Hisashi Yamada

List of Publications by Year
in descending order

96 papers	1,705 citations	257450 24 h-index	345221 36 g-index
97 all docs	97 docs citations	97 times ranked	1379 citing authors

#	Article	IF	Citations
1	Comparative Study of Boron Precursors for Chemical Vaporâ€Phase Depositionâ€Grown Hexagonal Boron Nitride Thin Films. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000241.	1.8	8
2	Dielectric functions of CVDâ€“grown boron nitride from 1.1 to 9.0 eV by spectroscopic ellipsometry. Applied Physics Letters, 2021, 118, 112101.	3.3	6
3	Impact of gate electrode formation process on Al2O3/GaN interface properties and channel mobility. Applied Physics Express, 2021, 14, 081001.	2.4	4
4	Generation of dislocations from scratches on GaN formed during wafer fabrication and dislocation reactions during homoepitaxial growth. Japanese Journal of Applied Physics, 2021, 60, 115501.	1.5	5
5	Fabrication and analysis of InAlN/GaN metalâ€“insulatorâ€“semiconductor high-electron-mobility transistors based on AlN/GaN superlattice channel. Applied Physics Letters, 2021, 119, .	3.3	2
6	Analysis of dislocation line tilt in GaN single crystal by Raman spectroscopy. Japanese Journal of Applied Physics, 2021, 60, SAAD03.	1.5	1
7	Chemical Vapor Deposition Growth of BN Thin Films Using B₂H₆ and NH₃. Physica Status Solidi (B): Basic Research, 2020, 257, 1900318.	1.5	11
8	Experimental Demonstration of n- and p-channel GaN-MOSFETs toward Power IC Applications. ECS Journal of Solid State Science and Technology, 2020, 9, 015001.	1.8	7
9	Growth Temperature Effects of Chemical Vapor Depositionâ€Grown Boron Nitride Layer Using B₂H₆ and NH₃. Physica Status Solidi (B): Basic Research, 2020, 257, 1900521.	1.5	4
10	Ferroelectrics field modulation imaging: A useful technique for domain and domain-wall observations. Ferroelectrics, 2020, 556, 37-43.	0.6	2
11	Fabrication and Evaluation of N-Channel GaN Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors Based on Regrown and Implantation Methods. Materials, 2020, 13, 899.	2.9	9
12	Behavior of Threading Dislocations from GaN Substrate to Epitaxial Layer. Physica Status Solidi (B): Basic Research, 2020, 257, 1900527.	1.5	4
13	Impact of remote plasma oxidation of a GaN surface on photoluminescence properties. Japanese Journal of Applied Physics, 2019, 58, SEEC02.	1.5	2
14	Comparative study of photoluminescence properties obtained from SiO2/GaN and Al2O3/GaN structures. Japanese Journal of Applied Physics, 2019, 58, SIIB22.	1.5	0
15	Controlled oxide interlayer for improving reliability of SiO₂/GaN MOS devices. Japanese Journal of Applied Physics, 2019, 58, SCCD06.	1.5	22
16	Nondestructive visualization of threading dislocations in GaN by micro raman mapping. Japanese Journal of Applied Physics, 2019, 58, SCCB06.	1.5	12
17	Reduction in residual impurities in semi-polar <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mfenced open="(" close=")"><mml:mrow><mml:mn>3</mml:mn><mml:mspace width="5.0pt" /><mml:mn>0</mml:mn><mml:mspace width="5.0pt" /><mml:mover><mml:mn>3</mml:mn><mml:mo>Â¯</mml:mo></mml:mover><mml:mspace width="5.0pt" /><mml:mover><mml:mn>1</mml:mn><mml:mo>Â¯</mml:mo></mml:mover></mml:mrow></mml:mfenced></mml:math>	1.5	0
18	Fabrication of submicron active-region-buried GaN hexagonal frustum structures by selective area growth for directional micro-LEDs. Journal of Crystal Growth, 2019, 507, 437-441.	1.5	3

