Ryoichi Ishihara

List of Publications by Year
in descending order

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130	1,961	331670	289244
papers	citations	21 h-index	40 g-index

131	131	131	1833
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Wafer-level direct bonding of optimized superconducting NbN for 3D chip integration. Physica C: Superconductivity and Its Applications, 2021, 582, 1353823.	1.2	8
2	3D Integration Technology for Quantum Computer based on Diamond Spin Qubits. , 2021, , .		2
3	On-chip integration of Si/SiGe-based quantum dots and switched-capacitor circuits. Applied Physics Letters, 2020, 117, .	3.3	8
4	Temperature dependence of hole transport properties through physically defined silicon quantum dots. Applied Physics Letters, 2020, 117, .	3.3	4
5	Physically defined silicon triple quantum dots charged with few electrons in metal-oxide-semiconductor structures. Applied Physics Letters, 2020, 117, .	3.3	5
6	Interfacing spin qubits in quantum dots and donorsâ€"hot, dense, and coherent. Npj Quantum Information, 2017, 3, .	6.7	357
7	Analysis of polydihydrosilane crystallization by excimer laser annealing. Thin Solid Films, 2017, 638, 73-80.	1.8	3
8	Solution-Based Fabrication of Polycrystalline Si Thin-Film Transistors from Recycled Polysilanes. ACS Sustainable Chemistry and Engineering, 2017, 5, 5642-5645.	6.7	10
9	Carbon Nanotubes as Vertical Interconnects for 3D Integrated Circuits. , 2017, , 195-213.		1
10	Solution-based polycrystalline silicon transistors produced on a paper substrate. Npj Flexible Electronics, 2017, 1, .	10.7	11
11	Polycrystalline silicon TFTs on a paper substrate using solution-processed silicon. , 2016, , .		1
12	The growth of carbon nanotubes on electrically conductive ZrN support layers for through-silicon vias. Microelectronic Engineering, 2016, 156, 126-130.	2.4	3
13	Effect of excimer laser annealing ona-InGaZnO thin-film transistors passivated by solution-processed hybrid passivation layers. Journal Physics D: Applied Physics, 2016, 49, 035102.	2.8	20
14	The direct growth of carbon nanotubes as vertical interconnects in 3D integrated circuits. Carbon, 2016, 96, 332-338.	10.3	11
15	Fabrication of Low Temperature Carbon Nanotube Vertical Interconnects Compatible with Semiconductor Technology. Journal of Visualized Experiments, 2015, , e53260.	0.3	1
16	29.1: Solutionâ€Processed Polyâ€Si TFTs at Paper Compatible Temperatures. Digest of Technical Papers SID International Symposium, 2015, 46, 415-418.	0.3	1
17	Carbon nanotubes TSV grown on an electrically conductive ZrN support layer. , 2015, , .		4
18	Impact of the atomic layer deposition precursors diffusion on solid-state carbon nanotube based supercapacitors performances. Nanotechnology, 2015, 26, 064002.	2.6	20

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19	Solution-processed polycrystalline silicon on paper. Applied Physics Letters, 2015, 106, .	3.3	34
20	Single-Grain Si TFTs Fabricated From Sputtered Si on a Polyimide Substrate. Journal of Display Technology, 2014, 10, 945-949.	1.2	4
21	Dominant thermal boundary resistance in multi-walled carbon nanotube bundles fabricated at low temperature. Journal of Applied Physics, 2014, 116, 023514.	2.5	6
22	Carbon nanotube vertical interconnects fabricated at temperatures as low as 350Â°C. Carbon, 2014, 71, 249-256.	10.3	54
23	32.4: Invited Paper: Solution Processed Singleâ€Grain Si TFTs on a Plastic Substrate. Digest of Technical Papers SID International Symposium, 2014, 45, 439-442.	0.3	1
24	Single-Grain Si Thin-Film Transistors for Monolithic 3D-ICs and Flexible Electronics. IEICE Transactions on Electronics, 2014, E97.C, 227-237.	0.6	4
25	Pulsed-Laser-Induced Epitaxial Growth of Silicon for Three-Dimensional Integrated Circuits. Springer Series in Materials Science, 2014, , 123-138.	0.6	0
26	Size-Dependent Effects on the Temperature Coefficient of Resistance of Carbon Nanotube Vias. IEEE Transactions on Electron Devices, 2013, 60, 4085-4089.	3.0	25
27	Carbon nanotube vias fabricated at back-end of line compatible temperature using a novel CoAl catalyst. , 2013, , .		2
28	Thermal conductivity of low temperature grown vertical carbon nanotube bundles measured using the three-Ï‰ method. Applied Physics Letters, 2013, 102, 191909.	3.3	7
29	Towards the Integration of Carbon Nanotubes as Vias in Monolithic Three-Dimensional Integrated Circuits. Japanese Journal of Applied Physics, 2013, 52, 04CB02.	1.5	6
30	Low temperature high-mobility InZnO thin-film transistors fabricated by excimer laser annealing. Applied Physics Letters, 2013, 102, .	3.3	41
31	Single-grain Si thin-film transistors on flexible polyimide substrate fabricated from doctor-blade coated liquid-Si. Applied Physics Letters, 2013, 102, .	3.3	23
32	Monolithic 3D-ICs with single grain Si thin film transistors. , 2012, , .		15
33	3-D Simulator of Laser Crystallization for Polycrystalline-Silicon Thin-Film Transistors. IEEE Transactions on Semiconductor Manufacturing, 2012, 25, 650-656.	1.7	2
34	Contact resistance of low-temperature carbon nanotube vertical interconnects. , 2012, , .		5
35	Multilayer conformal coating of highly dense Multi-Walled Carbon Nanotubes bundles. , 2012, , .		0
36	Electrical characterization of carbon nanotube vertical interconnects with different lengths and widths. , 2012, , .		7

