Noriyuki Taoka

List of Publications by Year
in descending order

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		257101	276539
118	2,168	24	41
papers	citations	h-index	g-index

118	118	118	1752
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	SiO₂/GaN interfaces with low defect densities and high breakdown electric fields formed by plasma-enhanced atomic layer deposition. Japanese Journal of Applied Physics, 2022, 61, SC1073.	0.8	11
2	Study on Electron Emission from Phosphorus Î´-Doped Si-QDs/Undoped Si-QDs Multiple-Stacked Structures. IEICE Transactions on Electronics, 2022, , .	0.3	0
3	Impact of gate electrode formation process on Al2O3/GaN interface properties and channel mobility. Applied Physics Express, 2021, 14, 081001.	1.1	4
4	Impact of byproducts formed on a 4Hâ€“SiC surface on interface state density of Al2O3/4Hâ€“SiC(0001) gate stacks. Applied Physics Letters, 2020, 116, 222104.	1.5	4
5	Experimental evidence of the existence of multiple charged states at Al2O3/GaN interfaces. Semiconductor Science and Technology, 2019, 34, 025009.	1.0	4
6	Impacts of Al₂O₃/GaN interface properties on the screening effect and carrier mobility in an inversion layer. Japanese Journal of Applied Physics, 2019, 58, SAAF03.	0.8	3
7	Ultrathin silicon oxynitride layer on GaN for dangling-bond-free GaN/insulator interface. Scientific Reports, 2018, 8, 1391.	1.6	10
8	Impacts of oxidants in atomic layer deposition method on Al₂O₃/GaN interface properties. Japanese Journal of Applied Physics, 2018, 57, 01AD04.	0.8	16
9	High thermal stability of abrupt SiO₂/GaN interface with low interface state density. Japanese Journal of Applied Physics, 2018, 57, 04FG11.	0.8	14
10	Energy band structure and electrical properties of Ga-oxide/GaN interface formed by remote oxygen plasma. Japanese Journal of Applied Physics, 2018, 57, 06KA05.	0.8	5
11	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.	0.8	3
12	Control of Insulator/semiconductor Interfaces and Its Electrical Properties. Vacuum and Surface Science, 2018, 61, 384-389.	0.0	0
13	Understanding of frequency dispersion in C-V curves of metal-oxide-semiconductor capacitor with wide-bandgap semiconductor. Microelectronic Engineering, 2017, 178, 182-185.	1.1	15
14	Electrical and optical properties improvement of GeSn layers formed at high temperature under well-controlled Sn migration. Materials Science in Semiconductor Processing, 2017, 70, 139-144.	1.9	7
15	Electrical and optical properties improvement of GeSn layers formed at high temperature under well-controlled Sn migration. Materials Science in Semiconductor Processing, 2017, 57, 48-53.	1.9	16
16	Photoluminescence of phosphorous doped Ge on Si (100). Materials Science in Semiconductor Processing, 2017, 70, 111-116.	1.9	8
17	Effects of nitridation for SiO2/SiC interface on defect properties near the conduction band edge. Japanese Journal of Applied Physics, 2016, 55, 04ER13.	0.8	3
18	Influence of interface traps inside the conduction band on the capacitanceâ€“voltage characteristics of InGaAs metalâ€“oxideâ€“semiconductor capacitors. Applied Physics Express, 2016, 9, 111202.	1.1	5