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19	Impact of substrate off-angle on the<i>m</i>-plane GaN Schottky diodes. Japanese Journal of Applied Physics, 2018, 57, 04FG01.	1.5	14
20	Control of Ga-oxide interlayer growth and Ga diffusion in SiO₂/GaN stacks for high-quality GaN-based metalâ€“oxideâ€“semiconductor devices with improved gate dielectric reliability. Applied Physics Express, 2018, 11, 015701.	2.4	35
21	High thermal stability of abrupt SiO₂/GaN interface with low interface state density. Japanese Journal of Applied Physics, 2018, 57, 04FG11.	1.5	14
22	Comparison of Electrical Properties of Ni/nâ€GaN Schottky Diodes on câ€Plane and mâ€Plane GaN Substrates. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700362.	1.8	9
23	Energy band structure and electrical properties of Ga-oxide/GaN interface formed by remote oxygen plasma. Japanese Journal of Applied Physics, 2018, 57, 06KA05.	1.5	5
24	Determination of edge-component Burgers vector of threading dislocations in GaN crystal by using Raman mapping. Applied Physics Express, 2018, 11, 111001.	2.4	11
25	Carrier conduction in SiO<inf>2</inf>/GaN structure with abrupt interface. , 2018, , .		0
26	Low-temperature formation of Ga-oxide/GaN interface with remote oxygen plasma and its interface properties. Japanese Journal of Applied Physics, 2018, 57, 06JE01.	1.5	3
27	Detection of edge component of threading dislocations in GaN by Raman spectroscopy. Applied Physics Express, 2018, 11, 061002.	2.4	13
28	Interface properties of SiO₂/GaN structures formed by chemical vapor deposition with remote oxygen plasma mixed with Ar or He. Japanese Journal of Applied Physics, 2018, 57, 06KA01.	1.5	3
29	Deep-level traps in lightly Si-doped <i>n</i>-GaN on free-standing <i>m</i>-oriented GaN substrates. AIP Advances, 2018, 8, .	1.3	12
30	Electrical properties of Ni/n-GaN Schottky diodes on freestanding<i>m</i>-plane GaN substrates. Applied Physics Express, 2017, 10, 041001.	2.4	15
31	Formation and reduction of pyramidal hillocks on InGaAs/InP(111)A. Physica Status Solidi (B): Basic Research, 2016, 253, 644-647.	1.5	0
32	Impact of La2O3 interfacial layers on InGaAs metal-oxide-semiconductor interface properties in Al2O3/La2O3/InGaAs gate stacks deposited by atomic-layer-deposition. Journal of Applied Physics, 2015, 118, .	2.5	17
33	High mobility CMOS technologies using IIIâ€"V/Ge channels on Si platform. Solid-State Electronics, 2013, 88, 2-8.	1.4	64
34	Experimental Study on Electron Mobility in In_xGa_{1-x}As-on-Insulator Metal-Oxide-Semiconductor Field-Effect Transistors With In Content Modulation and MOS Interface Buffer Engineering. IEEE Nanotechnology Magazine, 2013, 12, 621-628.	2.0	28
35	Enhancement mechanism of terahertz radiation from coherent longitudinal optical phonons in undoped GaAs/<i>n</i>-type GaAs epitaxial structures. Journal of Applied Physics, 2013, 113, .	2.5	21
36	Characteristics of ultrafast optical responses originating from non-equilibrium carrier transport in undoped GaAs/<i>n</i>-type GaAs epitaxial structures. Journal of Applied Physics, 2013, 113, .	2.5	6

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37	Formation of IIIâ€“V-on-insulator structures on Si by direct wafer bonding. Semiconductor Science and Technology, 2013, 28, 094009.	2.0	47
38	IIIâ€“V/Ge High Mobility Channel Integration of InGaAs n-Channel and Ge p-Channel Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors with Self-Aligned Ni-Based Metal Source/Drain Using Direct Wafer Bonding. Applied Physics Express, 2012, 5, 076501.	2.4	26
