Kumar Ankit

List of Publications by Year
in descending order

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Version: 2024-02-01

		759233	713466
32	486	12	21
papers	citations	h-index	g-index

32	32	32	351
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quantifying microstructural evolution via time-dependent reduced-dimension metrics based on hierarchical <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -point polytope functions. Physical Review E, 2022, 105, 025306.	2.1	9
2	Predicting the Cu6Sn5 Growth Kinetics During Thermal Aging of Cu-Sn Solder Joints Using Simplistic Kinetic Modeling. Journal of Electronic Materials, 2022, 51, 4063-4072.	2.2	3
3	Phase-field modeling and n-point polytope characterization of nanostructured protuberances formed during vapor-deposition of phase-separating alloy films. Journal of Applied Physics, 2021, 129, 245301.	2.5	4
4	Multiphysics approaches for modeling nanostructural evolution during physical vapor deposition of phase-separating alloy films. Computational Materials Science, 2021, 199, 110724.	3.0	5
5	Surface Laplacian of interfacial thermochemical potential: its role in solid-liquid pattern formation. Npj Microgravity, 2021, 7, 41.	3.7	1
6	Nanostructural evolution in vapor deposited phase-separating binary alloy films of non-equimolar compositions: Insights from a 3D phase-field approach. Journal of Applied Physics, 2020, 128, 175303.	2.5	9
7	Thermodynamic behaviour of solidâ€“liquid grain boundary grooves. Philosophical Magazine, 2020, 100, 1789-1817.	1.6	2
8	Phase-field simulations of electromigration-induced defects in interconnects with non-columnar grain microstructure. Journal of Applied Physics, 2020, 127, .	2.5	11
9	Growth competition during columnar solidification of seaweed microstructures. European Physical Journal E, 2020, 43, 14.	1.6	5
10	Influence of melt convection on the morphological evolution of seaweed structures: Insights from phase-field simulations. Computational Materials Science, 2019, 170, 109196.	3.0	5
11	3-D phase-field simulations of self-organized composite morphologies in physical vapor deposited phase-separating binary alloys. Journal of Applied Physics, 2019, 126, 075306.	2.5	21
12	Electromigration-Induced Surface Drift and Slit Propagation in Polycrystalline Interconnects: Insights from Phase-Field Simulations. Physical Review Applied, 2018, 9, .	3.8	18
13	Measuring solidâ€“liquid interfacial energy fields: diffusion-limited patterns. Journal of Materials Science, 2018, 53, 10955-10978.	3.7	8
14	Growth direction selection of tilted dendritic arrays in directional solidification over a wide range of pulling velocity: A phase-field study. International Journal of Heat and Mass Transfer, 2018, 117, 1107-1114.	4.8	43
15	ThreeâĐimensional PhaseâĦield Investigation of Pore Space Cementation and Permeability in Quartz Sandstone. Journal of Geophysical Research: Solid Earth, 2018, 123, 6378-6396.	3.4	17
16	Mechanisms of pearlite spheroidization: Insights from 3D phase-field simulations. Acta Materialia, 2018, 161, 400-411.	7.9	32
17	Analyzing the cooperative growth of intermetallic phases with a curved solidification front. Acta Materialia, 2018, 159, 135-149.	7.9	2
18	Surface rippling during solidification of binary polycrystalline alloy: Insights from 3-D phase-field simulations. Journal of Crystal Growth, 2017, 457, 52-59.	1.5	9

#	Article	IF	Citations
19	Phase-field simulations of curvature-induced cascading of WidmanstÃtten-ferrite plates. Acta Materialia, 2017, 123, 317-328.	7.9	12
20	Detection of Capillary-Mediated Energy Fields on a Grain Boundary Groove: Solidâ€“Liquid Interface Perturbations. Metals, 2017, 7, 547.	2.3	9
21	Phase-Field Modeling of Grain-Boundary Grooving Under Electromigration. Journal of Electronic Materials, 2016, 45, 6233-6246.	2.2	29
22	Influence of substrate interaction and confinement on electric-field-induced transition in symmetric block-copolymer thin films. Physical Review E, 2016, 93, 032504.	2.1	9
23	Electric-field-induced lamellar to hexagonally perforated lamellar transition in diblock copolymer thin films: kinetic pathways. Physical Chemistry Chemical Physics, 2016, 18, 25609-25620.	2.8	11
24	Deviations from cooperative growth mode during eutectoid transformation: Mechanisms of polycrystalline eutectoid evolution in Feâ€“C steels. Acta Materialia, 2015, 97, 316-324.	7.9	21
25	Microstructural evolution in bitaxial crackâ€seal veins: A phaseâ€field study. Journal of Geophysical Research: Solid Earth, 2015, 120, 3096-3118.	3.4	46
26	Evolution of mixed cementite morphologies during non-cooperative eutectoid transformation in Feâ€“C steels. Computational Materials Science, 2015, 108, 342-347.	3.0	10
27	Phase â€•field Modeling of Fracture Cementation Processes in 3 â€•D. Journal of Petroleum Science Research, 2015, 4, 79-96.	0.7	17
28	Deviations from cooperative growth mode during eutectoid transformation: Insights from a phase-field approach. Acta Materialia, 2014, 81, 204-210.	7.9	26
29	Theoretical and numerical study of lamellar eutectoid growth influenced by volume diffusion. Acta Materialia, 2013, 61, 4245-4253.	7.9	39
30	Phase-field study of grain boundary tracking behavior in crack-seal microstructures. Contributions To Mineralogy and Petrology, 2013, 166, 1709-1723.	3.1	38
31	Simulation of creep cavity growth in Inconel 718 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4209-4216.	5.6	10
32	Remaining Creep Life Assessment Techniques Based on Creep Cavitation Modeling. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 1013-1018.	2.2	5