

Noritaka Usami

List of Publications by Year in descending order

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9,732
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50276

46
h-index

74163

75
g-index

589
all docs

589
docs citations

589
times ranked

4576
citing authors

#	ARTICLE	IF	CITATIONS
1	A quantum-dot spin qubit with coherence limited by charge noise and fidelity higher than 99.9%. Nature Nanotechnology, 2018, 13, 102-106.	31.5	574
2	Optical properties of ZnO rods formed by metalorganic chemical vapor deposition. Applied Physics Letters, 2003, 83, 1635-1637.	3.3	319
3	Island formation during growth of Ge on Si(100): A study using photoluminescence spectroscopy. Applied Physics Letters, 1995, 66, 3024-3026.	3.3	263
4	Formation of highly aligned ZnO tubes on sapphire (0001) substrates. Applied Physics Letters, 2004, 84, 4098-4100.	3.3	183
5	Growth of structure-controlled polycrystalline silicon ingots for solar cells by casting. Acta Materialia, 2006, 54, 3191-3197.	7.9	158
6	Investigation of grain boundaries in BaSi ₂ epitaxial films on Si(1 1 1) substrates using transmission electron microscopy and electron-beam-induced current technique. Journal of Crystal Growth, 2012, 348, 75-79.	1.5	133
7	Control of Ge dots in dimension and position by selective epitaxial growth and their optical properties. Applied Physics Letters, 1998, 72, 1617-1619.	3.3	128
8	Effects of growth temperature on the characteristics of ZnO epitaxial films deposited by metalorganic chemical vapor deposition. Thin Solid Films, 2004, 449, 12-19.	1.8	112
9	Growth of ZnO \cdot MgZnO quantum wells on sapphire substrates and observation of the two-dimensional confinement effect. Applied Physics Letters, 2005, 86, 032105.	3.3	112
10	Grain growth behaviors of polycrystalline silicon during melt growth processes. Journal of Crystal Growth, 2004, 266, 441-448.	1.5	101
11	Directional growth method to obtain high quality polycrystalline silicon from its melt. Journal of Crystal Growth, 2006, 292, 282-285.	1.5	100
12	Enhanced quantum efficiency of solar cells with self-assembled Ge dots stacked in multilayer structure. Applied Physics Letters, 2003, 83, 1258-1260.	3.3	99
13	Exploring the potential of semiconducting BaSi ₂ for thin-film solar cell applications. Journal Physics D: Applied Physics, 2017, 50, 023001.	2.8	99
14	In situ observation of elementary growth steps on the surface of protein crystals by laser confocal microscopy. Journal of Crystal Growth, 2004, 262, 536-542.	1.5	98
15	Generation mechanism of dislocations during directional solidification of multicrystalline silicon using artificially designed seed. Journal of Crystal Growth, 2010, 312, 897-901.	1.5	96
16	Low-temperature (180 \pm 10 $^{\circ}$ C) formation of large-grained Ge (111) thin film on insulator using accelerated metal-induced crystallization. Applied Physics Letters, 2014, 104, .	3.3	96
17	Highly (111)-oriented Ge thin films on insulators formed by Al-induced crystallization. Applied Physics Letters, 2012, 101, 072106.	3.3	88
18	Investigation of the recombination mechanism of excess carriers in undoped BaSi ₂ films on silicon. Journal of Applied Physics, 2012, 112, .	2.5	84

