Hisashi Yamada

List of Publications by Year in Descending Order

92 papers	1,419 citations	23 h-index	34 g-index
97 ext. papers	1,581 ext. citations	2.1 avg, IF	3.94 L-index

#	Paper	IF	Citations
92	Fabrication and analysis of InAlN/GaN metal–insulator–semiconductor high-electron-mobility transistors based on AlN/GaN superlattice channel. *Applied Physics Letters*, **2021**, 119, 143503	3.4	
91	Analysis of dislocation line tilt in GaN single crystal by Raman spectroscopy. *Japanese Journal of Applied Physics*, **2021**, 60, SAAD03	1.4	1
90	Impact of gate electrode formation process on Al2O3/GaN interface properties and channel mobility. *Applied Physics Express*, **2021**, 14, 081001	2.4	0
89	Comparative Study of Boron Precursors for Chemical Vapor-Phase Deposition-Grown Hexagonal Boron Nitride Thin Films. *Physica Status Solidi (A) Applications and Materials Science*, **2021**, 218, 2000241	1.6	5
88	Dielectric functions of CVD-grown boron nitride from 1.1 to 9.0 eV by spectroscopic ellipsometry. *Applied Physics Letters*, **2021**, 118, 112101	3.4	4
87	Ferroelectrics field modulation imaging: A useful technique for domain and domain-wall observations. *Ferroelectrics*, **2020**, 556, 37-43	0.6	1
86	Fabrication and Evaluation of N-Channel GaN Metal-Oxide-Semiconductor Field-Effect Transistors Based on Regrown and Implantation Methods. *Materials*, **2020**, 13,	3.5	5
85	Behavior of Threading Dislocations from GaN Substrate to Epitaxial Layer. *Physica Status Solidi (B): Basic Research*, **2020**, 257, 1900527	1.3	2
84	Growth Temperature Effects of Chemical Vapor Deposition-Grown Boron Nitride Layer Using B2H6 and NH3. *Physica Status Solidi (B): Basic Research*, **2020**, 257, 1900521	1.3	2
83	Chemical Vapor Deposition Growth of BN Thin Films Using B2H6 and NH3. *Physica Status Solidi (B): Basic Research*, **2020**, 257, 1900318	1.3	7
82	Experimental Demonstration of n- and p-channel GaN-MOSFETs toward Power IC Applications. *ECS Journal of Solid State Science and Technology*, **2020**, 9, 015001	2	5
81	Controlled oxide interlayer for improving reliability of SiO2/GaN MOS devices. *Japanese Journal of Applied Physics*, **2019**, 58, SCCD06	1.4	11
80	Nondestructive visualization of threading dislocations in GaN by micro raman mapping. *Japanese Journal of Applied Physics*, **2019**, 58, SCCB06	1.4	5
79	Reduction in residual impurities in semi-polar 303-1- and 202-1- GaN grown by metalorganic vapor phase epitaxy. *Journal of Crystal Growth*, **2019**, 512, 119-123	1.6	
78	Impact of remote plasma oxidation of a GaN surface on photoluminescence properties. *Japanese Journal of Applied Physics*, **2019**, 58, SEEC02	1.4	2
77	Comparative study of photoluminescence properties obtained from SiO2/GaN and Al2O3/GaN structures. *Japanese Journal of Applied Physics*, **2019**, 58, SIIB22	1.4	
76	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	1.6	3

