

Ichiro Yonenaga

List of Publications by Year in descending order

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134
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159585
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134
times ranked

1725
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomic structures and dynamic properties of dislocations in semiconductors: current progress and stagnation. <i>Semiconductor Science and Technology</i> , 2020, 35, 043001.	2.0	14
2	Anomalous low energy phonon dispersion in bulk silicon-germanium observed by inelastic x-ray scattering. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	10
3	Transmission behavior of dislocations against Σ twin boundaries in Si. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	8
4	Defects in Crystalline Silicon: Dislocations. , 2019, , 541-588.		1
5	Germanium crystals. , 2019, , 89-127.		5
6	Defects in Crystalline Silicon: Dislocations. , 2019, , 1-48.		1
7	Determination of phonon deformation potentials and strain-shift coefficients in Ge-rich $\text{Si}_{1-x}\text{Ge}_x$ using bulk Ge-rich $\text{Si}_{1-x}\text{Ge}_x$ crystals and oil-immersion Raman spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 106601.	1.5	12
8	Insight into physical processes controlling the mechanical properties of the wurtzite group-III nitride family. <i>Journal of Crystal Growth</i> , 2018, 500, 23-27.	1.5	6
9	Nanoindentation measurements of a highly oriented wurtzite-type boron nitride bulk crystal. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 030301.	1.5	22
10	SixGe_{1-x} Bulk Crystals. , 2016, , .		2
11	Evaluation of Dislocation Mobility in Wurtzite Semiconductors. <i>Materials Research Society Symposia Proceedings</i> , 2015, 1741, 7.	0.1	2
12	Elastic properties of indium nitrides grown on sapphire substrates determined by nano-indentation: In comparison with other nitrides. <i>AIP Advances</i> , 2015, 5, .	1.3	12
13	An overview of plasticity of Si crystals governed by dislocation motion. <i>Engineering Fracture Mechanics</i> , 2015, 147, 468-479.	4.3	33
14	First principles calculations of solution energies of dopants around stacking faults in Si crystal. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 061302.	1.5	11
15	Czochralski growth of heavily indium-doped Si crystals and co-doping effects of group-IV elements. <i>Journal of Crystal Growth</i> , 2014, 393, 45-48.	1.5	3
16	Czochralski growth of heavily tin-doped Si crystals. <i>Journal of Crystal Growth</i> , 2014, 395, 94-97.	1.5	2
17	Optical and electrical properties of dislocations in plastically deformed GaN. <i>Journal of Crystal Growth</i> , 2014, 403, 72-76.	1.5	19
18	Vacancy-type defects introduced by plastic deformation of GaN studied using monoenergetic positron beams. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	8

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19	Local current conduction due to edge dislocations in deformed GaN studied by scanning spreading resistance microscopy. EPJ Applied Physics, 2013, 61, 10102.	0.7	9
20	Control of Grain Boundary Propagation in Mono-Like Si: Utilization of Functional Grain Boundaries. Applied Physics Express, 2013, 6, 025505.	2.4	50
21	Three-dimensional evaluation of gettering ability of $\{111\}$ grain boundaries in silicon by atom probe tomography combined with transmission electron microscopy. Applied Physics Letters, 2013, 103, .	3.3	28
22	Dislocation dynamics in SiGe alloys. Journal of Physics: Conference Series, 2013, 471, 012002.	0.4	5
23	Dislocation structure in AlN films induced by in situ transmission electron microscope nanoindentation. Journal of Applied Physics, 2012, 112, 093526.	2.5	14
24	Growth of Heavily Indium Doped Si Crystals by Co-Doping of Neutral Impurity Carbon or Germanium. Key Engineering Materials, 2012, 508, 220-223.	0.4	2
25	Recombination activity of dislocations on (0001) introduced in wurtzite ZnO at elevated temperatures. Physica B: Condensed Matter, 2012, 407, 2886-2888.	2.7	3
26	Interaction of dopant atoms with stacking faults in silicon. Physica B: Condensed Matter, 2012, 407, 3006-3008.	2.7	8
27	Optical properties of edge dislocations on (11 $\bar{1}$ 0) prismatic planes in wurtzite ZnO introduced at elevated temperatures. Journal of Applied Physics, 2012, 111, 113514.	2.5	7
28	Doping effects on the stability of stacking faults in silicon crystals. Thin Solid Films, 2012, 520, 3296-3299.	1.8	2
29	Generation mechanism of dislocations and their clusters in multicrystalline silicon during two-dimensional growth. Journal of Applied Physics, 2011, 110, 083530.	2.5	23
30	Impurity effects on the generation and velocity of dislocations in Ge. Journal of Applied Physics, 2011, 109, .	2.5	21
31	Optical properties of fresh dislocations in GaN. Journal of Crystal Growth, 2011, 318, 415-417.	1.5	10
32	Interaction of dopant atoms with stacking faults in silicon crystals. Journal of Applied Physics, 2010, 108, .	2.5	23
33	Cellular structures in Czochralski-grown SiGe bulk crystal. Journal of Crystal Growth, 2010, 312, 1065-1068.	1.5	18
34	On the impact of germanium doping on the vacancy formation energy in Czochralski-grown silicon. Journal of Applied Physics, 2010, 108, 016105.	2.5	19
35	Direct observation of carrier depletion around a dislocation in GaP by scanning spreading resistance microscopy. Applied Physics Letters, 2009, 95, 202108.	3.3	6
36	Interaction of phosphorus with dislocations in heavily phosphorus doped silicon. Applied Physics Letters, 2009, 95, 091915.	3.3	14