39	Electron Mobility Enhancement of Extremely Thin Body In$_{0.7}$Ga$_{0.3}$As-on-Insulator Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors on Si Substrates by Metalâ€“Oxideâ€“Semiconductor Interface Buffer Layers. Applied Physics Express, 2012, 5, 014201.	2.4	26
40	Controlling Anion Composition at Metalâ€“Insulatorâ€“Semiconductor Interfaces on IIIâ€“V Channels by Plasma Processing. Japanese Journal of Applied Physics, 2012, 51, 065701.	1.5	2
41	Ultrafast optical response originating from carrier-transport processes in undoped GaAs/n-type GaAs epitaxial structures. Applied Physics Letters, 2012, 100, 211902.	3.3	5
42	Sulfur cleaning for (100), (111)A, and (111)B InGaAs surfaces with In content of 0.53 and 0.70 and their Al<inf>2</inf>O<inf>3</inf>/InGaAs MOS interface properties. , 2012, , .		4
43	Time Evolution of Terahertz Electromagnetic Waves from Undoped GaAs/n-type GaAs Epitaxial Layer Structures Clarified with Use of a Time-Partitioning Fourier Transform Method. Physics Procedia, 2012, 29, 30-35.	1.2	0
44	Reduction in interface state density of Al2O3/InGaAs metal-oxide-semiconductor interfaces by InGaAs surface nitridation. Journal of Applied Physics, 2012, 112, 073702.	2.5	41
45	Initial Processes of Atomic Layer Deposition of Al2O3 on InGaAs: Interface Formation Mechanisms and Impact on Metal-Insulator-Semiconductor Device Performance. Materials, 2012, 5, 404-414.	2.9	18
46	Controlling Anion Composition at Metalâ€“Insulatorâ€“Semiconductor Interfaces on IIIâ€“V Channels by Plasma Processing. Japanese Journal of Applied Physics, 2012, 51, 065701.	1.5	2
47	Sub-10-nm Extremely Thin Body InGaAs-on-Insulator MOSFETs on Si Wafers With Ultrathin $hbox{Al}_{2}hbox{O}_{3}$ Buried Oxide Layers. IEEE Electron Device Letters, 2011, 32, 1218-1220.	3.9	60
48	Origin of electron mobility enhancement in (1 1 1)-oriented InGaAs channel metalâ€“insulatorâ€“semiconductor field-effect-transistors. Microelectronic Engineering, 2011, 88, 3459-3461.	2.4	9
49	Simple strategy for enhancing terahertz emission from coherent longitudinal optical phonons using undoped GaAs/n -type GaAs epitaxial layer structures. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 343-345.	0.8	2
50	On the mechanisms limiting mobility in InP/InGaAs buried channel nMISFETs. Microelectronic Engineering, 2011, 88, 1076-1078.	2.4	2
51	AC response analysis of Câ€“V curves and quantitative analysis of conductance curves in Al2O3/InP interfaces. Microelectronic Engineering, 2011, 88, 1087-1090.	2.4	16
52	Frequency-tunable terahertz electromagnetic wave emitters based on undoped GaAs/n-type GaAs epitaxial layer structures utilizing sub-picosecond-range carrier-transport processes. Journal of Luminescence, 2011, 131, 531-534.	3.1	0
53	Self-aligned metal source/drain InP n-metal-oxide-semiconductor field-effect transistors using Niâ€“InP metallic alloy. Applied Physics Letters, 2011, 98, 243501.	3.3	21
54	High Performance Extremely Thin Body InGaAs-on-Insulator Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors on Si Substrates with Niâ€“InGaAs Metal Source/Drain. Applied Physics Express, 2011, 4, 114201.	2.4	28

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55	Self-Aligned Metal Source/Drain In_{<i>x</i>}Ga_{1-<i>x</i>}As n-Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors Using Niâ€“InGaAs Alloy. Applied Physics Express, 2011, 4, 024201.	2.4	53
