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	Interfacing spin qubits in quantum dots and donorsâ€"hot, dense, and coherent. Npj Quantum Information, 2017, 3, .	6.7	357
2	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
3	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
4	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
5	Carbon nanotube vertical interconnects fabricated at temperatures as low as 350Â°C. Carbon, 2014, 71, 249-256.	10.3	54
6	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
7	Excimer-Laser-Produced Single-Crystal Silicon Thin-Film Transistors. Japanese Journal of Applied Physics, 1997, 36, 6167-6170.	1.5	44
8	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
9	Low temperature high-mobility InZnO thin-film transistors fabricated by excimer laser annealing. Applied Physics Letters, 2013, 102, .	3.3	41
10	Advanced excimer-laser crystallization process for single-crystalline thin film transistors. Thin Solid Films, 2003, 427, 77-85.	1.8	39
11	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
12	Solution-processed polycrystalline silicon on paper. Applied Physics Letters, 2015, 106, .	3.3	34
13	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
14	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
15	Agglomeration of amorphous silicon film with high energy density excimer laser irradiation. Thin Solid Films, 2007, 515, 2872-2878.	1.8	31
16	Monolithic 3D-ICs with single grain Si thin film transistors. Solid-State Electronics, 2012, 71, 80-87.	1.4	30
17	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
18	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

#	Article	IF	Citations
19	Ultra-large grain growth of Si films on glassy substrate. Electronics Letters, 1995, 31, 1956-1957.	1.0	24
20	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
21	<title>Advanced excimer laser crystallization techniques of Si thin film for location control of large grain on glass</title>. , 2001, 4295, 14.		21
22	Influence of trap states on dynamic properties of single grain silicon thin film transistors. Applied Physics Letters, 2006, 88, 153507.	3.3	21
23	Impact of the atomic layer deposition precursors diffusion on solid-state carbon nanotube based supercapacitors performances. Nanotechnology, 2015, 26, 064002.	2.6	20
24	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
25	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
26	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
27	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
28	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
29	Monolithic 3D integration of SRAM and image sensor using two layers of single grain silicon. , 2010, , .		17
30	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
31	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
32	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
33	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
34	Growth of High-Density Self-Aligned Carbon Nanotubes and Nanofibers Using Palladium Catalyst. Journal of Electronic Materials, 2010, 39, 371-375.	2.2	16
35	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
36	Silicon thin-film UV filter for NADH fluorescence analysis. Sensors and Actuators A: Physical, 2002, 97-98, 161-166.	4.1	15

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37	Monolithic 3D-ICs with single grain Si thin film transistors. , 2012, , .		15
38	Integrating low temperature aligned carbon nanotubes as vertical interconnects in Si technology. , 2011, , .		14
39	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
40	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
41	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
42	Gate oxide induced switch-on undershoot current observed in thin-film transistors. Applied Physics Letters, 2005, 86, 253504.	3.3	12
43	A Novel Double-Pulse Excimer-Laser Crystallization Method of Silicon Thin-Films. Japanese Journal of Applied Physics, 1995, 34, 3976-3981.	1.5	11
44	Grain Location Control in Excimer-Laser Crystallization of Thin Silicon Films. Physica Status Solidi A, 1998, 166, 619-627.	1.7	11
45	Stacking of Single-Grain Thin-Film Transistors. Japanese Journal of Applied Physics, 2009, 48, 03B015.	1.5	11
46	The direct growth of carbon nanotubes as vertical interconnects in 3D integrated circuits. Carbon, 2016, 96, 332-338.	10.3	11
47	Solution-based polycrystalline silicon transistors produced on a paper substrate. Npj Flexible Electronics, 2017, 1, .	10.7	11
48	Phase-field modelling of excimer laser lateral crystallization of silicon thin films. Thin Solid Films, 2003, 427, 309-313.	1.8	10
49	Property of single-crystalline Si TFTs fabricated with Î¼-Czochralski (grain filter) process. , 2003, 5004, 10.		10
50	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
51	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
52	Solution-Based Fabrication of Polycrystalline Si Thin-Film Transistors from Recycled Polysilanes. ACS Sustainable Chemistry and Engineering, 2017, 5, 5642-5645.	6.7	10
53	Excimer-Laser Annealing Technology for Hydrogenated Amorphous-Silicon Devices. Japanese Journal of Applied Physics, 1995, 34, 5971-5976.	1.5	9
54	Excimer laser crystallization of InGaZnO4 on SiO2 substrate. Journal of Materials Science: Materials in Electronics, 2011, 22, 1694-1696.	2.2	9

