

# Lijun Liu

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

118  
papers

1,750  
citations

23  
h-index

37  
g-index

128  
ext. papers

2,082  
ext. citations

3.3  
avg, IF

4.97  
L-index

#	Paper	IF	Citations
118	Toward stable lithium-ion batteries: Accelerating the transfer and alloying reactions of Sn-based anodes via coordination atom regulation and carbon hybridization. <i>Journal of Power Sources</i> , <b>2022</b> , 519, 230778	8.9	3
117	Diffusion coefficients of carbon, oxygen and nitrogen in silicon melt. <i>Journal of Crystal Growth</i> , <b>2022</b> , 580, 126476	1.6	2
116	Atomic transport properties of silicon melt at high temperature. <i>Journal of Crystal Growth</i> , <b>2022</b> , 590, 126701	1.6	0
115	A new form of impurity cluster in casting quasi-single crystalline silicon. <i>Journal of Crystal Growth</i> , <b>2022</b> , 590, 126704	1.6	
114	A comparative investigation of the cooling effect of multi-layer arrangements of panels in a ground-mounted photovoltaic system. <i>Journal of Renewable and Sustainable Energy</i> , <b>2021</b> , 13, 053501	2.5	
113	The effect of immunosuppressive therapy in patients with fibrinoid necrosis lesions in a large cohort of patients with IgA nephropathy. <i>Journal of Nephrology</i> , <b>2021</b> , 1	4.8	
112	Control of Oxygen Impurities in a Continuous-Feeding Czochralski-Silicon Crystal Growth by the Double-Crucible Method. <i>Crystals</i> , <b>2021</b> , 11, 264	2.3	4
111	Thermocapillary instabilities in half zone liquid bridges of low Prandtl fluid with non-equal disks under microgravity. <i>Journal of Crystal Growth</i> , <b>2021</b> , 560-561, 126063	1.6	6
110	Effect of Argon Flow on Oxygen and Carbon Coupled Transport in an Industrial Directional Solidification Furnace for Crystalline Silicon Ingots. <i>Crystals</i> , <b>2021</b> , 11, 421	2.3	3
109	Effect of Internal Radiation on Heat Transfer during Ti:sapphire Crystal Growth Process by Heat Exchanger Method. <i>International Journal of Heat and Mass Transfer</i> , <b>2021</b> , 170, 121000	4.9	0
108	Revealing the Various Electrochemical Behaviors of Sn <sub>4</sub> P <sub>3</sub> Binary Alloy Anodes in Alkali Metal Ion Batteries. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2102047	15.6	11
107	A general approach for calculating melt/solid impurity segregation coefficients based on thermodynamic integration. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 025702	2.5	0
106	In-situ observations of novel single-atom thick 2D tin membranes embedded in graphene. <i>Nano Research</i> , <b>2021</b> , 14, 747-753	10	6
105	On the Catalytic Activity of Sn Monomers and Dimers at Graphene Edges and the Synchronized Edge Dependence of Diffusing Atoms in Sn Dimers. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2104340	15.6	0
104	In Situ Fabrication of Freestanding Single-Atom-Thick 2D Metal/Metallene and 2D Metal/ Metallene Oxide Membranes: Recent Developments. <i>Advanced Science</i> , <b>2021</b> , 8, e2100619	13.6	8
103	Oscillatory thermocapillary convection in deformed half zone liquid bridges of low Prandtl number fluids. <i>International Communications in Heat and Mass Transfer</i> , <b>2021</b> , 127, 105499	5.8	3
102	Effect of cusp magnetic field on the turbulent melt flow and crystal/melt interface during large-size Czochralski silicon crystal growth. <i>International Journal of Thermal Sciences</i> , <b>2021</b> , 170, 107137	4.1	2