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19	In situ observation of Si faceted dendrite growth from low-degree-of-undercooling melts. <i>Acta Materialia</i> , 2008, 56, 2663-2668.	7.9	82
20	Influence of grain size and surface condition on minority-carrier lifetime in undoped n -BaSi ₂ on Si(111). <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	80
21	Strong resonant luminescence from Ge quantum dots in photonic crystal microcavity at room temperature. <i>Applied Physics Letters</i> , 2006, 89, 201102.	3.3	79
22	Determination of Bulk Minority-Carrier Lifetime in BaSi ₂ Earth-Abundant Absorber Films by Utilizing a Drastic Enhancement of Carrier Lifetime by Post-Growth Annealing. <i>Applied Physics Express</i> , 2013, 6, 112302.	2.4	75
23	Optical anisotropy in wire-geometry SiGe layers grown by gas-source selective epitaxial growth technique. <i>Applied Physics Letters</i> , 1994, 64, 1126-1128.	3.3	74
24	Formation mechanism of parallel twins related to Si-faceted dendrite growth. <i>Scripta Materialia</i> , 2007, 57, 81-84.	5.2	74
25	n -in-situ heavily p -type doping of over 10 ²⁰ cm ⁻³ in semiconducting BaSi ₂ thin films for solar cells applications. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	72
26	In situ observations of crystal growth behavior of silicon melt. <i>Journal of Crystal Growth</i> , 2002, 243, 275-282.	1.5	71
27	In-situ observations of melt growth behavior of polycrystalline silicon. <i>Journal of Crystal Growth</i> , 2004, 262, 124-129.	1.5	69
28	p -BaSi ₂ / n -Si heterojunction solar cells with conversion efficiency reaching 9.0%. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	69
29	Growth Mechanism of Si-Faceted Dendrites. <i>Physical Review Letters</i> , 2008, 101, 055503.	7.8	66
30	Investigation of the open-circuit voltage in solar cells doped with quantum dots. <i>Scientific Reports</i> , 2013, 3, 2703.	3.3	65
31	In-plane strain fluctuation in strained-Si/SiGe heterostructures. <i>Applied Physics Letters</i> , 2003, 83, 4339-4341.	3.3	61
32	Molecular beam epitaxy of BaSi ₂ thin films on Si(001) substrates. <i>Journal of Crystal Growth</i> , 2012, 345, 16-21.	1.5	61
33	Photoresponse Properties of Polycrystalline BaSi ₂ Films Grown on SiO ₂ Substrates Using (111)-Oriented Si Layers by an Aluminum-Induced Crystallization Method. <i>Applied Physics Express</i> , 0, 2, 051601.	2.4	55
34	Abrupt Si/Ge interface formation using atomic hydrogen in Si molecular beam epitaxy. <i>Applied Physics Letters</i> , 1994, 65, 2975-2977.	3.3	54
35	Room-temperature electroluminescence from Si microdisks with Ge quantum dots. <i>Optics Express</i> , 2010, 18, 13945.	3.4	54
36	Luminescence study on interdiffusion in strained Si _{1-x} Ge _x /Si single quantum wells grown by molecular beam epitaxy. <i>Applied Physics Letters</i> , 1993, 63, 1651-1653.	3.3	53

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37	Realization of crescent-shaped SiGe quantum wire structures on a V-groove patterned Si substrate by gas-source Si molecular beam epitaxy. Applied Physics Letters, 1993, 63, 2789-2791.	3.3	53
38	Pressure-Dependent ZnO Nanocrystal Growth in a Chemical Vapor Deposition Process. Journal of Physical Chemistry B, 2004, 108, 10899-10902.	2.6	52
39	Formation mechanism of a faceted interface: <i>In situ</i> observation of the Si(100) crystal-melt interface during crystal growth. Physical Review B, 2009, 80, .	3.2	52
40	Improved photoresponsivity of semiconducting BaSi ₂ epitaxial films grown on a tunnel junction for thin-film solar cells. Applied Physics Letters, 2012, 100, 152114.	3.3	50
41	Control of Grain Boundary Propagation in Mono-Like Si: Utilization of Functional Grain Boundaries. Applied Physics Express, 2013, 6, 025505.	2.4	50
42	Dislocation glide motion in heteroepitaxial thin films of Si _{1-x} Ge _x /Si(100). Philosophical Magazine Letters, 1993, 67, 165-171.	1.2	49
43	Growth of SiGe bulk crystal with uniform composition by directly controlling the growth temperature at the crystal-melt interface using in situ monitoring system. Journal of Crystal Growth, 2001, 224, 204-211.	1.5	49
44	Analysis of the electrical properties of Cr/n-BaSi ₂ Schottky junction and n-BaSi ₂ /p-Si heterojunction diodes for solar cell applications. Journal of Applied Physics, 2014, 115, .	2.5	49
45	Mono-Like Silicon Growth Using Functional Grain Boundaries to Limit Area of Multicrystalline Grains. IEEE Journal of Photovoltaics, 2014, 4, 84-87.	2.5	48
46	Observation of deep-level free band edge luminescence and quantum confinement in strained Si _{1-x} Ge _x /Si single quantum well structures grown by solid source Si molecular beam epitaxy. Applied Physics Letters, 1992, 61, 1706-1708.	3.3	47
47	Temperature dependence of microscopic photoluminescence spectra of quantum dots and quantum wells. Physica E: Low-Dimensional Systems and Nanostructures, 1998, 2, 573-577.	2.7	47
48	Gas-source molecular beam epitaxy and luminescence characterization of strained Si _{1-x} Ge _x /Si quantum wells. Journal of Crystal Growth, 1994, 136, 315-321.	1.5	46
49	Enhancement of radiative recombination in Si-based quantum wells with neighboring confinement structure. Applied Physics Letters, 1995, 67, 524-526.	3.3	46
50	Low-temperature growth of ZnO nanostructure networks. Journal of Applied Physics, 2004, 96, 340-343.	2.5	46
51	Relationship between grain boundary structures in Si multicrystals and generation of dislocations during crystal growth. Journal of Applied Physics, 2010, 107, .	2.5	46
52	Photoluminescence investigation on growth mode changeover of Ge on Si(100). Journal of Crystal Growth, 1995, 157, 265-269.	1.5	45
53	Orientation Control of Large-Grained Si Films on Insulators by Thickness-Modulated Al-Induced Crystallization. Crystal Growth and Design, 2013, 13, 1767-1770.	3.0	44
54	Fabrication of high-quality strain-relaxed thin SiGe layers on ion-implanted Si substrates. Applied Physics Letters, 2004, 85, 2514-2516.	3.3	43