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55	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
56	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
57	On-chip integration of Si/SiGe-based quantum dots and switched-capacitor circuits. Applied Physics Letters, 2020, 117, .	3.3	8
58	Wafer-level direct bonding of optimized superconducting NbN for 3D chip integration. Physica C: Superconductivity and Its Applications, 2021, 582, 1353823.	1.2	8
59	Lowâ€temperature chemical vapor deposition of boronâ€nitride films using hydrogen azide. Applied Physics Letters, 1992, 60, 3244-3246.	3.3	7
60	Location-Controlled Large-Grains in Near-Agglomeration Excimer-Laser Crystallized Silicon Films. Materials Research Society Symposia Proceedings, 2000, 621, 741.	0.1	7
61	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
62	Filter-Protected Photodiodes for High-Throughput Enzymatic Analysis. IEEE Sensors Journal, 2004, 4, 584-588.	4.7	7
63	Integrated high performance (100) and (110) oriented single-grain Si TFTs without seed substrate. , 2009, , .		7
64	Electrical characterization of carbon nanotube vertical interconnects with different lengths and widths. , 2012, , .		7
65	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
66	Single-grain Si TFTs and circuits fabricated through advanced excimer-laser crystallization. Solid-State Electronics, 2008, 52, 353-358.	1.4	6
67	Single-grain Si TFTs using spin-coated liquid-silicon. , 2011, , .		6
68	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
69	Dominant thermal boundary resistance in multi-walled carbon nanotube bundles fabricated at low temperature. Journal of Applied Physics, 2014, 116, 023514.	2.5	6
70	Grain Matrix Made with Excimer-Laser Crystallization of Thin Silicon Films. Solid State Phenomena, 1999, 67-68, 169-174.	0.3	5
71	Study of Crystal Growth in Grain-Filters for Location-Controlled Excimer Laser Crystallization. Materials Research Society Symposia Proceedings, 2001, 685, 1.	0.1	5
72	Contact resistance of low-temperature carbon nanotube vertical interconnects. , 2012, , .		5

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73	Physically defined silicon triple quantum dots charged with few electrons in metal-oxide-semiconductor structures. Applied Physics Letters, 2020, 117, .	3.3	5
74	Heterogeneous Nucleation in Excimer-Laser Melted Si Thin-Films. Solid State Phenomena, 2001, 80-81, 163-168.	0.3	4
75	Effects of Grain-Boundaries in Excimer-Laser Crystallized Poly-Si Thin-Film Transistors. , 2001, , .		4
76	Energy density window for location controlled Si grains by dual-beam excimer laser. Thin Solid Films, 2002, 419, 199-206.	1.8	4
77	Single-Grain Si TFTs Fabricated From Sputtered Si on a Polyimide Substrate. Journal of Display Technology, 2014, 10, 945-949.	1.2	4
78	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
79	Carbon nanotubes TSV grown on an electrically conductive ZrN support layer. , 2015, , .		4
80	Temperature dependence of hole transport properties through physically defined silicon quantum dots. Applied Physics Letters, 2020, 117, .	3.3	4
81	Simulation of twin boundary effect on characteristics of single grain-silicon thin film transistors. Applied Physics Letters, 2007, 91, .	3.3	3
82	Single-grain Si thin-film transistors SPICE model, analog and RF circuit applications. Solid-State Electronics, 2008, 52, 1345-1352.	1.4	3
83	High performance single-grain Ge TFTs without seed substrate. , 2010, , .		3
84	Use of multi-wall carbon nanotubes as an absorber in a thermal detector. Procedia Engineering, 2011, 25, 523-526.	1.2	3
85	Monolithic 3D-ICs with single grain Si thin film transistors. , 2011, , .		3
86	The growth of carbon nanotubes on electrically conductive ZrN support layers for through-silicon vias. Microelectronic Engineering, 2016, 156, 126-130.	2.4	3
87	Analysis of polydihydrosilane crystallization by excimer laser annealing. Thin Solid Films, 2017, 638, 73-80.	1.8	3
88	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
89	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
90	Formation of Location-Controlled Germanium Grains by Excimer Laser. ECS Transactions, 2009, 16, 153-157.	0.5	2

