

# Martin E Glicksman

## 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.

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	Microstructural coarsening in dense binary systems. <i>Acta Materialia</i> , <b>2022</b> , 117964	8.4	0
112	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
111	A comparison of theory and simulation with microgravity experiments on phase coarsening. <i>Acta Materialia</i> , <b>2021</b> , 221, 117402	8.4	0
110	Thermodynamic behaviour of solid-liquid grain boundary grooves. <i>Philosophical Magazine</i> , <b>2020</b> , 100, 1789-1817	1.6	1
109	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
108	Measuring solid-liquid interfacial energy fields: diffusion-limited patterns. <i>Journal of Materials Science</i> , <b>2018</b> , 53, 10955-10978	4.3	6
107	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
106	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
105	Grain Boundary, Triple Junction, and Quadruple Point Grain Growth Dynamics <b>2016</b> , 9-14		
104	Grain Boundary, Triple Junction, and Quadruple Point Grain Growth Dynamics <b>2016</b> , 9-14		
103	Capillary-mediated interface perturbations: Deterministic pattern formation. <i>Journal of Crystal Growth</i> , <b>2016</b> , 450, 119-139	1.6	12
102	Dendritic Growth <b>2015</b> , 669-722		5
101	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
100	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
99	Advances in Grain Growth Theory. <i>Materials Science Forum</i> , <b>2012</b> , 715-716, 211-218	0.4	
98	Experimental, computational and theoretical studies of $\beta$ phase coarsening in Al <sub>3</sub> Ni alloys. <i>Acta Materialia</i> , <b>2012</b> , 60, 5803-5817	8.4	41
97	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

96	Capillary-mediated dendritic branching. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2012</b> , 33, 012097	0.4	5
95	Linear measures for polyhedral networks. <i>International Journal of Materials Research</i> , <b>2009</b> , 100, 536-542	2.5	4
94	Polyhedral model for self-similar grain growth. <i>Acta Materialia</i> , <b>2008</b> , 56, 1165-1171	8.4	25
93	Solidification Research in Microgravity <b>2008</b> , 398-401		4
92	Topological and metrical analysis of normal grain growth in three dimensions. <i>Acta Materialia</i> , <b>2007</b> , 55, 1565-1571	8.4	34
91	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
90	A deterministic mechanism for dendritic solidification kinetics. <i>Jom</i> , <b>2007</b> , 59, 27-34	2.1	16
89	Kinetics of a Grain in a Textured Matrix. <i>Materials Science Forum</i> , <b>2007</b> , 558-559, 625-632	0.4	
88	Self-similar evolution of network structures. <i>Acta Materialia</i> , <b>2006</b> , 54, 1041-1051	8.4	25
87	Topological theory of abnormal grain growth. <i>Acta Materialia</i> , <b>2006</b> , 54, 5313-5321	8.4	29
86	Length scales in phase coarsening: Theory, simulation, and experiment. <i>Computational Materials Science</i> , <b>2005</b> , 34, 235-253	3.2	38
85	Conduction-limited crystallite melting. <i>Journal of Crystal Growth</i> , <b>2005</b> , 276, 549-565	1.6	14
84	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
83	Pressure-mediated effects on thermal dendrites. <i>Journal of Crystal Growth</i> , <b>2005</b> , 279, 170-185	1.6	18
82	Property predictions using microstructural modeling. <i>Acta Materialia</i> , <b>2005</b> , 53, 3395-3402	8.4	16
81	Zero-Flux Plane Kinetics at Multicomponent Interfaces. <i>Journal of Materials Science</i> , <b>2004</b> , 12, 327-334		
80	A Computational Model for High Speed Screening of Polymer Microstructures. <i>Macromolecular Rapid Communications</i> , <b>2004</b> , 25, 377-381	4.8	5
79	Dendritic crystal growth in pure materials. <i>Journal of Crystal Growth</i> , <b>2004</b> , 264, 541-549	1.6	64

