Jing Li

List of Publications by Year in descending order

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137 papers	6,754 citations	71004 43 h-index	71088 80 g-index
137 all docs	137 docs citations	137 times ranked	5491 citing authors

#	Article	IF	Citations
1	Formation energy and optical excitation mechanisms of Er in GaN semi-bulk crystals. Applied Physics Letters, 2022, 120, 052103.	1.5	0
2	Boron nitride neutron detector with the ability for detecting both thermal and fast neutrons. Applied Physics Letters, 2022, 120, .	1.5	8
3	Charge collection in h-BN neutron detectors at elevated temperatures. Applied Physics Letters, 2021, 118, 092102.	1.5	7
4	Band structure and ultraviolet optical transitions in ErN. Applied Physics Letters, 2021, 118, .	1.5	2
5	Charge collection and trapping mechanisms in hexagonal boron nitride epilayers. Applied Physics Letters, 2021, 119, .	1.5	1
6	Polarization-resolved Er emission in Er doped GaN bulk crystals. Journal of Applied Physics, 2020, 127, 243107.	1.1	2
7	High efficiency hexagonal boron nitride neutron detectors with 1â€‰cm2 detection areas. Applied Physics Letters, 2020, 116, .	1.5	27
8	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
9	Band structure and infrared optical transitions in ErN. Applied Physics Letters, 2020, 116, 171104.	1.5	5
10	Probing the surface oxidation process in hexagonal boron nitride epilayers. AIP Advances, 2020, 10, 025213.	0.6	7
11	Erbium energy levels in GaN grown by hydride vapor phase epitaxy. AIP Advances, 2020, 10, .	0.6	2
12	Lateral charge carrier transport properties of B-10 enriched hexagonal BN thick epilayers. Applied Physics Letters, 2019, 115, 072108.	1.5	16
13	Critical thickness of hexagonal GaBN/BN heterostructures. Journal of Applied Physics, 2019, 125, .	1.1	5
14	Growth and fabrication of GaN/Er:GaN/GaN core-cladding planar waveguides. Applied Physics Letters, 2019, 114, 222105.	1.5	10
15	High sensitivity hexagonal boron nitride lateral neutron detectors. Applied Physics Letters, 2019, 114, .	1.5	21
16	Effects of surface recombination on the charge collection in h-BN neutron detectors. Journal of Applied Physics, 2019, 125, 104501.	1.1	13
17	Origin and roles of oxygen impurities in hexagonal boron nitride epilayers. Applied Physics Letters, 2018, 112, .	1.5	37
18	Hexagonal boron nitride neutron detectors with high detection efficiencies. Journal of Applied Physics, 2018, 123, .	1.1	40

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19	Resonant excitation cross-sections of erbium in freestanding GaN bulk crystals. Applied Physics Letters, 2018, 112, .	1.5	5
20	Probing carbon impurities in hexagonal boron nitride epilayers. Applied Physics Letters, 2017, 110, .	1.5	36
21	Layer number dependent optical properties of multilayer hexagonal BN epilayers. Applied Physics Letters, 2017, 110, .	1.5	24
22	Response of alpha particles in hexagonal boron nitride neutron detectors. Applied Physics Letters, 2017, 110, .	1.5	2
23	Excitation and emission mechanisms of Er:GaN gain medium in 1.5â€‰Î¼m region. Applied Physics Letters, 2017, 111, .	1.5	7
24	Toward achieving flexible and high sensitivity hexagonal boron nitride neutron detectors. Applied Physics Letters, 2017, 111, .	1.5	31
25	Temperature dependence of the energy bandgap of multi-layer hexagonal boron nitride. Applied Physics Letters, 2017, 111, 132106.	1.5	10
26	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
27	Growth and device processing of hexagonal boron nitride epilayers for thermal neutron and deep ultraviolet detectors. AIP Advances, 2016, 6, .	0.6	25
28	Realization of highly efficient hexagonal boron nitride neutron detectors. Applied Physics Letters, 2016, 109, .	1.5	75
29	The origins of near band-edge transitions in hexagonal boron nitride epilayers. Applied Physics Letters, 2016, 108, .	1.5	46
30	Bandgap and exciton binding energies of hexagonal boron nitride probed by photocurrent excitation spectroscopy. Applied Physics Letters, 2016, 109, .	1.5	43
31	Nature of exciton transitions in hexagonal boron nitride. Applied Physics Letters, 2016, 108, .	1.5	18
32	Enhancement of 1.5â€‰Î¼m emission under 980â€‰nm resonant excitation in Er and Yb co-doped GaN epilayers. Applied Physics Letters, 2016, 109, .	1.5	8
33	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
34	Erbium-doped a-plane GaN epilayers synthesized by metal-organic chemical vapor deposition. Optical Materials Express, 2015, 5, 274.	1.6	3
35	Erbium doped GaN synthesized by hydride vapor-phase epitaxy. Optical Materials Express, 2015, 5, 596.	1.6	7
36	The origin of deep-level impurity transitions in hexagonal boron nitride. Applied Physics Letters, 2015, 106, .	1.5	76

