

# Martin E Glicksman

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/3676550/martin-e-glicksman-publications-by-citations.pdf>

**Version:** 2024-04-20

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

113  
papers

3,806  
citations

27  
h-index

59  
g-index

115  
ext. papers

4,058  
ext. citations

3  
avg, IF

5.07  
L-index

#	Paper	IF	Citations
113	Overview 12: Fundamentals of dendritic solidification□ Steady-state tip growth. <i>Acta Metallurgica</i> , <b>1981</b> , 29, 701-715		572
112	Dendritic growth into undercooled alloy metals. <i>Materials Science and Engineering</i> , <b>1984</b> , 65, 57-63		416
111	Overview 12: Fundamentals of dendritic solidification□ development of sidebranch structure. <i>Acta Metallurgica</i> , <b>1981</b> , 29, 717-734		307
110	Solution to the multi-particle diffusion problem with applications to Ostwald ripening□ Theory. <i>Acta Metallurgica</i> , <b>1984</b> , 32, 2001-2011		264
109	Dendritic growth velocities in microgravity. <i>Physical Review Letters</i> , <b>1994</b> , 73, 573-576	7.4	198
108	Capillary-limited steady-state dendritic growth□ Theoretical development. <i>Acta Metallurgica</i> , <b>1974</b> , 22, 1283-1290		139
107	Kinetics of phase coarsening in dense systems. <i>Acta Materialia</i> , <b>1996</b> , 44, 3761-3771	8.4	106
106	Free dendritic growth. <i>Materials Science and Engineering</i> , <b>1984</b> , 65, 45-55		103
105	Effects of crystal-melt interfacial energy anisotropy on dendritic morphology and growth kinetics. <i>Journal of Crystal Growth</i> , <b>1989</b> , 98, 277-284	1.6	93
104	Determination of the mean solid-liquid interface energy of pivalic acid. <i>Journal of Crystal Growth</i> , <b>1989</b> , 98, 573-580	1.6	82
103	Three-dimensional dendrite-tip morphology. <i>Physical Review E</i> , <b>1995</b> , 52, 2778-2786	2.4	78
102	Heterophase dislocations □An approach towards interpreting high temperature grain boundary behavior. <i>Surface Science</i> , <b>1972</b> , 31, 50-67	1.8	71
101	Dendritic crystal growth in pure materials. <i>Journal of Crystal Growth</i> , <b>2004</b> , 264, 541-549	1.6	64
100	Dendritic Growth of Succinonitrile in Terrestrial and Microgravity Conditions as a Test of Theory.. <i>ISIJ International</i> , <b>1995</b> , 35, 604-610	1.7	58
99	Dendritic growth kinetics and structure I. Pivalic acid. <i>Journal of Crystal Growth</i> , <b>1991</b> , 112, 84-96	1.6	58
98	The elastic constants for single-crystal lead and indium from room temperature to the melting point. <i>Journal of Physics and Chemistry of Solids</i> , <b>1977</b> , 38, 157-160	3.9	46
97	Experimental, computational and theoretical studies of □ phase coarsening in Al□i alloys. <i>Acta Materialia</i> , <b>2012</b> , 60, 5803-5817	8.4	41

