Daisuke Iida

List of Publications by Year
in descending order

85 papers	1,484 citations	304602 22 h-index	395590 33 g-index
86 all docs	86 docs citations	86 times ranked	1071 citing authors

#	Article	IF	Citations
1	InGaN-based red light-emitting diodes: from traditional to micro-LEDs. Japanese Journal of Applied Physics, 2022, 61, SA0809.	0.8	42
2	Recent progress in red light-emitting diodes by III-nitride materials. Semiconductor Science and Technology, 2022, 37, 013001.	1.0	42
3	Passivation of Surface States in GaN by NiO Particles. Crystals, 2022, 12, 211.	1.0	1
4	Study on the effect of size on InGaN red micro-LEDs. Scientific Reports, 2022, 12, 1324.	1.6	41
5	Analysis of the n-GaN electrochemical etching process and its mechanism in oxalic acid. RSC Advances, 2022, 12, 4648-4655.	1.7	10
6	InGaN-Based Orange-Red Resonant Cavity Light-Emitting Diodes. Journal of Lightwave Technology, 2022, 40, 4337-4343.	2.7	3
7	Microstructural analysis of N-polar InGaN directly grown on a ScAlMgO₄(0001) substrate. Applied Physics Express, 2022, 15, 065501.	1.1	12
8	Demonstration of 621-nm-wavelength InGaN-based single-quantum-well LEDs with an external quantum efficiency of 4.3% at 10.1 A/cm2. AIP Advances, 2022, 12, .	0.6	18
9	Optical properties of InGaN-based red multiple quantum wells. Applied Physics Letters, 2022, 120, .	1.5	6
10	InGaN-based green micro-LED efficiency enhancement by hydrogen passivation of the p-GaN sidewall. Applied Physics Express, 2022, 15, 084003.	1.1	16
11	Analysis of phonon transport through heterointerfaces of InGaN/GaN via Raman imaging using double-laser system: The effect of crystal defects at heterointerface. Materials Science in Semiconductor Processing, 2022, 150, 106905.	1.9	0
12	606-nm InGaN Amber Micro-Light-Emitting Diodes With an On-Wafer External Quantum Efficiency of 0.56%. IEEE Electron Device Letters, 2021, 42, 1029-1032.	2.2	33
13	Analysis of LO phonon properties in III-nitrides: interaction with carriers and microscopic analysis. , 2021, , .		0
14	Investigation of InGaN-based red/green micro-light-emitting diodes. Optics Letters, 2021, 46, 1912.	1.7	41
15	Ultra-small InGaN green micro-light-emitting diodes fabricated by selective passivation of p-GaN. Optics Letters, 2021, 46, 5092.	1.7	9
16	630-nm red InGaN micro-light-emitting diodes (<20â€‰â€‰Î¼mâ€‰Ã—â€‰20â€‰â€‰Î¼m) exceeding 1â€‰â€‰mW/mm<su full-color micro-displays. Photonics Research, 2021, 9, 1796.	3.4	29
17	Improved performance of InGaN-based red light-emitting diodes by micro-hole arrays. Optics Express, 2021, 29, 29780.	1.7	11
18	Photoluminescence of InGaN-based red multiple quantum wells. Optics Express, 2021, 29, 30237.	1.7	11

