Shinji Koh

List of Publications by Year
in descending order

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104 papers	1,530 citations	331670 21 h-index	361022 35 g-index
105 all docs	105 docs citations	105 times ranked	958 citing authors

#	Article	IF	Citations
1	Room temperature circularly polarized lasing in an optically spin injected vertical-cavity surface-emitting laser with (110) GaAs quantum wells. Applied Physics Letters, 2011, 98, .	3.3	96
2	Ultrahigh room-temperature hole Hall and effective mobility in Si0.3Ge0.7/Ge/Si0.3Ge0.7 heterostructures. Applied Physics Letters, 2002, 81, 847-849.	3.3	88
3	GaAs/Ge/GaAs Sublattice Reversal Epitaxy on GaAs (100) and (111) Substrates for Nonlinear Optical Devices. Japanese Journal of Applied Physics, 1999, 38, L508-L511.	1.5	77
4	Randomized, double-blind study of pramipexole with placebo and bromocriptine in advanced Parkinson's disease. Movement Disorders, 2003, 18, 1149-1156.	3.9	74
5	GaAs/Ge/GaAs sublattice reversal epitaxy and its application to nonlinear optical devices. Journal of Crystal Growth, 2001, 227-228, 183-192.	1.5	65
6	In-plane strain fluctuation in strained-Si/SiGe heterostructures. Applied Physics Letters, 2003, 83, 4339-4341.	3.3	61
7	Extremely high room-temperature two-dimensional hole gas mobility in Ge/Si0.33Ge0.67/Si(001)p-type modulation-doped heterostructures. Applied Physics Letters, 2002, 80, 3117-3119.	3.3	60
8	Circularly polarized lasing in a (110)-oriented quantum well vertical-cavity surface-emitting laser under optical spin injection. Applied Physics Letters, 2009, 94, .	3.3	50
9	Hole density dependence of effective mass, mobility and transport time in strained Ge channel modulation-doped heterostructures. Applied Physics Letters, 2003, 82, 1425-1427.	3.3	48
10	Sublattice Reversal in GaAs/Si/GaAs (100) Heterostructures by Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 1998, 37, L1493-L1496.	1.5	46
11	Fabrication of high-quality strain-relaxed thin SiGe layers on ion-implanted Si substrates. Applied Physics Letters, 2004, 85, 2514-2516.	3.3	43
12	Surface Planarization of Strain-Relaxed SiGe Buffer Layers by CMP and Post Cleaning. Journal of the Electrochemical Society, 2003, 150, G376.	2.9	40
13	Graphene-based optically transparent dipole antenna. Applied Physics Letters, 2017, 110, .	3.3	32
14	Transformation of the incongruent-melting state to the congruent-melting state via an external electric field for the growth of langasite. Journal of Crystal Growth, 2005, 281, 481-491.	1.5	31
15	Temperature dependence of transport properties of high mobility holes in Ge quantum wells. Journal of Applied Physics, 2005, 97, 083701.	2.5	31
16	The effect of growth atmosphere and Ir contamination on electric properties of La3Ta0.5Ga5.5O14 single crystal grown by the floating zone and Czochralski method. Journal of Electroceramics, 2008, 20, 73-80.	2.0	30
17	Mobility enhancement in strained Si modulation-doped structures by chemical mechanical polishing. Applied Physics Letters, 2003, 82, 412-414.	3.3	29
18	Enhancement of Strain Relaxation of SiGe Thin Layers by Pre-Ion-Implantation into Si Substrates. Japanese Journal of Applied Physics, 2003, 42, L735-L737.	1.5	28