75	Impact of substrate off-angle on them-plane GaN Schottky diodes. *Japanese Journal of Applied Physics*, **2018**, 57, 04FG01	1.4	10
74	Control of Ga-oxide interlayer growth and Ga diffusion in SiO2/GaN stacks for high-quality GaN-based metal□oxide□emiconductor devices with improved gate dielectric reliability. *Applied Physics Express*, **2018**, 11, 015701	2.4	23
73	High thermal stability of abrupt SiO2/GaN interface with low interface state density. *Japanese Journal of Applied Physics*, **2018**, 57, 04FG11	1.4	6
72	Detection of edge component of threading dislocations in GaN by Raman spectroscopy. *Applied Physics Express*, **2018**, 11, 061002	2.4	7
71	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	1.4	2
70	Deep-level traps in lightly Si-doped n-GaN on free-standing m-oriented GaN substrates. *AIP Advances*, **2018**, 8, 045311	1.5	6
69	Comparison of Electrical Properties of Ni/n-GaN Schottky Diodes on c-Plane and m-Plane GaN Substrates. *Physica Status Solidi (A) Applications and Materials Science*, **2018**, 215, 1700362	1.6	7
68	Energy band structure and electrical properties of Ga-oxide/GaN interface formed by remote oxygen plasma. *Japanese Journal of Applied Physics*, **2018**, 57, 06KA05	1.4	4
67	Determination of edge-component Burgers vector of threading dislocations in GaN crystal by using Raman mapping. *Applied Physics Express*, **2018**, 11, 111001	2.4	7
66	Low-temperature formation of Ga-oxide/GaN interface with remote oxygen plasma and its interface properties. *Japanese Journal of Applied Physics*, **2018**, 57, 06JE01	1.4	2
65	Electrical properties of Ni/n-GaN Schottky diodes on freestanding m-plane GaN substrates. *Applied Physics Express*, **2017**, 10, 041001	2.4	13
64	Formation and reduction of pyramidal hillocks on InGaAs/InP(111)A. *Physica Status Solidi (B): Basic Research*, **2016**, 253, 644-647	1.3	
63	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, 085309	2.5	17
62	High mobility CMOS technologies using III□/Ge channels on Si platform. *Solid-State Electronics*, **2013**, 88, 2-8	1.7	51
61	Experimental Study on Electron Mobility in InxGa1-xAs-on-Insulator Metal-Oxide-Semiconductor Field-Effect Transistors With In Content Modulation and MOS Interface Buffer Engineering. *IEEE Nanotechnology Magazine*, **2013**, 12, 621-628	2.6	26
60	Enhancement mechanism of terahertz radiation from coherent longitudinal optical phonons in undoped GaAs/n-type GaAs epitaxial structures. *Journal of Applied Physics*, **2013**, 113, 143502	2.5	14
59	Characteristics of ultrafast optical responses originating from non-equilibrium carrier transport in undoped GaAs/n-type GaAs epitaxial structures. *Journal of Applied Physics*, **2013**, 113, 203506	2.5	6
58	Formation of III□-on-insulator structures on Si by direct wafer bonding. *Semiconductor Science and Technology*, **2013**, 28, 094009	1.8	36

