

Kumar Ankit

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.

31
papers

351
citations

11
h-index

17
g-index

32
ext. papers

429
ext. citations

4
avg, IF

3.88
L-index

#	Paper	IF	Citations
31	Quantifying microstructural evolution via time-dependent reduced-dimension metrics based on hierarchical n-point polytope functions.. <i>Physical Review E</i> , 2022 , 105, 025306	2.4	1
30	Surface Laplacian of interfacial thermochemical potential: its role in solid-liquid pattern formation. <i>Npj Microgravity</i> , 2021 , 7, 41	5.3	0
29	Phase-field modeling and n-point polytope characterization of nanostructured protuberances formed during vapor-deposition of phase-separating alloy films. <i>Journal of Applied Physics</i> , 2021 , 129, 245301	2.5	2
28	Multiphysics approaches for modeling nanostructural evolution during physical vapor deposition of phase-separating alloy films. <i>Computational Materials Science</i> , 2021 , 199, 110724	3.2	1
27	Thermodynamic behaviour of solid-liquid grain boundary grooves. <i>Philosophical Magazine</i> , 2020 , 100, 1789-1817	1.6	1
26	Phase-field simulations of electromigration-induced defects in interconnects with non-columnar grain microstructure. <i>Journal of Applied Physics</i> , 2020 , 127, 175301	2.5	2
25	Growth competition during columnar solidification of seaweed microstructures : Insights from 3-D phase-field simulations. <i>European Physical Journal E</i> , 2020 , 43, 14	1.5	2
24	Nanostructural evolution in vapor deposited phase-separating binary alloy films of non-equimolar compositions: Insights from a 3D phase-field approach. <i>Journal of Applied Physics</i> , 2020 , 128, 175303	2.5	4
23	3-D phase-field simulations of self-organized composite morphologies in physical vapor deposited phase-separating binary alloys. <i>Journal of Applied Physics</i> , 2019 , 126, 075306	2.5	16
22	Influence of melt convection on the morphological evolution of seaweed structures: Insights from phase-field simulations. <i>Computational Materials Science</i> , 2019 , 170, 109196	3.2	4
21	Electromigration-Induced Surface Drift and Slit Propagation in Polycrystalline Interconnects: Insights from Phase-Field Simulations. <i>Physical Review Applied</i> , 2018 , 9,	4.3	11
20	Measuring solid-liquid interfacial energy fields: diffusion-limited patterns. <i>Journal of Materials Science</i> , 2018 , 53, 10955-10978	4.3	6
19	Analyzing the cooperative growth of intermetallic phases with a curved solidification front. <i>Acta Materialia</i> , 2018 , 159, 135-149	8.4	2
18	Growth direction selection of tilted dendritic arrays in directional solidification over a wide range of pulling velocity: A phase-field study. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 117, 1107-1114	4.9	34
17	Three-Dimensional Phase-Field Investigation of Pore Space Cementation and Permeability in Quartz Sandstone. <i>Journal of Geophysical Research: Solid Earth</i> , 2018 , 123, 6378	3.6	12
16	Mechanisms of pearlite spheroidization: Insights from 3D phase-field simulations. <i>Acta Materialia</i> , 2018 , 161, 400-411	8.4	25
15	Surface rippling during solidification of binary polycrystalline alloy: Insights from 3-D phase-field simulations. <i>Journal of Crystal Growth</i> , 2017 , 457, 52-59	1.6	9

14	Phase-field simulations of curvature-induced cascading of Widmanstätten-ferrite plates. <i>Acta Materialia</i> , 2017 , 123, 317-328	8.4	9
13	Detection of Capillary-Mediated Energy Fields on a Grain Boundary Groove: Solid-Liquid Interface Perturbations. <i>Metals</i> , 2017 , 7, 547	2.3	5
12	Phase-Field Modeling of Grain-Boundary Grooving Under Electromigration. <i>Journal of Electronic Materials</i> , 2016 , 45, 6233-6246	1.9	17
11	Influence of substrate interaction and confinement on electric-field-induced transition in symmetric block-copolymer thin films. <i>Physical Review E</i> , 2016 , 93, 032504	2.4	7
10	Electric-field-induced lamellar to hexagonally perforated lamellar transition in diblock copolymer thin films: kinetic pathways. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 25609-25620	3.6	6
9	Deviations from cooperative growth mode during eutectoid transformation: Mechanisms of polycrystalline eutectoid evolution in Fe-C steels. <i>Acta Materialia</i> , 2015 , 97, 316-324	8.4	16
8	Microstructural evolution in bitaxial crack-seal veins: A phase-field study. <i>Journal of Geophysical Research: Solid Earth</i> , 2015 , 120, 3096-3118	3.6	37
7	Evolution of mixed cementite morphologies during non-cooperative eutectoid transformation in Fe-C steels. <i>Computational Materials Science</i> , 2015 , 108, 342-347	3.2	7
6	Phase - field Modeling of Fracture Cementation Processes in 3 - D. <i>Journal of Petroleum Science Research</i> , 2015 , 4, 79-96		15
5	Deviations from cooperative growth mode during eutectoid transformation: Insights from a phase-field approach. <i>Acta Materialia</i> , 2014 , 81, 204-210	8.4	20
4	Theoretical and numerical study of lamellar eutectoid growth influenced by volume diffusion. <i>Acta Materialia</i> , 2013 , 61, 4245-4253	8.4	33
3	Phase-field study of grain boundary tracking behavior in crack-seal microstructures. <i>Contributions To Mineralogy and Petrology</i> , 2013 , 166, 1709-1723	3.5	33
2	Simulation of creep cavity growth in Inconel 718 alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 4209-4216	5.3	9
1	Remaining Creep Life Assessment Techniques Based on Creep Cavitation Modeling. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009 , 40, 1013-1018	2.3	5