101	Air distribution system suitable for tea brick fermentation process □ Upward vertical wall attached ventilation. <i>Biosystems Engineering</i> , <b>2020</b> , 198, 235-247	4.8	2
100	Assessing the EDIP potential for atomic simulation of carbon diffusion, segregation and solubility in silicon melt. <i>Journal of Crystal Growth</i> , <b>2020</b> , 546, 125785	1.6	
99	Control of Melt Flow and Oxygen Distribution Using Traveling Magnetic Field during Directional Solidification of Silicon Ingots. <i>Silicon</i> , <b>2020</b> , 12, 2395-2404	2.4	3
98	Optimization of the melt/crystal interface shape and oxygen concentration during the Czochralski silicon crystal growth process using an artificial neural network and a genetic algorithm. <i>Journal of Crystal Growth</i> , <b>2020</b> , 548, 125828	1.6	6
97	Neutrophil-to-lymphocyte ratio as an independent inflammatory indicator of poor prognosis in IgA nephropathy. <i>International Immunopharmacology</i> , <b>2020</b> , 87, 106811	5.8	6
96	Numerical simulation of particle growth process in a polysilicon fluidized bed reactor. <i>Particulate Science and Technology</i> , <b>2020</b> , 38, 261-270	2	3
95	Morphotropic phase boundary-like properties in a ferroelectric-paraelectric nanocomposite. <i>Journal of Applied Physics</i> , <b>2019</b> , 126, 124102	2.5	1
94	Numerical simulation of bubbling fluidization using a local bubble-structure-dependent drag model. <i>Canadian Journal of Chemical Engineering</i> , <b>2019</b> , 97, 1741-1755	2.3	1
93	Genetic polymorphisms in MTR are associated with non-syndromic congenital heart disease from a family-based case-control study in the Chinese population. <i>Scientific Reports</i> , <b>2019</b> , 9, 5065	4.9	5
92	Carbon solubility in liquid silicon: A computational analysis across empirical potentials. <i>Journal of Chemical Physics</i> , <b>2019</b> , 150, 144503	3.9	4
91	A local cluster-structure-dependent drag model for Eulerian simulation of gas-solid flow in CFB risers. <i>Chemical Engineering Journal</i> , <b>2019</b> , 368, 687-699	14.7	7
90	The influence mechanism of melt flow instability on the temperature fluctuation on the crystal/melt interface during Czochralski silicon crystal growth. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 142, 118463	4.9	3
89	Optimization of the controlling recipe in quasi-single crystalline silicon growth using artificial neural network and genetic algorithm. <i>Journal of Crystal Growth</i> , <b>2019</b> , 522, 195-203	1.6	15
88	Numerical investigation of the effect of rotation on the oscillatory thermocapillary convection and dopant transport in a silicon liquid bridge. <i>Journal of Crystal Growth</i> , <b>2019</b> , 523, 125149	1.6	6
87	Influence of bowl-like nanostructures on the efficiency and module power of black silicon solar cells. <i>Solar Energy</i> , <b>2019</b> , 189, 67-73	6.8	8
86	3D numerical design of the thermal field before seeding in an edge-defined film-fed growth system for EGa <sub>2</sub> O <sub>3</sub> ribbon crystals. <i>Journal of Crystal Growth</i> , <b>2019</b> , 506, 83-90	1.6	3
85	Numerical study of melt flow under the influence of heater-generating magnetic field during directional solidification of silicon ingots. <i>Journal of Crystal Growth</i> , <b>2018</b> , 484, 78-85	1.6	15
84	Parameter study of traveling magnetic field for control of melt convection in directional solidification of crystalline silicon ingots. <i>International Journal of Heat and Fluid Flow</i> , <b>2018</b> , 71, 55-67	2.4	8