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19	Surface smoothing of SiGe strain-relaxed buffer layers by chemical mechanical polishing. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 89, 406-409.	3.5	25
20	Switching of Lasing Circular Polarizations in a (110)-VCSEL. IEEE Photonics Technology Letters, 2009, 21, 1350-1352.	2.5	24
21	Optical properties of strain-balanced SiGe planar microcavities with Ge dots on Si substrates. Applied Physics Letters, 2002, 81, 817-819.	3.3	22
22	Determination of lattice parameters of SiGe/Si(110) heterostructures. Thin Solid Films, 2006, 508, 132-135.	1.8	21
23	Study of the mechanism of crystallization electromotive force during growth of congruent LiNbO3 using a micro-pulling-down method. Journal of Crystal Growth, 2006, 297, 247-258.	1.5	20
24	Acceptorlike Behavior of Defects in SiGe Alloys Grown by Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 2008, 47, 4630.	1.5	20
25	Optically transparent antenna based on carrier-doped three-layer stacked graphene. AIP Advances, 2021, 11, .	1.3	19
26	Correlation between electron spin relaxation time and hetero-interface roughness in (110)-oriented GaAs/AlGaAs multiple-quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 870-875.	2.7	18
27	Epitaxial growth and electrochemical transfer of graphene on Ir(111)/Î±-Al2O3(0001) substrates. Applied Physics Letters, 2016, 109, .	3.3	17
28	SiGe bulk crystal as a lattice-matched substrate to GaAs for solar cell applications. Applied Physics Letters, 2000, 77, 3565-3567.	3.3	15
29	Three-Dimensional Reconstruction of Atoms in Surface X-Ray Diffraction. Japanese Journal of Applied Physics, 2003, 42, L189-L191.	1.5	15
30	Growth of SiGe/Ge/SiGe heterostructures with ultrahigh hole mobility and their device application. Journal of Crystal Growth, 2003, 251, 670-675.	1.5	14
31	Relaxation enhancement of SiGe thin layers by ion implantation into Si substrates. Journal of Crystal Growth, 2003, 251, 685-688.	1.5	14
32	SiGe heterostructure field-effect transistor using V-shaped confining potential well. IEEE Electron Device Letters, 2003, 24, 69-71.	3.9	14
33	In situ observation of crystal growth process of YBCO superconductive oxide with an external electric field. Journal of Crystal Growth, 2006, 294, 420-426.	1.5	14
34	Thermal reversibility in electrical characteristics of ultraviolet/ozone-treated graphene. Applied Physics Letters, 2013, 103, 063107.	3.3	14
35	The electric field-induced transformation of the melting state of langasite from incongruent into congruent. Journal of Crystal Growth, 2006, 292, 1-4.	1.5	13
36	Radiation properties of grapheneâ€based optically transparent dipole antenna. Microwave and Optical Technology Letters, 2018, 60, 2992-2998.	1.4	13

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37	Partitioning of ionic species and crystallization electromotive force during the melt growth of LiNbO3 and Li2B4O7. Journal of Crystal Growth, 2007, 306, 406-412.	1.5	12
38	Crystal growth of InGaAs/InAlAs quantum wells on InP(110) by MBE. Journal of Crystal Growth, 2013, 364, 95-100.	1.5	12
39	Characterization of sublattice-reversed GaAs by reflection high energy electron diffraction and transmission electron microscopy. Physica E: Low-Dimensional Systems and Nanostructures, 2000, 7, 876-880.	2.7	11
40	Effect of an external electric field on the crystal growth process of YBCO superconductive oxide. Journal of Crystal Growth, 2007, 307, 432-439.	1.5	11
41	All-Optical Flip-Flop Operation at 1-mA Bias Current in Polarization Bistable Vertical-Cavity Surface-Emitting Lasers With an Oxide Confinement Structure. IEEE Photonics Technology Letters, 2011, 23, 1811-1813.	2.5	11
42	Reaction at the interface between Si melt and a Ba-doped silica crucible. Journal of Crystal Growth, 2005, 277, 154-161.	1.5	10
43	Quantitative coverage and stability of hydrogen-passivation layers on HF-etched Si(1â˜'x)Gex surfaces. Journal of Applied Physics, 2005, 98, 023503.	2.5	10
44	Room temperature gate modulation of electron spin relaxation time in (110)-oriented GaAs/AlGaAs quantum wells. Applied Physics Letters, 2010, 97, 202102.	3.3	10
45	Fabrication of strain-balanced Si0.73Ge0.27/Si distributed Bragg reflectors on Si substrates. Applied Physics Letters, 2001, 79, 476-478.	3.3	9
46	Control of type-I and type-II band alignments in AlInAs/AlGaAs self-assembled quantum dots by changing AlGaAs compositions. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 308-311.	2.7	9
47	Changes in elastic deformation of strained Si by microfabrication. Materials Science in Semiconductor Processing, 2005, 8, 181-185.	4.0	9
48	Observation of strain field fluctuation in SiGe-relaxed buffer layers and its influence on overgrown structures. Materials Science in Semiconductor Processing, 2005, 8, 177-180.	4.0	9
49	Electron spin relaxation time in GaAs/AlGaAs multiple quantum wells grown on slightly misoriented GaAs(110) substrates. Applied Physics Letters, 2010, 97, 081111.	3.3	9
50	Characterizing Edge and Stacking Structures of Exfoliated Graphene by Photoelectron Diffraction. Japanese Journal of Applied Physics, 2013, 52, 110110.	1.5	9
51	Luminescence properties of Tm2O3-doped germanate glass phosphors for near-infrared wideband light-source. Journal of Materials Science: Materials in Electronics, 2021, 32, 14813-14822.	2.2	9
52	Sublattice reversal epitaxy: a novel technique for fabricating domain-inverted compound semiconductor structures. Science and Technology of Advanced Materials, 2000, 1, 173-179.	6.1	8
53	Formation of thin SiGe virtual substrates by ion implantation into Si substrates. Applied Surface Science, 2004, 224, 99-103.	6.1	8
54	Molecular beam epitaxy of GaAs on nearly lattice-matched SiGe substrates grown by the multicomponent zone-melting method. Semiconductor Science and Technology, 2001, 16, 699-703.	2.0	7

