

# Jing Li

## List of Publications by Year in descending order

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137  
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137  
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137  
docs citations

137  
times ranked

4823  
citing authors

#	ARTICLE	IF	CITATIONS
1	InGaN/GaN multiple quantum well solar cells with long operating wavelengths. Applied Physics Letters, 2009, 94, .	1.5	321
2	Band structure and fundamental optical transitions in wurtzite AlN. Applied Physics Letters, 2003, 83, 5163-5165.	1.5	310
3	Unique optical properties of AlGaIn alloys and related ultraviolet emitters. Applied Physics Letters, 2004, 84, 5264-5266.	1.5	303
4	III-Nitride full-scale high-resolution microdisplays. Applied Physics Letters, 2011, 99, .	1.5	270
5	III-nitride blue microdisplays. Applied Physics Letters, 2001, 78, 1303-1305.	1.5	264
6	Mg acceptor level in AlN probed by deep ultraviolet photoluminescence. Applied Physics Letters, 2003, 83, 878-880.	1.5	249
7	GaN microdisk light emitting diodes. Applied Physics Letters, 2000, 76, 631-633.	1.5	185
8	InGaIn/GaN multiple quantum well concentrator solar cells. Applied Physics Letters, 2010, 97, .	1.5	179
9	Epitaxially grown semiconducting hexagonal boron nitride as a deep ultraviolet photonic material. Applied Physics Letters, 2011, 98, .	1.5	178
10	200nm deep ultraviolet photodetectors based on AlN. Applied Physics Letters, 2006, 89, 213510.	1.5	170
11	Optical and electrical properties of Mg-doped p-type Al <sub>x</sub> Ga <sub>1-x</sub> N. Applied Physics Letters, 2002, 80, 1210-1212.	1.5	149
12	Temperature and compositional dependence of the energy band gap of AlGaIn alloys. Applied Physics Letters, 2005, 87, 242104.	1.5	147
13	InGaIn/GaN quantum well interconnected microdisk light emitting diodes. Applied Physics Letters, 2000, 77, 3236-3238.	1.5	123
14	Correlation between optoelectronic and structural properties and epilayer thickness of AlN. Applied Physics Letters, 2007, 90, 241101.	1.5	123
15	Hydrogen generation by solar water splitting using p-InGaIn photoelectrochemical cells. Applied Physics Letters, 2010, 96, .	1.5	123
16	Time-resolved photoluminescence studies of Al <sub>x</sub> Ga <sub>1-x</sub> N alloys. Applied Physics Letters, 2000, 76, 1252-1254.	1.5	121
17	Dielectric strength, optical absorption, and deep ultraviolet detectors of hexagonal boron nitride epilayers. Applied Physics Letters, 2012, 101, .	1.5	118
18	Enhanced p-type conduction in GaN and AlGaIn by Mg <sup>2+</sup> -doping. Applied Physics Letters, 2003, 82, 3041-3043.	1.5	116

#	ARTICLE	IF	CITATIONS
19	Hexagonal boron nitride epitaxial layers as neutron detector materials. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 654, 417-420.	0.7	105
20	Polarization of III-nitride blue and ultraviolet light-emitting diodes. Applied Physics Letters, 2005, 86, 091107.	1.5	99
21	Optical and electrical properties of Al-rich AlGa <sub>N</sub> alloys. Applied Physics Letters, 2001, 79, 3245-3247.	1.5	94
22	Nature of deep center emissions in GaN. Applied Physics Letters, 2010, 96, .	1.5	94
23	Epitaxial growth and demonstration of hexagonal BN/AlGa <sub>N</sub> p-n junctions for deep ultraviolet photonics. Applied Physics Letters, 2012, 100, .	1.5	93
24	Band-edge photoluminescence of AlN epilayers. Applied Physics Letters, 2002, 81, 3365-3367.	1.5	91
25	Deep ultraviolet picosecond time-resolved photoluminescence studies of AlN epilayers. Applied Physics Letters, 2003, 82, 1694-1696.	1.5	90
26	Direct hydrogen gas generation by using InGa <sub>N</sub> epilayers as working electrodes. Applied Physics Letters, 2008, 93, .	1.5	85
27	The origin of deep-level impurity transitions in hexagonal boron nitride. Applied Physics Letters, 2015, 106, .	1.5	76
28	Realization of highly efficient hexagonal boron nitride neutron detectors. Applied Physics Letters, 2016, 109, .	1.5	75
29	Achieving highly conductive AlGa <sub>N</sub> alloys with high Al contents. Applied Physics Letters, 2002, 81, 1038-1040.	1.5	74
30	Growth and optical properties of In <sub>x</sub> Al <sub>y</sub> Ga <sub>1-x-y</sub> N quaternary alloys. Applied Physics Letters, 2001, 78, 61-63.	1.5	72
31	Growth of III-nitride photonic structures on large area silicon substrates. Applied Physics Letters, 2006, 88, 171909.	1.5	72
32	Electrical and optical properties of p-type InGa <sub>N</sub> . Applied Physics Letters, 2009, 95, .	1.5	66
33	GaN-based waveguide devices for long-wavelength optical communications. Applied Physics Letters, 2003, 82, 1326-1328.	1.5	64
34	Optical properties of AlN and GaN in elevated temperatures. Applied Physics Letters, 2004, 85, 3489-3491.	1.5	62
35	III-nitride ultraviolet light-emitting diodes with delta doping. Applied Physics Letters, 2003, 83, 566-568.	1.5	60
36	Exciton localization in AlGa <sub>N</sub> alloys. Applied Physics Letters, 2006, 88, 062103.	1.5	60

