Jian Han

List of Publications by Year
in descending order

28 papers	1,519 citations	471509 17 h-index	526287 27 g-index
28 all docs	28 docs citations	28 times ranked	1476 citing authors

#	Article	IF	Citations
1	Disconnection-mediated migration of interfaces in microstructures: I. continuum model. Acta Materialia, 2022, 227, 117178.	7.9	16
2	Disconnection-Mediated migration of interfaces in microstructures: II. diffuse interface simulations. Acta Materialia, 2022, 227, 117463.	7.9	11
3	Tracking the sliding of grain boundaries at the atomic scale. Science, 2022, 375, 1261-1265.	12.6	115
4	Equation of motion for grain boundaries in polycrystals. Npj Computational Materials, 2021, 7, .	8.7	14
5	Disconnection-mediated twin junction migration mechanism in FCC metals. Microscopy and Microanalysis, 2021, 27, 3100-3102.	0.4	0
6	Grain Boundary Triple Junction Dynamics: A Continuum Disconnection Model. SIAM Journal on Applied Mathematics, 2020, 80, 1101-1122.	1.8	12
7	The grain boundary mobility tensor. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 4533-4538.	7.1	36
8	On the temperature dependence of grain boundary mobility. Acta Materialia, 2020, 194, 412-421.	7.9	28
9	Grain-boundary topological phase transitions. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 33077-33083.	7.1	17
10	A Continuum Multi-Disconnection-Mode model for grain boundary migration. Journal of the Mechanics and Physics of Solids, 2019, 133, 103731.	4.8	17
11	Grain boundary shear coupling is not a grain boundary property. Acta Materialia, 2019, 167, 241-247.	7.9	41
12	Disconnection description of triple-junction motion. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8756-8765.	7.1	51
13	The Coupling of Grain Growth and Twinning in FCC Metals. IOP Conference Series: Materials Science and Engineering, 2019, 580, 012026.	0.6	2
14	The effect of randomness on the strength of high-entropy alloys. Acta Materialia, 2019, 166, 424-434.	7.9	81
15	Grain-boundary kinetics: A unified approach. Progress in Materials Science, 2018, 98, 386-476.	32.8	252
16	Domain morphology and mechanics of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mrow><mml:mi mathvariant="normal">H</mml:mi><mml:mo>/</mml:mo><mml:mi mathvariant="normal">T</mml:mi></mml:mrow><mml:mo>â€²</mml:mo></mml:msup></mml:math> transition metal dichalcogenide monolayers. Physical Review Materials, 2018, 2, .	2.4	18
17	Point defect sink efficiency of low-angle tilt grain boundaries. Journal of the Mechanics and Physics of Solids, 2017, 101, 166-179.	4.8	15
18	Dynamic Phase Engineering of Bendable Transition Metal Dichalcogenide Monolayers. Nano Letters, 2017, 17, 2473-2481.	9.1	41

#	Article	IF	Citations
19	MoS ₂ edges and heterophase interfaces: energy, structure and phase engineering. 2D Materials, 2017, 4, 025080.	4.4	16
20	The grain-boundary structural unit model redux. Acta Materialia, 2017, 133, 186-199.	7.9	60
21	Nanocrystalline copper films are never flat. Science, 2017, 357, 397-400.	12.6	46
22	Equation of Motion for a Grain Boundary. Physical Review Letters, 2017, 119, 246101.	7.8	47
23	Reconciling grain growth and shear-coupled grain boundary migration. Nature Communications, 2017, 8, 1764.	12.8	128
24	Grain-boundary metastability and its statistical properties. Acta Materialia, 2016, 104, 259-273.	7.9	115
25	van der Waals bilayer energetics: Generalized stacking-fault energy of graphene, boron nitride, and graphene/boron nitride bilayers. Physical Review B, 2015, 92, .	3.2	105
26	The interplay between grain boundary structure and defect sink/annealing behavior. IOP Conference Series: Materials Science and Engineering, 2015, 89, 012004.	0.6	11
27	Topological framework for local structure analysis in condensed matter. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5769-76.	7.1	94
28	Basal-plane stacking-fault energies of Mg: A first-principles study of Li- and Al-alloying effects. Scripta Materialia, 2011, 64, 693-696.	5.2	130