96	Length scales in phase coarsening: Theory, simulation, and experiment. <i>Computational Materials Science</i> , <b>2005</b> , 34, 235-253	3.2	38
95	Crossover Scaling in Dendritic Evolution at Low Undercooling. <i>Physical Review Letters</i> , <b>1999</b> , 82, 4496-4499		38
94	Liquid metal and hydrogen embrittlement of amorphous alloys. <i>Scripta Metallurgica</i> , <b>1981</b> , 15, 331-337		37
93	Topological and metrical analysis of normal grain growth in three dimensions. <i>Acta Materialia</i> , <b>2007</b> , 55, 1565-1571	8.4	34
92	Diffusional interactions among crystallites. <i>Journal of Crystal Growth</i> , <b>2001</b> , 230, 318-327	1.6	31
91	Topological theory of abnormal grain growth. <i>Acta Materialia</i> , <b>2006</b> , 54, 5313-5321	8.4	29
90	Capillary-limited steady-state dendritic growth. Numerical results. <i>Acta Metallurgica</i> , <b>1974</b> , 22, 1291-1299		29
89	Measurement of the diffusion coefficient of acetone in succinonitrile at its melting point. <i>Journal of Crystal Growth</i> , <b>1988</b> , 92, 543-546	1.6	28
88	Mechanism of Dendritic Branching. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2012</b> , 43, 391-404	2.3	27
87	Establishment of error limits on the solid-liquid interfacial free energy of bismuth. <i>Scripta Metallurgica</i> , <b>1971</b> , 5, 493-498		27
86	Polyhedral model for self-similar grain growth. <i>Acta Materialia</i> , <b>2008</b> , 56, 1165-1171	8.4	25
85	Self-similar evolution of network structures. <i>Acta Materialia</i> , <b>2006</b> , 54, 1041-1051	8.4	25
84	Undercooling of acoustically levitated molten drops. <i>Journal of Crystal Growth</i> , <b>1990</b> , 106, 191-196	1.6	25
83	Mushy zone modeling with microstructural coarsening kinetics. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , <b>1992</b> , 23, 659-667		23
82	Topological events in two-dimensional grain growth: Experiments and simulations. <i>Acta Metallurgica Et Materialia</i> , <b>1994</b> , 42, 2719-2727		22
81	Topological rearrangements during 2D normal grain growth. <i>Physica D: Nonlinear Phenomena</i> , <b>1993</b> , 66, 50-60	3.3	21
80	Physical properties of ultra-pure pivalic acid. <i>Thermochimica Acta</i> , <b>1990</b> , 159, 93-99	2.9	21
79	Effects of forced convection flow on directional solidification of Pb-Sn and Cd-Zn eutectic alloys. <i>Journal of Crystal Growth</i> , <b>1983</b> , 63, 389-399	1.6	21

78	Implications of the interface shape on steady-state dendritic crystal growth. <i>Journal of Crystal Growth</i> , <b>1999</b> , 206, 331-344	1.6	20
77	Growth and characterization of lead bromide crystals. <i>Journal of Crystal Growth</i> , <b>1992</b> , 123, 221-226	1.6	19
76	Free dendritic growth in viscous melts: Cyclohexanol. <i>Journal of Crystal Growth</i> , <b>1989</b> , 98, 534-540	1.6	19
75	Pressure-mediated effects on thermal dendrites. <i>Journal of Crystal Growth</i> , <b>2005</b> , 279, 170-185	1.6	18
74	Preparation of multistage zone-refined materials for thermochemical standards. <i>Journal of Crystal Growth</i> , <b>1988</b> , 89, 101-110	1.6	18
73	Experimental assessment of the Mullins - Von Neumann grain growth law. <i>Scripta Metallurgica Et Materialia</i> , <b>1994</b> , 30, 633-637		17
72	Long-term purity assessment in succinonitrile. <i>Journal of Crystal Growth</i> , <b>1990</b> , 106, 89-96	1.6	17
71	Coupled convective instabilities at crystal-melt interfaces. <i>Journal of Crystal Growth</i> , <b>1984</b> , 66, 514-524	1.6	17
70	A deterministic mechanism for dendritic solidification kinetics. <i>Jom</i> , <b>2007</b> , 59, 27-34	2.1	16
69	Property predictions using microstructural modeling. <i>Acta Materialia</i> , <b>2005</b> , 53, 3395-3402	8.4	16
68	Sidebranch characteristics of pivalic acid dendrites grown under convection-free and diffuso-convective conditions. <i>Journal of Crystal Growth</i> , <b>2005</b> , 274, 317-330	1.6	15
67	Dendritic growth with interfacial energy anisotropy. <i>Journal of Crystal Growth</i> , <b>1991</b> , 110, 683-691	1.6	15
66	The role of multiparticle-adatom interactions on the sintering of supported metal catalysts. <i>Journal of Catalysis</i> , <b>1986</b> , 99, 358-374	7.3	15
65	Thermal measurement of Ostwald ripening kinetics in partially crystallized mixtures. <i>Journal of Crystal Growth</i> , <b>1985</b> , 72, 599-615	1.6	15
64	Absolute solid-liquid and grain boundary energies of bismuth. <i>Scripta Metallurgica</i> , <b>1972</b> , 6, 943-946		15
63	Regular N-hedra: A topological approach for analyzing three-dimensional textured polycrystals. <i>Acta Materialia</i> , <b>2007</b> , 55, 4167-4180	8.4	14
62	Conduction-limited crystallite melting. <i>Journal of Crystal Growth</i> , <b>2005</b> , 276, 549-565	1.6	14
61	Analysis of morphologically stable horizontal ribbon crystal growth. <i>Journal of Electronic Materials</i> , <b>1983</b> , 12, 161-179	1.9	13