#	Article	IF	Citations
19	Investigation of a Separated Short-Wavelength Peak in InGaN Red Light-Emitting Diodes. Crystals, 2021, 11, 1123.	1.0	7
20	Ultrasmall and ultradense InGaN-based RGB monochromatic micro-light-emitting diode arrays by pixilation of conductive p-GaN. Photonics Research, 2021, 9, 2429.	3.4	14
21	Photoelectrochemical and crystalline properties of a GaN photoelectrode loaded with Î±-Fe2O3 as cocatalyst. Scientific Reports, 2020, 10, 12586.	1.6	5
22	High-color-rendering-index phosphor-free InGaN-based white light-emitting diodes by carrier injection enhancement via V-pits. Applied Physics Letters, 2020, 117, .	1.5	12
23	Boron influence on bandgap and photoluminescence in BGaN grown on AlN. Journal of Applied Physics, 2020, 127, .	1.1	9
24	Demonstration of low forward voltage InGaN-based red LEDs. Applied Physics Express, 2020, 13, 031001.	1.1	57
25	Effects of size on the electrical and optical properties of InGaN-based red light-emitting diodes. Applied Physics Letters, 2020, 116, .	1.5	38
26	633-nm InGaN-based red LEDs grown on thick underlying GaN layers with reduced in-plane residual stress. Applied Physics Letters, 2020, 116, .	1.5	91
27	Energy transport analysis in a Ga0.84In0.16N/GaN heterostructure using microscopic Raman images employing simultaneous coaxial irradiation of two lasers. Applied Physics Letters, 2020, 116, .	1.5	6
28	Optimal ITO transparent conductive layers for InGaN-based amber/red light-emitting diodes. Optics Express, 2020, 28, 12311.	1.7	30
29	Enhanced performance of N-polar AlGaN-based deep-ultraviolet light-emitting diodes. Optics Express, 2020, 28, 30423.	1.7	27
30	Local Heat Energy Transport Analyses in Gallium-Indium-Nitride/Gallium Nitride Heterostructure by Microscopic Raman Imaging Exploiting Simultaneous Irradiation of Two Laser Beams. , 2020, , .		0
31	Photoelectrochemical H2 generation from water using a CoO x /GaN photoelectrode. Japanese Journal of Applied Physics, 2019, 58, SCCC23.	0.8	3
32	Investigation of the p-GaN layer thickness of InGaN-based photoelectrodes for photoelectrochemical hydrogen generation. Japanese Journal of Applied Physics, 2019, 58, SCCC32.	0.8	1
33	Photoelectrochemical hydrogen generation using graded In-content InGaN photoelectrode structures. Nano Energy, 2019, 59, 569-573.	8.2	18
34	Influence of polymerization among Al- and Ga-containing molecules on growth rate and Al content in AlGaN. Journal of Crystal Growth, 2019, 516, 17-20.	0.7	6
35	Metalorganic vapor-phase epitaxial growth simulation to realize high-quality and high-In-content InGaN alloys. Journal of Crystal Growth, 2019, 512, 69-73.	0.7	24
36	Efficiency enhancement of InGaN amber MQWs using nanopillar structures. Nanophotonics, 2018, 7, 317-322.	2.9	10