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19	Impact of surface orientation on (100), (111)A, and (111)B InGaAs surfaces with In content of 0.53 and 0.70 and on their Al2O3/InGaAs metal-oxide-semiconductor interface properties. Applied Physics Letters, 2016, 109, 182111.	1.5	7
20	Effects of additional oxidation after Ge condensation on electrical properties of germanium-on-insulator p-channel MOSFETs. Solid-State Electronics, 2016, 117, 77-87.	0.8	7
21	Defect and dislocation structures in low-temperature-grown Ge and Ge1â^'Sn epitaxial layers on Si(110) substrates. Thin Solid Films, 2016, 598, 72-81.	0.8	3
22	Sn migration control at high temperature due to high deposition speed for forming high-quality GeSn layer. Applied Physics Express, 2016, 9, 031201.	1.1	11
23	Impact of hydrogen surfactant on crystallinity of Ge1â^'xSnxepitaxial layers. Japanese Journal of Applied Physics, 2015, 54, 04DH15.	0.8	7
24	Oxygen and germanium migration at low temperature influenced by the thermodynamic nature of the materials used in germanium metal-insulator-semiconductor structures. Applied Physics Letters, 2015, 107, .	1.5	6
25	Formation, crystalline structure, and optical properties of Ge1â^'xâ^'ySnxCyternary alloy layers. Japanese Journal of Applied Physics, 2015, 54, 04DH08.	0.8	5
26	Epitaxial Ge1-xSnx Layers Grown by Metal-Organic Chemical Vapor Deposition Using Tertiary-butyl-germane and Tri-butyl-vinyl-tin. ECS Solid State Letters, 2015, 4, P59-P61.	1.4	10
27	Epitaxial growth and crystalline properties of Ge1â^'â^'Si Sn on Ge(0 0 1) substrates. Solid-State Electronics, 2015, 110, 49-53.	0.8	14
28	Near-infrared light absorption by polycrystalline SiSn alloys grown on insulating layers. Applied Physics Letters, 2015, 106, .	1.5	33
29	Effect of Sn on crystallinity and electronic property of low temperature grown polycrystalline-Si1â^'â^'Ge Sn layers on SiO2. Solid-State Electronics, 2015, 110, 54-58.	0.8	7
30	Growth and applications of GeSn-related group-IV semiconductor materials. Science and Technology of Advanced Materials, 2015, 16, 043502.	2.8	144
31	Formation of chemically stable GeO2 on the Ge surface with pulsed metalâ€“organic chemical vapor deposition. Applied Physics Letters, 2015, 106, 062107.	1.5	5
32	Non-uniform depth distributions of Sn concentration induced by Sn migration and desorption during GeSnSi layer formation. Applied Physics Letters, 2015, 106, .	1.5	20
33	Characterization of locally strained Ge1â^'xSnx/Ge fine structures by synchrotron X-ray microdiffraction. Applied Physics Letters, 2015, 106, .	1.5	11
34	High hole mobility tin-doped polycrystalline germanium layers formed on insulating substrates by low-temperature solid-phase crystallization. Applied Physics Letters, 2015, 107, .	1.5	64
35	Publisherâ€™s Note: â€œImpact of hydrogen surfactant on crystallinity of Ge_{1â^'}_xSn_x epitaxial layersâ€• Japanese Journal of Applied Physics, 2015, 54, 059202.	0.8	10
36	Effect of Sn atoms on incorporation of vacancies in epitaxial Ge_{1â^'}_xSn_xfilm grown at low temperature. Applied Physics Express, 2014, 7, 021302.	1.1	11

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37	Importance of Ge surface oxidation with high oxidation rate in obtaining low interface state density at oxide/Ge interfaces. Japanese Journal of Applied Physics, 2014, 53, 08LD02.	0.8	1
38	Reduction of Schottky barrier height for n-type Ge contact by using Sn electrode. Japanese Journal of Applied Physics, 2014, 53, 04EA06.	0.8	12
39	Crystal growth of Sn-related group-IV alloy thin films for advanced Si nanoelectronics. , 2014, , .		0
40	Impact of crystalline structure on electrical property of NiGe/Ge contact. , 2014, , .		0
41	Formation of high-quality oxide/Ge1â^'xSnx interface with high surface Sn content by controlling Sn migration. Applied Physics Letters, 2014, 105, 122103.	1.5	19
42	Interaction of Sn atoms with defects introduced by ion implantation in Ge substrate. Journal of Applied Physics, 2014, 115, .	1.1	4
43	(Invited) Epitaxial Growth of GeSn Layers on (001), (110), and (111) Si and Ge Substrates. ECS Transactions, 2014, 64, 793-799.	0.3	3
44	Formation and crystalline structure of Ni silicides on Si(110) substrate. Japanese Journal of Applied Physics, 2014, 53, 05GA12.	0.8	4
45	Effect of thermal cleaning on formation of epitaxial Ni germanide layer on Ge(110) substrate. Japanese Journal of Applied Physics, 2014, 53, 05GA06.	0.8	1
46	Robustness of Sn precipitation during thermal oxidation of Ge_{1â^'}_xSn_xon Ge(001). Japanese Journal of Applied Physics, 2014, 53, 08LD04.	0.8	10
47	Formation of high-quality Ge1â^'xSnx layer on Ge(110) substrate with strain-induced confinement of stacking faults at Ge1â^'xSnx/Ge interfaces. Applied Physics Express, 2014, 7, 061301.	1.1	2
48	Interface properties of Al₂O₃/Ge structures with thin Ge oxide interfacial layer formed by pulsed metal organic chemical vapor deposition. Japanese Journal of Applied Physics, 2014, 53, 08LD03.	0.8	9
49	Epitaxial formation and electrical properties of Ni germanide/Ge(110) contacts. Thin Solid Films, 2014, 557, 84-89.	0.8	22
50	Importance of control of oxidant partial pressure on structural and electrical properties of Pr-oxide films. Thin Solid Films, 2014, 557, 276-281.	0.8	4
51	Influence of Ge substrate orientation on crystalline structures of Ge1â^'Sn epitaxial layers. Thin Solid Films, 2014, 557, 159-163.	0.8	14
52	Formation and electrical properties of metal/Ge<inf>1−x</inf>Sn<inf>x</inf> contacts. , 2014, , .		0
53	Large grain growth of Ge-rich Ge1â^'xSnx(xâ€‰â‰ˆâ€‰0.02) on insulating surfaces using pulsed laser annealing in flowing water. Applied Physics Letters, 2014, 104, 061901.	1.5	37
54	Stabilized formation of tetragonal ZrO2 thin film with high permittivity. Thin Solid Films, 2014, 557, 192-196.	0.8	22