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37	Dramatic enhancement of 1.54â€‰Î¼m emission in Er doped GaN quantum well structures. Applied Physics Letters, 2015, 106, 121106.	1.5	13
38	Carbon-rich hexagonal (BN)C alloys. Journal of Applied Physics, 2015, 117, .	1.1	20
39	Refractive index of erbium doped GaN thin films. Applied Physics Letters, 2014, 105, 081104.	1.5	9
40	Charge carrier transport properties in layer structured hexagonal boron nitride. AIP Advances, 2014, 4, .	0.6	28
41	Layer-structured hexagonal (BN)C semiconductor alloys with tunable optical and electrical properties. Journal of Applied Physics, 2014, 115, .	1.1	38
42	Electrical transport properties of (BN)-rich hexagonal (BN)C semiconductor alloys. AIP Advances, 2014, 4, 087141.	0.6	21
43	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
44	Realizing InGaN monolithic solar-photoelectrochemical cells for artificial photosynthesis. Applied Physics Letters, 2014, 104, .	1.5	29
45	Optoelectronic properties of hexagonal boron nitride epilayers. Proceedings of SPIE, 2013, , .	0.8	4
46	Hexagonal boron nitride and 6H-SiC heterostructures. Applied Physics Letters, 2013, 102, .	1.5	43
47	SiO2/TiO2 distributed Bragg reflector near 1.5 Î¼m fabricated by e-beam evaporation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	17
48	Electrical transport properties of Si-doped hexagonal boron nitride epilayers. AIP Advances, 2013, 3, .	0.6	41
49	Optical excitation cross section of erbium in GaN. Applied Optics, 2013, 52, 1132.	0.9	12
50	Correlation between the optical loss and crystalline quality in erbium-doped GaN optical waveguides. Applied Optics, 2013, 52, 5426.	0.9	16
51	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
52	Metal-semiconductor-metal neutron detectors based on hexagonal boron nitride epitaxial layers. Proceedings of SPIE, 2012, , .	0.8	5
53	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
54	Full-scale self-emissive blue and green microdisplays based on GaN micro-LED arrays. Proceedings of SPIE, 2012, , .	0.8	27

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55	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
56	Band-edge transitions in hexagonal boron nitride epilayers. Applied Physics Letters, 2012, 101, 051110.	1.5	46
57	Epitaxial growth and demonstration of hexagonal BN/AlGaN p-n junctions for deep ultraviolet photonics. Applied Physics Letters, 2012, 100, .	1.5	93
58	Semiconducting hexagonal boron nitride for deep ultraviolet photonics. Proceedings of SPIE, 2012, , .	0.8	14
59	Dielectric strength, optical absorption, and deep ultraviolet detectors of hexagonal boron nitride epilayers. Applied Physics Letters, 2012, 101, .	1.5	118
60	Photonic properties of erbium doped InGaN alloys grown on Si (001) substrates. Applied Physics Letters, 2011, 98, 081102.	1.5	13
61	Impurities and conductivity control in Al-rich AlGaN alloys. , 2011, , .		0
62	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
63	III-Nitride full-scale high-resolution microdisplays. Applied Physics Letters, 2011, 99, .	1.5	270
64	Enhanced magnetization in erbium doped GaN thin films due to strain induced electric fields. Applied Physics Letters, 2011, 99, 122506.	1.5	12
65	Epitaxially grown semiconducting hexagonal boron nitride as a deep ultraviolet photonic material. Applied Physics Letters, 2011, 98, .	1.5	178
66	Thermoelectric Properties of Er-doped InGaN Alloys for High Temperature Applications. Materials Research Society Symposia Proceedings, 2011, 1325, 41.	0.1	3
67	Erbium-Doped AlInGaN Alloys as High-Temperature Thermoelectric Materials. Applied Physics Express, 2011, 4, 051001.	1.1	31
68	Achieving p-In x Ga1 -x N alloys with high In contents. , 2010, , .		0
69	Evolution of phase separation in In-rich InGaN alloys. Applied Physics Letters, 2010, 96, .	1.5	40
70	Probing the relationship between structural and optical properties of Si-doped AlN. Applied Physics Letters, 2010, 96, 131906.	1.5	19
71	Nature of deep center emissions in GaN. Applied Physics Letters, 2010, 96, .	1.5	94
72	InGaN/GaN multiple quantum well concentrator solar cells. Applied Physics Letters, 2010, 97, .	1.5	179