60	Capillary phenomena during solidification. <i>Journal of Crystal Growth</i> , <b>1977</b> , 42, 347-356	1.6	13
59	The chronology of a microgravity spaceflight experiment: IDGE. <i>Jom</i> , <b>1995</b> , 47, 49-54	2.1	12
58	Thermal recalescence and mushy zone coarsening in undercooled melts. <i>Jom</i> , <b>1994</b> , 46, 51-55	2.1	12
57	Coarsening of three-dimensional droplets by two-dimensional diffusion: Part I. Experiment. <i>Journal of Electronic Materials</i> , <b>1994</b> , 23, 999-1006	1.9	12
56	Capillary-mediated interface perturbations: Deterministic pattern formation. <i>Journal of Crystal Growth</i> , <b>2016</b> , 450, 119-139	1.6	12
55	Growth and characterization of mercurous halide crystals: mercurous bromide system. <i>Journal of Crystal Growth</i> , <b>1994</b> , 137, 155-160	1.6	11
54	Direct observations on solidification of acousto-optic and electro-optic materials. <i>Materials Letters</i> , <b>1987</b> , 5, 453-456	3.3	11
53	A simplified method for calculating the diffusivity matrix in ternary alloys. <i>Acta Materialia</i> , <b>1999</b> , 47, 905-913	2.1	10
52	Thermal convective effects on physical vapor transport growth of mercurous chloride (Hg <sub>2</sub> Cl <sub>2</sub> ) crystals for axisymmetric 2D cylindrical enclosure. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>1995</b> , 3, 331-357	2	10
51	Effects of convection during the physical vapor transport process: application of laser Doppler velocimetry. <i>Journal of Crystal Growth</i> , <b>1996</b> , 165, 429-437	1.6	10
50	Quantification of crystal morphology. <i>Journal of Crystal Growth</i> , <b>1994</b> , 137, 1-11	1.6	10
49	Effect of temperature gradient on the optical quality of mercurous chloride crystals. <i>Journal of Crystal Growth</i> , <b>1989</b> , 96, 969-972	1.6	10
48	Solidification behaviour of organic nonlinear optical crystals. <i>Progress in Crystal Growth and Characterization</i> , <b>1988</b> , 17, 265-278		10
47	Surface rippling during solidification of binary polycrystalline alloy: Insights from 3-D phase-field simulations. <i>Journal of Crystal Growth</i> , <b>2017</b> , 457, 52-59	1.6	9
46	Ostwald ripening in Al <sub>3</sub> Ni alloys: A test of theory. <i>International Journal of Materials Research</i> , <b>2012</b> , 103, 1289-1293	0.5	9
45	Multicomponent diffusion: implementation of the square-root diffusivity method via the Profiler computer program. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>1995</b> , 3, 585-596	2	9
44	Effect of growth conditions on the quality of lead bromide crystals. <i>Journal of Crystal Growth</i> , <b>1992</b> , 123, 227-235	1.6	9
43	Gravitational influence on eutectic solidification. <i>Journal of Crystal Growth</i> , <b>1992</b> , 119, 126-140	1.6	9

42	Diffusion-limited crystal growth in silicate systems: similarity with high-pressure liquid-phase sintering. <i>Journal of Crystal Growth</i> , <b>2000</b> , 211, 49-61	1.6	8
41	Dendritic solidification of undercooled melts: mushy zone recalescence dynamics. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>1994</b> , 178, 137-146	5.3	8
40	A holographic system for crystal growth studies: Design and applications. <i>Metallography</i> , <b>1974</b> , 7, 453-504		8
39	Thermal convection in physical vapour transport of mercurous chloride for rectangular enclosures. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>1997</b> , 5, 289-309	2	7
38	Dynamics of multicomponent diffusion with zero flux planes. <i>Acta Materialia</i> , <b>2003</b> , 51, 1181-1193	8.4	7
37	Physical vapor transport growth of mercurous chloride crystals. <i>Progress in Crystal Growth and Characterization of Materials</i> , <b>1993</b> , 27, 201-231	3.5	7
36	What we do not know about solidification theory. <i>Materials Science and Engineering</i> , <b>1976</b> , 25, 93-101		7
35	Measuring solid-liquid interfacial energy fields: diffusion-limited patterns. <i>Journal of Materials Science</i> , <b>2018</b> , 53, 10955-10978	4.3	6
34	Purification and characterization of mercurous halides. <i>Journal of Crystal Growth</i> , <b>1990</b> , 106, 61-67	1.6	6
33	Dendritic Growth <b>2015</b> , 669-722		5
32	Detection of Capillary-Mediated Energy Fields on a Grain Boundary Groove: Solid-Liquid Interface Perturbations. <i>Metals</i> , <b>2017</b> , 7, 547	2.3	5
31	Capillary-mediated dendritic branching. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2012</b> , 33, 012097	0.4	5
30	A Computational Model for High Speed Screening of Polymer Microstructures. <i>Macromolecular Rapid Communications</i> , <b>2004</b> , 25, 377-381	4.8	5
29	Crystal growth morphology in high purity white phosphorus. <i>Journal of Crystal Growth</i> , <b>1977</b> , 37, 64-68	1.6	5
28	Mechanism of Dendritic Branching. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2012</b> , 43, 207-220	2.5	4
27	Linear measures for polyhedral networks. <i>International Journal of Materials Research</i> , <b>2009</b> , 100, 536-542	2.5	4
26	Solidification Research in Microgravity <b>2008</b> , 398-401		4
25	Thermal conductivity measurement in lead bromide. <i>Journal of Crystal Growth</i> , <b>2001</b> , 225, 512-515	1.6	3