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91	Analog and digital output lateral photodiodes fabricated by µ-Czochralski process at low temperature. , 2009, , .		2
92	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
93	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
94	Design and fabrication of single grain TFTs and lateral photodiodes for low dose x-ray detection. , 2011, , .		2
95	3-D Simulator of Laser Crystallization for Polycrystalline-Silicon Thin-Film Transistors. IEEE Transactions on Semiconductor Manufacturing, 2012, 25, 650-656.	1.7	2
96	Carbon nanotube vias fabricated at back-end of line compatible temperature using a novel CoAl catalyst. , 2013, , .		2
97	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
98	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
99	Si Based Thin-Film Filter with High Visible-Over-UV Selectivity for Biochemical Fluorescence Analysis. , 2001, , 1154-1157.		2
100	3D Integration Technology for Quantum Computer based on Diamond Spin Qubits. , 2021, , .		2
101	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
102	Single-Crystal Thin Film Transistor by Grain-Filter Location-Controlled Excimer-Laser Crystallization. Materials Research Society Symposia Proceedings, 2001, 685, 1.	0.1	1
103	Single-grain Si thin-film transistors for analog and RF circuit applications. , 2007, , .		1
104	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
105	Monolithic 3D Integration of Single-Grain Si TFTs. Materials Research Society Symposia Proceedings, 2008, 1066, 1.	0.1	1
106	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
107	Single Grain Si TFTs for RF and 3D ICs. ECS Transactions, 2009, 22, 57-68.	0.5	1
108	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

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109	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
110	Single-grain Si TFTs for high-speed flexible electronics. Proceedings of SPIE, 2011, , .	0.8	1
111	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
112	Fabrication of Low Temperature Carbon Nanotube Vertical Interconnects Compatible with Semiconductor Technology. Journal of Visualized Experiments, 2015, , e53260.	0.3	1
113	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
114	Polycrystalline silicon TFTs on a paper substrate using solution-processed silicon. , 2016, , .		1
115	Carbon Nanotubes as Vertical Interconnects for 3D Integrated Circuits. , 2017, , 195-213.		1
116	CMOS compatible optical filter for high-throughput enzymatic analysis devices. , 0, , .		0
117	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
118	Single-grain Si TFTs and circuits for flexible electronics and 3D-ICs. , 2006, , .		0
119	SPICE Modeling of Single-Grain Si TFTs using BSIMSOI. ECS Transactions, 2007, 8, 171-176.	0.5	0
120	Single Grain Si TFTs Fabricated at 100oC for Microelectronics on a Plastic Substrate. Materials Research Society Symposia Proceedings, 2007, 989, 5.	0.1	0
121	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
122	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
123	Location- and orientation-controlled, large single grain silicon induced by pulsed excimer laser crystallization. , 2010, , .		0
124	Reliability of (100) and (110) oriented single-grain Si TFTs without seed substrate. , 2010, , .		0
125	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
126	(Invited) Single-Grain Germanium TFTs. ECS Transactions, 2011, 37, 65-74.	0.5	0

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127	Multilayer conformal coating of highly dense Multi-Walled Carbon Nanotubes bundles. , 2012, , .		0
128	Location controlled high performance single-grain Ge TFTs on glass substrate. Solid-State Electronics, 2012, 69, 94-98.	1.4	0
129	Poly-Si TFT Structures. , 2004, , 670-700.		0
130	Pulsed-Laser-Induced Epitaxial Growth of Silicon for Three-Dimensional Integrated Circuits. Springer Series in Materials Science, 2014, , 123-138.	0.6	0