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37	Influence of the growth temperature on the first and second-order Raman band ratios and widths of carbon nanotubes and fibers. Carbon, 2012, 50, 3542-3554.	10.3	177
38	Monolithic 3D-ICs with single grain Si thin film transistors. Solid-State Electronics, 2012, 71, 80-87.	1.4	30
39	Location controlled high performance single-grain Ge TFTs on glass substrate. Solid-State Electronics, 2012, 69, 94-98.	1.4	0
40	Integrating low temperature aligned carbon nanotubes as vertical interconnects in Si technology. , 2011, , .		14
41	Use of multi-wall carbon nanotubes as an absorber in a thermal detector. Procedia Engineering, 2011, 25, 523-526.	1.2	3
42	Single-grain Si TFTs for high-speed flexible electronics. Proceedings of SPIE, 2011, , .	0.8	1
43	Hot Carrier Effect and Tunneling Effect of Location- and Orientation-Controlled (100)- and (110)-Oriented Single-Grain Si TFTs Without Seed Substrate. IEEE Transactions on Electron Devices, 2011, 58, 216-223.	3.0	2
44	Monolithic 3-D Integration of SRAM and Image Sensor Using Two Layers of Single-Grain Silicon. IEEE Transactions on Electron Devices, 2011, 58, 3954-3961.	3.0	18
45	Solid-phase epitaxial growth of (111)-oriented Si film on InGaO3(ZnO)5 buffer layer. Journal of Materials Science: Materials in Electronics, 2011, 22, 920-923.	2.2	0
46	Excimer laser crystallization of InGaZnO4 on SiO2 substrate. Journal of Materials Science: Materials in Electronics, 2011, 22, 1694-1696.	2.2	9
47	Monolithic 3D-ICs with single grain Si thin film transistors. , 2011, , .		3
48	Single-grain Si TFTs using spin-coated liquid-silicon. , 2011, , .		6
49	(Invited) Single-Grain Germanium TFTs. ECS Transactions, 2011, 37, 65-74.	0.5	0
50	Design and fabrication of single grain TFTs and lateral photodiodes for low dose x-ray detection. , 2011, , .		2
51	Growth of High-Density Self-Aligned Carbon Nanotubes and Nanofibers Using Palladium Catalyst. Journal of Electronic Materials, 2010, 39, 371-375.	2.2	16
52	Location- and Orientation-Controlled (100) and (110) Single-Grain Si TFTs Without Seed Substrate. IEEE Transactions on Electron Devices, 2010, 57, 2348-2352.	3.0	2
53	High Quality SiO[sub 2] Deposited at 80Â°C by Inductively Coupled Plasma Enhanced CVD for Flexible Display Application. Electrochemical and Solid-State Letters, 2010, 13, J89.	2.2	10
54	Location- and orientation-controlled, large single grain silicon induced by pulsed excimer laser crystallization. , 2010, , .		0