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55	Enhanced carrier extraction from Ge quantum dots in Si solar cells under strong photoexcitation. Applied Physics Letters, 2012, 101, .	3.3	43
56	Silicon-based light emitters fabricated by embedding Ge self-assembled quantum dots in microdisks. Applied Physics Letters, 2007, 91, .	3.3	42
57	Growth of multicrystalline Si ingots using noncontact crucible method for reduction of stress. Journal of Crystal Growth, 2012, 344, 6-11.	1.5	42
58	Configuration and local elastic interaction of ferroelectric domains and misfit dislocation in $\text{PbTiO}_3/\text{SrTiO}_3$ epitaxial thin films. Science and Technology of Advanced Materials, 2011, 12, 034413.	6.1	41
59	Realization of single-phase BaSi_2 films by vacuum evaporation with suitable optical properties and carrier lifetime for solar cell applications. Japanese Journal of Applied Physics, 2015, 54, 07JE02.	1.5	41
60	Observation of lateral confinement effect in Ge quantum wires self-aligned at step edges on Si(100). Applied Physics Letters, 1996, 68, 1847-1849.	3.3	40
61	Selective formation of large-grained, (100)- or (111)-oriented Si on glass by Al-induced layer exchange. Journal of Applied Physics, 2014, 115, .	2.5	40
62	Microstructures of Si multicrystals and their impact on minority carrier diffusion length. Acta Materialia, 2009, 57, 3268-3276.	7.9	39
63	Luminescence from Strained $\text{Si}_{1-x}\text{Ge}_x/\text{Si}$ Quantum Wells Grown by Si Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 1993, 32, 1502-1507.	1.5	38
64	Seed manipulation for artificially controlled defect technique in new growth method for quasi-monocrystalline Si ingot based on casting. Applied Physics Express, 2015, 8, 105501.	2.4	38
65	Simultaneous enhanced photon capture and carrier generation in Si solar cells using Ge quantum dot photonic nanocrystals. Nanotechnology, 2012, 23, 185401.	2.6	36
66	Band-edge photoluminescence of $\text{SiGe}/\text{strained Si}/\text{SiGe}$ type-II quantum wells on Si(100). Applied Physics Letters, 1993, 63, 3509-3511.	3.3	35
67	Compositional variation in Si-rich SiGe single crystals grown by multi-component zone melting method using Si seed and source crystals. Journal of Crystal Growth, 2002, 240, 373-381.	1.5	35
68	Floating cast method to realize high-quality Si bulk multicrystals for solar cells. Journal of Crystal Growth, 2009, 311, 228-231.	1.5	35
69	Epitaxial Growth and Polarity of ZnO Films on Sapphire (0001) Substrates by Low-Pressure Metal Organic Chemical Vapor Deposition. Japanese Journal of Applied Physics, 2003, 42, 2291-2295.	1.5	34
70	High-temperature operation of strained $\text{Si}_{0.65}\text{Ge}_{0.35}/\text{Si}(111)$ type multiple quantum well light-emitting diode grown by solid source Si molecular beam epitaxy. Applied Physics Letters, 1993, 63, 967-969.	3.3	33
71	Fabrication of $n^+ - \text{BaSi}_2 / p^+ - \text{Si}$ Tunnel Junction on Si(111) Surface by Molecular Beam Epitaxy for Photovoltaic Applications. Applied Physics Express, 2010, 3, 021301.	2.4	33
72	Electroluminescence from Strained SiGe/Si Quantum Well Structures Grown by Solid Source Si Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 1992, 31, L1015-L1017.	1.5	32