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73	Hydrogen generation by solar water splitting using p-InGaN photoelectrochemical cells. Applied Physics Letters, 2010, 96, .	1.5	123
74	Enhancing erbium emission by strain engineering in GaN heteroepitaxial layers. Applied Physics Letters, 2010, 96, .	1.5	25
75	Electrical and optical properties of p-type InGaN. Applied Physics Letters, 2009, 95, .	1.5	66
76	Probing exciton-phonon interaction in AlN epilayers by photoluminescence. Applied Physics Letters, 2009, 95, .	1.5	23
77	Thermoelectric Properties of In0.3Ga0.7N Alloys. Journal of Electronic Materials, 2009, 38, 1132-1135.	1.0	30
78	InGaN/GaN multiple quantum well solar cells with long operating wavelengths. Applied Physics Letters, 2009, 94, .	1.5	321
79	Single phase InxGa1â^'xNâ€^(0.25â‰xâ‰0.63) alloys synthesized by metal organic chemical vapor deposition. Applied Physics Letters, 2008, 93, .	1.5	56
80	Direct hydrogen gas generation by using InGaN epilayers as working electrodes. Applied Physics Letters, 2008, 93, .	1.5	85
81	Beryllium acceptor binding energy in AlN. Applied Physics Letters, 2008, 93, .	1.5	15
82	Correlation between biaxial stress and free exciton transition in AlN epilayers. Applied Physics Letters, 2007, 91, 121117.	1.5	35
83	Correlation between optoelectronic and structural properties and epilayer thickness of AlN. Applied Physics Letters, 2007, 90, 241101.	1.5	123
84	Surface chemical and electronic properties of plasmaâ€treated nâ€type Al_{0.5}Ga_{0.5}N. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 3410-3416.	0.8	20
85	AlGaNâ^•GaNâ^•AlN quantum-well field-effect transistors with highly resistive AlN epilayers. Applied Physics Letters, 2006, 88, 073513.	1.5	32
86	Effects of plasma treatment on the Ohmic characteristics of Tiâ^•Alâ^•Tiâ^•Au contacts to n-AlGaN. Applied Physics Letters, 2006, 89, 082109.	1.5	46
87	Growth of III-nitride photonic structures on large area silicon substrates. Applied Physics Letters, 2006, 88, 171909.	1.5	72
88	Effects of compressive strain on optical properties of InxGa1â^'xNâ^•GaN quantum wells. Applied Physics Letters, 2006, 89, 151916.	1.5	41
89	Higher lying conduction band in GaN and AlN probed by photoluminescence spectroscopy. Applied Physics Letters, 2006, 88, 261919.	1.5	8
90	Exciton localization in AlGaN alloys. Applied Physics Letters, 2006, 88, 062103.	1.5	60

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91	200nm deep ultraviolet photodetectors based on AlN. Applied Physics Letters, 2006, 89, 213510.	1.5	170
92	Carrier dynamics in AlN and GaN epilayers at the elevated temperatures. , 2005, , .		1
93	III-nitride-based planar lightwave circuits for long wavelength optical communications. IEEE Journal of Quantum Electronics, 2005, 41, 100-110.	1.0	33
94	Polarization of III-nitride blue and ultraviolet light-emitting diodes. Applied Physics Letters, 2005, 86, 091107.	1.5	99
95	Temperature and compositional dependence of the energy band gap of AlGaN alloys. Applied Physics Letters, 2005, 87, 242104.	1.5	147
96	Time-resolved photoluminescence studies of Si- and Mg-doped AlN epilayers. , 2004, , .		0
97	Optical properties of AlN and GaN in elevated temperatures. Applied Physics Letters, 2004, 85, 3489-3491.	1.5	62
98	Unique optical properties of AlGaN alloys and related ultraviolet emitters. Applied Physics Letters, 2004, 84, 5264-5266.	1.5	303
99	III-nitride ultraviolet light-emitting diodes with delta doping. Applied Physics Letters, 2003, 83, 566-568.	1.5	60
100	Band structure and fundamental optical transitions in wurtzite AlN. Applied Physics Letters, 2003, 83, 5163-5165.	1.5	310
101	Deep ultraviolet picosecond time-resolved photoluminescence studies of AlN epilayers. Applied Physics Letters, 2003, 82, 1694-1696.	1.5	90
102	Enhanced p-type conduction in GaN and AlGaN by Mg-Î´-doping. Applied Physics Letters, 2003, 82, 3041-3043.	1.5	116
103	Photoluminescence studies of Si-doped AlN epilayers. Applied Physics Letters, 2003, 83, 2787-2789.	1.5	42
104	III-Nitride Photonic Crystals for Blue and UV Emitters. Materials Research Society Symposia Proceedings, 2003, 798, 424.	0.1	1
105	Mg acceptor level in AlN probed by deep ultraviolet photoluminescence. Applied Physics Letters, 2003, 83, 878-880.	1.5	249
106	Birefringence of GaN/AlGaN optical waveguides. Applied Physics Letters, 2003, 83, 1698-1700.	1.5	7
107	GaN-based waveguide devices for long-wavelength optical communications. Applied Physics Letters, 2003, 82, 1326-1328.	1.5	64
108	Epitaxial growth and time-resolved photoluminescence studies of AlN epilayers. , 2003, 4992, 202.		5