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55	Monolithic 3D integration of SRAM and image sensor using two layers of single grain silicon. , 2010, , .		17
56	High Speed Six-Transistor Static Random Access Memory Cells Using Single Grain Thin Film Transistors Fabricated at Low Temperature Process. Japanese Journal of Applied Physics, 2010, 49, 03CA09.	1.5	1
57	Strained Single-Grain Silicon n- and p-Channel Thin-Film Transistors by Excimer Laser. IEEE Electron Device Letters, 2010, 31, 308-310.	3.9	8
58	Reliability of (100) and (110) oriented single-grain Si TFTs without seed substrate. , 2010, , .		0
59	High performance single-grain Ge TFTs without seed substrate. , 2010, , .		3
60	High Performance n- and p-channel Strained Single Grain Silicon TFTs using Excimer Laser. Materials Research Society Symposia Proceedings, 2009, 1153, 1.	0.1	1
61	Stacking of Single-Grain Thin-Film Transistors. Japanese Journal of Applied Physics, 2009, 48, 03B015.	1.5	11
62	Single Grain Si TFTs for RF and 3D ICs. ECS Transactions, 2009, 22, 57-68.	0.5	1
63	Formation of Location-Controlled Germanium Grains by Excimer Laser. ECS Transactions, 2009, 16, 153-157.	0.5	2
64	Integrated high performance (100) and (110) oriented single-grain Si TFTs without seed substrate. , 2009, , .		7
65	Analog and digital output lateral photodiodes fabricated by µ-Czochralski process at low temperature. , 2009, , .		2
66	Direct observation of the electrical activity of coincidenceâ€site lattice boundaries in locationâ€controlled silicon islands using scanning spread resistance microscopy. Journal of the Society for Information Display, 2009, 17, 293-297.	2.1	1
67	A Study of the CMP Effect on the Quality of Thin Silicon Films Crystallized by Using the ??-Czochralski Process. Journal of the Korean Physical Society, 2009, 54, 432-436.	0.7	2
68	Single-grain Si thin-film transistors SPICE model, analog and RF circuit applications. Solid-State Electronics, 2008, 52, 1345-1352.	1.4	3
69	Single-grain Si TFTs and circuits fabricated through advanced excimer-laser crystallization. Solid-State Electronics, 2008, 52, 353-358.	1.4	6
70	An Assessment of Âµ-Czochralski, Single-Grain Silicon Thin-Film Transistor Technology for Large-Area, Sensor and 3-D Electronic Integration. IEEE Journal of Solid-State Circuits, 2008, 43, 1563-1576.	5.4	19
71	Monolithic 3D Integration of Single-Grain Si TFTs. Materials Research Society Symposia Proceedings, 2008, 1066, 1.	0.1	1
72	Location and Crystallographic Orientation Control of Si Grains through Combined Metal Induced Lateral Crystalization and Âµ-Czochralski Process. Japanese Journal of Applied Physics, 2008, 47, 1880-1883.	1.5	10