#	Article	IF	Citations
37	Investigation of amber light-emitting diodes based on InGaN/AlN/AlGaN quantum wells. Japanese Journal of Applied Physics, 2016, 55, 05FJ06.	0.8	8
38	Demonstration of InGaN-based orange LEDs with hybrid multiple-quantum-wells structure. Applied Physics Express, 2016, 9, 111003.	1.1	52
39	Enhanced light output power of InGaN-based amber LEDs by strain-compensating AlN/AlGaN barriers. Journal of Crystal Growth, 2016, 448, 105-108.	0.7	46
40	Influence of near-field coupling from Ag surface plasmons on InGaN/GaN quantum-well photoluminescence. Journal of Luminescence, 2016, 175, 213-216.	1.5	11
41	Combining surface plasmonic and light extraction enhancement on InGaN quantum-well light-emitters. Nanoscale, 2016, 8, 16340-16348.	2.8	16
42	Internal quantum efficiency enhancement of GaInN/GaN quantum-well structures using Ag nanoparticles. AIP Advances, 2015, 5, .	0.6	22
43	Relationship between misfit-dislocation formation and initial threading-dislocation density in GaInN/GaN heterostructures. Japanese Journal of Applied Physics, 2015, 54, 115501.	0.8	16
44	Laser lift-off technique for freestanding GaN substrate using an In droplet formed by thermal decomposition of GaInN and its application to light-emitting diodes. Applied Physics Letters, 2014, 105, 072101.	1.5	20
45	Control of crystallinity of GaN grown on sapphire substrate by metalorganic vapor phase epitaxy using in situ X-ray diffraction monitoring method. Journal of Crystal Growth, 2014, 401, 367-371.	0.7	60
46	In situ X-ray diffraction monitoring of GaInN/GaN superlattice during organometalic vapor phase epitaxy growth. Journal of Crystal Growth, 2014, 393, 108-113.	0.7	8
47	Surface plasmon coupling dynamics in InGaN/GaN quantum-well structures and radiative efficiency improvement. Scientific Reports, 2014, 4, 6392.	1.6	36
48	Analysis of strain relaxation process in GaInN/GaN heterostructure by in situ Xâ€ray diffraction monitoring during metalorganic vaporâ€phase epitaxial growth. Physica Status Solidi - Rapid Research Letters, 2013, 7, 211-214.	1.2	20
49	Extremely Low-Resistivity and High-Carrier-Concentration Si-Doped Al_{0.05}Ga_{0.95}N. Applied Physics Express, 2013, 6, 121002.	1.1	27
50	In situ X-ray diffraction monitoring during metalorganic vapor phase epitaxy growth of low-temperature-GaN buffer layer. Journal of Crystal Growth, 2012, 361, 1-4.	0.7	7
51	GaInN-Based Solar Cells Using Strained-Layer GaInN/GaInN Superlattice Active Layer on a Freestanding GaN Substrate. Applied Physics Express, 2011, 4, 021001.	1.1	86
52	Growth of AlGaN/GaN heterostructure on vicinal <i>m</i>â€plane freeâ€standing GaN substrates prepared by the Na flux method. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1191-1194.	0.8	4
53	AlGaN/GaInN/GaN heterostructure field-effect transistor. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1614-1616.	0.8	13
54	Drain bias stress and memory effects in AlGaN/GaN heterostructure fieldâ€effect transistors with pâ€GaN gate. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2424-2426.	0.8	0

#	Article	IF	Citations
55	Optimization of initial MOVPE growth of nonâ€polar mâ€and aâ€plane GaN on Na flux grown LPEâ€GaN substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2095-2097.	0.8	3
56	GaInNâ€based solar cells using GaInN/GaInN superlattices. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2463-2465.	0.8	6
57	Fabrication of Nonpolar a-Plane Nitride-Based Solar Cell on r-Plane Sapphire Substrate. Applied Physics Express, 2011, 4, 101001.	1.1	12
58	High-Temperature Operation of Normally Off-Mode AlGaN/GaN Heterostructure Field-Effect Transistors with p-GaN Gate. Japanese Journal of Applied Physics, 2011, 50, 01AD03.	0.8	3
59	Compensation effect of Mg-doped a- and c-plane GaN films grown by metalorganic vapor phase epitaxy. Journal of Crystal Growth, 2010, 312, 3131-3135.	0.7	30
60	Atomic layer epitaxy of AlGaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2368-2370.	0.8	3
61	Temperature dependence of normally off mode AlGaN/GaN heterostructure fieldâ€effect transistors with pâ€GaN gate. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2419-2422.	0.8	3
62	Increased pressure digital metalorganic vapor phase epitaxy system with high-speed switching valves for growing high-In-content GaInN. , 2010, , .		0
63	Growth of GaInN by Raised-Pressure Metalorganic Vapor Phase Epitaxy. Applied Physics Express, 2010, 3, 075601.	1.1	20
64	Strong Emission from GaInN/GaN Multiple Quantum Wells on High-Crystalline-Quality Thickm-Plane GaInN Underlying Layer on Grooved GaN. Applied Physics Express, 2009, 2, 061004.	1.1	11
65	Activation energy of Mg in <i>a</i> â€plane Ga_{1â€"<i>x</i>}In<i>_x</i> N (0 <) Tj ETQq1 1 0.784314 rgBT /C	0.7	3
66	Realization of highâ€crystallineâ€quality and thick GaInN films. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S502.	0.8	1
67	One-sidewall-seeded epitaxial lateral overgrowth of a-plane GaN by metalorganic vapor-phase epitaxy. Journal of Crystal Growth, 2009, 311, 2887-2890.	0.7	31
68	Growth of thick GaInN on grooved (101Â¯1Â¯) GaN/(101Â¯2Â¯) 4H-SiC. Journal of Crystal Growth, 2009, 311, 2926-2928.	0.7	3
69	Improvement in performance of mâ€plane GaInN light emitting diode grown on mâ€plane SiC by sidewall epitaxial lateral overgrowth. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2145-2147.	0.8	5
70	Sidewall epitaxial lateral overgrowth of nonpolar aâ€plane GaN by metalorganic vapor phase epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1575-1578.	0.8	16
71	Nonpolar GaN layers grown by sidewall epitaxial lateral overgrowth: optical evidences for a reduced stacking fault density. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1768-1770.	0.8	10
72	Improvement in crystalline quality of thick GaInN on mâ€plane 6Hâ€SiC substrates using sidewall epitaxial lateral overgrowth. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 3045-3047.	0.8	2