78	Melting processes under microgravity conditions. <i>Advances in Space Research</i> , <b>2003</b> , 32, 237-242	2.4	2
77	Microgravity experiment to understand the effect of convection on PVT crystal growth. <i>Advances in Space Research</i> , <b>2003</b> , 32, 211-216	2.4	
76	Dynamics of multicomponent diffusion with zero flux planes. <i>Acta Materialia</i> , <b>2003</b> , 51, 1181-1193	8.4	7
75	Thermal conductivity measurement in lead bromide. <i>Journal of Crystal Growth</i> , <b>2001</b> , 225, 512-515	1.6	3
74	Diffusional interactions among crystallites. <i>Journal of Crystal Growth</i> , <b>2001</b> , 230, 318-327	1.6	31
73	Evidence for Eigenfrequencies in Dendritic Growth Dynamics. <i>Lecture Notes in Physics</i> , <b>2001</b> , 283-297	0.8	1
72	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
71	Investigation of Aluminum-Indium Alloys for Interconnect Applications. <i>Journal of the Electrochemical Society</i> , <b>2000</b> , 147, 4318	3.9	3
70	Crossover Scaling in Dendritic Evolution at Low Undercooling. <i>Physical Review Letters</i> , <b>1999</b> , 82, 4496-4499	4.1	38
69	A simplified method for calculating the diffusivity matrix in ternary alloys. <i>Acta Materialia</i> , <b>1999</b> , 47, 905-913	8.1	10
68	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
67	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
66	Kinetics of phase coarsening in dense systems. <i>Acta Materialia</i> , <b>1996</b> , 44, 3761-3771	8.4	106
65	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
64	The chronology of a microgravity spaceflight experiment: IDGE. <i>Jom</i> , <b>1995</b> , 47, 49-54	2.1	12
63	Three-dimensional dendrite-tip morphology. <i>Physical Review E</i> , <b>1995</b> , 52, 2778-2786	2.4	78
62	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
61	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

60	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
59	Dendritic growth velocities in microgravity. <i>Physical Review Letters</i> , <b>1994</b> , 73, 573-576	7.4	198
58	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
57	Quantification of crystal morphology. <i>Journal of Crystal Growth</i> , <b>1994</b> , 137, 1-11	1.6	10
56	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
55	Thermal recalescence and mushy zone coarsening in undercooled melts. <i>Jom</i> , <b>1994</b> , 46, 51-55	2.1	12
54	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
53	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
52	Topological events in two-dimensional grain growth: Experiments and simulations. <i>Acta Metallurgica Et Materialia</i> , <b>1994</b> , 42, 2719-2727		22
51	Experimental assessment of the Mullins - Von Neumann grain growth law. <i>Scripta Metallurgica Et Materialia</i> , <b>1994</b> , 30, 633-637		17
50	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
49	Topological rearrangements during 2D normal grain growth. <i>Physica D: Nonlinear Phenomena</i> , <b>1993</b> , 66, 50-60	3.3	21
48	Double diffusive convection during growth of lead bromide crystals. <i>Advances in Space Research</i> , <b>1993</b> , 13, 195-201	2.4	3
47	Growth and characterization of lead bromide crystals. <i>Journal of Crystal Growth</i> , <b>1992</b> , 123, 221-226	1.6	19
46	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
45	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
44	Thermodynamic reactivity, growth and characterization of mercurous halide crystals. <i>Journal of Crystal Growth</i> , <b>1992</b> , 118, 78-84	1.6	2
43	Gravitational influence on eutectic solidification. <i>Journal of Crystal Growth</i> , <b>1992</b> , 119, 126-140	1.6	9