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37	Single phase $\text{In}_x\text{Ga}_{1-x}\text{N}$ (0.25% $\leq x \leq$ 0.63) alloys synthesized by metal organic chemical vapor deposition. Applied Physics Letters, 2008, 93, .	1.5	56
38	Fabrication and characterization of solid-state thermal neutron detectors based on hexagonal boron nitride epilayers. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 748, 84-90.	0.7	51
39	Linewidths of excitonic luminescence transitions in AlGaN alloys. Applied Physics Letters, 2001, 78, 1829-1831.	1.5	49
40	Hexagonal boron nitride thin film thermal neutron detectors with high energy resolution of the reaction products. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 783, 121-127.	0.7	49
41	Effects of plasma treatment on the Ohmic characteristics of Ti $\cdot$ Al $\cdot$ Ti $\cdot$ Au contacts to n-AlGaN. Applied Physics Letters, 2006, 89, 082109.	1.5	46
42	Band-edge transitions in hexagonal boron nitride epilayers. Applied Physics Letters, 2012, 101, 051110.	1.5	46
43	The origins of near band-edge transitions in hexagonal boron nitride epilayers. Applied Physics Letters, 2016, 108, .	1.5	46
44	Hexagonal boron nitride and 6H-SiC heterostructures. Applied Physics Letters, 2013, 102, .	1.5	43
45	Bandgap and exciton binding energies of hexagonal boron nitride probed by photocurrent excitation spectroscopy. Applied Physics Letters, 2016, 109, .	1.5	43
46	Photoluminescence studies of Si-doped AlN epilayers. Applied Physics Letters, 2003, 83, 2787-2789.	1.5	42
47	Well-width dependence of the quantum efficiencies of GaN/Al $_x$ Ga $_1-x$ N multiple quantum wells. Applied Physics Letters, 2000, 76, 3040-3042.	1.5	41
48	Effects of compressive strain on optical properties of $\text{In}_x\text{Ga}_{1-x}\text{N}$ /GaN quantum wells. Applied Physics Letters, 2006, 89, 151916.	1.5	41
49	Electrical transport properties of Si-doped hexagonal boron nitride epilayers. AIP Advances, 2013, 3, .	0.6	41
50	Excitonic luminescence linewidths in AlGaN alloys with high aluminum concentrations. Applied Physics Letters, 2002, 80, 2907-2909.	1.5	40
51	Evolution of phase separation in In-rich InGaN alloys. Applied Physics Letters, 2010, 96, .	1.5	40
52	Hexagonal boron nitride neutron detectors with high detection efficiencies. Journal of Applied Physics, 2018, 123, .	1.1	40
53	Photoresponsivity of ultraviolet detectors based on $\text{In}_x\text{Al}_y\text{Ga}_{1-x-y}\text{N}$ quaternary alloys. Applied Physics Letters, 2000, 77, 791-793.	1.5	38
54	Layer-structured hexagonal (BN)C semiconductor alloys with tunable optical and electrical properties. Journal of Applied Physics, 2014, 115, .	1.1	38