56	Ultrathin Body InGaAs-on-Insulator Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors with InP Passivation Layers on Si Substrates Fabricated by Direct Wafer Bonding. Applied Physics Express, 2011, 4, 054202.	2.4	20
57	(Invited) III-V-On-Insulator MOSFETs on Si Substrates Fabricated by Direct Bonding Technique. ECS Transactions, 2010, 33, 359-370.	0.5	1
58	Self-aligned metal source/drain In<inf>x</inf>Ga<inf>1−x</inf>As n-MOSFETs using Ni-InGaAs alloy. , 2010, , .		15
59	Correlation between channel mobility improvements and negative V<inf>th</inf> shifts in III–V MISFETs: Dipole fluctuation as new scattering mechanism. , 2010, , .		10
60	Impact of InGaAs surface nitridation on interface properties of InGaAs metal-oxide-semiconductor capacitors using electron cyclotron resonance plasma sputtering SiO2. Applied Physics Letters, 2010, 97, 132102.	3.3	29
61	Front-gate InGaAs-on-Insulator metal-insulator-semiconductor field-effect transistors. Applied Physics Letters, 2010, 97, 253502.	3.3	18
62	Extremely-thin-body InGaAs-on-insulator MOSFETs on Si fabricated by direct wafer bonding. , 2010, , .		33
63	High Quality Thin Body III-V-On-Insulator Channel Layer Transfer on Si Wafer Using Direct Wafer Bonding. ECS Transactions, 2010, 33, 391-401.	0.5	8
64	Frequency Shift of Terahertz Electromagnetic Waves Originating from Sub-Picosecond-Range Carrier Transport in Undoped GaAs/n-Type GaAs Epitaxial Layer Structures. Japanese Journal of Applied Physics, 2010, 49, 082001.	1.5	5
65	III-V-semiconductor-on-insulator n-channel metal-insulator-semiconductor field-effect transistors with buried Al2O3 layers and sulfur passivation: Reduction in carrier scattering at the bottom interface. Applied Physics Letters, 2010, 96, 142106.	3.3	64
66	High mobility III–V-on-insulator MOSFETs on Si with ALD-Al<inf>2</inf>O<inf>3</inf> BOX layers. , 2010, , .		3
67	III-V-semiconductor-on-insulator MISFETs on Si with buried SiO<inf>2</inf> and Al<inf>2</inf>O<inf>3</inf> layers by direct wafer bonding. , 2010, , .		2
68	Evaluation of GaN substrates grown in supercritical basic ammonia. Applied Physics Letters, 2009, 94, 052109.	3.3	5
69	Relationships between Interface Structures and Electrical Properties in the High-k/IIIâ€“V System. Materials Research Society Symposia Proceedings, 2009, 1194, 68.	0.1	2
70	Customized Filter Cube in Fluorescence Microscope Measurements of InGaN/GaN Quantum-Well Characterization. Japanese Journal of Applied Physics, 2009, 48, 098003.	1.5	1
71	Effects of piezoelectric fields on optoelectronic properties of InGaN/GaN quantum-well light-emitting diodes prepared on nonpolar (1â€‰0â€‰ ar1 â€‰0) and semipolar (1â€‰1â€‰ ar{2} â€‰2) orientations. Journal Physics D: Applied Physics, 2009, 42, 135106.	2.8	46
72	High Electron Mobility Metalâ€“Insulatorâ€“Semiconductor Field-Effect Transistors Fabricated on (111)-Oriented InGaAs Channels. Applied Physics Express, 2009, 2, 121101.	2.4	49

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73	Recent progress in nonpolar LEDs as polarized light emitters. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 203-205.	1.8	9
74	Thin Body IIIâ€“V-Semiconductor-on-Insulator Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors on Si Fabricated Using Direct Wafer Bonding. Applied Physics Express, 2009, 2, 124501.	2.4	77
75	Optical polarization of <i>m</i> â€‰plane Inâ€‰GaN/GaN lightâ€‰emitting diodes characterized via confocal microscope. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1203-1206.	1.8	25
