Yoshio Honda

List of Publications by Year
in descending order

76 papers	1,479 citations	361413 20 h-index	345221 36 g-index
77 all docs	77 docs citations	77 times ranked	1564 citing authors

#	Article	IF	Citations
1	Laser slice thinning of GaN-on-GaN high electron mobility transistors. Scientific Reports, 2022, 12, 7363.	3.3	4
2	Development of Pulsed TEM Equipped with Nitride Semiconductor Photocathode for High-Speed Observation and Material Nanofabrication. Quantum Beam Science, 2021, 5, 5.	1.2	5
3	Gallium nitride wafer slicing by a sub-nanosecond laser: effect of pulse energy and laser shot spacing. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	2.3	3
4	Smart-cut-like laser slicing of GaN substrate using its own nitrogen. Scientific Reports, 2021, 11, 17949.	3.3	7
5	Vertical GaN p+-n junction diode with ideal avalanche capability grown by halide vapor phase epitaxy. Applied Physics Letters, 2021, 119, .	3.3	11
6	Demonstration of Observation of Dislocations in GaN by Novel Birefringence Method. Physica Status Solidi (B): Basic Research, 2020, 257, 1900553.	1.5	5
7	On-wafer fabrication of etched-mirror UV-C laser diodes with the ALD-deposited DBR. Applied Physics Letters, 2020, 116, .	3.3	42
8	Recovery of quantum efficiency on Cs/O-activated GaN and GaAs photocathodes by thermal annealing in vacuum. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, .	1.2	5
9	Optical properties of neodymium ions in nanoscale regions of gallium nitride. Optical Materials Express, 2020, 10, 2614.	3.0	11
10	Effect of photoelectrochemical etching and post-metallization annealing on gate controllability of AlGaN/GaN high electron mobility transistors. Japanese Journal of Applied Physics, 2019, 58, SCCD20.	1.5	9
11	V-shaped dislocations in a GaN epitaxial layer on GaN substrate. AIP Advances, 2019, 9, .	1.3	8
12	Correlation between nanopipes formed from screw dislocations during homoepitaxial growth by metal-organic vapor-phase epitaxy and reverse leakage current in vertical pâ€“n diodes on a free-standing GaN substrates. Japanese Journal of Applied Physics, 2019, 58, SCCB24.	1.5	30
13	Deeply and vertically etched butte structure of vertical GaN pâ€“n diode with avalanche capability. Japanese Journal of Applied Physics, 2019, 58, SCCD25.	1.5	42
14	Low Voltage High-Energy Î±-Particle Detectors by GaN-on-GaN Schottky Diodes with Record-High Charge Collection Efficiency. Sensors, 2019, 19, 5107.	3.8	10
15	Two-dimensional analysis of the nonuniform quantum yields of multiple quantum wells for AlGaN-based deep-ultraviolet LEDs grown on AlN templates with dense macrosteps using cathodoluminescence spectroscopy. Journal of Applied Physics, 2019, 126, .	2.5	12
16	Electronic structure analysis of core structures of threading dislocations in GaN. , 2019, , .		1
17	Vertical GaN pâ€“n diode with deeply etched mesa and the capability of avalanche breakdown. Applied Physics Express, 2019, 12, 026502.	2.4	59
18	Study on the Mainâ€Chain Structure of Amorphous Fluorine Resins for Encapsulating AlGaNâ€Based DUVâ€LEDs. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700525.	1.8	11

