

# Jonathan E Guyer

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/3069351/jonathan-e-guyer-publications-by-year.pdf>  
**Version:** 2024-04-10

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.

31 papers	1,298 citations	16 h-index	32 g-index
32 ext. papers	1,469 ext. citations	3.6 avg, IF	4.43 L-index

#	Paper	IF	Citations
31	Co-Based superalloy morphology evolution: A phase field study based on experimental thermodynamic and kinetic data. <i>Acta Materialia</i> , <b>2022</b> , 233, 117978	8.4	0
30	PFHub: The Phase-Field Community Hub. <i>Journal of Open Research Software</i> , <b>2019</b> , 7,	2.3	5
29	Simulation and analysis of ENi cellular growth during laser powder deposition of Ni-based superalloys. <i>Computational Materials Science</i> , <b>2018</b> , 144, 256-264	3.2	28
28	Phase field benchmark problems for dendritic growth and linear elasticity. <i>Computational Materials Science</i> , <b>2018</b> , 149, 336-347	3.2	18
27	Single-Track Melt-Pool Measurements and Microstructures in Inconel 625. <i>Jom</i> , <b>2018</b> , 70, 1011-1016	2.1	40
26	Formation of Nb-rich droplets in laser deposited Ni-matrix microstructures. <i>Scripta Materialia</i> , <b>2018</b> , 146, 36-40	5.6	14
25	Simulation of temperature, stress and microstructure fields during laser deposition of TiAlV. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2018</b> , 26, 075005	2	9
24	Application of Finite Element, Phase-field, and CALPHAD-based Methods to Additive Manufacturing of Ni-based Superalloys. <i>Acta Materialia</i> , <b>2017</b> , 139, 244-253	8.4	196
23	On the primary spacing and microsegregation of cellular dendrites in laser deposited NiNb alloys. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2017</b> , 25, 065002	2	77
22	Benchmark problems for numerical implementations of phase field models. <i>Computational Materials Science</i> , <b>2017</b> , 126, 139-151	3.2	41
21	Windowless CdSe/CdTe solar cells with differentiated back contacts: J-V, EQE, and photocurrent mapping. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 15972-9	9.5	9
20	Multicomponent phase-field model for extremely large partition coefficients. <i>Physical Review E</i> , <b>2014</b> , 89, 012409	2.4	11
19	Backcontact CdSe/CdTe windowless solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2013</b> , 109, 246-253	3.4	25
18	Three dimensionally structured interdigitated back contact thin film heterojunction solar cells. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 073514	2.5	10
17	Predicting microstructure development during casting of drug-eluting coatings. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 604-13	10.8	10
16	(Invited) Three-Dimensionally Structured Thin Film Heterojunction Photovoltaics on Interdigitated Back-Contacts. <i>ECS Transactions</i> , <b>2010</b> , 28, 521-532	1	4
15	The effect of substrate material on silver nanoparticle antimicrobial efficacy. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2010</b> , 10, 8456-62	1.3	6

14	FiPy: Partial Differential Equations with Python. <i>Computing in Science and Engineering</i> , <b>2009</b> , 11, 6-15	1.5	220
13	Diffusion under temperature gradient: A phase-field model study. <i>Journal of Applied Physics</i> , <b>2009</b> , 106, 034912	2.5	34
12	Thermal instability and the growth of the InGaAs/AlGaAs pseudomorphic high electron mobility transistor system. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 113504	3.4	
11	Computation of the Kirkendall velocity and displacement fields in a one-dimensional binary diffusion couple with a moving interface. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2007</b> , 463, 3347-3373	2.4	21
10	Modeling electrochemistry in metallurgical processes. <i>Jom</i> , <b>2007</b> , 59, 35-43	2.1	10
9	Kinetics governing phase separation of nanostructured Sn <sub>x</sub> Ge <sub>1-x</sub> alloys. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	9
8	Phase field modeling of electrochemistry. I. Equilibrium. <i>Physical Review E</i> , <b>2004</b> , 69, 021603	2.4	117
7	Phase field modeling of electrochemistry. II. Kinetics. <i>Physical Review E</i> , <b>2004</b> , 69, 021604	2.4	86
6	Morphological evolution of In <sub>0.26</sub> Ga <sub>0.74</sub> As grown under compression on GaAs(001) and under tension on InP(001). <i>Journal of Crystal Growth</i> , <b>2000</b> , 217, 1-12	1.6	28
5	Diffuse reflectance spectroscopy for in situ process monitoring and control during molecular beam epitaxy growth of InGaAs/AlGaAs pseudomorphic high electron mobility transistors. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>2000</b> , 18, 2518		3
4	Real-time measurements of the pseudodielectric function of low-temperature-grown GaAs. <i>Applied Physics Letters</i> , <b>2000</b> , 77, 540-542	3.4	1
3	Morphological stability and compositional uniformity of alloy thin films. <i>Journal of Crystal Growth</i> , <b>1998</b> , 187, 150-165	1.6	53
2	Morphological stability of alloy thin films. <i>Physical Review B</i> , <b>1996</b> , 54, 11710-11724	3.3	74
1	Morphological Stability of Alloy Thin Films. <i>Physical Review Letters</i> , <b>1995</b> , 74, 4031-4034	7.4	139