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37	<i>In situ</i> analysis of optoelectronic properties of dislocations in ZnO in TEM observations. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1904-1911.	1.8	16
38	Behavior of dislocations due to thermal shock and critical shear stress of Si in Czochralski crystal growth. Physica B: Condensed Matter, 2009, 404, 4612-4615.	2.7	1
39	Recent knowledge of strength and dislocation mobility in wide band-gap semiconductors. Physica B: Condensed Matter, 2009, 404, 4999-5001.	2.7	18
40	Electrical conduction along dislocations in plastically deformed GaN. IOP Conference Series: Materials Science and Engineering, 2009, 3, 012010.	0.6	4
41	Dislocations of ZnO single crystals examined by X-ray topography and photoluminescence. Journal of Materials Science: Materials in Electronics, 2008, 19, 199-201.	2.2	7
42	Determination of carrier mobility vs resistivity relation in Czochralski-grown n- and p-type Si x Ge1-x (0.93$\leq x \leq 0.96$) single crystals. Journal of Materials Science: Materials in Electronics, 2008, 19, 315-318.	2.2	0
43	Segregation of boron in germanium crystal. Journal of Crystal Growth, 2008, 311, 59-61.	1.5	10
44	Application of SiGe bulk crystal as a substrate for strain-controlled heterostructure materials. Thin Solid Films, 2008, 517, 14-16.	1.8	12
45	Optical properties of dislocations in wurtzite ZnO single crystals introduced at elevated temperatures. Journal of Applied Physics, 2008, 104, .	2.5	32
46	Light emission due to dislocations in wurtzite ZnO bulk single crystals freshly introduced by plastic deformation. Applied Physics Letters, 2008, 92, 011922.	3.3	18
47	High-temperature strength and dislocation mobility in the wide band-gap ZnO: Comparison with various semiconductors. Journal of Applied Physics, 2008, 103, 093502.	2.5	21
48	é«~â“è³³SiGeçµæ™¶ã®è,²æ^ã•ãÿ°çŽç%œ©æ€\$ã®è\$£æ~Ž. Materia Japan, 2008, 47, 3-9.	0.1	0
49	Application of Czochralski-grown SiGe bulk crystal as a substrate for luminescent strained quantum wells. Applied Physics Letters, 2007, 90, 181914.	3.3	6
50	Dislocation-related optical absorption in plastically deformed GaN. Journal of Applied Physics, 2007, 102, 026103.	2.5	17
51	Growth and Atomistic Structure Study of Disordered SiGe Mixed Semiconductors. Materials Science Forum, 2007, 539-543, 2043-2047.	0.3	1
52	Muonium defect states and ionization energies in SiGe alloys. Physica B: Condensed Matter, 2007, 401-402, 617-620.	2.7	10
53	Control of the stacking fault areas in pseudomorphic ZnSe layers by photo-molecular beam epitaxy. Physica B: Condensed Matter, 2007, 401-402, 650-653.	2.7	7
54	Photoluminescence of dislocations in plastically deformed GaN. Physica B: Condensed Matter, 2006, 376-377, 455-459.	2.7	3