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55	Planarization of SiGe virtual substrates by CMP and its application to strained Si modulation-doped structures. Journal of Crystal Growth, 2003, 251, 693-696.	1.5	7
56	Carrier Lifetime and Electron Spin Relaxation Time in (110)-Oriented GaAsâ€“AlGaAs Quantum-Well Micro-Posts. IEEE Photonics Technology Letters, 2010, 22, 1689-1691.	2.5	7
57	Making graphene luminescent by adsorption of an amphiphilic europium complex. Applied Physics Letters, 2018, 112, .	3.3	7
58	Optical Properties of Strain-Balanced Si0.73Ge0.27Planar Microcavities on Si Substrates. Japanese Journal of Applied Physics, 2002, 41, 2664-2667.	1.5	6
59	Observation of Band Alignment Transition from Type-I to Type-II in AlInAs/AlGaAs Self-assembled Quantum Dots. Journal of the Physical Society of Japan, 2003, 72, 3271-3275.	1.6	6
60	Size reduction of the Ge islands by utilizing the strain fields from the lower-temperature-grown hut-clusters buried in the Si matrix. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 89, 58-61.	3.5	5
61	Fabrication of strain-balanced Si0.73Ge0.27/Si-distributed Bragg reflectors on Si substrates for optical device applications. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 1051-1054.	2.7	5
62	Luminescence properties of PrF3-doped Sb2O3â€“ZnOâ€“GeO2 glass phosphors for near-infrared wideband light-source. Journal of Materials Science: Materials in Electronics, 2020, 31, 20824-20832.	2.2	5
63	Study of sublattice inversion in GaAs/Ge/GaAs(001) crystal by X-ray diffraction. Applied Surface Science, 2000, 159-160, 256-259.	6.1	4
64	Small and high-density GeSiC dots stacked on buried Ge hut-clusters in Si. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 440-444.	2.7	4
65	High-performance SiGe heterostructure FET grown on silicon-on-insulator. Materials Science in Semiconductor Processing, 2005, 8, 367-370.	4.0	4
66	Temperature dependence of Raman scattering in Si crystals with heavy B and/or Ge doping. Materials Science in Semiconductor Processing, 2006, 9, 257-260.	4.0	4
67	Reusability of Ir(111)/Î±-Al₂O₃(0001) substrates in graphene chemical vapor deposition growth. Japanese Journal of Applied Physics, 2020, 59, SIID01.	1.5	4
68	Characterization of graphene grown by direct-liquid-injection chemical vapor deposition with cyclohexane precursor in N2 ambient. Diamond and Related Materials, 2020, 104, 107717.	3.9	4
69	Electrochemical Characterization of CVD-Grown Graphene for Designing Electrode/Biomolecule Interfaces. Crystals, 2020, 10, 241.	2.2	4
70	Characterization of contact properties at interface between metal and graphene up to 15 <scp>GHz</scp>. Engineering Reports, 2021, 3, e12325.	1.7	4
71	Development of poly (methyl methacrylate)-supported transfer technique of single-wall carbon nanotube conductive films for flexible devices. Thin Solid Films, 2021, 736, 138904.	1.8	4
72	Characterization of epitaxial CVD graphene on Ir(111)/Î±-Al₂O₃(0001) by photoelectron momentum microscopy. Japanese Journal of Applied Physics, 2022, 61, SD1015.	1.5	4