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73	Ge composition dependence of properties of solar cells based on multicrystalline SiGe with microscopic compositional distribution. <i>Journal of Applied Physics</i> , 2004, 96, 1238-1241.	2.5	32
74	Precipitation control and activation enhancement in boron-doped p-i-n-BaSi ₂ films grown by molecular beam epitaxy. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	32
75	Fabrication and characterization of BaSi ₂ epitaxial films over 1 Åµm in thickness on Si(111). <i>Japanese Journal of Applied Physics</i> , 2014, 53, 04ER04.	1.5	31
76	Fabrication of single-phase polycrystalline BaSi ₂ thin films on silicon substrates by vacuum evaporation for solar cell applications. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 08KC03.	1.5	31
77	Structural and electrical characterizations of crack-free BaSi ₂ thin films fabricated by thermal evaporation. <i>Thin Solid Films</i> , 2015, 595, 68-72.	1.8	31
78	Optimized electrical control of a Si/SiGe spin qubit in the presence of an induced frequency shift. <i>Npj Quantum Information</i> , 2018, 4, .	6.7	31
79	Growth of SiGe bulk crystals with uniform composition by utilizing feedback control system of the crystal-melt interface position for precise control of the growth temperature. <i>Journal of Crystal Growth</i> , 2003, 250, 298-304.	1.5	30
80	Growth of multicrystalline Si with controlled grain boundary configuration by the floating zone technique. <i>Journal of Crystal Growth</i> , 2005, 280, 419-424.	1.5	30
81	On the Controlling Mechanism of Preferential Orientation of Polycrystalline-Silicon Thin Films Grown by Aluminum-Induced Crystallization. <i>Applied Physics Express</i> , 2010, 3, 095803.	2.4	30
82	Quantum Size Effect of Excitonic Band-Edge Luminescence in Strained Si _{1-x} Ge _x /Si Single Quantum Well Structures Grown by Gas-Source Si Molecular Beam Epitaxy. <i>Japanese Journal of Applied Physics</i> , 1992, 31, L1319-L1321.	1.5	29
83	Abrupt compositional transition in luminescent Si _{1-x} Ge _x /Si quantum well structures fabricated by segregant assisted growth using Sb adlayer. <i>Applied Physics Letters</i> , 1993, 63, 388-390.	3.3	29
84	High-Quality Polycrystalline Silicon Films with Minority Carrier Lifetimes over 5 Åµs Formed by Flash Lamp Annealing of Precursor Amorphous Silicon Films Prepared by Catalytic Chemical Vapor Deposition. <i>Japanese Journal of Applied Physics</i> , 2007, 46, 7198.	1.5	29
85	Fabrication of (111)-oriented Si layers on SiO ₂ substrates by an aluminum-induced crystallization method and subsequent growth of semiconducting BaSi ₂ layers for photovoltaic application. <i>Journal of Crystal Growth</i> , 2009, 311, 3581-3586.	1.5	29
86	Evaluation of potential variations around grain boundaries in BaSi ₂ epitaxial films by Kelvin probe force microscopy. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	29
87	Formation of metastable cubic phase in SnS thin films fabricated by thermal evaporation. <i>Thin Solid Films</i> , 2017, 639, 7-11.	1.8	29
88	Simple method for significant improvement of minority-carrier lifetime of evaporated BaSi ₂ thin film by sputtered-AlO _x passivation. <i>Materials Science in Semiconductor Processing</i> , 2018, 76, 37-41.	4.0	29
89	Silicon-Based Light-Emitting Devices Based on Ge Self-Assembled Quantum Dots Embedded in Optical Cavities. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2012, 18, 1830-1838.	2.9	28
90	Effects of deposition rate on the structure and electron density of evaporated BaSi ₂ films. <i>Journal of Applied Physics</i> , 2016, 120, 045103.	2.5	28

