold in GaN-based laser diodes. Applied Physics Letters, 2013, 102, .	3.3	11
18	Practicable alleviation of efficiency droop effect using surface plasmon coupling in GaN-based light emitting diodes. Applied Physics Letters, 2013, 102, .	3.3	11

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19	Dislocation reduction through nucleation and growth selectivity of metal-organic chemical vapor deposition GaN. <i>Journal of Applied Physics</i> , 2013, 113, 144908.	2.5	10
20	Reduction of threading dislocations in GaN grown on patterned sapphire substrate masked with serpentine channel. <i>Materials Science in Semiconductor Processing</i> , 2021, 134, 106013.	4.0	10
21	Self-selection mechanism of Fabry-Pérot micro/nanoscale wire cavity for single-mode lasing. <i>Optics Express</i> , 2017, 25, 21025.	3.4	9
22	High-quality GaN epitaxially grown on Si substrate with serpentine channels. <i>Superlattices and Microstructures</i> , 2018, 118, 284-288.	3.1	8
23	Non-polar true-lateral GaN power diodes on foreign substrates. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	8
24	First-principles study of CN point defects on sidewall surface of [0001]-oriented GaN nanowires. <i>Applied Surface Science</i> , 2019, 467-468, 293-297.	6.1	7
25	Study on ultra-high sensitivity piezoelectric effect of GaN micro/nano columns. <i>Nano Convergence</i> , 2019, 6, 33.	12.1	7
26	Analytical models of electron leakage currents in gallium nitride-based laser diodes and light-emitting diodes. <i>Optics Express</i> , 2022, 30, 3973.	3.4	7
27	Room-temperature polariton lasing in GaN microrods with large Rabi splitting. <i>Optics Express</i> , 2022, 30, 16794.	3.4	7
28	Enhancement of light-emission efficiency of ultraviolet InGaN/GaN multiple quantum well light emitting diode with InGaN underlying layer. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 108, 771-776.	2.3	6
29	GaN-based substrates and optoelectronic materials and devices. <i>Science Bulletin</i> , 2014, 59, 1201-1218.	1.7	6
30	Raman investigation on the surface carrier concentration of single GaN microrod grown by MOCVD. <i>Applied Surface Science</i> , 2019, 489, 346-350.	6.1	6
31	Tunable single-mode lasing in a single semiconductor microrod. <i>Optics Express</i> , 2018, 26, 30021.	3.4	6
32	The influence of AlN interlayers on the microstructural and electrical properties of p-type AlGaIn/GaN superlattices grown on GaN/sapphire templates. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 108, 857-862.	2.3	5
33	Competitive behavior of photons contributing to junction voltage jump in narrow band-gap semiconductor multi-quantum-well laser diodes at lasing threshold. <i>AIP Advances</i> , 2015, 5, .	1.3	5
34	Design of a tandem distributed Bragg reflectors specialized for enhancing the efficiency of GaN-based ultraviolet light-emitting diodes. <i>Optics Communications</i> , 2016, 374, 80-83.	2.1	5
35	Focused ion beam etched nitride/air DBRs as cavity mirror facets of violet InGaIn/GaN multiple-quantum well laser diodes. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007, 4, 196-199.	0.8	4
36	Spontaneous luminescence polarizations of wurtzite InGaIn/GaN quantum wells. <i>Applied Physics Letters</i> , 2008, 93, 171114.	3.3	4

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37	Theoretical Study of a Planar Structure Plasmonic Nanolaser in Visible Regime. <i>Plasmonics</i> , 2014, 9, 959-964.	3.4	4
38	Epitaxy of GaN in high aspect ratio nanoscale holes over silicon substrate. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	3
39	Micro-Raman investigation on the size effects of surface optical phonon modes in single cone-shape InGaN/GaN microrods. <i>Applied Surface Science</i> , 2020, 512, 145656.	6.1	3
40	The Ga-Nitride/air Two-Dimensional Photonic Quasi-crystals Fabricated on GaN-based Light Emitters. <i>Materials Research Society Symposia Proceedings</i> , 2004, 831, 597.	0.1	2
41	Cathodoluminescence study of InGaN MQW laser diodes using laser lift-off technique. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007, 4, 166-169.	0.8	1
42	Donor-related cathodoluminescence of p-AlGaN electron blocking layer embedded in ultraviolet laser diode structure. <i>Applied Physics Letters</i> , 2009, 94, 211103.	3.3	1
43	Inclined Dislocation Generation in Compressive-Strain-Enhanced Mg-Doped GaN/Al _{0.15} Ga _{0.85} N Superlattice with AlN Interlayer. <i>Applied Physics Express</i> , 2013, 6, 061002.	2.4	1
44	The design criteria of hybrid waveguides using semiconductor gain to compensate the metal loss towards nano-scale lasers with high plasmonicity. <i>Applied Physics Letters</i> , 2014, 105, 033109.	3.3	1
45	Theoretical Investigation of Loss-Compensating Hybrid Waveguide Using Quasi-One-Dimensional Surface Plasmon for Green Nanolaser. <i>Plasmonics</i> , 2016, 11, 159-165.	3.4	1
46	High-temperature crystallinity restoring layers and their optimal positions for ultra-thick InGaN/GaN multiple-quantum-well structures. <i>CrystEngComm</i> , 2021, 23, 5609-5614.	2.6	1
47	Two-round quasi-whispering gallery mode exciton-polaritons with large Rabi splitting in a GaN microrod. <i>Optics Express</i> , 2021, 29, 39788-39800.	3.4	1
48	Pyramidal shape four V-grooved silicon substrate for enhancing cubic phase gallium nitride growth. <i>Applied Physics Letters</i> , 2022, 120, 112107.	3.3	1
49	Wavelengths and irradiances modulate the circadian rhythm of <i>Neurospora crassa</i> . <i>PLoS ONE</i> , 2022, 17, e0266266.	2.5	1
50	Length dependence of polarization in spontaneous edge emissions from InGaN/AlGaIn MQWs laser diodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007, 204, 257-261.	1.8	0
51	Carrier trapping induced abnormal temperature dependent photoluminescence properties of novel sandwiched structure InGaIn quantum wells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 706-709.	0.8	0
52	The epitaxy of GaN in deep and submicron holes over Si substrate. , 2016, , .		0