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73	Characterization of amorphous-Si/1ML-Ge/Si(001) Interface Structure by X-ray Standing Waves. Japanese Journal of Applied Physics, 2003, 42, 7050-7052.	1.5	3
74	Strain Relaxation and Induced Defects in SiGe Thin Films Grown on Ion-Implanted Si Substrates. Materials Transactions, 2004, 45, 2644-2646.	1.2	3
75	Study on Sublattice Reversal in a GaAs/Ge/GaAs(001) Crystal by X-ray Standing Waves. Japanese Journal of Applied Physics, 2003, 42, 2582-2586.	1.5	2
76	Observation of dislocations in strain-relaxed siliconâ€“germanium thin films with flat surfaces grown on ion-implanted silicon substrates. Materials Science in Semiconductor Processing, 2004, 7, 389-392.	4.0	2
77	Correlation between morphology and electron spin relaxation time in GaAs/AlGaAs quantum wells on misoriented GaAs(110) substrates. Journal of Applied Physics, 2011, 110, 043516.	2.5	2
78	Circularly polarized lasing over wide wavelength range in spin-controlled (110) vertical-cavity surface-emitting laser. Solid State Communications, 2012, 152, 1518-1521.	1.9	2
79	A Real-Time Free Chlorine Monitoring by Graphene Field-Effect Transistor. , 2019, , .		2
80	Hierarchical Silver Nanoparticle Micro-Clustering in Poly(methyl methacrylate) Matrix in Spin-Coatable Electrically Conductive Thermoplastics. Science of Advanced Materials, 2013, 5, 1546-1555.	0.7	2
81	Optically-pumped circularly-polarized lasing in a (110)-oriented VCSEL based on InGaAs/GaAs QWs. , 2009, , .		2
82	Single-layer graphene as a transparent electrode for electrogenerated chemiluminescence biosensing. Electrochemistry Communications, 2022, 138, 107290.	4.7	2
83	P-type delta-doped SiGeâˆ•Si heterostructure field effect transistors. Electronics Letters, 2002, 38, 1289.	1.0	1
84	A Novel Triple Î´-Doped SiGe Heterostructure Field-Effect Transistor. Japanese Journal of Applied Physics, 2002, 41, L1212-L1214.	1.5	1
85	Hole transport properties of B-doped relaxed SiGe epitaxial films grown by molecular beam epitaxy. Journal of Crystal Growth, 2003, 251, 689-692.	1.5	1
86	P-Type Enhancement-Mode SiGe Doped-Channel Field-Effect Transistor. Japanese Journal of Applied Physics, 2003, 42, L1422-L1424.	1.5	1
87	Influences of<tex>$delta $</tex>-Doping Position on the Characteristics of SiGeâ€“Si DCFETs. IEEE Electron Device Letters, 2004, 25, 477-479.	3.9	1
88	Growth of ultrahigh mobility SiGe/Ge/SiGe heterostructures with very small parallel conduction and their device application. , 0, , .		0
89	Planarization of SiGe virtual substrates by CMP and its application to strained Si modulation-doped structures. , 0, , .		0
90	Relaxation enhancement of SiGe thin layers by ion implantation into Si substrates. , 0, , .		0

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91	Hole transport properties of B-doped relaxed Si/sub 0.7/Ge/sub 0.3/ epitaxial films grown by MBE. , 0, , .		0
92	Fabrication of high-Ge fraction relaxed SiGe-On-Insulator virtual substrate by MBE growth and thermal annealing. , 0, , .		0
93	Fabrication of periodically-inverted GaAs waveguides for quasi-phase-matching nonlinear optical devices. , 0, , .		0
94	Magneto-photoluminescence Studies of AlInAs/AlGaAs Self-assembled Quantum Dots with Type-II Band Alignment. Journal of the Physical Society of Japan, 2004, 73, 480-484.	1.6	0
95	Room temperature gate-controlled electron spin relaxation time in (110) GaAs/AlGaAs quantum wells. , 2010, , .		0
96	(110) quantum well based spin VCSELs. , 2010, , .		0
97	All-optical flip-flop operation of polarization bistable VCSELs with an oxide confinement structure. , 2011, , .		0
98	Optically-pumped circularly polarized lasing in a (110) VCSEL with GaAs/AlGaAs QWs at room temperature. , 2011, , .		0
99	Spin-controlled switching of lasing circular polarizations in (110)-oriented VCSELs. , 2011, , .		0
100	Highly Flexible, Transparent and Electrically Conducting Silver Nanoparticles Films Enabled by Controlled Sedimentation. Materials Research Society Symposia Proceedings, 2012, 1436, 29.	0.1	0
101	Characterization of graphene based field effect transistors using nano probing microscopy. , 2012, , .		0
102	Periodically Domain-Inverted AlGaAs Quasi-Phase-Matched Frequency-Conversion Waveguides. , 2000, , .		0
103	Control of Electron Spin Relaxation Dynamics and Circularly Polarized Lasing in Semiconductor Lasers. Hyomen Kagaku, 2011, 32, 755-760.	0.0	0
104	CVD-Graphene-Based Optically Transparent Antennas. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2021, 72, 433-438.	0.2	0