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91	Silicon-germanium (SiGe) nanostructures. , 2011, , .		28
92	Selective epitaxial growth of dot structures on patterned Si substrates by gas source molecular beam epitaxy. Semiconductor Science and Technology, 1999, 14, 257-265.	2.0	27
93	Crystal quality of a 6H-SiC layer grown over macrodefects by liquid-phase epitaxy: a Raman spectroscopic study. Thin Solid Films, 2005, 476, 206-209.	1.8	27
94	Quantitative analysis of subgrain boundaries in Si multicrystals and their impact on electrical properties and solar cell performance. Journal of Applied Physics, 2009, 105, 044909.	2.5	27
95	Formation mechanism of twin boundaries during crystal growth of silicon. Scripta Materialia, 2011, 65, 556-559.	5.2	27
96	Hydrogen concentration at a-Si:H/c-Si heterointerfaces—The impact of deposition temperature on passivation performance. AIP Advances, 2019, 9, .	1.3	27
97	Role of heterointerface on enhancement of no-phonon luminescence in Si-based neighboring confinement structure. Applied Physics Letters, 1996, 68, 2340-2342.	3.3	26
98	Raman scattering and x-ray absorption studies of Ge-Si nanocrystallization. Applied Physics Letters, 2002, 80, 488-490.	3.3	26
99	Floating zone growth of Si-rich SiGe bulk crystal using pre-synthesized SiGe feed rod with uniform composition. Journal of Crystal Growth, 2005, 284, 57-64.	1.5	26
100	Growth mechanism of the Si ¹¹⁰ -faceted dendrite. Physical Review B, 2010, 81, .	3.2	26
101	N-type doping of BaSi ₂ epitaxial films by phosphorus ion implantation and thermal annealing. Thin Solid Films, 2014, 557, 90-93.	1.8	26
102	Postannealing effects on undoped BaSi ₂ evaporated films grown on Si substrates. Japanese Journal of Applied Physics, 2017, 56, 05DB05.	1.5	25
103	Drastic modification of the growth mode of Ge quantum dots on Si by using boron adlayer. Thin Solid Films, 2000, 369, 84-87.	1.8	23
104	Generation mechanism of dislocations and their clusters in multicrystalline silicon during two-dimensional growth. Journal of Applied Physics, 2011, 110, 083530.	2.5	23
105	Upper limit of two-dimensional hole gas mobility in strained Ge/SiGe heterostructures. Applied Physics Letters, 2012, 100, .	3.3	23
106	Potential variations around grain boundaries in impurity-doped BaSi ₂ epitaxial films evaluated by Kelvin probe force microscopy. Journal of Applied Physics, 2014, 116, .	2.5	23
107	Optical investigation of modified Stranski-Krastanov growth mode in the stacking of self-assembled Ge islands. Thin Solid Films, 2000, 369, 108-111.	1.8	22
108	Effects of high pressure on the growth kinetics of orthorhombic lysozyme crystals. Journal of Crystal Growth, 2003, 254, 188-195.	1.5	22