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55	Origin and roles of oxygen impurities in hexagonal boron nitride epilayers. Applied Physics Letters, 2018, 112, .	1.5	37
56	Probing carbon impurities in hexagonal boron nitride epilayers. Applied Physics Letters, 2017, 110, .	1.5	36
57	Correlation between biaxial stress and free exciton transition in AlN epilayers. Applied Physics Letters, 2007, 91, 121117.	1.5	35
58	III-nitride-based planar lightwave circuits for long wavelength optical communications. IEEE Journal of Quantum Electronics, 2005, 41, 100-110.	1.0	33
59	AlGaIn <sup>x</sup> GaN <sup>1-x</sup> AlN quantum-well field-effect transistors with highly resistive AlN epilayers. Applied Physics Letters, 2006, 88, 073513.	1.5	32
60	Time-resolved photoluminescence studies of an ionized donor-bound exciton in GaN. Applied Physics Letters, 1999, 74, 513-515.	1.5	31
61	Erbium-Doped AlInGaN Alloys as High-Temperature Thermoelectric Materials. Applied Physics Express, 2011, 4, 051001.	1.1	31
62	Toward achieving flexible and high sensitivity hexagonal boron nitride neutron detectors. Applied Physics Letters, 2017, 111, .	1.5	31
63	Thermoelectric Properties of In <sub>0.3</sub> Ga <sub>0.7</sub> N Alloys. Journal of Electronic Materials, 2009, 38, 1132-1135.	1.0	30
64	Growth and deep ultraviolet picosecond time-resolved photoluminescence studies of AlN/GaN multiple quantum wells. Applied Physics Letters, 2001, 78, 3690-3692.	1.5	29
65	Realizing InGaN monolithic solar-photoelectrochemical cells for artificial photosynthesis. Applied Physics Letters, 2014, 104, .	1.5	29
66	Charge carrier transport properties in layer structured hexagonal boron nitride. AIP Advances, 2014, 4, .	0.6	28
67	Full-scale self-emissive blue and green microdisplays based on GaN micro-LED arrays. Proceedings of SPIE, 2012, , .	0.8	27
68	High efficiency hexagonal boron nitride neutron detectors with 1 $\mu$ m <sup>2</sup> detection areas. Applied Physics Letters, 2020, 116, .	1.5	27
69	Enhancing erbium emission by strain engineering in GaN heteroepitaxial layers. Applied Physics Letters, 2010, 96, .	1.5	25
70	Dry etching techniques for active devices based on hexagonal boron nitride epilayers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, 061517.	0.9	25
71	Growth and device processing of hexagonal boron nitride epilayers for thermal neutron and deep ultraviolet detectors. AIP Advances, 2016, 6, .	0.6	25
72	Layer number dependent optical properties of multilayer hexagonal BN epilayers. Applied Physics Letters, 2017, 110, .	1.5	24

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73	Probing exciton-phonon interaction in AlN epilayers by photoluminescence. Applied Physics Letters, 2009, 95, .	1.5	23
74	Electrical transport properties of (BN)-rich hexagonal (BN)C semiconductor alloys. AIP Advances, 2014, 4, 087141.	0.6	21
75	High sensitivity hexagonal boron nitride lateral neutron detectors. Applied Physics Letters, 2019, 114, .	1.5	21
76	Surface chemical and electronic properties of plasma-treated n-type Al <sub>0.5</sub> Ga <sub>0.5</sub> N. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 3410-3416.	0.8	20
77	Carbon-rich hexagonal (BN)C alloys. Journal of Applied Physics, 2015, 117, .	1.1	20
78	Probing the relationship between structural and optical properties of Si-doped AlN. Applied Physics Letters, 2010, 96, 131906.	1.5	19
79	Nature of exciton transitions in hexagonal boron nitride. Applied Physics Letters, 2016, 108, .	1.5	18
80	Growth and optical studies of two-dimensional electron gas of Al-rich AlGaN/GaN heterostructures. Applied Physics Letters, 2002, 81, 1809-1811.	1.5	17
81	SiO <sub>2</sub> /TiO <sub>2</sub> distributed Bragg reflector near 1.5 $\mu\text{m}$ fabricated by e-beam evaporation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	17
82	Correlation between the optical loss and crystalline quality in erbium-doped GaN optical waveguides. Applied Optics, 2013, 52, 5426.	0.9	16
83	Lateral charge carrier transport properties of B-10 enriched hexagonal BN thick epilayers. Applied Physics Letters, 2019, 115, 072108.	1.5	16
84	Beryllium acceptor binding energy in AlN. Applied Physics Letters, 2008, 93, .	1.5	15
85	Barrier-width dependence of quantum efficiencies of GaN/Al <sub>x</sub> Ga <sub>1-x</sub> N multiple quantum wells. Applied Physics Letters, 2000, 77, 1170-1172.	1.5	14
86	Delta-doped AlGaN/GaN metal-oxide-semiconductor heterostructure field-effect transistors with high breakdown voltages. Applied Physics Letters, 2002, 81, 4649-4651.	1.5	14
87	Semiconducting hexagonal boron nitride for deep ultraviolet photonics. Proceedings of SPIE, 2012, , .	0.8	14
88	Toward the realization of erbium-doped GaN bulk crystals as a gain medium for high energy lasers. Applied Physics Letters, 2016, 109, .	1.5	14
89	Formation and dissolution of microcrystalline graphite in carbon-implanted GaN. Journal of Applied Physics, 2000, 88, 5662-5665.	1.1	13
90	Optimizing growth conditions for GaN/Al <sub>x</sub> Ga <sub>1-x</sub> N multiple quantum well structures. Applied Physics Letters, 2000, 76, 864-866.	1.5	13