57	Sulfur cleaning for (100), (111)A, and (111)B InGaAs surfaces with In content of 0.53 and 0.70 and their Al2O3/InGaAs MOS interface properties **2012**,		4
56	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		
55	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	33
54	Initial Processes of Atomic Layer Deposition of Al□□ on InGaAs: Interface Formation Mechanisms and Impact on Metal-Insulator-Semiconductor Device Performance. *Materials*, **2012**, 5, 404-414	3.5	16
53	III□V/Ge High Mobility Channel Integration of InGaAs n-Channel and Ge p-Channel Metal□Oxide□Semiconductor Field-Effect Transistors with Self-Aligned Ni-Based Metal Source/Drain Using Direct Wafer Bonding. *Applied Physics Express*, **2012**, 5, 076501	2.4	23
52	Electron Mobility Enhancement of Extremely Thin Body In$_{0.7}$Ga$_{0.3}$As-on-Insulator Metal□Oxide□Semiconductor Field-Effect Transistors on Si Substrates by Metal□Oxide□Semiconductor Interface Buffer Layers. *Applied Physics Express*, **2012**, 5, 014201	2.4	23
51	Controlling Anion Composition at Metal□Insulator□Semiconductor Interfaces on III□V Channels by Plasma Processing. *Japanese Journal of Applied Physics*, **2012**, 51, 065701	1.4	2
50	Ultrafast optical response originating from carrier-transport processes in undoped GaAs/n-type GaAs epitaxial structures. *Applied Physics Letters*, **2012**, 100, 211902	3.4	5
49	Controlling Anion Composition at Metal□Insulator□Semiconductor Interfaces on III□V Channels by Plasma Processing. *Japanese Journal of Applied Physics*, **2012**, 51, 065701	1.4	2
48	Origin of electron mobility enhancement in (1 1 1)-oriented InGaAs channel metal□nsulator□emiconductor field-effect-transistors. *Microelectronic Engineering*, **2011**, 88, 3459-3461	2.5	8
47	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		2
46	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	4.4	48
45	On the mechanisms limiting mobility in InP/InGaAs buried channel nMISFETs. *Microelectronic Engineering*, **2011**, 88, 1076-1078	2.5	2
44	AC response analysis of C□V curves and quantitative analysis of conductance curves in Al2O3/InP interfaces. *Microelectronic Engineering*, **2011**, 88, 1087-1090	2.5	15
43	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	3.8	
42	Self-aligned metal source/drain InP n-metal-oxide-semiconductor field-effect transistors using Ni□P metallic alloy. *Applied Physics Letters*, **2011**, 98, 243501	3.4	20
41	High Performance Extremely Thin Body InGaAs-on-Insulator Metal□Oxide□Semiconductor Field-Effect Transistors on Si Substrates with Ni□InGaAs Metal Source/Drain. *Applied Physics Express* , **2011**, 4, 114201	2.4	25
40	Self-Aligned Metal Source/Drain InxGa1-xAs n-Metal□Oxide□Semiconductor Field-Effect Transistors Using Ni□InGaAs Alloy. *Applied Physics Express*, **2011**, 4, 024201	2.4	45

39	Ultrathin Body InGaAs-on-Insulator Metal–Oxide–Semiconductor Field-Effect Transistors with InP Passivation Layers on Si Substrates Fabricated by Direct Wafer Bonding. *Applied Physics Express*, **2011**, 4, 054202	2.4	18
38	(Invited) III-V-On-Insulator MOSFETs on Si Substrates Fabricated by Direct Bonding Technique. *ECS Transactions*, **2010**, 33, 359-370	1	1
37	Self-aligned metal source/drain InxGa1−xAs n-MOSFETs using Ni-InGaAs alloy **2010**,		9
36	Correlation between channel mobility improvements and negative Vth shifts in III–V MISFETs: Dipole fluctuation as new scattering mechanism **2010**,		6
35	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	3.4	24
34	Front-gate InGaAs-on-Insulator metal-insulator-semiconductor field-effect transistors. *Applied Physics Letters*, **2010**, 97, 253502	3.4	15
33	Extremely-thin-body InGaAs-on-insulator MOSFETs on Si fabricated by direct wafer bonding **2010**,		30
32	High Quality Thin Body III-V-On-Insulator Channel Layer Transfer on Si Wafer Using Direct Wafer Bonding. *ECS Transactions*, **2010**, 33, 391-401	1	5
31	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	1.4	4
30	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	3.4	58
29	High mobility III–V-on-insulator MOSFETs on Si with ALD-Al2O3 BOX layers **2010**,		3
28	Evaluation of GaN substrates grown in supercritical basic ammonia. *Applied Physics Letters*, **2009**, 94, 052109	3.4	5
27	Relationships between Interface Structures and Electrical Properties in the High-k/III–V System. *Materials Research Society Symposia Proceedings*, **2009**, 1194, 68		2
26	Customized Filter Cube in Fluorescence Microscope Measurements of InGaN/GaN Quantum-Well Characterization. *Japanese Journal of Applied Physics*, **2009**, 48, 098003	1.4	1
25	Effects of piezoelectric fields on optoelectronic properties of InGaN/GaN quantum-well light-emitting diodes prepared on nonpolar (1 0 bar1 0) and semipolar (1 1 bar{2} 2) orientations. *Journal Physics D: Applied Physics*, **2009**, 42, 135106	3	32
24	High Electron Mobility Metal–Insulator–Semiconductor Field-Effect Transistors Fabricated on (111)-Oriented InGaAs Channels. *Applied Physics Express*, **2009**, 2, 121101	2.4	46
23	Recent progress in nonpolar LEDs as polarized light emitters. *Physica Status Solidi (A) Applications and Materials Science*, **2009**, 206, 203-205	1.6	8
22	Thin Body III–V-Semiconductor-on-Insulator Metal–Oxide–Semiconductor Field-Effect Transistors on Si Fabricated Using Direct Wafer Bonding. *Applied Physics Express*, **2009**, 2, 124501	2.4	67