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55	Segregation coefficients of various dopants in $\text{Si}_x\text{Ge}_{1-x}$ ($0.93 < x < 0.96$) single crystals. <i>Journal of Crystal Growth</i> , 2006, 297, 14-19.	1.5	17
56	Dynamics and characters of dislocations in ZnSe. <i>Journal of Materials Science</i> , 2006, 41, 2601-2604.	3.7	10
57	Muonium hyperfine parameters in $\text{Si}_{1-x}\text{Ge}_x$ alloys. <i>Physica B: Condensed Matter</i> , 2006, 374-375, 376-378.	2.7	5
58	Yield strength and dislocation mobility in plastically deformed ZnSe. <i>Physica B: Condensed Matter</i> , 2006, 376-377, 771-774.	2.7	7
59	Photoluminescence properties of GaN with dislocations induced by plastic deformation. <i>Journal of Electronic Materials</i> , 2006, 35, 717-721.	2.2	15
60	Carrier Mobility and Resistivity of n- and p-Type $\text{Si}_x\text{Ge}_{1-x}$ ($0.93 < x < 0.96$) Single Crystals. <i>Japanese Journal of Applied Physics</i> , 2006, 45, 2678-2679.	1.5	9
61	Hardness, Yield Strength, and Dislocation Velocity in Elemental and Compound Semiconductors. <i>Materials Transactions</i> , 2005, 46, 1979-1985.	1.2	75
62	Growth and fundamental properties of SiGe bulk crystals. <i>Journal of Crystal Growth</i> , 2005, 275, 91-98.	1.5	74
63	Dislocation-impurity interaction in Czochralski-grown Si heavily doped with B and Ge. <i>Journal of Crystal Growth</i> , 2005, 275, e501-e505.	1.5	9
64	Dislocation-impurity interaction in Si. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005, 124-125, 293-296.	3.5	39
65	Atomistic structure and strain relaxation in Czochralski-grown $\text{Si}_x\text{Ge}_{1-x}$ bulk alloys. <i>Journal of Materials Science: Materials in Electronics</i> , 2005, 16, 429-432.	2.2	8
66	Photoluminescence study of GaN with dislocations introduced by plastic deformation. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 1817-1821.	0.8	3
67	Characterization of hydrogen-like states in bulk $\text{Si}_{1-x}\text{Ge}_x$ alloys through muonium observations. <i>Journal of Physics Condensed Matter</i> , 2005, 17, 4567-4578.	1.8	8
68	Nitrogen effects on generation and velocity of dislocations in Czochralski-grown silicon. <i>Journal of Applied Physics</i> , 2005, 98, 023517.	2.5	36
69	Temperature dependence of electron and hole mobilities in heavily impurity-doped SiGe single crystals. <i>Journal of Applied Physics</i> , 2005, 98, 063702.	2.5	12
70	Dislocation-Impurity Interaction in Silicon. <i>Solid State Phenomena</i> , 2004, 95-96, 423-432.	0.3	6
71	Disorder-induced broadening of transverse acoustic phonons in $\text{Si}_x\text{Ge}_{1-x}$ mixed crystals. <i>Physica B: Condensed Matter</i> , 2004, 350, 254-257.	2.7	15
72	Local atomic structure in Czochralski-grown $\text{Ge}_{1-x}\text{Si}_x$ bulk alloys. <i>Applied Surface Science</i> , 2004, 224, 193-196.	6.1	6