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19	Correlation between dislocations and leakage current of p-n diodes on a free-standing GaN substrate. Applied Physics Letters, 2018, 112, .	3.3	142
20	Effect of dislocations on the growth of p-type GaN and on the characteristics of p-n diodes. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600837.	1.8	14
21	Selectiveâ€area growth of doped GaN nanorods by pulsedâ€mode MOCVD: Effect of Si and Mg dopants. Physica Status Solidi (B): Basic Research, 2017, 254, 1600722.	1.5	14
22	Uneven AlGaN multiple quantum well for deep-ultraviolet LEDs grown on macrosteps and impact on electroluminescence spectral output. Japanese Journal of Applied Physics, 2017, 56, 061002.	1.5	54
23	III-nitride coreâ€“shell nanorod array on quartz substrates. Scientific Reports, 2017, 7, 45345.	3.3	16
24	Selective-area growth of GaN microrods on strain-induced templates by hydride vapor phase epitaxy. Japanese Journal of Applied Physics, 2016, 55, 05FF03.	1.5	10
25	Structural and optical study of coreâ€“shell InGaN layers of nanorod arrays with multiple stacks of InGaN/GaN superlattices for absorption of longer solar spectrum. Japanese Journal of Applied Physics, 2016, 55, 05FG03.	1.5	7
26	Development of AlGaN-based deep-ultraviolet (DUV) LEDs focusing on the fluorine resin encapsulation and the prospect of the practical applications. Proceedings of SPIE, 2016, , .	0.8	10
27	Improved crystal quality of semipolar (101Â¯3) GaN on Si(001) substrates using AlN/GaN superlattice interlayer. Journal of Crystal Growth, 2016, 454, 114-120.	1.5	15
28	Development of highly durable deep-ultraviolet AlGaN-based LED multichip array with hemispherical encapsulated structures using a selected resin through a detailed feasibility study. Japanese Journal of Applied Physics, 2016, 55, 082101.	1.5	34
29	Controlled morphology of regular GaN microrod arrays by selective area growth with HVPE. Journal of Crystal Growth, 2016, 447, 55-61.	1.5	8
30	Emission Characteristics of InGaN/GaN Core-Shell Nanorods Embedded in a 3D Light-Emitting Diode. Nanoscale Research Letters, 2016, 11, 215.	5.7	35
31	Highly elongated vertical GaN nanorod arrays on Si substrates with an AlN seed layer by pulsed-mode metalâ€“organic vapor deposition. CrystEngComm, 2016, 18, 1505-1514.	2.6	33
32	Excitation density dependence of radiative and nonradiative recombination lifetimes in InGaN/GaN multiple quantum wells. Physica Status Solidi (B): Basic Research, 2015, 252, 940-945.	1.5	16
33	Optically pumped lasing properties of $(1ar{1}01)$ InGaN/GaN stripe multiquantum wells with ridge cavity structure on patterned (001) Si substrates. Applied Physics Express, 2015, 8, 022702.	2.4	28
34	Highly ordered catalyst-free InGaN/GaN coreâ€“shell architecture arrays with expanded active area region. Nano Energy, 2015, 11, 294-303.	16.0	47
35	Nature of yellow luminescence band in GaN grown on Si substrate. Japanese Journal of Applied Physics, 2014, 53, 11RC02.	1.5	21
36	In situX-ray investigation of changing barrier growth temperatures on InGaN single quantum wells in metal-organic vapor phase epitaxy. Journal of Applied Physics, 2014, 115, 094906.	2.5	9

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37	Morphology development of GaN nanowires using a pulsed-mode MOCVD growth technique. CrystEngComm, 2014, 16, 2273-2282.	2.6	82
38	Enhancement of light output power on GaN-based light-emitting diodes using two-direction stripe-patterned sapphire substrate. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 722-725.	0.8	4
39	Xâ€ray investigations of GaInN single quantum wells grown by atomic layer epitaxy and metalorganic vapor phase epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 393-396.	0.8	0
40	Effects of exciton localization on internal quantum efficiency of InGaN nanowires. Journal of Applied Physics, 2013, 114, .	2.5	38
41	Characteristics of a-plane GaN films grown on optimized silicon-dioxide-patterned r-plane sapphire substrates. Thin Solid Films, 2013, 546, 108-113.	1.8	7
42	Structural evolution of AlN buffer and crystal quality of GaN films on a- and c-sapphire grown by metalorganic vapor phase epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 369-372.	0.8	5
43	Fabrication of InGaN/GaN Multiple Quantum Wells on (11Ì„01) GaN. Japanese Journal of Applied Physics, 2013, 52, 08JC05.	1.5	5
44	Impurity incorporation in semipolar (1-1 0 1) GaN grown on an Si substrate. Semiconductor Science and Technology, 2012, 27, 024006.	2.0	2
45	Strain relaxation in thick ($1{ar {1}}01$) InGaN grown on GaN/Si substrate. Physica Status Solidi (B): Basic Research, 2012, 249, 468-471.	1.5	3
46	Growth of InGaN nanowires on a (111)Si substrate by RFâ€MBE. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 646-649.	0.8	21
47	Reduction of Efficiency Droop in Semipolar (1ar101) InGaN/GaN Light Emitting Diodes Grown on Patterned Silicon Substrates. Applied Physics Express, 2011, 4, 012105.	2.4	39
48	Semi-polar GaN LEDs on Si substrate. Science China Technological Sciences, 2011, 54, 38-41.	4.0	20
49	Effect of lateral vapor phase diffusion during the selective growth of InGaN/GaN MQW on semipolar and nonpolar GaN stripes. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1175-1178.	1.8	7
50	Achieving highâ€growthâ€rate in GaN homoepitaxy using highâ€density nitrogen radical source. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2089-2091.	0.8	12
51	Optical properties of (1â€101) InGaN/GaN MQW stripe laser structure on Si substrate. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2160-2162.	0.8	8
52	Selective MOVPE growth of InGaN/GaN MQW on microfacet GaN stripes. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2038-2040.	0.8	1
53	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
54	Optical properties of (1 1Â¯ 0 1) semi-polar InGaN/GaN multiple quantum wells grown on patterned silicon substrates. Journal of Crystal Growth, 2011, 318, 500-504.	1.5	17