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91	Photonic properties of erbium doped InGaN alloys grown on Si (001) substrates. Applied Physics Letters, 2011, 98, 081102.	1.5	13
92	Dramatic enhancement of 1.54 $\mu$ m emission in Er doped GaN quantum well structures. Applied Physics Letters, 2015, 106, 121106.	1.5	13
93	Effects of surface recombination on the charge collection in h-BN neutron detectors. Journal of Applied Physics, 2019, 125, 104501.	1.1	13
94	Enhanced magnetization in erbium doped GaN thin films due to strain induced electric fields. Applied Physics Letters, 2011, 99, 122506.	1.5	12
95	Surfactant effects of gallium on quality of AlN epilayers grown via metal-organic chemical-vapour deposition on SiC substrates. Journal Physics D: Applied Physics, 2012, 45, 285103.	1.3	12
96	Optical excitation cross section of erbium in GaN. Applied Optics, 2013, 52, 1132.	0.9	12
97	Growth and fabrication of GaN/Er:GaN/GaN core-cladding planar waveguides. Applied Physics Letters, 2019, 114, 222105.	1.5	10
98	Anisotropic index of refraction and structural properties of hexagonal boron nitride epilayers probed by spectroscopic ellipsometry. Journal of Applied Physics, 2020, 127, .	1.1	10
99	Temperature dependence of the energy bandgap of multi-layer hexagonal boron nitride. Applied Physics Letters, 2017, 111, 132106.	1.5	10
100	Effects of growth pressure on erbium doped GaN infrared emitters synthesized by metal organic chemical vapor deposition. Optical Materials Express, 2012, 2, 1095.	1.6	9
101	Refractive index of erbium doped GaN thin films. Applied Physics Letters, 2014, 105, 081104.	1.5	9
102	Higher lying conduction band in GaN and AlN probed by photoluminescence spectroscopy. Applied Physics Letters, 2006, 88, 261919.	1.5	8
103	Enhancement of 1.5 $\mu$ m emission under 980nm resonant excitation in Er and Yb co-doped GaN epilayers. Applied Physics Letters, 2016, 109, .	1.5	8
104	Boron nitride neutron detector with the ability for detecting both thermal and fast neutrons. Applied Physics Letters, 2022, 120, .	1.5	8
105	Observation of electronic Raman scattering from Mg-doped wurtzite GaN. Applied Physics Letters, 2000, 76, 2889-2891.	1.5	7
106	Birefringence of GaN/AlGaIn optical waveguides. Applied Physics Letters, 2003, 83, 1698-1700.	1.5	7
107	Erbium doped GaN synthesized by hydride vapor-phase epitaxy. Optical Materials Express, 2015, 5, 596.	1.6	7
108	Excitation and emission mechanisms of Er:GaIn gain medium in 1.5 $\mu$ m region. Applied Physics Letters, 2017, 111, .	1.5	7