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73	Photoluminescence Study of Plastically Deformed GaN. Materials Research Society Symposia Proceedings, 2004, 831, 528.	0.1	2
74	X-ray Fluorescence Holography Study on Si _{1-x} Ge _x Single Crystal. Materials Transactions, 2004, 45, 1994-1997.	1.2	12
75	Hydrogen behaviour in bulk Si _{1-x} Ge _x alloys as modelled by muonium. Physica B: Condensed Matter, 2003, 340-342, 835-839.	2.7	3
76	Local strain relaxation in Czochralski-grown GeSi bulk alloys. Physica B: Condensed Matter, 2003, 340-342, 854-857.	2.7	12
77	Dislocation mobility and photoluminescence of plastically deformed GaN. Physica B: Condensed Matter, 2003, 340-342, 484-487.	2.7	13
78	Dislocation-impurity interaction in Si. Materials Science in Semiconductor Processing, 2003, 6, 355-358.	4.0	8
79	Dynamic characteristics of dislocations in Ge-doped and (Ge+B) codoped silicon. Journal of Applied Physics, 2003, 93, 265-269.	2.5	35
80	Interactions of Impurities with Dislocations: Mechanical Effects. Solid State Phenomena, 2002, 85-86, 145-176.	0.3	26
81	Nano-Indentation Hardness and Elastic Moduli of Bulk Single-Crystal AlN. Japanese Journal of Applied Physics, 2002, 41, 4620-4621.	1.5	70
82	Indentation hardnesses of semiconductors and a scaling rule. Philosophical Magazine Letters, 2002, 82, 535-542.	1.2	62
83	Impurity effects on dislocation activities in Si. Journal of Physics Condensed Matter, 2002, 14, 13179-13183.	1.8	6
84	High-temperature strength of III-V nitride crystals. Journal of Physics Condensed Matter, 2002, 14, 12947-12951.	1.8	17
85	X-ray topographic observation of dislocation generation at the seed/crystal interface of Czochralski-grown Si highly doped with B impurity. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 91-92, 192-195.	3.5	9
86	Yield strength and dislocation mobility in plastically deformed bulk single-crystal GaN. Journal of Applied Physics, 2001, 90, 6539-6541.	2.5	52
87	Interstitial oxygen in GeSi alloys. Physica B: Condensed Matter, 2001, 308-310, 539-541.	2.7	29
88	Thermo-mechanical stability of wide-bandgap semiconductors: high temperature hardness of SiC, AlN, GaN, ZnO and ZnSe. Physica B: Condensed Matter, 2001, 308-310, 1150-1152.	2.7	100
89	Atomic arrangement of dislocation defects in GaAs by HREM. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 309-310, 125-128.	5.6	5
90	Czochralski growth of heavily impurity doped crystals of GeSi alloys. Journal of Crystal Growth, 2001, 226, 47-51.	1.5	25

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91	Thermal and electrical properties of Czochralski grown GeSi single crystals. Journal of Physics and Chemistry of Solids, 2001, 62, 1313-1317.	4.0	37
92	Dislocation-Free Czochralski Silicon Crystal Growth without Dash Necking. Japanese Journal of Applied Physics, 2001, 40, 12-17.	1.5	25
93	High-Temperature Hardness of Bulk Single-Crystal AlN. Japanese Journal of Applied Physics, 2001, 40, L426-L427.	1.5	24
94	Dynamic characteristics of dislocations in highly boron-doped silicon. Journal of Applied Physics, 2001, 89, 5788-5790.	2.5	22
95	Bond lengths in Ge _{1-x} Si _x crystalline alloys grown by the Czochralski method. Physical Review B, 2001, 64, .	3.2	36
96	Si _{1-x} Ge _x Bulk Crystals. , 2001, , 8647-8651.		0
97	Dislocation-free B-doped Si crystal growth without Dash necking in Czochralski method: influence of B concentration. Journal of Crystal Growth, 2000, 213, 283-287.	1.5	24
98	Inverse brittle-to-ductile transition in gallium-arsenide under hydrostatic pressure. Scripta Materialia, 2000, 43, 645-650.	5.2	9
99	Dislocation-Free Czochralski Si Crystal Growth without Dash Necking Using a Heavily B and Ge Codoped Si Seed. Japanese Journal of Applied Physics, 2000, 39, L1115-L1117.	1.5	21
100	Hardness of Bulk Single-Crystal Gallium Nitride at High Temperatures. Japanese Journal of Applied Physics, 2000, 39, L200-L201.	1.5	29
101	Cross-slip in GaAs and InP at elevated temperatures. Philosophical Magazine Letters, 2000, 80, 511-518.	1.2	3
102	Dislocation dissociation and stacking-fault energies in Ge _{1-x} Si _x alloys. Philosophical Magazine Letters, 2000, 80, 193-197.	1.2	10
103	Growth and dislocation behavior in GeSi bulk alloys. Physica B: Condensed Matter, 1999, 273-274, 612-615.	2.7	12
104	Czochralski growth of GeSi bulk alloy crystals. Journal of Crystal Growth, 1999, 198-199, 404-408.	1.5	40
105	Growth and mechanical properties of GeSi bulk crystals. Journal of Materials Science: Materials in Electronics, 1999, 10, 329-333.	2.2	32
106	Recombination-Enhanced Dislocation Motion in SiGe and Ge. Physica Status Solidi A, 1999, 171, 35-40.	1.7	21
107	Dislocation Velocities and Mechanical Strength of Bulk GeSi Crystals. Physica Status Solidi A, 1999, 171, 41-46.	1.7	13
108	Plasticity of III-V Compounds at Low Temperatures. Physica Status Solidi A, 1999, 171, 47-52.	1.7	54