83	Real-time prediction of crystal/melt interface shape during Czochralski crystal growth. <i>CrystEngComm</i> , <b>2018</b> , 20, 6925-6931	3.3	6
82	An enthalpy method based on fixed-grid for quasi-steady modeling of solidification/melting processes of pure materials. <i>International Journal of Heat and Mass Transfer</i> , <b>2017</b> , 108, 1383-1392	4.9	7
81	Enhancement of heat transfer in Czochralski growth of silicon crystals with a chemical cooling technique. <i>Journal of Crystal Growth</i> , <b>2017</b> , 468, 894-898	1.6	5
80	Global simulation of coupled oxygen and carbon transport in an industrial directional solidification furnace for crystalline silicon ingots: Effect of crucible cover coating. <i>International Journal of Heat and Mass Transfer</i> , <b>2017</b> , 108, 2355-2364	4.9	17
79	Pregnancy and Kidney Outcomes in Patients With IgA Nephropathy: A Cohort Study. <i>American Journal of Kidney Diseases</i> , <b>2017</b> , 70, 262-269	7.4	19
78	Temperature and thermal stress evolutions in sapphire crystal during the cooling process by heat exchanger method. <i>Journal of Crystal Growth</i> , <b>2017</b> , 474, 37-42	1.6	4
77	Optimisation of data locality in energy calculations for large-scale molecular dynamics simulations. <i>Molecular Simulation</i> , <b>2017</b> , 43, 284-290	2	1
76	Control of melt-crystal interface shape during sapphire crystal growth by heat exchanger method. <i>Journal of Crystal Growth</i> , <b>2017</b> , 474, 31-36	1.6	3
75	Control of heat transfer in continuous-feeding Czochralski-silicon crystal growth with a water-cooled jacket. <i>Journal of Crystal Growth</i> , <b>2017</b> , 458, 31-36	1.6	11
74	Effects of furnace pressure on oxygen and carbon coupled transport in an industrial directional solidification furnace for crystalline silicon ingots. <i>Journal of Crystal Growth</i> , <b>2017</b> , 468, 933-938	1.6	6
73	Investigation of heat transfer and thermal stress during sapphire crystal growth process by heat exchanger method: Evaluation of radiation models. <i>Journal of Crystal Growth</i> , <b>2017</b> , 468, 909-913	1.6	1
72	Comparative Effectiveness of 12 Treatment Strategies for Preventing Contrast-Induced Acute Kidney Injury: A Systematic Review and Bayesian Network Meta-analysis. <i>American Journal of Kidney Diseases</i> , <b>2017</b> , 69, 69-77	7.4	58
71	Atomistic simulations of carbon diffusion and segregation in liquid silicon. <i>Journal of Applied Physics</i> , <b>2017</b> , 122, 225705	2.5	4
70	Role of Internal Radiation in Oxide Crystal Growth by Heat Exchanger Method. <i>Crystals</i> , <b>2017</b> , 7, 18	2.3	2
69	Effect of Crucible Location on Heat Transfer in Sapphire Crystal Growth by Heat Exchanger Method. <i>Heat Transfer Engineering</i> , <b>2016</b> , 37, 332-340	1.7	7
68	A study on electrical performance of N-type bifacial PV modules. <i>Solar Energy</i> , <b>2016</b> , 137, 129-133	6.8	19
67	Renin-Angiotensin System Inhibitors and Kidney and Cardiovascular Outcomes in Patients With CKD: A Bayesian Network Meta-analysis of Randomized Clinical Trials. <i>American Journal of Kidney Diseases</i> , <b>2016</b> , 67, 728-41	7.4	159
66	Influence of Crucible Thermal Conductivity on Crystal Growth in an Industrial Directional Solidification Process for Silicon Ingots. <i>International Journal of Photoenergy</i> , <b>2016</b> , 2016, 1-9	2.1	2