24	Investigation of Aluminum-Indium Alloys for Interconnect Applications. <i>Journal of the Electrochemical Society</i> , <b>2000</b> , 147, 4318	3.9	3
23	Double diffusive convection during growth of lead bromide crystals. <i>Advances in Space Research</i> , <b>1993</b> , 13, 195-201	2.4	3
22	An elasto-chemical theory of tilt boundaries. <i>Journal of Electronic Materials</i> , <b>1975</b> , 4, 823-837	1.9	3
21	Growth competition during columnar solidification of seaweed microstructures : Insights from 3-D phase-field simulations. <i>European Physical Journal E</i> , <b>2020</b> , 43, 14	1.5	2
20	Melting processes under microgravity conditions. <i>Advances in Space Research</i> , <b>2003</b> , 32, 237-242	2.4	2
19	Coarsening of three-dimensional droplets by two-dimensional diffusion: Part II. Theory. <i>Journal of Electronic Materials</i> , <b>1994</b> , 23, 1007-1013	1.9	2
18	Thermodynamic reactivity, growth and characterization of mercurous halide crystals. <i>Journal of Crystal Growth</i> , <b>1992</b> , 118, 78-84	1.6	2
17	On the quality of mercurous chloride crystals. <i>Materials Letters</i> , <b>1989</b> , 7, 397-400	3.3	2
16	Comments on High-temperature elastic constants and the phase stability of silicon-iron <i>Scripta Metallurgica</i> , <b>1972</b> , 6, 607-609		2
15	Thermodynamic behaviour of solid-liquid grain boundary grooves. <i>Philosophical Magazine</i> , <b>2020</b> , 100, 1789-1817	1.6	1
14	Evidence for Eigenfrequencies in Dendritic Growth Dynamics. <i>Lecture Notes in Physics</i> , <b>2001</b> , 283-297	0.8	1
13	Capillary Bias Fields and Interface Branching 751-764		1
12	Surface Laplacian of interfacial thermochemical potential: its role in solid-liquid pattern formation. <i>Npj Microgravity</i> , <b>2021</b> , 7, 41	5.3	0
11	A comparison of theory and simulation with microgravity experiments on phase coarsening. <i>Acta Materialia</i> , <b>2021</b> , 221, 117402	8.4	0
10	Microstructural coarsening in dense binary systems. <i>Acta Materialia</i> , <b>2022</b> , 117964	8.4	0
9	Advances in Grain Growth Theory. <i>Materials Science Forum</i> , <b>2012</b> , 715-716, 211-218	0.4	
8	Kinetics of a Grain in a Textured Matrix. <i>Materials Science Forum</i> , <b>2007</b> , 558-559, 625-632	0.4	
7	Zero-Flux Plane Kinetics at Multicomponent Interfaces. <i>Journal of Materials Science</i> , <b>2004</b> , 12, 327-334		

- 6 Microgravity experiment to understand the effect of convection on PVT crystal growth. *Advances in Space Research*, **2003**, 32, 211-216 2.4
- 5 Stoichiometric considerations during growth of mercurous halide crystals. *Materials Letters*, **1991**, 11, 31-36 3.3
- 4 Grain Boundary, Triple Junction, and Quadruple Point Grain Growth Dynamics **2016**, 9-14
- 3 Enumeration of Polyhedra for Grain Growth Analysis 97-106
- 2 Capillary-Mediated Interface Energy Fields: Deterministic Dendritic Branching 323-338
- 1 Grain Boundary, Triple Junction, and Quadruple Point Grain Growth Dynamics **2016**, 9-14