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55	Improvement of Light Extraction Efficiency for AlGaN-Based Deep Ultraviolet Light-Emitting Diodes. Japanese Journal of Applied Physics, 2011, 50, 122101.	1.5	52
56	HVPE growth of a â€plane GaN on a GaN template (110)Si substrate. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1760-1763.	0.8	3
57	DAP emission band in a carbon doped (1â€101)GaN grown on (001)Si substrate. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S772.	0.8	2
58	Growth and properties of semi-polar GaN on a patterned silicon substrate. Journal of Crystal Growth, 2009, 311, 2867-2874.	1.5	75
59	Maskless selective growth of semi-polar (112Â¯2) GaN on Si (311) substrate by metal organic vapor phase epitaxy. Journal of Crystal Growth, 2009, 311, 2914-2918.	1.5	14
60	Time-resolved spectroscopy in an undoped GaN (1-101). Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 367-369.	0.8	1
61	Mg doping in (11Â¯01)GaN grown on a 7Â° off-axis (001)Si substrate by selective MOVPE. Journal of Crystal Growth, 2007, 298, 207-210.	1.5	16
62	Subband structure and transport properties of two-dimensional electron gas in AlxGa1â€“xN/GaN heterostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2334-2337.	0.8	0
63	The surface diffusion of Ga species on an AlGaN facet structure in low pressure MOVPE. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2506-2509.	0.8	12
64	Time-resolved photoluminescence spectroscopy in a GaN/AlGaN SQW structure grown on a (111) Si substrate. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2838-2841.	0.8	1
65	Series resistance in a GaN/AlGaN/n-Si structure grown by MOVPE. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2740-2743.	0.8	4
66	Optical spectra of (1-101) InGaN/GaN and GaN/AlGaN MQW structure grown on a 7 degree off axis (001) Si substrate. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1992-1996.	0.8	5
67	The surface diffusion of Ga on an AlGaN/GaN stripe structure in the selective MOVPE. Physica Status Solidi (B): Basic Research, 2006, 243, 1665-1668.	1.5	12
68	Incorporation of carbon on a facet of GaN by MOVPE. Journal of Crystal Growth, 2005, 284, 341-346.	1.5	10
69	Transmission electron microscopy study of an AlN nucleation layer for the growth of GaN on a 7-degree off-oriented (001) Si substrate by metalorganic vapor phase epitaxy. Journal of Crystal Growth, 2004, 260, 360-365.	1.5	6
70	Optical spectra of GaN/InGaN/GaN MQW structure grown on a (1â€“101) GaN facet. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 2512-2515.	0.8	2
71	The surface diffusion of Ga on an AlGaN/GaN facet structure in the MOVPE growth. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 2154-2158.	0.8	12
72	Transmission Electron Microscopy Study of the Microstructure in Selective-Area-Grown GaN and an AlGaN/GaN Heterostructure on a 7-Degree Off-Oriented (001) Si Substrate. Japanese Journal of Applied Physics, 2002, 41, L846-L848.	1.5	6

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73	Fabrication of GaN/AlGaN heterostructures on a (111)Si substrate by selective MOVPE. Journal of Crystal Growth, 2002, 237-239, 1099-1103.	1.5	8
74	Growth of () GaN on a 7-degree off-oriented (001)Si substrate by selective MOVPE. Journal of Crystal Growth, 2002, 242, 82-86.	1.5	86
75	Structural characterization of GaN laterally overgrown on a (111)Si substrate. Applied Physics Letters, 2001, 79, 955-957.	3.3	30
76	Selective Area Growth of GaN on Si Substrate Using SiO 2 Mask by Metalorganic Vapor Phase Epitaxy. Japanese Journal of Applied Physics, 1998, 37, L966-L969.	1.5	63