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73	Investigation of local electrical properties of coincidence-site-lattice boundaries in location-controlled silicon islands using scanning capacitance microscopy. Applied Physics Letters, 2008, 93, 062102.	3.3	18
74	Large Polycrystalline Silicon Grains Prepared by Excimer Laser Crystallization of Sputtered Amorphous Silicon Film with Process Temperature at 100 Â°C. Japanese Journal of Applied Physics, 2007, 46, 1245-1249.	1.5	16
75	Simulation of twin boundary effect on characteristics of single grain-silicon thin film transistors. Applied Physics Letters, 2007, 91, .	3.3	3
76	Single-grain Si thin-film transistors for analog and RF circuit applications. , 2007, , .		1
77	SPICE Modeling of Single-Grain Si TFTs using BSIMSOI. ECS Transactions, 2007, 8, 171-176.	0.5	0
78	Single Grain Si TFTs Fabricated at 100oC for Microelectronics on a Plastic Substrate. Materials Research Society Symposia Proceedings, 2007, 989, 5.	0.1	0
79	Characterization of Local Electrical Property of Coincidence Site Lattice Boundary in Location-controlled Silicon Islands by Scanning Probe Microscopy. Materials Research Society Symposia Proceedings, 2007, 1025, 1.	0.1	1
80	P-22: Single-Grain Si TFTs and Circuits for Flexible Electronics and 3D-ICs. Digest of Technical Papers SID International Symposium, 2007, 38, 252-255.	0.3	0
81	Single-grain Si thin-film transistors for analog and RF circuit applications. Solid-State Circuits Conference, 2008 ESSCIRC 2008 34th European, 2007, , .	0.0	0
82	Agglomeration of amorphous silicon film with high energy density excimer laser irradiation. Thin Solid Films, 2007, 515, 2872-2878.	1.8	31
83	Microstructure characterization of location-controlled Si-islands crystallized by excimer laser in the Î¼-Czochralski (grain filter) process. Journal of Crystal Growth, 2007, 299, 316-321.	1.5	17
84	Single-Grain Si TFTs and Circuits Inside Location-Controlled Grains Fabricated Using a Capping Layer of $hbox{SiO}_{2}$. IEEE Transactions on Electron Devices, 2007, 54, 124-130.	3.0	13
85	Capping Layer on Thin Si Film for Âμ-Czochralski Process with Excimer Laser Crystallization. Japanese Journal of Applied Physics, 2006, 45, 4340-4343.	1.5	16
86	Effects of Capping Layer on Grain Growth with Âμ-Czochralski Process during Excimer Laser Crystallization. Japanese Journal of Applied Physics, 2006, 45, 1-6.	1.5	71
87	Preparation of Large, Location-Controlled SI Grains by Excimer Laser Crystallization of Î±-SI FILM SPUTTERED AT 100Â°C. Materials Research Society Symposia Proceedings, 2006, 910, 12.	0.1	2
88	Defect States in Excimer-Laser Crystallized Single-Grain TFTs Studied with Isothermal Charge Deep-level Transient Spectroscopy. Materials Research Society Symposia Proceedings, 2006, 910, 2.	0.1	2
89	Influence of trap states on dynamic properties of single grain silicon thin film transistors. Applied Physics Letters, 2006, 88, 153507.	3.3	21
90	Single-grain Si TFTs and circuits for flexible electronics and 3D-ICs. , 2006, , .		0

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91	âŸ¨100âŸ©-textured self-assembled square-shaped polycrystalline silicon grains by multiple shot excimer laser crystallization. Journal of Applied Physics, 2006, 100, 083103.	2.5	16
92	A Novel Selected Area Laser Assisted (SALA) System for Crystallization and Doping Processes in Low-Temperature Poly-Si Thin-Film Transistors. IEICE Transactions on Electronics, 2006, E89-C, 1377-1382.	0.6	2
93	Electrical property of coincidence site lattice grain boundary in location-controlled Si island by excimer-laser crystallization. Thin Solid Films, 2005, 487, 97-101.	1.8	32
94	Dependence of Single-Crystalline Si TFT Characteristics on the Channel Position Inside a Location-Controlled Grain. IEEE Transactions on Electron Devices, 2005, 52, 2622-2628.	3.0	44
95	Gate oxide induced switch-on undershoot current observed in thin-film transistors. Applied Physics Letters, 2005, 86, 253504.	3.3	12
96	Melting and crystallization behavior of low-pressure chemical-vapor-deposition amorphous Si films during excimer-laser annealing. Journal of Applied Physics, 2004, 95, 2873-2879.	2.5	38
97	Temperature Dependent Carrier Transport in Single-Crystalline Si TFTs inside a Location-Controlled Grain. Materials Research Society Symposia Proceedings, 2004, 814, 186.	0.1	0
98	Single-Grain Si TFTs With ECR-PECVD Gate<tex>$hbox SiO_2$</tex>. IEEE Transactions on Electron Devices, 2004, 51, 500-502.	3.0	29
99	Filter-Protected Photodiodes for High-Throughput Enzymatic Analysis. IEEE Sensors Journal, 2004, 4, 584-588.	4.7	7
100	Poly-Si TFT Structures. , 2004, , 670-700.		0
101	Phase-field modelling of excimer laser lateral crystallization of silicon thin films. Thin Solid Films, 2003, 427, 309-313.	1.8	10
102	Advanced excimer-laser crystallization process for single-crystalline thin film transistors. Thin Solid Films, 2003, 427, 77-85.	1.8	39
103	Property of single-crystalline Si TFTs fabricated with Î¼-Czochralski (grain filter) process. , 2003, 5004, 10.		10
104	Silicon thin-film UV filter for NADH fluorescence analysis. Sensors and Actuators A: Physical, 2002, 97-98, 161-166.	4.1	15
105	Energy density window for location controlled Si grains by dual-beam excimer laser. Thin Solid Films, 2002, 419, 199-206.	1.8	4
106	Single-Crystal Thin Film Transistor by Grain-Filter Location-Controlled Excimer-Laser Crystallization. Materials Research Society Symposia Proceedings, 2001, 685, 1.	0.1	1
107	Study of Crystal Growth in Grain-Filters for Location-Controlled Excimer Laser Crystallization. Materials Research Society Symposia Proceedings, 2001, 685, 1.	0.1	5
108	A combined TEM and time-resolved optical reflectivity investigation into the excimer-laser crystallization of a-Si films. Thin Solid Films, 2001, 383, 45-47.	1.8	16