65	Controlling solidification front shape and thermal stress in growing quasi-single-crystal silicon ingots: Process design for seeded directional solidification. <i>Applied Thermal Engineering</i> , <b>2015</b> , 91, 225-233	5.8	34
64	Performance of solar cells fabricated from cast quasi-single crystalline silicon ingots. <i>Solar Energy</i> , <b>2015</b> , 111, 218-224	6.8	9
63	Distribution and propagation of dislocation defects in quasi-single crystalline silicon ingots cast by the directional solidification method. <i>Solar Energy Materials and Solar Cells</i> , <b>2015</b> , 132, 1-5	6.4	15
62	A piecewise lookup table for calculating nonbonded pairwise atomic interactions. <i>Journal of Molecular Modeling</i> , <b>2015</b> , 21, 288	2	1
61	Implication of urinary complement factor H in the progression of immunoglobulin A nephropathy. <i>PLoS ONE</i> , <b>2015</b> , 10, e0126812	3.7	4
60	Control of the Gas Flow in an Industrial Directional Solidification Furnace for Production of High Purity Multicrystalline Silicon Ingots. <i>International Journal of Photoenergy</i> , <b>2015</b> , 2015, 1-10	2.1	5
59	Reusability of contaminated seed crystal for cast quasi-single crystalline silicon ingots. <i>Journal of Crystal Growth</i> , <b>2015</b> , 416, 159-163	1.6	1
58	Urinary CXCL1: a novel predictor of IgA nephropathy progression. <i>PLoS ONE</i> , <b>2015</b> , 10, e0119033	3.7	12
57	Plasma Soluble Urokinase Receptor Level Is Correlated with Podocytes Damage in Patients with IgA Nephropathy. <i>PLoS ONE</i> , <b>2015</b> , 10, e0132869	3.7	18
56	Iron contamination in cast quasi-single crystalline silicon ingots. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 174903	2.5	7
55	Optimization via simulation of a seeded directional solidification process for quasi-single crystalline silicon ingots by insulation partition design. <i>Journal of Crystal Growth</i> , <b>2014</b> , 398, 5-12	1.6	19
54	Risk factors for pregnancy outcomes in patients with IgA nephropathy: a matched cohort study. <i>American Journal of Kidney Diseases</i> , <b>2014</b> , 64, 730-6	7.4	33
53	Improved seeded directional solidification process for producing high-efficiency multi-crystalline silicon ingots for solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2014</b> , 130, 118-123	6.4	17
52	Effects of crucible cover on heat transfer during sapphire crystal growth by heat exchanger method. <i>Journal of Crystal Growth</i> , <b>2014</b> , 404, 130-135	1.6	5
51	Numerical study of heat transfer during sapphire crystal growth by heat exchanger method. <i>International Journal of Heat and Mass Transfer</i> , <b>2014</b> , 72, 452-460	4.9	26
50	Global simulations of heat transfer in directional solidification of multi-crystalline silicon ingots under a traveling magnetic field. <i>Journal of Crystal Growth</i> , <b>2014</b> , 401, 285-290	1.6	10
49	Quality evaluation of multi-crystalline silicon ingots produced in a directional solidification furnace with different theories. <i>Journal of Crystal Growth</i> , <b>2014</b> , 401, 296-301	1.6	12
48	3D numerical investigation and improvement to the design of the thermal field before seeding in a multi-die edge-defined film-fed growth system for sapphire ribbon crystals. <i>Journal of Crystal Growth</i> , <b>2014</b> , 385, 49-54	1.6	5