21	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	3	52
20	Compositional Dependence of Nonpolarm-Plane InxGa1-xN/GaN Light Emitting Diodes. *Applied Physics Express*, **2008**, 1, 041101	2.4	46
19	Optical polarization characteristics of InGaN□GaN light-emitting diodes fabricated on GaN substrates oriented between (101□0) and (101□1□) planes. *Applied Physics Letters*, **2008**, 92, 091105	3.4	33
18	Optical polarization of m -plane In-GaN/GaN light-emitting diodes characterized via confocal microscope. *Physica Status Solidi (A) Applications and Materials Science*, **2008**, 205, 1203-1206	1.6	24
17	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	1.6	23
16	Hydrogen-related defects in InGaP/GaAs heterojunction bipolar transistors. *Journal of Crystal Growth*, **2008**, 310, 5223-5226	1.6	
15	Comparison of InGaN/GaN light emitting diodes grown on m -plane and a -plane bulk GaN substrates. *Physica Status Solidi - Rapid Research Letters*, **2008**, 2, 89-91	2.5	42
14	The optical excitation mechanism in ZnS: Sm3+ grown by molecular-beam epitaxy. *Solid State Communications*, **2007**, 142, 36-40	1.6	7
13	Si-related defects in InGaP/GaAs heterojunction bipolar transistors. *Physica B: Condensed Matter*, **2007**, 401-402, 44-47	2.8	1
12	High current gain stability of carbon-doped p-GaAs in InGaP/GaAs heterojunction bipolar transistors. *Journal of Crystal Growth*, **2007**, 298, 857-860	1.6	4
11	Impact of Substrate Miscut on the Characteristic ofm-plane InGaN/GaN Light Emitting Diodes. *Japanese Journal of Applied Physics*, **2007**, 46, L1117-L1119	1.4	44
10	Thin metal intracavity contact and lateral current-distribution scheme for GaN-based vertical-cavity lasers. *Applied Physics Letters*, **2007**, 90, 181128	3.4	7
9	High Brightness Blue InGaN/GaN Light Emitting Diode on Nonpolarm-plane Bulk GaN Substrate. *Japanese Journal of Applied Physics*, **2007**, 46, L960-L962	1.4	81
8	Continuous-wave Operation of AlGaN-cladding-free Nonpolarm-Plane InGaN/GaN Laser Diodes. *Japanese Journal of Applied Physics*, **2007**, 46, L761-L763	1.4	71
7	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	1.4	2
6	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	1.4	7
5	Well-width dependence of optical properties of rare-earth ion-doped ZnS0.8Se0.2/undoped ZnS multiple quantum wells. *Physical Review B*, **2003**, 67,	3.3	34
4	Efficient luminescence from Sm-doped ZnSSe/undoped-ZnS multi-quantum wells. *Journal of Crystal Growth*, **2000**, 214-215, 935-938	1.6	6

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3	Quenching mechanism of luminescence in Sm-doped ZnS. *Journal of Crystal Growth*, **2000**, 214-215, 954-957	1.7	2
2	Compensation centers in ZnSeTe. *Journal of Applied Physics*, **1999**, 86, 5993-5999	2.5	5
1	Gold particles containing plasma-polymerized styrene as an X-ray absorber. *Plasma Chemistry and Plasma Processing*, **1987**, 7, 155-167	3.6	7