76	Effects of off-axis GaN substrates on optical properties of m-plane InGaN/GaN light-emitting diodes. Journal of Crystal Growth, 2008, 310, 4968-4971.	1.5	25
77	Hydrogen-related defects in InGaP/GaAs heterojunction bipolar transistors. Journal of Crystal Growth, 2008, 310, 5223-5226.	1.5	1
78	Comparison of InGaN/GaN light emitting diodes grown on <i>m</i> â€‰plane and <i>a</i> â€‰plane bulk GaN substrates. Physica Status Solidi - Rapid Research Letters, 2008, 2, 89-91.	2.4	46
79	Optical polarization characteristics ofm-oriented InGaN/GaN light-emitting diodes with various indium compositions in single-quantum-well structure. Journal Physics D: Applied Physics, 2008, 41, 225104.	2.8	57
80	Nonâ€‰polarâ€‰oriented InGaN lightâ€‰emitting diodes for liquidâ€‰crystalâ€‰display backlighting. Journal of the Society for Information Display, 2008, 16, 571-578.	2.1	25
81	Optical polarization characteristics of InGaNâˆ•GaN light-emitting diodes fabricated on GaN substrates oriented between (101Â¯) and (101Â¯1Â¯) planes. Applied Physics Letters, 2008, 92, .	3.3	34
82	Impact of Substrate Miscut on the Characteristic ofm-plane InGaN/GaN Light Emitting Diodes. Japanese Journal of Applied Physics, 2007, 46, L1117-L1119.	1.5	52
83	Thin metal intracavity contact and lateral current-distribution scheme for GaN-based vertical-cavity lasers. Applied Physics Letters, 2007, 90, 181128.	3.3	9
84	High Brightness Blue InGaN/GaN Light Emitting Diode on Nonpolarm-plane Bulk GaN Substrate. Japanese Journal of Applied Physics, 2007, 46, L960-L962.	1.5	89
85	Continuous-wave Operation of AlGaN-cladding-free Nonpolar m-Plane InGaN/GaN Laser Diodes. Japanese Journal of Applied Physics, 2007, 46, L761.	1.5	83
86	The Effect of n-GaAs Carrier Concentration on Current Gain in InGaP/GaAs Heterojunction Bipolar Transistors. Japanese Journal of Applied Physics, 2007, 46, 5122-5124.	1.5	2
87	The optical excitation mechanism in ZnS: Sm3+ grown by molecular-beam epitaxy. Solid State Communications, 2007, 142, 36-40.	1.9	7
88	Si-related defects in InGaP/GaAs heterojunction bipolar transistors. Physica B: Condensed Matter, 2007, 401-402, 44-47.	2.7	1
89	High current gain stability of carbon-doped p-GaAs in InGaP/GaAs heterojunction bipolar transistors. Journal of Crystal Growth, 2007, 298, 857-860.	1.5	5
90	Influence of V/III Ratio of Carbon-Doped p-GaAs on Current Gain and Its Thermal Stability in InGaP/GaAs Heterojunction Bipolar Transistors. Japanese Journal of Applied Physics, 2006, 45, 3909-3912.	1.5	8

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91	Well-width dependence of optical properties of rare-earth ion-dopedZnS0.8Se0.2/undopedZnS multiple quantum wells. Physical Review B, 2003, 67, .	3.2	38
92	Efficient luminescence from Sm-doped ZnSSe/undoped-ZnS multi-quantum wells. Journal of Crystal Growth, 2000, 214-215, 935-938.	1.5	6
93	Quenching mechanism of luminescence in Sm-doped ZnS. Journal of Crystal Growth, 2000, 214-215, 954-957.	1.5	2
94	Compensation centers in ZnSeTe. Journal of Applied Physics, 1999, 86, 5993-5999.	2.5	5
95	Gold particles containing plasma-polymerized styrene as an X-ray absorber. Plasma Chemistry and Plasma Processing, 1987, 7, 155-167.	2.4	7
96	Compositional Dependence of Nonpolar<i>m</i>-Plane In_{<i>x</i>}Ga_{1-<i>x</i>}N/GaN Light Emitting Diodes. Applied Physics Express, 0, 1, 041101.	2.4	53