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55	Characterization of crystalline structures of SiGe substrate formed by traveling liquidus-zone method for devices with Ge/SiGe structures. Thin Solid Films, 2014, 557, 129-134.	0.8	3
56	Impacts of AlGeO formation by post thermal oxidation of Al2O3/Ge structure on interfacial properties. Thin Solid Films, 2014, 557, 282-287.	0.8	15
57	Analysis for positions of Sn atoms in epitaxial Ge1â^'xSnx film in low temperature depositions. Thin Solid Films, 2014, 557, 173-176.	0.8	6
58	Formation and characterization of locally strained Ge1â^'Sn /Ge microstructures. Thin Solid Films, 2014, 557, 164-168.	0.8	6
59	Observation of lattice spacing fluctuation and strain undulation around through-Si vias in wafer-on-wafer structures using X-ray microbeam diffraction. Japanese Journal of Applied Physics, 2014, 53, 05GE03.	0.8	0
60	High-Mobility Ge p- and n-MOSFETs With 0.7-nm EOT Using $hbox{HfO}_{2}/hbox{Al}_{2}hbox{O}_{3}/hbox{GeO}_{x}/hbox{Ge}$ Gate Stacks Fabricated by Plasma Postoxidation. IEEE Transactions on Electron Devices, 2013, 60, 927-934.	1.6	193
61	Impact of Fermi level pinning inside conduction band on electron mobility in InGaAs metal-oxide-semiconductor field-effect transistors. Applied Physics Letters, 2013, 103, .	1.5	27
62	Understanding of interface structures and reaction mechanisms induced by Ge or GeO diffusion in Al2O3/Ge structure. Applied Physics Letters, 2013, 103, .	1.5	12
63	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.	1.1	28
64	Sub-60-nm Extremely Thin Body ${m In}_{x}{m Ga}_{1-x}{m As}$-On-Insulator MOSFETs on Si With Ni-InGaAs Metal S/D and MOS Interface Buffer Engineering and Its Scalability. IEEE Transactions on Electron Devices, 2013, 60, 2512-2517.	1.6	40
65	Effect of gate metal on chemical bonding state in metal/Pr-oxide/Ge gate stack structure. Solid-State Electronics, 2013, 83, 56-60.	0.8	2
66	Development of epitaxial growth technology for Ge1â^'Sn alloy and study of its properties for Ge nanoelectronics. Solid-State Electronics, 2013, 83, 82-86.	0.8	23
67	Epitaxial growth and anisotropic strain relaxation of Ge1â^'xSnx layers on Ge(110) substrates. Solid-State Electronics, 2013, 83, 71-75.	0.8	11
68	Effects of Light Exposure during Plasma Processing on Electrical Properties of GeO2/Ge Structures. Japanese Journal of Applied Physics, 2013, 52, 01AC04.	0.8	0
69	Ge-rich SiGe-on-insulator for waveguide optical modulator application fabricated by Ge condensation and SiGe regrowth. Optics Express, 2013, 21, 19615.	1.7	10
70	Characterization of Local Strain Structures in Heteroepitaxial Ge1-xSnx/Ge Microstructures by Using Microdiffraction Method. ECS Transactions, 2013, 58, 185-192.	0.3	0
71	Impacts of Surface Roughness Reduction in (110) Si Substrates Fabricated by High-Temperature Annealing on Electron Mobility in n-Channel Metalâ€“Oxideâ€“Semiconductor Field-Effect Transistors on (110) Si. Japanese Journal of Applied Physics, 2013, 52, 04CC26.	0.8	4
72	Interfacial Reaction Mechanisms in Al₂O₃/Ge Structure by Oxygen Radical Process. Japanese Journal of Applied Physics, 2013, 52, 04CA08.	0.8	9