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109	Probing the surface oxidation process in hexagonal boron nitride epilayers. AIP Advances, 2020, 10, 025213.	0.6	7
110	Charge collection in h-BN neutron detectors at elevated temperatures. Applied Physics Letters, 2021, 118, 092102.	1.5	7
111	Optical properties of Pr implanted GaN epilayers and Al Ga $\lambda$ ~N alloys. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 81, 167-170.	1.7	5
112	Epitaxial growth and time-resolved photoluminescence studies of AlN epilayers. , 2003, 4992, 202.		5
113	Metal-semiconductor-metal neutron detectors based on hexagonal boron nitride epitaxial layers. Proceedings of SPIE, 2012, , .	0.8	5
114	Resonant excitation cross-sections of erbium in freestanding GaN bulk crystals. Applied Physics Letters, 2018, 112, .	1.5	5
115	Critical thickness of hexagonal GaBN/BN heterostructures. Journal of Applied Physics, 2019, 125, .	1.1	5
116	Band structure and infrared optical transitions in ErN. Applied Physics Letters, 2020, 116, 171104.	1.5	5
117	Optoelectronic properties of hexagonal boron nitride epilayers. Proceedings of SPIE, 2013, , .	0.8	4
118	Thermoelectric Properties of Er-doped InGaN Alloys for High Temperature Applications. Materials Research Society Symposia Proceedings, 2011, 1325, 41.	0.1	3
119	Erbium-doped a-plane GaN epilayers synthesized by metal-organic chemical vapor deposition. Optical Materials Express, 2015, 5, 274.	1.6	3
120	Exciton-polariton propagation in AlGa $\lambda$ /GaN quantum-well waveguides probe by time-resolved photoluminescence. , 2002, , .		2
121	Response of alpha particles in hexagonal boron nitride neutron detectors. Applied Physics Letters, 2017, 110, .	1.5	2
122	Polarization-resolved Er emission in Er doped GaN bulk crystals. Journal of Applied Physics, 2020, 127, 243107.	1.1	2
123	Band structure and ultraviolet optical transitions in ErN. Applied Physics Letters, 2021, 118, .	1.5	2
124	Erbium energy levels in GaN grown by hydride vapor phase epitaxy. AIP Advances, 2020, 10, .	0.6	2
125	<title>Growth and optoelectronic properties of III-nitride quaternary alloys</title>. , 2001, 4280, 27.		1
126	III-Nitride Photonic Crystals for Blue and UV Emitters. Materials Research Society Symposia Proceedings, 2003, 798, 424.	0.1	1



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127	Carrier dynamics in AlN and GaN epilayers at the elevated temperatures. , 2005, , .		1
128	Charge collection and trapping mechanisms in hexagonal boron nitride epilayers. Applied Physics Letters, 2021, 119, .	1.5	1
129	Correlation between Sheet Carrier Density-Mobility Product and Persistent Photoconductivity in ALGAN/GAN Modulation Doped Heterostructures. Materials Research Society Symposia Proceedings, 1999, 595, 1.	0.1	0
130	<title>Exciton localization dynamics in Al <sub>x</sub> Ga <sub>1-x</sub> N alloys</title>. , 2000, 3940, 139.		0
131	Time-resolved photoluminescence studies of Al-rich AlGa <sub>N</sub> alloys. , 2002, , .		0
132	AlGa <sub>N</sub> /Ga <sub>N</sub> Metal-Oxide-Semiconductor Heterostructure Field-Effect Transistors (MOSHFETs) with the Delta-Doped Barrier Layer. Materials Research Society Symposia Proceedings, 2002, 743, L9.11.1.	0.1	0
133	Time-resolved photoluminescence studies of Si- and Mg-doped AlN epilayers. , 2004, , .		0
134	Achieving p-In <sub>x</sub> Ga <sub>1-x</sub> N alloys with high In contents. , 2010, , .		0
135	Impurities and conductivity control in Al-rich AlGa <sub>N</sub> alloys. , 2011, , .		0
136	<title>Optimizing Ga <sub>N</sub> /AlGa <sub>N</sub> multiple quantum well structures by time-resolved photoluminescence</title>. , 2001, , .		0
137	Formation energy and optical excitation mechanisms of Er in Ga <sub>N</sub> semi-bulk crystals. Applied Physics Letters, 2022, 120, 052103.	1.5	0