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	Grain-boundary kinetics: A unified approach. Progress in Materials Science, 2018, 98, 386-476.	32.8	252
2	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
3	Reconciling grain growth and shear-coupled grain boundary migration. Nature Communications, 2017, 8, 1764.	12.8	128
4	Grain-boundary metastability and its statistical properties. Acta Materialia, 2016, 104, 259-273.	7.9	115
5	Tracking the sliding of grain boundaries at the atomic scale. Science, 2022, 375, 1261-1265.	12.6	115
6	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
7	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
8	The effect of randomness on the strength of high-entropy alloys. Acta Materialia, 2019, 166, 424-434.	7.9	81
9	The grain-boundary structural unit model redux. Acta Materialia, 2017, 133, 186-199.	7.9	60
10	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
11	Equation of Motion for a Grain Boundary. Physical Review Letters, 2017, 119, 246101.	7.8	47
12	Nanocrystalline copper films are never flat. Science, 2017, 357, 397-400.	12.6	46
13	Dynamic Phase Engineering of Bendable Transition Metal Dichalcogenide Monolayers. Nano Letters, 2017, 17, 2473-2481.	9.1	41
14	Grain boundary shear coupling is not a grain boundary property. Acta Materialia, 2019, 167, 241-247.	7.9	41
15	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
16	On the temperature dependence of grain boundary mobility. Acta Materialia, 2020, 194, 412-421.	7.9	28
17	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
18	A Continuum Multi-Disconnection-Mode model for grain boundary migration. Journal of the Mechanics and Physics of Solids, 2019, 133, 103731.	4.8	17

#	Article	IF	Citations
19	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
20	MoS ₂ edges and heterophase interfaces: energy, structure and phase engineering. 2D Materials, 2017, 4, 025080.	4.4	16
21	Disconnection-mediated migration of interfaces in microstructures: I. continuum model. Acta Materialia, 2022, 227, 117178.	7.9	16
22	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
23	Equation of motion for grain boundaries in polycrystals. Npj Computational Materials, 2021, 7, .	8.7	14
24	Grain Boundary Triple Junction Dynamics: A Continuum Disconnection Model. SIAM Journal on Applied Mathematics, 2020, 80, 1101-1122.	1.8	12
25	The interplay between grain boundary structure and defect sink/annealing behavior. IOP Conference Series: Materials Science and Engineering, 2015, 89, 012004.	0.6	11
26	Disconnection-Mediated migration of interfaces in microstructures: II. diffuse interface simulations. Acta Materialia, 2022, 227, 117463.	7.9	11
27	The Coupling of Grain Growth and Twinning in FCC Metals. IOP Conference Series: Materials Science and Engineering, 2019, 580, 012026.	0.6	2
28	Disconnection-mediated twin junction migration mechanism in FCC metals. Microscopy and Microanalysis, 2021, 27, 3100-3102.	0.4	0