

Isao Takahashi

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Ultra-wide bandgap corundum-structured p-type $(\text{Ir,Ga})_2\text{O}_3$ alloys for Ga_2O_3 electronics. Applied Physics Letters, 2021, 118, .	3.3	36
2	Defect-insensitive current-voltage characteristics of Schottky barrier diode formed on heteroepitaxial $\text{In}_2\text{Ga}_2\text{O}_3$ grown by mist chemical vapor deposition. AIP Advances, 2020, 10, .	1.3	24
3	Mössbauer spectroscopic microscope study on diffusion and segregation of Fe impurities in mc-Si wafer. Hyperfine Interactions, 2019, 240, 1.	0.5	1
4	Alternative simple method to realize p-type BaSi_2 thin films for Si heterojunction solar cell applications. MRS Advances, 2018, 3, 1435-1442.	0.9	14
5	Fabrication of silicon nanowire based solar cells using $\text{TiO}_2/\text{Al}_2\text{O}_3$ stack thin films. MRS Advances, 2018, 3, 1419-1426.	0.9	5
6	Influence of barrier layer thickness height on the performance of Si quantum dot solar cells. Japanese Journal of Applied Physics, 2018, 57, 08RF08.	1.5	3
7	Electrical properties of $\text{In}_2\text{O}_3/\text{Ga}_2\text{O}_3$ pn heterojunction diode and band alignment of the heterostructure. Applied Physics Letters, 2018, 113, .	3.3	74
8	Impact of boron incorporation on properties of silicon solar cells employing p-type polycrystalline silicon grown by aluminum-induced crystallization. Japanese Journal of Applied Physics, 2018, 57, 08RB12.	1.5	3
9	Controlling impurity distributions in crystalline Si for solar cells by using artificial designed defects. Journal of Crystal Growth, 2017, 468, 610-613.	1.5	9
10	Effects of grain boundary structure controlled by artificially designed seeds on dislocation generation. Japanese Journal of Applied Physics, 2017, 56, 075501.	1.5	10
11	On the growth mechanism of multicrystalline silicon ingots with small grains fabricated using single-layer silicon beads. Japanese Journal of Applied Physics, 2017, 56, 075502.	1.5	5
12	Towards optimized nucleation control in multicrystalline silicon ingot for solar cells. Journal of Crystal Growth, 2017, 468, 620-624.	1.5	6
13	Development of spin-coated copper iodide on silicon for use in hole-selective contacts. Energy Procedia, 2017, 124, 598-603.	1.8	12
14	Controlling impurity distribution in quasi-mono crystalline Si ingot by seed manipulation for artificially controlled defects technique. Energy Procedia, 2017, 124, 734-739.	1.8	8
15	Effects of surface morphology randomness on optical properties of Si-based photonic nanostructures. Japanese Journal of Applied Physics, 2017, 56, 08MA02.	1.5	3
16	Optical characterization of double-side-textured silicon wafer based on photonic nanostructures for thin-wafer crystalline silicon solar cells. Japanese Journal of Applied Physics, 2017, 56, 04CS01.	1.5	1
17	Solar Cells Application of p-type poly-Si Thin Film by Aluminum Induced Crystallization. , 2017, , .		0
18	Fabrication of CuI/a-Si:H/c-Si Structure for Application to Hole-selective Contacts of Heterojunction Si Solar Cells. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
19	Application of new doping techniques to solar cells for low temperature fabrication. , 2016, , .		1
20	Improved multicrystalline silicon ingot quality using single layer silicon beads coated with silicon nitride as seed layer. Journal of Crystal Growth, 2016, 441, 124-130.	1.5	13
21	Light-induced Recovery of Effective Carrier Lifetime in Boron-doped Czochralski Silicon at Room Temperature. Energy Procedia, 2016, 92, 801-807.	1.8	1
22	Effect of grain boundary character of multicrystalline Si on external and internal (phosphorus) gettering of impurities. Progress in Photovoltaics: Research and Applications, 2016, 24, 1615-1625.	8.1	6
23	Growth direction control of dendrite crystals in parallel direction to realize high-quality multicrystalline silicon ingot. Japanese Journal of Applied Physics, 2016, 55, 091302.	1.5	2
24	Application of heterojunction to Si-based solar cells using photonic nanostructures coupled with vertically aligned Ge quantum dots. Japanese Journal of Applied Physics, 2015, 54, 08KA06.	1.5	1
25	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
26	Comparison of phosphorus gettering effect in faceted dendrite and small grain of multicrystalline silicon wafers grown by floating cast method. Japanese Journal of Applied Physics, 2015, 54, 08KD11.	1.5	1
27	Relationship between dislocation density and contact angle of dendrite crystals in practical size silicon ingot. Journal of Applied Physics, 2015, 117, .	2.5	12
28	Structural control of dendrite crystals in practical size silicon ingots grown by floating cast method. , 2015, , .		0
29	Simulation study of Ge/Si heterostructure solar cells yielding improved open-circuit voltage and quantum efficiency. Japanese Journal of Applied Physics, 2014, 53, 110312.	1.5	0
30	Improvement of annealing procedure to suppress defect generation during impurity gettering in multicrystalline silicon for solar cells. , 2014, , .		0
31	Enhanced Phosphorus Gettering of Impurities in Multicrystalline Silicon at Low Temperature. Energy Procedia, 2014, 55, 203-210.	1.8	8
32	Towards implementation of floating cast method for growing large-scale high-quality multicrystalline silicon ingot using designed double crucibles. Progress in Photovoltaics: Research and Applications, 2014, 22, 726-732.	8.1	12
33	Implementation of faceted dendrite growth on floating cast method to realize high-quality multicrystalline Si ingot for solar cells. Journal of Applied Physics, 2011, 109, .	2.5	20
34	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
35	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
36	Computational Investigation of Relationship between Shear Stress and Multicrystalline Structure in Silicon. Japanese Journal of Applied Physics, 2010, 49, 04DP01.	1.5	16

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37	Relationship between grain boundary structures in Si multicrystals and generation of dislocations during crystal growth. Journal of Applied Physics, 2010, 107, .	2.5	46
38	Floating cast method to realize high-quality Si bulk multicrystals for solar cells. Journal of Crystal Growth, 2009, 311, 228-231.	1.5	35
39	Impact of Defect Density in Si Bulk Multicrystals on Gettering Effect of Impurities. Japanese Journal of Applied Physics, 2008, 47, 8790-8792.	1.5	11