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109	Delta-doped AlGaN/GaN metalâ€“oxideâ€“semiconductor heterostructure field-effect transistors with high breakdown voltages. Applied Physics Letters, 2002, 81, 4649-4651.	1.5	14
110	Achieving highly conductive AlGaN alloys with high Al contents. Applied Physics Letters, 2002, 81, 1038-1040.	1.5	74
111	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
112	Time-resolved photoluminescence studies of Al-rich AlGaN alloys. , 2002, , .		0
113	Exciton-polariton propagation in AlGaN/GaN quantum-well waveguides probe by time-resolved photoluminescence. , 2002, , .		2
114	AlGaN/GaN 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
115	Excitonic luminescence linewidths in AlGaN alloys with high aluminum concentrations. Applied Physics Letters, 2002, 80, 2907-2909.	1.5	40
116	Band-edge photoluminescence of AlN epilayers. Applied Physics Letters, 2002, 81, 3365-3367.	1.5	91
117	Optical and electrical properties of Mg-doped p-type AlxGa1â^'xN. Applied Physics Letters, 2002, 80, 1210-1212.	1.5	149
118	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
119	Linewidths of excitonic luminescence transitions in AlGaN alloys. Applied Physics Letters, 2001, 78, 1829-1831.	1.5	49
120	Growth and optical properties of InxAlyGa1â^'xâ^'yN quaternary alloys. Applied Physics Letters, 2001, 78, 61-63.	1.5	72
121	Optical and electrical properties of Al-rich AlGaN alloys. Applied Physics Letters, 2001, 79, 3245-3247.	1.5	94
122	Optical properties of Pr implanted GaN epilayers and Al Ga1â^'N alloys. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 81, 167-170.	1.7	5
123	<title>Growth and optoelectronic properties of III-nitride quaternary alloys</title>. , 2001, 4280, 27.		1
124	III-nitride blue microdisplays. Applied Physics Letters, 2001, 78, 1303-1305.	1.5	264
125	<title>Optimizing GaN/AlGaN multiple quantum well structures by time-resolved photoluminescence</title>. , 2001, , .		0
126	<title>Exciton localization dynamics in AlxGa1-xN alloys</title>. , 2000, 3940, 139.		0

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127	InGaN/GaN quantum well interconnected microdisk light emitting diodes. Applied Physics Letters, 2000, 77, 3236-3238.	1.5	123
128	Photoresponsivity of ultraviolet detectors based on InxAlyGa1â^'xâ^'yN quaternary alloys. Applied Physics Letters, 2000, 77, 791-793.	1.5	38
129	Observation of electronic Raman scattering from Mg-doped wurtzite GaN. Applied Physics Letters, 2000, 76, 2889-2891.	1.5	7
130	Formation and dissolution of microcrystalline graphite in carbon-implanted GaN. Journal of Applied Physics, 2000, 88, 5662-5665.	1.1	13
131	Barrier-width dependence of quantum efficiencies of GaN/AlxGa1â^'xN multiple quantum wells. Applied Physics Letters, 2000, 77, 1170-1172.	1.5	14
132	Well-width dependence of the quantum efficiencies of GaN/AlxGa1â^'xN multiple quantum wells. Applied Physics Letters, 2000, 76, 3040-3042.	1.5	41
133	Optimizing growth conditions for GaN/AlxGa1â^'xN multiple quantum well structures. Applied Physics Letters, 2000, 76, 864-866.	1.5	13
134	GaN microdisk light emitting diodes. Applied Physics Letters, 2000, 76, 631-633.	1.5	185
135	Time-resolved photoluminescence studies of AlxGa1â^'xN alloys. Applied Physics Letters, 2000, 76, 1252-1254.	1.5	121
136	Time-resolved photoluminescence studies of an ionized donor-bound exciton in GaN. Applied Physics Letters, 1999, 74, 513-515.	1.5	31
137	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