

Daisuke Iida

List of Publications by Year in descending order

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85
papers

1,484
citations

304602

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86
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86
docs citations

86
times ranked

1071
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	GaN-Based Solar Cells Using Strained-Layer GaInN/GaN Superlattice Active Layer on a Freestanding GaN Substrate. Applied Physics Express, 2011, 4, 021001.	1.1	86
3	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
4	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
5	Demonstration of low forward voltage InGaN-based red LEDs. Applied Physics Express, 2020, 13, 031001.	1.1	57
6	Demonstration of InGaN-based orange LEDs with hybrid multiple-quantum-wells structure. Applied Physics Express, 2016, 9, 111003.	1.1	52
7	Enhanced light output power of InGaN-based amber LEDs by strain-compensating AlN/AlGaIn barriers. Journal of Crystal Growth, 2016, 448, 105-108.	0.7	46
8	InGaN-based red light-emitting diodes: from traditional to micro-LEDs. Japanese Journal of Applied Physics, 2022, 61, SA0809.	0.8	42
9	Recent progress in red light-emitting diodes by III-nitride materials. Semiconductor Science and Technology, 2022, 37, 013001.	1.0	42
10	Investigation of InGaN-based red/green micro-light-emitting diodes. Optics Letters, 2021, 46, 1912.	1.7	41
11	Study on the effect of size on InGaN red micro-LEDs. Scientific Reports, 2022, 12, 1324.	1.6	41
12	One-step lateral growth for reduction in defect density of <i>a</i> -plane GaN on sapphire substrate and its application in light emitters. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 2005-2009.	0.8	38
13	Effects of size on the electrical and optical properties of InGaN-based red light-emitting diodes. Applied Physics Letters, 2020, 116, .	1.5	38
14	Surface plasmon coupling dynamics in InGaN/GaN quantum-well structures and radiative efficiency improvement. Scientific Reports, 2014, 4, 6392.	1.6	36
15	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
16	One-sidewall-seeded epitaxial lateral overgrowth of <i>a</i> -plane GaN by metalorganic vapor-phase epitaxy. Journal of Crystal Growth, 2009, 311, 2887-2890.	0.7	31
17	Reduction in defect density over whole area of <i>(100)</i> -plane GaN using one-sidewall seeded epitaxial lateral overgrowth. Physica Status Solidi (B): Basic Research, 2007, 244, 1848-1852.	0.7	30
18	Compensation effect of Mg-doped <i>a</i> - and <i>c</i> -plane GaN films grown by metalorganic vapor phase epitaxy. Journal of Crystal Growth, 2010, 312, 3131-3135.	0.7	30

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19	Optimal ITO transparent conductive layers for InGaN-based amber/red light-emitting diodes. Optics Express, 2020, 28, 12311.	1.7	30
20	630-nm red InGaN micro-light-emitting diodes ($\sim 1/4\text{m}\lambda$) exceeding $1\text{â€‰}\mu\text{W}/\text{mm}^2$ full-color micro-displays. Photonics Research, 2021, 9, 1796.	3.4	29
21	Extremely Low-Resistivity and High-Carrier-Concentration Si-Doped $\text{Al}_{0.05}\text{Ga}_{0.95}\text{N}$. Applied Physics Express, 2013, 6, 121002.	1.1	27
22	Enhanced performance of N-polar AlGaN-based deep-ultraviolet light-emitting diodes. Optics Express, 2020, 28, 30423.	1.7	27
23	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
24	Internal quantum efficiency enhancement of GaInN/GaN quantum-well structures using Ag nanoparticles. AIP Advances, 2015, 5, .	0.6	22
25	Growth of GaInN by Raised-Pressure Metalorganic Vapor Phase Epitaxy. Applied Physics Express, 2010, 3, 075601.	1.1	20
26	Analysis of strain relaxation process in GaInN/GaN heterostructure by in situ X-ray diffraction monitoring during metalorganic vapor-phase epitaxial growth. Physica Status Solidi - Rapid Research Letters, 2013, 7, 211-214.	1.2	20
27	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
28	Photoelectrochemical hydrogen generation using graded In-content InGaN photoelectrode structures. Nano Energy, 2019, 59, 569-573.	8.2	18
29	Demonstration of 621-nm-wavelength InGaN-based single-quantum-well LEDs with an external quantum efficiency of 4.3% at $10.1\text{ A}/\text{cm}^2$. AIP Advances, 2022, 12, .	0.6	18
30	Epitaxial lateral growth of m-plane GaN and $\text{Al}_{0.18}\text{Ga}_{0.82}\text{N}$ on m-plane 4H-SiC and 6H-SiC substrates. Journal of Crystal Growth, 2007, 298, 261-264.	0.7	16
31	Sidewall epitaxial lateral overgrowth of nonpolar a-plane GaN by metalorganic vapor phase epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1575-1578.	0.8	16
32	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
33	Combining surface plasmonic and light extraction enhancement on InGaN quantum-well light-emitters. Nanoscale, 2016, 8, 16340-16348.	2.8	16
34	InGaN-based green micro-LED efficiency enhancement by hydrogen passivation of the p-GaN sidewall. Applied Physics Express, 2022, 15, 084003.	1.1	16
35	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
36	High hole concentration in Mg-doped a-plane $\text{Ga}_{1-x}\text{In}_x\text{N}$ ($x \sim 0.30$) grown on r-plane sapphire substrate by metalorganic vapor phase epitaxy. Applied Physics Letters, 2008, 93, .	1.5	14