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109	Structure and Climb of Faulted Dipoles in GaAs. <i>Physica Status Solidi A</i> , 1999, 171, 53-57.	1.7	3
110	Plasticity of III-V Compounds at Low Temperatures. <i>Physica Status Solidi A</i> , 1999, 171, 47-52.	1.7	2
111	Czochralski growth of bulk crystals of Ge _{1-x} Si _x alloys. <i>Journal of Crystal Growth</i> , 1998, 191, 393-398.	1.5	35
112	Czochralski growth of bulk crystals of Ge _{1-x} Si _x alloys. <i>Journal of Crystal Growth</i> , 1998, 183, 109-116.	1.5	53
113	Segregation during the seeding process in the Czochralski growth of GeSi alloys. <i>Journal of Crystal Growth</i> , 1998, 191, 399-404.	1.5	30
114	Dynamic behavior of dislocations in InAs: In comparison with III-V compounds and other semiconductors. <i>Journal of Applied Physics</i> , 1998, 84, 4209-4213.	2.5	45
115	Dislocation Activities in Bulk GeSi Crystals. <i>Materials Science Forum</i> , 1997, 258-263, 159-164.	0.3	2
116	Mechanical Properties and Dislocation Dynamics in III-V Compounds. <i>Journal De Physique III</i> , 1997, 7, 1435-1450.	0.3	49
117	Mechanical strength of GeSi solid solution. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1997, 234-236, 559-562.	5.6	3
118	Upper Yield Stress of Si Crystals at High Temperatures. <i>Journal of the Electrochemical Society</i> , 1996, 143, L176-L178.	2.9	29
119	Mechanical strength of GeSi alloy. <i>Journal of Applied Physics</i> , 1996, 80, 3244-3247.	2.5	23
120	Hall Effect Measurements On SixGe _{1-x} Bulk Alloys. <i>Materials Research Society Symposia Proceedings</i> , 1996, 442, 381.	0.1	2
121	Dislocation velocity in GeSi alloy. <i>Applied Physics Letters</i> , 1996, 69, 1264-1266.	3.3	24
122	Influence of oxygen precipitation along dislocations on the strength of silicon crystals. <i>Journal of Applied Physics</i> , 1996, 80, 734-738.	2.5	73
123	Hall Effect in Anisotropic SixGe _{1-x} Polycrystals. <i>Japanese Journal of Applied Physics</i> , 1996, 35, 652-655.	1.5	4
124	Czochralski growth of Ge _{1-x} Si _x alloy crystals. <i>Journal of Crystal Growth</i> , 1995, 154, 275-279.	1.5	69
125	Behaviour of dislocations in GaAs revealed by etch pit technique and X-ray topography. <i>Journal of Crystal Growth</i> , 1993, 126, 19-29.	1.5	40
126	Deformation-Induced Defects and Their Thermal Stability in Silicon. <i>Physica Status Solidi A</i> , 1993, 137, 611-617.	1.7	3

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127	Effects of dopants on dynamic behavior of dislocations and mechanical strength in InP. Journal of Applied Physics, 1993, 74, 917-924.	2.5	32
128	Mechanical properties and dislocation dynamics of III-V compound semiconductors. Physica Status Solidi A, 1992, 131, 663-670.	1.7	31
129	Climb of extended dislocations in silicon caused by oxygen precipitation. Materials Letters, 1991, 11, 164-170.	2.6	11
130	Impurity effects on the generation, velocity, and immobilization of dislocations in GaAs. Journal of Applied Physics, 1989, 65, 85-92.	2.5	116
131	Mechanical properties of GaAs crystals. Journal of Materials Research, 1987, 2, 252-261.	2.6	59
132	Role of Carbon in the Strengthening of Silicon Crystals. Japanese Journal of Applied Physics, 1984, 23, L590-L592.	1.5	12
133	Mechanical strength of silicon crystals as a function of the oxygen concentration. Journal of Applied Physics, 1984, 56, 2346-2350.	2.5	101
134	Dislocation dynamics in the plastic deformation of silicon crystals I. Experiments. Physica Status Solidi A, 1978, 50, 685-693.	1.7	151