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73	Liquid-Sn-driven lateral growth of poly-GeSn on insulator assisted by surface oxide layer. Applied Physics Letters, 2013, 103, .	1.5	28
74	Impact of Fermi Level Pinning Due to Interface Traps Inside the Conduction Band on the Inversion-Layer Mobility in $hbox{In}_{x}hbox{Ga}_{1 - x}hbox{As}$ Metalâ€“Oxideâ€“Semiconductor Field Effect Transistors. IEEE Transactions on Device and Materials Reliability, 2013, 13, 456-462.	1.5	25
75	Doppler Broadening Spectroscopy of Positron Annihilation near Ge and Si (001) Single Crystal Surfaces. ECS Solid State Letters, 2013, 2, P89-P90.	1.4	2
76	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.	1.1	26
77	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.	1.1	26
78	Strained In0.53Ga0.47As metal-oxide-semiconductor field-effect transistors with epitaxial based biaxial strain. Applied Physics Letters, 2012, 100, 193510.	1.5	23
79	In0.53Ga0.47As metal-oxide-semiconductor field-effect transistors with self-aligned metal source/drain using Co-InGaAs alloys. Applied Physics Letters, 2012, 100, .	1.5	12
80	Effect of Gate Metal Electrode on Chemical Bonding State in Metal/Pr-Oxide/Ge Gate Stack Structure. , 2012, , .		0
81	Impact of atomic layer deposition temperature on HfO2/InGaAs metal-oxide-semiconductor interface properties. Journal of Applied Physics, 2012, 112, .	1.1	38
82	Material Properties and Applications of Ge1-xSnx Alloys for Ge Nanoelectronics. , 2012, , .		0
83	Epitaxial Growth and Anisotropic Strain Relaxation of Ge1-xSnx Layers on Ge(110) Substrates. , 2012, , .		0
84	Reduction in interface state density of Al2O3/InGaAs metal-oxide-semiconductor interfaces by InGaAs surface nitridation. Journal of Applied Physics, 2012, 112, 073702.	1.1	41
85	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.	1.3	18
86	High-Mobility Ge pMOSFET With 1-nm EOT $hbox{Al}_{2} hbox{O}_{3}/hbox{GeO}_{x}/hbox{Ge}$ Gate Stack Fabricated by Plasma Post Oxidation. IEEE Transactions on Electron Devices, 2012, 59, 335-341.	1.6	168
87	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.	2.2	60
88	Highly-strained SGOI p-channel MOSFETs fabricated by applying Ge condensation technique to strained-SOI substrates. , 2011, , .		0
89	Planar-type In0.53Ga0.47As channel band-to-band tunneling metal-oxide-semiconductor field-effect transistors. Journal of Applied Physics, 2011, 110, .	1.1	24
90	Nature of interface traps in Ge metal-insulator-semiconductor structures with GeO2 interfacial layers. Journal of Applied Physics, 2011, 109, .	1.1	18