#	ARTICLE	IF	CITATIONS
109	Effects of spacer thickness on quantum efficiency of the solar cells with embedded Ge islands in the intrinsic layer. Applied Physics Letters, 2004, 84, 2802-2804.	3.3	22
110	Strain dependence of hole effective mass and scattering mechanism in strained Ge channel structures. Applied Physics Letters, 2009, 95, .	3.3	22
111	Impact of type of crystal defects in multicrystalline Si on electrical properties and interaction with impurities. Journal of Applied Physics, 2011, 109, .	2.5	22
112	N-type doping of BaSi ₂ epitaxial films by arsenic ion implantation through a dose-dependent carrier generation mechanism. Thin Solid Films, 2014, 567, 105-108.	1.8	22
113	On the origin of strain fluctuation in strained-Si grown on SiGe-on-insulator and SiGe virtual substrates. Applied Physics Letters, 2004, 85, 1335-1337.	3.3	21
114	Determination of lattice parameters of SiGe/Si(110) heterostructures. Thin Solid Films, 2006, 508, 132-135.	1.8	21
115	Silicon-based current-injected light emitting diodes with Ge self-assembled quantum dots embedded in photonic crystal nanocavities. Optics Express, 2012, 20, 14714.	3.4	21
116	Dependence of crystal orientation in Al-induced crystallized poly-Si layers on SiO ₂ insertion layer thickness. Journal of Crystal Growth, 2012, 356, 65-69.	1.5	21
117	Lattice and grain-boundary diffusions of boron atoms in BaSi ₂ epitaxial films on Si(111). Journal of Applied Physics, 2013, 113, .	2.5	21
118	Enhancement of light emission from Ge quantum dots by photonic crystal nanocavities at room-temperature. Journal of Crystal Growth, 2013, 378, 636-639.	1.5	21
119	Effects of crystal defects and their interactions with impurities on electrical properties of multicrystalline Si. Journal of Applied Physics, 2013, 113, 133503.	2.5	21
120	Photoresponse properties of BaSi ₂ film grown on Si (100) by vacuum evaporation. Materials Research Express, 2016, 3, 076204.	1.6	21
121	On the Mechanism of BaSi ₂ Thin Film Formation on Si Substrate by Vacuum Evaporation. Procedia Engineering, 2016, 141, 23-26.	1.2	21
122	Is low temperature growth the solution to abrupt Si ^δ /Si _{1-x} Ge _x interface formation?. Journal of Crystal Growth, 1993, 127, 401-405.	1.5	20
123	Ultrashort lifetime photocarriers in Ge thin films. Applied Physics Letters, 1996, 68, 3419-3421.	3.3	20
124	Epitaxial relation and island growth of perylene-3,4,9,10-tetracarboxylic dianhydride (PTCDA) thin film crystals on a hydrogen-terminated Si(111) substrate. Journal of Crystal Growth, 2004, 262, 196-201.	1.5	20
125	Influence of structural imperfection of ~ 5 grain boundaries in bulk multicrystalline Si on their electrical activities. Journal of Applied Physics, 2007, 101, 063509.	2.5	20
126	Acceptorlike Behavior of Defects in SiGe Alloys Grown by Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 2008, 47, 4630.	1.5	20

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127	Implementation of faceted dendrite growth on floating cast method to realize high-quality multicrystalline Si ingot for solar cells. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	20
128	Effects of formation of mini-bands in two-dimensional array of silicon nanodisks with SiC interlayer for quantum dot solar cells. <i>Nanotechnology</i> , 2013, 24, 015301.	2.6	20
129	Evaluation of minority carrier diffusion length of undoped n-BaSi ₂ epitaxial thin films on Si(001) substrates by electron-beam-induced-current technique. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 078004.	1.5	20
130	Formation process of Si ₃ N ₄ particles on surface of Si ingots grown using silica crucibles with Si ₃ N ₄ coating by noncontact crucible method. <i>Journal of Crystal Growth</i> , 2014, 389, 112-119.	1.5	20
131	Impact of silicon quantum dot super lattice and quantum well structure as intermediate layer on p-n silicon solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2016, 24, 774-780.	8.1	20
132	Simple Vacuum Evaporation Route to BaSi ₂ Thin Films for Solar Cell Applications. <i>Procedia Engineering</i> , 2016, 141, 27-31.	1.2	20
133	Marked enhancement of the photoresponsivity and minority-carrier lifetime of BaS ₂ passivated with atomic hydrogen. <i>Physical Review Materials</i> , 2019, 3, .	2.4	20
134	Growth and characterization of ⁷⁰ Ge n / ⁷⁴ Ge n isotope superlattices. <i>Thin Solid Films</i> , 2000, 369, 405-408.	1.8	19
135	Modification of the growth mode of Ge on Si by buried Ge islands. <i>Applied Physics Letters</i> , 2000, 76, 3723-3725.	3.3	19
136	Physical model for the evaluation of solid-liquid interfacial tension in silicon. <i>Journal of Applied Physics</i> , 2001, 90, 750-755.	2.5	19
137	Influence of the elastic strain on the band structure of ellipsoidal SiGe coherently embedded in the Si matrix. <i>Journal of Applied Physics</i> , 2003, 94, 916-920.	2.5	19
138	Theory of open-circuit voltage and the driving force of charge separation in pn-junction solar cells. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	19
139	Formation of BaSi ₂ heterojunction solar cells using transparent MoO ₃ hole transport layers. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	19
140	Effects of the Si/Al layer thickness on the continuity, crystalline orientation and the growth kinetics of the poly-Si thin films formed by aluminum-induced crystallization. <i>Thin Solid Films</i> , 2016, 616, 213-219.	1.8	19
141	Formation and optical properties of SiGe/Si quantum structures. <i>Applied Surface Science</i> , 1996, 102, 263-271.	6.1	18
142	Strain-driven alloying: effect on sizes, shape and photoluminescence of GeSi/Si(001) self-assembled islands. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 89, 62-65.	3.5	18
143	New method for measurement of interdiffusion coefficient in high temperature solutions based on Fick's first law. <i>Journal of Crystal Growth</i> , 2002, 241, 387-394.	1.5	18
144	Modification of Local Structure and Its Influence on Electrical Activity of Near (310) Σ ₅ Grain Boundary in Bulk Silicon. <i>Materials Transactions</i> , 2007, 48, 143-147.	1.2	18