42	Dendritic grown kinetics and structure I. Pivalic acid. <i>Journal of Crystal Growth</i> , <b>1991</b> , 112, 84-96	1.6	58
41	Dendritic growth with interfacial energy anisotropy. <i>Journal of Crystal Growth</i> , <b>1991</b> , 110, 683-691	1.6	15
40	Stoichiometric considerations during growth of mercurous halide crystals. <i>Materials Letters</i> , <b>1991</b> , 11, 31-36	3.3	
39	Purification and characterization of mercurous halides. <i>Journal of Crystal Growth</i> , <b>1990</b> , 106, 61-67	1.6	6
38	Long-term purity assessment in succinonitrile. <i>Journal of Crystal Growth</i> , <b>1990</b> , 106, 89-96	1.6	17
37	Undercooling of acoustically levitated molten drops. <i>Journal of Crystal Growth</i> , <b>1990</b> , 106, 191-196	1.6	25
36	Physical properties of ultra-pure pivalic acid. <i>Thermochimica Acta</i> , <b>1990</b> , 159, 93-99	2.9	21
35	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
34	Free dendritic growth in viscous melts: Cyclohexanol. <i>Journal of Crystal Growth</i> , <b>1989</b> , 98, 534-540	1.6	19
33	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
32	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
31	On the quality of mercurous chloride crystals. <i>Materials Letters</i> , <b>1989</b> , 7, 397-400	3.3	2
30	Solidification behaviour of organic nonlinear optical crystals. <i>Progress in Crystal Growth and Characterization</i> , <b>1988</b> , 17, 265-278		10
29	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
28	Preparation of multistage zone-refined materials for thermochemical standards. <i>Journal of Crystal Growth</i> , <b>1988</b> , 89, 101-110	1.6	18
27	Direct observations on solidification of acousto-optic and electro-optic materials. <i>Materials Letters</i> , <b>1987</b> , 5, 453-456	3.3	11
26	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
25	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

24	Coupled convective instabilities at crystal-melt interfaces. <i>Journal of Crystal Growth</i> , <b>1984</b> , 66, 514-524	1.6	17
23	Solution to the multi-particle diffusion problem with applications to Ostwald ripening Theory. <i>Acta Metallurgica</i> , <b>1984</b> , 32, 2001-2011		264
22	Free dendritic growth. <i>Materials Science and Engineering</i> , <b>1984</b> , 65, 45-55		103
21	Dendritic growth into undercooled alloy metals. <i>Materials Science and Engineering</i> , <b>1984</b> , 65, 57-63		416
20	Analysis of morphologically stable horizontal ribbon crystal growth. <i>Journal of Electronic Materials</i> , <b>1983</b> , 12, 161-179	1.9	13
19	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
18	Liquid metal and hydrogen embrittlement of amorphous alloys. <i>Scripta Metallurgica</i> , <b>1981</b> , 15, 331-337		37
17	Overview 12: Fundamentals of dendritic solidification - Steady-state tip growth. <i>Acta Metallurgica</i> , <b>1981</b> , 29, 701-715		572
16	Overview 12: Fundamentals of dendritic solidification - development of sidebranch structure. <i>Acta Metallurgica</i> , <b>1981</b> , 29, 717-734		307
15	Crystal growth morphology in high purity white phosphorus. <i>Journal of Crystal Growth</i> , <b>1977</b> , 37, 64-68	1.6	5
14	Capillary phenomena during solidification. <i>Journal of Crystal Growth</i> , <b>1977</b> , 42, 347-356	1.6	13
13	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
12	What we do not know about solidification theory. <i>Materials Science and Engineering</i> , <b>1976</b> , 25, 93-101		7
11	An elasto-chemical theory of tilt boundaries. <i>Journal of Electronic Materials</i> , <b>1975</b> , 4, 823-837	1.9	3
10	A holographic system for crystal growth studies: Design and applications. <i>Metallography</i> , <b>1974</b> , 7, 453-504		8
9	Capillary-limited steady-state dendritic growth - Theoretical development. <i>Acta Metallurgica</i> , <b>1974</b> , 22, 1283-1290		139
8	Capillary-limited steady-state dendritic growth - Numerical results. <i>Acta Metallurgica</i> , <b>1974</b> , 22, 1291-1299		29
7	Comments on high-temperature elastic constants and the phase stability of silicon-iron. <i>Scripta Metallurgica</i> , <b>1972</b> , 6, 607-609		2

6	Absolute solid-liquid and grain boundary energies of bismuth. <i>Scripta Metallurgica</i> , <b>1972</b> , 6, 943-946		15
5	Heterophase dislocations [An approach towards interpreting high temperature grain boundary behavior. <i>Surface Science</i> , <b>1972</b> , 31, 50-67	1.8	71
4	Establishment of error limits on the solid-liquid interfacial free energy of bismuth. <i>Scripta Metallurgica</i> , <b>1971</b> , 5, 493-498		27
3	Enumeration of Polyhedra for Grain Growth Analysis97-106		
2	Capillary-Mediated Interface Energy Fields: Deterministic Dendritic Branching323-338		
1	Capillary Bias Fields and Interface Branching751-764		1