#	Article	IF	Citations
73	All MOVPE grown nitrideâ€based LED having sub mm underlying GaN. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 3073-3075.	0.8	1
74	Control of p-type conduction in a-plane Ga1âˆ’xInxN (0<x<0.10) grown on r-plane sapphire substrate by metalorganic vapor-phase epitaxy. Journal of Crystal Growth, 2008, 310, 4996-4998.	0.7	1
75	Control of stress and crystalline quality in GaInN films used for green emitters. Journal of Crystal Growth, 2008, 310, 4920-4922.	0.7	8
76	High hole concentration in Mg-doped a-plane Ga1âˆ’xInxNâ€ˆ(<x<0.30) grown on r-plane sapphire substrate by metalorganic vapor phase epitaxy. Applied Physics Letters, 2008, 93, .	1.5	14
77	Realization of High-Crystalline-Quality Thick m-Plane GaInN Film on 6H-SiC Substrate by Epitaxial Lateral Overgrowth. Japanese Journal of Applied Physics, 2007, 46, L948.	0.8	14
78	Characterization of low-defect-density a-plane and m-plane GaN and fabrication of a-plane and m-plane LEDs. , 2007, , .		1
79	Epitaxial lateral growth of m-plane GaN and Al0.18Ga0.82N on m-plane 4H-SiC and 6H-SiC substrates. Journal of Crystal Growth, 2007, 298, 261-264.	0.7	16
80	One-step lateral growth for reduction in defect density ofa-plane GaN onr-sapphire substrate and its application in light emitters. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 2005-2009.	0.8	38
81	Reduction in defect density over whole area of (100)m -plane GaN using one-sidewall seeded epitaxial lateral overgrowth. Physica Status Solidi (B): Basic Research, 2007, 244, 1848-1852.	0.7	30
82	Details of the improvement of crystalline quality of a-plane GaN using one-step lateral growth. Materials Research Society Symposia Proceedings, 2006, 955, 1.	0.1	0
83	Characterization of a-plane AlGaN/GaN heterostructure grown on r-plane sapphire substrate. Materials Research Society Symposia Proceedings, 2005, 892, 121.	0.1	0
84	Metalorganic Vapor Phase Epitaxial Growth of Nonpolar Al(Ga,In)N Films on Lattice-Mismatched Substrates. , 0, , 101-118.		0
85	Misfit Strain Relaxation by Stacking Fault Generation in InGaN Quantum Wells Grown on<i>m</i>-Plane GaN. Applied Physics Express, 0, 2, 041002.	1.1	64