47	Heat transfer in an industrial directional solidification furnace with multi-heaters for silicon ingots. <i>Journal of Crystal Growth</i> , <b>2014</b> , 385, 9-15	1.6	28
46	Influencing factors on the formation of the low minority carrier lifetime zone at the bottom of seed-assisted cast ingots. <i>Journal of Crystal Growth</i> , <b>2014</b> , 402, 65-70	1.6	20
45	Movable partition designed for the seed-assisted silicon ingot casting in directional solidification process. <i>Crystal Research and Technology</i> , <b>2014</b> , 49, 405-413	1.3	16
44	Numerical investigation of the effect of a crucible cover on crystal growth in the industrial directional solidification process for silicon ingots. <i>Journal of Crystal Growth</i> , <b>2014</b> , 401, 291-295	1.6	2
43	Synthesis and Characterization of BaCO <sub>3</sub> Nanoparticles with Different Morphologies by Microwave Homogenous Precipitation. <i>High Temperature Materials and Processes</i> , <b>2013</b> , 32, 47-50	0.9	1
42	Preservation of Seed Crystals in Feedstock Melting for Cast Quasi-Single Crystalline Silicon Ingots. <i>International Journal of Photoenergy</i> , <b>2013</b> , 2013, 1-7	2.1	2
41	Influence of an insulation partition on a seeded directional solidification process for quasi-single crystalline silicon ingot for high-efficiency solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2012</b> , 100, 231-238	6.4	78
40	Effects of argon flow on melt convection and interface shape in a directional solidification process for an industrial-size solar silicon ingot. <i>Journal of Crystal Growth</i> , <b>2012</b> , 360, 87-91	1.6	23
39	Effects of static magnetic fields on thermal fluctuations in the melt of industrial CZ-Si crystal growth. <i>Journal of Crystal Growth</i> , <b>2012</b> , 360, 38-42	1.6	16
38	Role of marangoni tension effects on the melt convection in directional solidification process for multi-crystalline silicon ingots. <i>Journal of Crystal Growth</i> , <b>2012</b> , 346, 40-44	1.6	21
37	Effects of cusp-shaped magnetic field on melt convection and oxygen transport in an industrial CZ-Si crystal growth. <i>Journal of Crystal Growth</i> , <b>2012</b> , 354, 101-108	1.6	22
36	Local design of the hot-zone in an industrial seeded directional solidification furnace for quasi-single crystalline silicon ingots. <i>Journal of Crystal Growth</i> , <b>2012</b> , 358, 5-11	1.6	48
35	Large-eddy simulation of melt turbulence in a 300-mm CzSi crystal growth. <i>International Journal of Heat and Mass Transfer</i> , <b>2012</b> , 55, 53-60	4.9	13
34	CONTROL OF OXYGEN TRANSPORT IN THE MELT OF A CZOCHRALSKI-SILICON CRYSTAL GROWTH. <i>Journal of Enhanced Heat Transfer</i> , <b>2012</b> , 19, 505-514	1.7	4
33	Investigation on a Microwave High-Temperature Air Heat Exchanger <b>2011</b> , 119-124		
32	Response surface methodology for optimization of copper leaching from a low-grade flotation middling. <i>Mining, Metallurgy and Exploration</i> , <b>2011</b> , 28, 139-145	1.1	5
31	Preparation of Partially Stabilized Zirconia and Interface Structure Analysis <b>2011</b> , 185-189		
30	Computer modeling of crystal growth of silicon for solar cells. <i>Frontiers in Energy</i> , <b>2011</b> , 5, 305	2.6	

29	Effects of argon flow on impurities transport in a directional solidification furnace for silicon solar cells. <i>Journal of Crystal Growth</i> , <b>2011</b> , 318, 304-312	1.6	36
28	Effects of argon flow on heat transfer in a directional solidification process for silicon solar cells. <i>Journal of Crystal Growth</i> , <b>2011</b> , 318, 298-303	1.6	36
27	Development and Application of a Structured/Unstructured Combined Mesh Scheme for Global Modeling of a Directional Solidification Process of Silicon. <i>ECS Transactions</i> , <b>2010</b> , 27, 1047-1052	1	6
26	Marangoni Convection in Crystal Growth <b>2010</b> , 413-464		2
25	Modeling and simulation of Si crystal growth from melt. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2009</b> , 6, 645-652		1
24	Analysis of local segregation of impurities at a silicon melt-crystal interface during crystal growth in transverse magnetic field-applied Czochralski method. <i>Journal of Crystal Growth</i> , <b>2009</b> , 311, 2313-2316	1.6	8
23	Effects of crystal rotation rate on the melt-crystal interface of a CZ-Si crystal growth in a transverse magnetic field. <i>Journal of Crystal Growth</i> , <b>2008</b> , 310, 306-312	1.6	28
22	Carbon concentration and particle precipitation during directional solidification of multicrystalline silicon for solar cells. <i>Journal of Crystal Growth</i> , <b>2008</b> , 310, 2192-2197	1.6	78
21	Analysis of oxygen incorporation in unidirectionally solidified multicrystalline silicon for solar cells. <i>Journal of Crystal Growth</i> , <b>2008</b> , 310, 2204-2208	1.6	43
20	Numerical analysis of the influence of tilt of crucibles on interface shape and fields of temperature and velocity in the unidirectional solidification process. <i>Journal of Crystal Growth</i> , <b>2008</b> , 310, 1034-1039	1.6	38
19	Numerical analysis of influence of crucible shape on interface shape in a unidirectional solidification process. <i>Journal of Crystal Growth</i> , <b>2008</b> , 310, 1142-1147	1.6	31
18	Thermodynamical analysis of oxygen incorporation from a quartz crucible during solidification of multicrystalline silicon for solar cell. <i>Journal of Crystal Growth</i> , <b>2008</b> , 310, 4666-4671	1.6	59
17	Investigation of oxygen distribution in electromagnetic CZSi melts with a transverse magnetic field using 3D global modeling. <i>Journal of Crystal Growth</i> , <b>2007</b> , 299, 48-58	1.6	34
16	Three-dimensional global modeling of a unidirectional solidification furnace with square crucibles. <i>Journal of Crystal Growth</i> , <b>2007</b> , 303, 165-169	1.6	25
15	Influence of cytochrome c on apoptosis induced by Anagrapha (Syngrapha) falcifera multiple nuclear polyhedrosis virus (AFMNPV) in insect Spodoptera litura cells. <i>Cell Biology International</i> , <b>2007</b> , 31, 996-1001	4.5	28
14	A numerical method for simulation of attached cavitation flows. <i>International Journal for Numerical Methods in Fluids</i> , <b>2006</b> , 52, 639-658	1.9	19
13	Numerical prediction of the hydrodynamic performance of a centrifugal pump in cavitating flows. <i>Communications in Numerical Methods in Engineering</i> , <b>2006</b> , 23, 363-384		2
12	Enhancement of the diffusion of oxygen and boron in silicon crystals under irradiation of infrared laser light. <i>Journal of Applied Physics</i> , <b>2006</b> , 99, 073103	2.5	

