

# Andrew Yeckel

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4708658/publications.pdf>

Version: 2024-02-01

52  
papers

1,050  
citations

411340

20  
h-index

511568

30  
g-index

57  
all docs

57  
docs citations

57  
times ranked

493  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of temperature gradient zone melting and the thermal migration of liquid particles through a solid. <i>Acta Materialia</i> , 2022, 228, 117780.	3.8	2
2	Steady-state and dynamic models for particle engulfment during solidification. <i>Journal of Computational Physics</i> , 2016, 315, 238-263.	1.9	21
3	Modeling high speed growth of large rods of cesium iodide crystals by edge-defined film-fed growth (EFG). <i>Journal of Crystal Growth</i> , 2016, 449, 75-85.	0.7	6
4	Analysis of particle engulfment during the growth of crystalline silicon. <i>Journal of Crystal Growth</i> , 2016, 452, 1-5.	0.7	12
5	Analysis of the effects of a rotating magnetic field on the growth of cadmium zinc telluride by the traveling heater method under microgravity conditions. <i>Journal of Crystal Growth</i> , 2016, 452, 17-21.	0.7	10
6	A fundamental limitation on growth rates in the traveling heater method. <i>Journal of Crystal Growth</i> , 2016, 452, 12-16.	0.7	12
7	An analysis of segregation during horizontal ribbon growth of silicon. <i>Journal of Crystal Growth</i> , 2014, 390, 80-87.	0.7	14
8	The application of floating dies for high speed growth of CsI single crystals by edge-defined film-fed growth (EFG). <i>Journal of Crystal Growth</i> , 2014, 404, 231-240.	0.7	12
9	Modeling insights on the melt growth of cadmium zinc telluride. <i>Journal of Crystal Growth</i> , 2013, 379, 28-33.	0.7	9
10	Stability limits for the horizontal ribbon growth of silicon crystals. <i>Journal of Crystal Growth</i> , 2013, 363, 132-140.	0.7	20
11	The prospects for traveling magnetic fields to affect interface shape in the vertical gradient freeze growth of cadmium zinc telluride. <i>Journal of Crystal Growth</i> , 2013, 364, 133-144.	0.7	12
12	Maintaining convex interface shapes during electrodynamic gradient freeze growth of cadmium zinc telluride using a dynamic, bell-curve furnace profile. <i>Journal of Crystal Growth</i> , 2012, 355, 113-121.	0.7	25
13	Stabilizing detached Bridgman melt crystal growth: Proportional-integral feedback control. <i>Journal of Crystal Growth</i> , 2012, 356, 33-45.	0.7	6
14	Thermal-capillary analysis of the horizontal ribbon growth of silicon crystals. <i>Journal of Crystal Growth</i> , 2012, 355, 129-139.	0.7	22
15	Parametric sensitivity and temporal dynamics of sapphire crystal growth via the micro-pulling-down method. <i>Journal of Crystal Growth</i> , 2012, 359, 99-106.	0.7	5
16	Stabilizing detached Bridgman melt crystal growth: Model-based nonlinear feedback control. <i>Journal of Crystal Growth</i> , 2012, 361, 16-24.	0.7	7
17	Analysis of limits for sapphire growth in a micro-pulling-down system. <i>Journal of Crystal Growth</i> , 2011, 335, 148-159.	0.7	20
18	Anomalous segregation during electrodynamic gradient freeze growth of cadmium zinc telluride. <i>Journal of Crystal Growth</i> , 2011, 325, 10-19.	0.7	56

