

# Xiaodong Hu

## List of Publications by Year in descending order

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52  
papers

569  
citations

759233

12  
h-index

677142

22  
g-index

52  
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52  
docs citations

52  
times ranked

686  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	Wavelengths and irradiances modulate the circadian rhythm of <i>Neurospora crassa</i> . <i>PLoS ONE</i> , 2022, 17, e0266266.	2.5	1
4	Room-temperature polariton lasing in GaN microrods with large Rabi splitting. <i>Optics Express</i> , 2022, 30, 16794.	3.4	7
5	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
6	Non-polar true-lateral GaN power diodes on foreign substrates. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	8
7	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
8	The effects of different bedroom light environments in the evening on adolescents. <i>Building and Environment</i> , 2021, 206, 108321.	6.9	16
9	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
10	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
11	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
12	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
13	Study on ultra-high sensitivity piezoelectric effect of GaN micro/nano columns. <i>Nano Convergence</i> , 2019, 6, 33.	12.1	7
14	High-quality GaN epitaxially grown on Si substrate with serpentine channels. <i>Superlattices and Microstructures</i> , 2018, 118, 284-288.	3.1	8
15	Tunable single-mode lasing in a single semiconductor microrod. <i>Optics Express</i> , 2018, 26, 30021.	3.4	6
16	Flexibly and Repeatedly Modulating Lasing Wavelengths in a Single Core-Shell Semiconductor Microrod. <i>ACS Nano</i> , 2017, 11, 5808-5814.	14.6	26
17	Epitaxy of GaN in high aspect ratio nanoscale holes over silicon substrate. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	3
18	Self-selection mechanism of Fabry-Pérot micro/nanoscale wire cavity for single-mode lasing. <i>Optics Express</i> , 2017, 25, 21025.	3.4	9

#	ARTICLE	IF	CITATIONS
19	Dislocation Reduction and Stress Relaxation of GaN and InGaN Multiple Quantum Wells with Improved Performance via Serpentine Channel Patterned Mask. ACS Applied Materials & Interfaces, 2016, 8, 21480-21489.	8.0	25
20	The epitaxy of GaN in deep and submicron holes over Si substrate. , 2016, , .		0
21	Design of a tandem distributed Bragg reflectors specialized for enhancing the efficiency of GaN-based ultraviolet light-emitting diodes. Optics Communications, 2016, 374, 80-83.	2.1	5
22	Grouped and Multistep Nanoheteroepitaxy: Toward High-Quality GaN on Quasi-Periodic Nano-Mask. ACS Applied Materials & Interfaces, 2016, 8, 18208-18214.	8.0	12
23	Theoretical Investigation of Loss-Compensating Hybrid Waveguide Using Quasi-One-Dimensional Surface Plasmon for Green Nanolaser. Plasmonics, 2016, 11, 159-165.	3.4	1
24	Optical properties of a novel parabolic quantum well structure in InGaN/GaN light emitters. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 925-929.	1.8	12
25	Competitive behavior of photons contributing to junction voltage jump in narrow band-gap semiconductor multi-quantum-well laser diodes at lasing threshold. AIP Advances, 2015, 5, .	1.3	5
26	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
27	Stimulated emission in GaN-based laser diodes far below the threshold region. Optics Express, 2014, 22, 2536.	3.4	12
28	The design criteria of hybrid waveguides using semiconductor gain to compensate the metal loss towards nano-scale lasers with high plasmonicity. Applied Physics Letters, 2014, 105, 033109.	3.3	1
29	Theoretical Study of a Planar Structure Plasmonic Nanolaser in Visible Regime. Plasmonics, 2014, 9, 959-964.	3.4	4
30	GaN-based substrates and optoelectronic materials and devices. Science Bulletin, 2014, 59, 1201-1218.	1.7	6
31	Carrier trapping induced abnormal temperature dependent photoluminescence properties of novel sandwiched structure InGaN quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 706-709.	0.8	0
32	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
33	Investigation of the electroluminescence spectrum shift of InGaN/GaN multiple quantum well light-emitting diodes under direct and pulsed currents. Journal of Applied Physics, 2013, 113, .	2.5	31
34	Dislocation reduction through nucleation and growth selectivity of metal-organic chemical vapor deposition GaN. Journal of Applied Physics, 2013, 113, 144908.	2.5	10
35	Advantage of tapered and graded AlGaN electron blocking layer in InGaN-based blue laser diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 346-349.	0.8	15
36	Stimulated emission related anomalous change of electrical parameters at threshold in GaN-based laser diodes. Applied Physics Letters, 2013, 102, .	3.3	11

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37	Practicable alleviation of efficiency droop effect using surface plasmon coupling in GaN-based light emitting diodes. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	11
38	Inclined Dislocation Generation in Compressive-Strain-Enhanced Mg-Doped GaN/Al <sub>0.15</sub> Ga <sub>0.85</sub> N Superlattice with AlN Interlayer. <i>Applied Physics Express</i> , 2013, 6, 061002.	2.4	1
39	Defect Reduction via Selective Lateral Epitaxy of GaN on an Innovative Masked Structure with Serpentine Channels. <i>Applied Physics Express</i> , 2012, 5, 051001.	2.4	11
40	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
41	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
42	Investigation of the light emission properties and carrier dynamics in dual-wavelength InGaIn/GaN multiple-quantum well light emitting diodes. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	31
43	Improvement of hole injection and electron overflow by a tapered AlGaIn electron blocking layer in InGaIn-based blue laser diodes. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	47
44	Influence of indium composition in the prestrained InGaIn interlayer on the strain relaxation of InGaIn/GaN multiple quantum wells in laser diode structures. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	34
45	Strain modulation-enhanced Mg acceptor activation efficiency of Al <sub>0.14</sub> Ga <sub>0.86</sub> N/GaN superlattices with AlN interlayer. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	19
46	Analysis of optical gain property in the InGaIn/GaN triangular shaped quantum well under the piezoelectric field. <i>Applied Physics Letters</i> , 2009, 94, 061120.	3.3	60
47	Donor-related cathodoluminescence of p-AlGaIn electron blocking layer embedded in ultraviolet laser diode structure. <i>Applied Physics Letters</i> , 2009, 94, 211103.	3.3	1
48	Spontaneous luminescence polarizations of wurtzite InGaIn-GaN quantum wells. <i>Applied Physics Letters</i> , 2008, 93, 171114.	3.3	4
49	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
50	Cathodoluminescence study of InGaIn 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
51	Length dependence of polarization in spontaneous edge emissions from InGaIn/AlGaIn MQWs laser diodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007, 204, 257-261.	1.8	0
52	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