Bing Gao

List of Publications by Year
in descending order

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52	957	411340	563245
papers	citations	20 h-index	28 g-index

52	52	52	423
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimization of crucible and heating model for large-sized silicon carbide ingot growth in top-seeded solution growth. Journal of Crystal Growth, 2020, 533, 125406.	0.7	7
2	Analysis of chemical stress and the propensity for cracking during the vertical Bridgman growth of BaBrCl:Eu. Journal of Crystal Growth, 2020, 546, 125794.	0.7	4
3	Homogenization of Radial Temperature by a Tungsten Sink in Sublimation Growth of 45 mm AlN Single Crystal. Materials, 2020, 13, 5553.	1.3	2
4	Silicon bulk growth for solar cells: Science and technology. Japanese Journal of Applied Physics, 2017, 56, 020101.	0.8	8
5	Numerical analysis of dislocation density and residual stress in a GaN single crystal during the cooling process. Journal of Crystal Growth, 2017, 468, 839-844.	0.7	3
6	Reduction of carbon contamination during the melting process of Czochralski silicon crystal growth. Journal of Crystal Growth, 2017, 474, 3-7.	0.7	7
7	Dislocation behavior in seedâ€cast grown Si ingots based on crystallographic orientation. Progress in Photovoltaics: Research and Applications, 2016, 24, 1513-1522.	4.4	10
8	Growth of semiconductor silicon crystals. Progress in Crystal Growth and Characterization of Materials, 2016, 62, 273-285.	1.8	20
9	Total pressureâ€controlled PVT SiC growth for polytype stability during using 2D nucleation theory. Crystal Research and Technology, 2016, 51, 344-348.	0.6	1
10	Single-Seed Casting Large-Size Monocrystalline Silicon for High-Efficiency and Low-Cost Solar Cells. Engineering, 2015, 1, 378-383.	3.2	7
11	Numerical investigation of carbon and silicon carbide contamination during the melting process of the Czochralski silicon crystal growth. Crystal Research and Technology, 2015, 50, 458-463.	0.6	8
12	Advantage in solar cell efficiency of high-quality seed cast mono Si ingot. Applied Physics Express, 2015, 8, 062301.	1.1	17
13	Orientation Dependency of Dislocation Generation in Si Growth Process. Solid State Phenomena, 2015, 242, 15-20.	0.3	1
14	Modeling grown-in dislocation multiplication on prismatic slip planes for GaN single crystals. Journal of Applied Physics, 2015, 117, 035701.	1.1	4
15	Applicability of the three-dimensional Alexander-Haasen model for the analysis of dislocation distributions in single-crystal silicon. Journal of Crystal Growth, 2015, 411, 49-55.	0.7	11
16	Numerical investigation of carbon contamination during the melting process of Czochralski silicon crystal growth. Journal of Crystal Growth, 2015, 417, 58-64.	0.7	26
17	Crystal growth of 50 cm square mono-like Si by directional solidification and its characterization. Journal of Crystal Growth, 2014, 401, 133-136.	0.7	25
18	Three-dimensional analysis of dislocation multiplication in single-crystal silicon under accurate control of cooling history of temperature. Journal of Crystal Growth, 2014, 396, 7-13.	0.7	21