#	ARTICLE	IF	CITATIONS
19	Existence, stability, and nonlinear dynamics of detached Bridgman growth states under zero gravity. <i>Journal of Crystal Growth</i> , 2011, 314, 310-323.	0.7	20
20	A Schur complement formulation for solving free-boundary, Stefan problems of phase change. <i>Journal of Computational Physics</i> , 2010, 229, 7942-7955.	1.9	3
21	Multi-scale crystal growth computations via an approximate block Newton method. <i>Journal of Crystal Growth</i> , 2010, 312, 1463-1467.	0.7	6
22	An approximate block Newton method for coupled iterations of nonlinear solvers: Theory and conjugate heat transfer applications. <i>Journal of Computational Physics</i> , 2009, 228, 8566-8588.	1.9	24
23	Influence of thermal phenomena on crystal reattachment during dewetted Bridgman growth. <i>Journal of Crystal Growth</i> , 2009, 311, 2572-2579.	0.7	15
24	Strategies for the coupling of global and local crystal growth models. <i>Journal of Crystal Growth</i> , 2007, 303, 114-123.	0.7	18
25	Mass Transfer Limitations at Crystallizing Interfaces in an Atomic Force Microscopy Fluid Cell: A Finite Element Analysis. <i>Langmuir</i> , 2006, 22, 6578-6586.	1.6	33
26	On the effects of furnace gradients on interface shape during the growth of cadmium zinc telluride in EDG furnaces. <i>Journal of Crystal Growth</i> , 2006, 290, 35-43.	0.7	26
27	Decreasing lateral segregation in cadmium zinc telluride via ampoule tilting during vertical Bridgman growth. <i>Journal of Crystal Growth</i> , 2006, 291, 348-357.	0.7	18
28	Developing Quantitative, Multiscale Models for Microgravity Crystal Growth. <i>Annals of the New York Academy of Sciences</i> , 2006, 1077, 124-145.	1.8	6
29	Fixed-point convergence of modular, steady-state heat transfer models coupling multiple scales and phenomena for melt crystal growth. <i>International Journal for Numerical Methods in Engineering</i> , 2006, 67, 1768-1789.	1.5	18
30	Analysis of the growth of cadmium zinc telluride in an electrodynamic gradient freeze furnace via a self-consistent, multi-scale numerical model. <i>Journal of Crystal Growth</i> , 2005, 276, 133-147.	0.7	38
31	Time-dependent, three-dimensional flow and mass transport during solution growth of potassium titanyl phosphate. <i>Journal of Crystal Growth</i> , 2005, 281, 391-406.	0.7	29
32	On the validity of boundary layer analysis for flow and mass transfer caused by rotation during the solution growth of large, single crystals. <i>Journal of Crystal Growth</i> , 2005, 283, 479-489.	0.7	6
33	Hopf bifurcation and solution multiplicity in a model for destabilized Bridgman crystal growth. <i>Chemical Engineering Science</i> , 2005, 60, 1323-1336.	1.9	11
34	The feedback control of the vertical Bridgman crystal growth process by crucible rotation: two case studies. <i>Computers and Chemical Engineering</i> , 2005, 29, 887-896.	2.0	8
35	Feasibility study of cadmium zinc telluride growth using a submerged heater in a vertical bridgman system. <i>Journal of Electronic Materials</i> , 2004, 33, 488-497.	1.0	12
36	Improved radial segregation via the destabilizing vertical Bridgman configuration. <i>Journal of Crystal Growth</i> , 2004, 260, 263-276.	0.7	9

#	ARTICLE	IF	CITATIONS
37	Dynamics of three-dimensional convection in microgravity crystal growth: g-jitter with steady magnetic fields. <i>Journal of Crystal Growth</i> , 2004, 263, 40-52.	0.7	15
38	Three-dimensional imperfections in a model vertical Bridgman growth system for cadmium zinc telluride. <i>Journal of Crystal Growth</i> , 2004, 263, 629-644.	0.7	40
39	Development of model-based control for Bridgman crystal growth. <i>Journal of Crystal Growth</i> , 2004, 266, 182-189.	0.7	10
40	A diffusionâ€“reaction model for DNA microarray assays. <i>Journal of Biotechnology</i> , 2004, 114, 31-45.	1.9	44
41	Buoyancy and rotation in small-scale vertical Bridgman growth of cadmium zinc telluride using accelerated crucible rotation. <i>Journal of Crystal Growth</i> , 2001, 233, 599-608.	0.7	42
42	Effect of accelerated crucible rotation on melt composition in high-pressure vertical Bridgman growth of cadmium zinc telluride. <i>Journal of Crystal Growth</i> , 2000, 209, 734-750.	0.7	88
43	An analysis of flow and mass transfer during the solution growth of potassium titanyl phosphate. <i>Journal of Crystal Growth</i> , 2000, 210, 704-718.	0.7	34
44	Effect of steady crucible rotation on segregation in high-pressure vertical Bridgman growth of cadmium zinc telluride. <i>Journal of Crystal Growth</i> , 1999, 203, 87-102.	0.7	62
45	On setting a pressure datum when computing incompressible flows. <i>International Journal for Numerical Methods in Fluids</i> , 1999, 29, 19-34.	0.9	10
46	Finite Element Modeling of 3D Fluid Dynamics in Crystal Growth Systems. <i>International Journal of Computational Fluid Dynamics</i> , 1999, 12, 225-240.	0.5	3
47	Three-dimensional computations of solution hydrodynamics during the growth of potassium dihydrogen phosphate. <i>Journal of Crystal Growth</i> , 1998, 191, 206-224.	0.7	37
48	Tools for parameter studies in fluid dynamics. <i>International Journal for Numerical Methods in Fluids</i> , 1998, 28, 1199-1216.	0.9	2
49	Parallel computation of incompressible flows in materials processing: Numerical experiments in diagonal preconditioning. <i>Parallel Computing</i> , 1997, 23, 1379-1400.	1.3	19
50	Parallel finite element calculation of flow in a three-dimensional lid-driven cavity using the CM-5 and T3D. <i>International Journal for Numerical Methods in Fluids</i> , 1997, 24, 1449-1461.	0.9	14
51	On the effects of ampoule tilting during vertical Bridgman growth: three-dimensional computations via a massively parallel, finite element method. <i>Journal of Crystal Growth</i> , 1996, 167, 292-304.	0.7	38
52	Theoretical analysis and design considerations for float-zone refinement of electronic grade silicon sheets. <i>Journal of Crystal Growth</i> , 1995, 152, 51-64.	0.7	21