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37	Ultrasmall and ultradense InGaN-based RGB monochromatic micro-light-emitting diode arrays by pixilation of conductive p-GaN. <i>Photonics Research</i> , 2021, 9, 2429.	3.4	14
38	AlGaIn/GaN heterostructure field-effect transistor. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011, 208, 1614-1616.	0.8	13
39	Fabrication of Nonpolar a -Plane Nitride-Based Solar Cell on r -Plane Sapphire Substrate. <i>Applied Physics Express</i> , 2011, 4, 101001.	1.1	12
40	High-color-rendering-index phosphor-free InGaIn-based white light-emitting diodes by carrier injection enhancement via V-pits. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	12
41	Microstructural analysis of N-polar InGaIn directly grown on a ScAlMgO ₄ (0001) substrate. <i>Applied Physics Express</i> , 2022, 15, 065501.	1.1	12
42	Strong Emission from GaInN/GaN Multiple Quantum Wells on High-Crystalline-Quality Thickm-Plane GaInN Underlying Layer on Grooved GaN. <i>Applied Physics Express</i> , 2009, 2, 061004.	1.1	11
43	Influence of near-field coupling from Ag surface plasmons on InGaIn/GaN quantum-well photoluminescence. <i>Journal of Luminescence</i> , 2016, 175, 213-216.	1.5	11
44	Improved performance of InGaIn-based red light-emitting diodes by micro-hole arrays. <i>Optics Express</i> , 2021, 29, 29780.	1.7	11
45	Photoluminescence of InGaIn-based red multiple quantum wells. <i>Optics Express</i> , 2021, 29, 30237.	1.7	11
46	Nonpolar GaN layers grown by sidewall epitaxial lateral overgrowth: optical evidences for a reduced stacking fault density. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008, 5, 1768-1770.	0.8	10
47	Efficiency enhancement of InGaIn amber MQWs using nanopillar structures. <i>Nanophotonics</i> , 2018, 7, 317-322.	2.9	10
48	Analysis of the n-GaN electrochemical etching process and its mechanism in oxalic acid. <i>RSC Advances</i> , 2022, 12, 4648-4655.	1.7	10
49	Boron influence on bandgap and photoluminescence in B-GaN grown on AlN. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	9
50	Ultra-small InGaIn green micro-light-emitting diodes fabricated by selective passivation of p-GaN. <i>Optics Letters</i> , 2021, 46, 5092.	1.7	9
51	Control of stress and crystalline quality in GaInN films used for green emitters. <i>Journal of Crystal Growth</i> , 2008, 310, 4920-4922.	0.7	8
52	In situ X-ray diffraction monitoring of GaInN/GaN superlattice during organometallic vapor phase epitaxy growth. <i>Journal of Crystal Growth</i> , 2014, 393, 108-113.	0.7	8
53	Investigation of amber light-emitting diodes based on InGaIn/AlN/AlGaIn quantum wells. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 05FJ06.	0.8	8
54	In situ X-ray diffraction monitoring during metalorganic vapor phase epitaxy growth of low-temperature-GaN buffer layer. <i>Journal of Crystal Growth</i> , 2012, 361, 1-4.	0.7	7