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19	Optimization of power control in the reduction of basal plane dislocations during PVT growth of 4H-SiC single crystals. Journal of Crystal Growth, 2014, 392, 92-97.	0.7	16
20	Dislocation-density-based modeling of the plastic behavior of 4Hâ€“SiC single crystals using the Alexanderâ€“Haasen model. Journal of Crystal Growth, 2014, 386, 215-219.	0.7	27
21	Three-Dimensional Modeling of Basal Plane Dislocations in 4H-SiC Single Crystals Grown by the Physical Vapor Transport Method. Crystal Growth and Design, 2014, 14, 1272-1278.	1.4	40
22	Alexanderâ€“Haasen Model of Basal Plane Dislocations in Single-Crystal Sapphire. Crystal Growth and Design, 2014, 14, 4080-4086.	1.4	6
23	Thermal stress induced dislocation distribution in directional solidification of Si for PV application. Journal of Crystal Growth, 2014, 408, 19-24.	0.7	35
24	Study of the effect of doped impurities on polytype stability during PVT growth of SiC using 2D nucleation theory. Journal of Crystal Growth, 2014, 385, 95-99.	0.7	23
25	Numerical investigation of the influence of cooling flux on the generation of dislocations in cylindrical mono-like silicon growth. Journal of Crystal Growth, 2013, 384, 13-20.	0.7	24
26	Highly efficient and stable implementation of the Alexanderâ€“Haasen model for numerical analysis of dislocation in crystal growth. Journal of Crystal Growth, 2013, 369, 32-37.	0.7	12
27	Effect of Cooling Rate on the Activation of Slip Systems in Seed Cast-Grown Monocrystalline Silicon in the [001] and [111] Directions. Crystal Growth and Design, 2013, 13, 2661-2669.	1.4	26
28	Relationship between oxygen impurity distribution in multicrystalline solar cell silicon and the use of top and side heaters during manufacture. Journal of Crystal Growth, 2013, 375, 62-66.	0.7	19
29	Relationship between the locations of activated dislocations and the cooling flux direction in monocrystalline-like silicon grown in the [001] and [111] directions. Journal of Applied Crystallography, 2013, 46, 1771-1780.	1.9	5
30	Reduction of Oxygen Impurity in Multicrystalline Silicon Production. International Journal of Photoenergy, 2013, 2013, 1-6.	1.4	12
31	10 cm Diameter Mono Cast Si Growth and its Characterization. Solid State Phenomena, 2013, 205-206, 89-93.	0.3	4
32	Numerical Analysis of the Dislocation Density in Multicrystalline Silicon for Solar Cells by the Vertical Bridgman Process. International Journal of Photoenergy, 2013, 2013, 1-8.	1.4	4
33	The impact of pressure and temperature on growth rate and layer uniformity in the sublimation growth of AlN crystals. Journal of Crystal Growth, 2012, 338, 69-74.	0.7	18
34	Reduction of polycrystalline grains region near the crucible wall during seeded growth of monocrystalline silicon in a unidirectional solidification furnace. Journal of Crystal Growth, 2012, 352, 47-52.	0.7	55
35	Thermodynamical analysis of polytype stability during PVT growth of SiC using 2D nucleation theory. Journal of Crystal Growth, 2012, 352, 177-180.	0.7	19
36	Numerical analysis of the velocity of SiC growth by the top seeding method. Journal of Crystal Growth, 2012, 348, 71-74.	0.7	8

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37	Influence of Back-Diffusion of Iron Impurity on Lifetime Distribution near the Seed-Crystal Interface in Seed Cast-Grown Monocrystalline Silicon by Numerical Modeling. Crystal Growth and Design, 2012, 12, 522-525.	1.4	34
38	Dislocation Analysis of a New Method for Growing Large-Size Crystals of Monocrystalline Silicon Using a Seed Casting Technique. Crystal Growth and Design, 2012, 12, 6144-6150.	1.4	17
39	Anisotropic Thermal Stress Simulation with Complex Crystalâ€“Melt Interface Evolution for Seeded Growth of Monocrystalline Silicon. Crystal Growth and Design, 2012, 12, 5708-5714.	1.4	16
40	Numerical analysis of cooling rate dependence on dislocation density in multicrystalline silicon for solar cells. Journal of Crystal Growth, 2011, 318, 280-282.	0.7	52
41	Reducing impurities of multicrystalline silicon in a unidirectional solidification furnace for solar cells. Jom, 2011, 63, 43-46.	0.9	20
42	Numerical analysis of light elements transport in a unidirectional solidification furnace. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 659-661.	0.8	0
43	Effect of crucible cover material on impurities of multicrystalline silicon in a unidirectional solidification furnace. Journal of Crystal Growth, 2011, 318, 255-258.	0.7	30
44	Influence of reaction between silica crucible and graphite susceptor on impurities of multicrystalline silicon in a unidirectional solidification furnace. Journal of Crystal Growth, 2011, 314, 239-245.	0.7	29
45	Thermodynamic analysis of SiC polytype growth by physical vapor transport method. Journal of Crystal Growth, 2011, 324, 78-81.	0.7	24
46	Stability analysis of a boundary layer over a hump using parabolized stability equations. Fluid Dynamics Research, 2011, 43, 055503.	0.6	10
47	Crystal growth of high-purity multicrystalline silicon using a unidirectional solidification furnace for solar cells. Journal of Crystal Growth, 2010, 312, 1572-1576.	0.7	78
48	Global simulation of coupled carbon and oxygen transport in a Czochralski furnace for silicon crystal growth. Journal of Crystal Growth, 2010, 312, 2972-2976.	0.7	32
49	Analysis of SiC crystal sublimation growth by fully coupled compressible multi-phase flow simulation. Journal of Crystal Growth, 2010, 312, 3349-3355.	0.7	23
50	Numerical Analysis of Oxygen and Carbon Transport in a Unidirectional Solidification Furnace. ECS Transactions, 2010, 27, 1015-1020.	0.3	0
51	Global Simulation of Coupled Carbon and Oxygen Transport in a Unidirectional Solidification Furnace for Solar Cells. Journal of the Electrochemical Society, 2010, 157, H153.	1.3	55
52	50 cm Size Seed Cast Si Ingot Growth and its Characterization. Solid State Phenomena, 0, 242, 30-34.	0.3	2