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91	Accurate evaluation of Ge metalâ€"insulatorâ€"semiconductor interface properties. Journal of Applied Physics, 2011, 110, .	1.1	14
92	AC response analysis of Câ€"V curves and quantitative analysis of conductance curves in Al2O3/InP interfaces. Microelectronic Engineering, 2011, 88, 1087-1090.	1.1	16
93	Self-aligned metal source/drain InP n-metal-oxide-semiconductor field-effect transistors using Niâ€"InP metallic alloy. Applied Physics Letters, 2011, 98, 243501.	1.5	21
94	Highly strained-SiGe-on-insulator p-channel metal-oxide-semiconductor field-effective transistors fabricated by applying Ge condensation technique to strained-Si-on-insulator substrates. Applied Physics Letters, 2011, 99, .	1.5	25
95	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.	1.1	28
96	Self-Aligned Metal Source/Drain In_xGa_{1-x}As n-Metalâ€"Oxideâ€"Semiconductor Field-Effect Transistors Using Niâ€"InGaAs Alloy. Applied Physics Express, 2011, 4, 024201.	1.1	53
97	Suppression of ALD-Induced Degradation of Ge MOS Interface Properties by Low Power Plasma Nitridation of GeO2. Journal of the Electrochemical Society, 2011, 158, G178.	1.3	30
98	1-nm-thick EOT high mobility Ge n- and p-MOSFETs with ultrathin GeO<inf>x</inf>/Ge MOS interfaces fabricated by plasma post oxidation. , 2011, , .		41
99	Fabrication of Ge-rich SiGe-On-insulator waveguide for optical modulator. , 2011, , .		1
100	(Invited) MOS Interface Control Technologies for III-V/Ge Channel MOSFETs. ECS Transactions, 2011, 41, 3-20.	0.3	14
101	Correlation between channel mobility improvements and negative V<inf>th</inf> shifts in III–V MISFETs: Dipole fluctuation as new scattering mechanism. , 2010, , .		10
102	Effect of Ge Metalâ€"Insulatorâ€"Semiconductor Interfacial Layers on Interface Trap Density near the Conduction Band Edge. Japanese Journal of Applied Physics, 2010, 49, 04DA09.	0.8	3
103	Physical origins of mobility enhancement of Ge p-channel metal-insulator-semiconductor field effect transistors with Si passivation layers. Journal of Applied Physics, 2010, 108, 104511.	1.1	20
104	Importance of minority carrier response in accurate characterization of Ge metal-insulator-semiconductor interface traps. Journal of Applied Physics, 2009, 106, .	1.1	14
105	Interfacial Control and Electrical Properties of Ge MOS structures. ECS Transactions, 2009, 19, 67-85.	0.3	10
106	Impact of Minorty Carrier Response on Characterization of Ge MIS Interface Traps. ECS Transactions, 2009, 19, 117-128.	0.3	0
107	Ion-Implanted Impurity Profiles in Ge Substrates and Amorphous Layer Thickness Formed by Ion Implantation. IEEE Transactions on Electron Devices, 2009, 56, 627-633.	1.6	11
108	Effects of Si passivation on Ge metal-insulator-semiconductor interface properties and inversion-layer hole mobility. Applied Physics Letters, 2008, 92, .	1.5	45

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109	Effects of ambient conditions in thermal treatment for Ge(0â€‰0â€‰1) surfaces on Geâ€“MIS interface properties. Semiconductor Science and Technology, 2007, 22, S114-S117.	1.0	20
110	Modulation of NiGeâ‚•Ge Schottky barrier height by sulfur segregation during Ni germanidation. Applied Physics Letters, 2006, 88, 152115.	1.5	85
111	Local strain in SiGe/Si heterostructures analyzed by X-ray microdiffraction. Thin Solid Films, 2006, 508, 128-131.	0.8	27
112	Control of misfit dislocations in strain-relaxed SiGe buffer layers on SOI substrates. Thin Solid Films, 2006, 508, 147-151.	0.8	6
113	Dislocation Morphology and Crystalline Mosaicity in Strain-Relaxed SiGe Buffer Layers on SOI. IEEJ Transactions on Electronics, Information and Systems, 2006, 126, 1083-1087.	0.1	0
114	Growth and characterization of strain-relaxed SiGe buffer layers on Si(001) substrates with pure-edge misfit dislocations. Materials Science in Semiconductor Processing, 2005, 8, 131-135.	1.9	17
115	Analysis of Microstructures in SiGe Buffer Layers on Silicon-on-Insulator Substrates. Japanese Journal of Applied Physics, 2005, 44, 7356-7363.	0.8	5
116	Pure-edge dislocation network for strain-relaxed SiGeâ‚•Si(001) systems. Applied Physics Letters, 2005, 86, 221916.	1.5	58
117	Strain-relaxation mechanisms of SiGe layers formed by two-step growth on Si(0 0 1) substrates. Applied Surface Science, 2004, 224, 104-107.	3.1	16
118	Dislocation structures and strain-relaxation in SiGe buffer layers on Si (0 0 1) substrates with an ultra-thin Ge interlayer. Applied Surface Science, 2004, 224, 108-112.	3.1	13