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109	<title>Advanced excimer laser crystallization techniques of Si thin film for location control of large grain on glass</title>. , 2001, 4295, 14.		21
110	Heterogeneous Nucleation in Excimer-Laser Melted Si Thin-Films. Solid State Phenomena, 2001, 80-81, 163-168.	0.3	4
111	Effects of Grain-Boundaries in Excimer-Laser Crystallized Poly-Si Thin-Film Transistors. , 2001, , .		4
112	Formation of location-controlled crystalline islands using substrate-embedded seeds in excimer-laser crystallization of silicon films. Applied Physics Letters, 2001, 79, 1819-1821.	3.3	94
113	Si Based Thin-Film Filter with High Visible-Over-UV Selectivity for Biochemical Fluorescence Analysis. , 2001, , 1154-1157.		2
114	Location-Controlled Large-Grains in Near-Agglomeration Excimer-Laser Crystallized Silicon Films. Materials Research Society Symposia Proceedings, 2000, 621, 741.	0.1	7
115	Location Control of Laterally Columnar Si Grains by Dual-Beam Excimer-Laser Melting of Si Thin-Film. Materials Research Society Symposia Proceedings, 2000, 621, 941.	0.1	8
116	Enlargement of â€œlocation controlledâ€•Si grains by dual-beam excimer-laser with bump structures. Applied Surface Science, 2000, 154-155, 152-158.	6.1	7
117	Location-Control of Large Si Grains by Dual-Beam Excimer-Laser and Thick Oxide Portion. Japanese Journal of Applied Physics, 2000, 39, 3872-3878.	1.5	31
118	Grain Matrix Made with Excimer-Laser Crystallization of Thin Silicon Films. Solid State Phenomena, 1999, 67-68, 169-174.	0.3	5
119	Grain Location Control in Excimer-Laser Crystallization of Thin Silicon Films. Physica Status Solidi A, 1998, 166, 619-627.	1.7	11
120	Location Control of Large Grain Following Excimer-Laser Melting of Si Thin-Films. Japanese Journal of Applied Physics, 1998, 37, 1071-1075.	1.5	15
121	Location Control of Crystal Si Grain Followed by Excimer-Laser Melting of Si Thin-Films. Japanese Journal of Applied Physics, 1998, 37, L15-L17.	1.5	12
122	Excimer-Laser-Produced Single-Crystal Silicon Thin-Film Transistors. Japanese Journal of Applied Physics, 1997, 36, 6167-6170.	1.5	44
123	Low-Temperature Chemical-Vapor-Deposition of Silicon-Nitride Film from Hexachloro-Disilane and Hydrazine. Japanese Journal of Applied Physics, 1996, 35, 1509-1512.	1.5	13
124	Effects of Light Pulse Duration on Excimer-Laser Crystallization Characteristics of Silicon Thin Films. Japanese Journal of Applied Physics, 1995, 34, 1759-1764.	1.5	45
125	Excimer-Laser Annealing Technology for Hydrogenated Amorphous-Silicon Devices. Japanese Journal of Applied Physics, 1995, 34, 5971-5976.	1.5	9
126	A Novel Double-Pulse Excimer-Laser Crystallization Method of Silicon Thin-Films. Japanese Journal of Applied Physics, 1995, 34, 3976-3981.	1.5	11

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127	Ultra-large grain growth of Si films on glassy substrate. Electronics Letters, 1995, 31, 1956-1957.	1.0	24
128	Lowâ€temperature chemical vapor deposition of boronâ€nitride films using hydrogen azide. Applied Physics Letters, 1992, 60, 3244-3246.	3.3	7
129	Low-Temperature Chemical-Vapor-Deposition of Silicon-Nitride from Tetra-Silane and Hydrogen Azide. Materials Research Society Symposia Proceedings, 1992, 284, 3.	0.1	1
130	CMOS compatible optical filter for high-throughput enzymatic analysis devices. , 0, , .		0