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145	Molecular Beam Epitaxy of BaSi ₂ Films with Grain Size over 4 μm on Si(111). Japanese Journal of Applied Physics, 2012, 51, 098003.	1.5	18
146	Molecular beam epitaxy of boron doped p-type BaSi ₂ epitaxial films on Si(111) substrates for thin-film solar cells. Journal of Crystal Growth, 2013, 378, 201-204.	1.5	18
147	Systematic blue shift of exciton luminescence in strained Si _{1-x} Ge _x /Si quantum well structures grown by gas source silicon molecular beam epitaxy. Thin Solid Films, 1992, 222, 1-4.	1.8	17
148	Melt growth of multicrystalline SiGe with large compositional distribution for new solar cell applications. Solar Energy Materials and Solar Cells, 2002, 72, 93-100.	6.2	17
149	Magnetotransport properties of Ge channels with extremely high compressive strain. Applied Physics Letters, 2006, 89, 162103.	3.3	17
150	Double-Layered Ge Thin Films on Insulators Formed by an Al-Induced Layer-Exchange Process. Crystal Growth and Design, 2013, 13, 3908-3912.	3.0	17
151	Large-Grained Polycrystalline (111) Ge Films on Insulators by Thickness-Controlled Al-Induced Crystallization. ECS Journal of Solid State Science and Technology, 2013, 2, Q195-Q199.	1.8	17
152	Orientation control of Ge thin films by underlayer-selected Al-induced crystallization. CrystEngComm, 2014, 16, 2578.	2.6	17
153	BaSi ₂ formation mechanism in thermally evaporated films and its application to reducing oxygen impurity concentration. Japanese Journal of Applied Physics, 2018, 57, 04FS01.	1.5	17
154	Reactive deposition growth of highly (001)-oriented BaSi ₂ films by close-spaced evaporation. Materials Science in Semiconductor Processing, 2020, 113, 105044.	4.0	17
155	Electrical properties of oxides grown on strained Si using microwave N ₂ O plasma. Applied Physics Letters, 1997, 70, 66-68.	3.3	16
156	Formation of relaxed SiGe films on Si by selective epitaxial growth. Thin Solid Films, 2000, 369, 126-129.	1.8	16
157	Growth and properties of SiGe multicrystals with microscopic compositional distribution for high-efficiency solar cells. Solar Energy Materials and Solar Cells, 2002, 73, 305-320.	6.2	16
158	A simple approach to determine preferential growth orientation using multiple seed crystals with random orientations and its utilization for seed optimization to restrain polycrystallization of SiGe bulk crystal. Journal of Crystal Growth, 2005, 276, 393-400.	1.5	16
159	Crystalline morphologies of step-graded SiGe layers grown on exact and vicinal (110) Si substrates. Journal of Crystal Growth, 2009, 311, 809-813.	1.5	16
160	Computational Investigation of Relationship between Shear Stress and Multicrystalline Structure in Silicon. Japanese Journal of Applied Physics, 2010, 49, 04DP01.	1.5	16
161	Temperature dependent Al-induced crystallization of amorphous Ge thin films on SiO ₂ substrates. Journal of Crystal Growth, 2013, 372, 189-192.	1.5	16
162	Mechanism of strain relaxation in BaSi ₂ epitaxial films on Si(111) substrates during post-growth annealing and application for film exfoliation. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 1677-1680.	0.8	16

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