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55	Investigation of a Separated Short-Wavelength Peak in InGaN Red Light-Emitting Diodes. Crystals, 2021, 11, 1123.	1.0	7
56	GaInN _{0.6} -based solar cells using GaInN/GaN superlattices. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2463-2465.	0.8	6
57	Influence of polymerization among Al- and Ga-containing molecules on growth rate and Al content in AlGaIn. Journal of Crystal Growth, 2019, 516, 17-20.	0.7	6
58	Energy transport analysis in a Ga _{0.84} In _{0.16} N/GaN heterostructure using microscopic Raman images employing simultaneous coaxial irradiation of two lasers. Applied Physics Letters, 2020, 116, .	1.5	6
59	Optical properties of InGaIn-based red multiple quantum wells. Applied Physics Letters, 2022, 120, .	1.5	6
60	Improvement in performance of m-plane GaInN light emitting diode grown on m-plane SiC by sidewall epitaxial lateral overgrowth. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2145-2147.	0.8	5
61	Photoelectrochemical and crystalline properties of a GaN photoelectrode loaded with \pm -Fe ₂ O ₃ as cocatalyst. Scientific Reports, 2020, 10, 12586.	1.6	5
62	Growth of AlGaIn/GaN heterostructure on vicinal c-plane free-standing GaN substrates prepared by the Na flux method. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1191-1194.	0.8	4
63	Activation energy of Mg in c-plane GaN. Journal of Crystal Growth, 2009, 311, 2926-2928.	1.1	3
64	Growth of thick GaInN on grooved (101 $\bar{1}$ $\bar{1}$) GaN/(101 $\bar{2}$ $\bar{2}$) 4H-SiC. Journal of Crystal Growth, 2009, 311, 2926-2928.	0.7	3
65	Atomic layer epitaxy of AlGaIn. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2368-2370.	0.8	3
66	Temperature dependence of normally off mode AlGaIn/GaN heterostructure field-effect transistors with p-GaN gate. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2419-2422.	0.8	3
67	Optimization of initial MOVPE growth of non-polar and a-plane GaN on Na flux grown LPE-GaN substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2095-2097.	0.8	3
68	High-Temperature Operation of Normally Off-Mode AlGaIn/GaN Heterostructure Field-Effect Transistors with p-GaN Gate. Japanese Journal of Applied Physics, 2011, 50, 01AD03.	0.8	3
69	Photoelectrochemical H ₂ generation from water using a CoO _x /GaN photoelectrode. Japanese Journal of Applied Physics, 2019, 58, SCCC23.	0.8	3
70	InGaIn-Based Orange-Red Resonant Cavity Light-Emitting Diodes. Journal of Lightwave Technology, 2022, 40, 4337-4343.	2.7	3
71	Improvement in crystalline quality of thick GaInN on m-plane 6H-SiC substrates using sidewall epitaxial lateral overgrowth. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 3045-3047.	0.8	2
72	Characterization of low-defect-density a-plane and m-plane GaN and fabrication of a-plane and m-plane LEDs. , 2007, , .		1

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73	All MOVPE grown nitride-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 Ga _{1-x} In _x N (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	Realization of high-crystalline-quality and thick GaInN films. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S502.	0.8	1
76	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
77	Passivation of Surface States in GaN by NiO Particles. Crystals, 2022, 12, 211.	1.0	1
78	Characterization of a-plane AlGaIn/GaN heterostructure grown on r-plane sapphire substrate. Materials Research Society Symposia Proceedings, 2005, 892, 121.	0.1	0
79	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
80	Metalorganic Vapor Phase Epitaxial Growth of Nonpolar Al(Ga,In)N Films on Lattice-Mismatched Substrates. , 0, , 101-118.		0
81	Increased pressure digital metalorganic vapor phase epitaxy system with high-speed switching valves for growing high-In-content GaInN. , 2010, , .		0
82	Drain bias stress and memory effects in AlGaIn/GaN heterostructure field-effect transistors with p-GaN gate. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2424-2426.	0.8	0
83	Analysis of LO phonon properties in III-nitrides: interaction with carriers and microscopic analysis. , 2021, , .		0
84	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
85	Analysis of phonon transport through heterointerfaces of InGaIn/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