11	Dynamic simulation of temperature and iron distributions in a casting process for crystalline silicon solar cells with a global model. <i>Journal of Crystal Growth</i> , <b>2006</b> , 292, 515-518	1.6	51
10	Global analysis of effects of magnetic field configuration on melt-crystal interface shape and melt flow in CZ-Si crystal growth. <i>Journal of Crystal Growth</i> , <b>2005</b> , 275, e2135-e2139	1.6	12
9	An analysis of temperature distribution near the melt-crystal interface in silicon Czochralski growth with a transverse magnetic field. <i>Journal of Crystal Growth</i> , <b>2005</b> , 282, 49-59	1.6	29
8	Partly three-dimensional global modeling of a silicon Czochralski furnace. I. Principles, formulation and implementation of the model. <i>International Journal of Heat and Mass Transfer</i> , <b>2005</b> , 48, 4481-4491	4.9	95
7	3D global analysis of CZ-Si growth in a transverse magnetic field with rotating crucible and crystal. <i>Crystal Research and Technology</i> , <b>2005</b> , 40, 347-351	1.3	17
6	Partly three-dimensional global modeling of a silicon Czochralski furnace. II. Model application: Analysis of a silicon Czochralski furnace in a transverse magnetic field. <i>International Journal of Heat and Mass Transfer</i> , <b>2005</b> , 48, 4492-4497	4.9	33
5	Effects of shape of an inner crucible on convection of lithium niobate melt in a double-crucible Czochralski process using the accelerated crucible rotation technique. <i>Journal of Crystal Growth</i> , <b>2004</b> , 267, 574-582	1.6	4
4	Numerical analysis of continuous charge of lithium niobate in a double-crucible Czochralski system using the accelerated crucible rotation technique. <i>Journal of Crystal Growth</i> , <b>2004</b> , 266, 109-116	1.6	5
3	Computational study of formation mechanism of impurity distribution in a silicon crystal during solidification. <i>Journal of Crystal Growth</i> , <b>2004</b> , 265, 399-409	1.6	5
2	Numerical study of the effects of cusp-shaped magnetic fields and thermal conductivity on the melt-crystal interface in CZ crystal growth. <i>Crystal Research and Technology</i> , <b>2003</b> , 38, 716-725	1.3	17
1	Research on Prediction of the Stability of Partially Stabilized Zirconia Prepared by Microwave Heating Using Levenberg Marquardt-Back Propagation Neural Network769-778		0