

Michael C Gao

List of Publications by Year in descending order

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45
papers

8,236
citations

257101

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288905

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all docs

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docs citations

45
times ranked

4703
citing authors

#	ARTICLE	IF	CITATIONS
1	Microstructures and properties of high-entropy alloys. <i>Progress in Materials Science</i> , 2014, 61, 1-93.	16.0	4,761
2	Deviation from high-entropy configurations in the atomic distributions of a multi-principal-element alloy. <i>Nature Communications</i> , 2015, 6, 5964.	5.8	530
3	Lattice distortion in a strong and ductile refractory high-entropy alloy. <i>Acta Materialia</i> , 2018, 160, 158-172.	3.8	325
4	Mechanical properties of refractory high-entropy alloys: Experiments and modeling. <i>Journal of Alloys and Compounds</i> , 2017, 696, 1139-1150.	2.8	307
5	Searching for Next Single-Phase High-Entropy Alloy Compositions. <i>Entropy</i> , 2013, 15, 4504-4519.	1.1	256
6	Understanding phase stability of Al-Co-Cr-Fe-Ni high entropy alloys. <i>Materials and Design</i> , 2016, 109, 425-433.	3.3	197
7	Design of Light-Weight High-Entropy Alloys. <i>Entropy</i> , 2016, 18, 333.	1.1	162
8	High-Entropy Alloys in Hexagonal Close-Packed Structure. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 3322-3332.	1.1	158
9	Design of Refractory High-Entropy Alloys. <i>Jom</i> , 2015, 67, 2653-2669.	0.9	134
10	Phase stability and transformation in a light-weight high-entropy alloy. <i>Acta Materialia</i> , 2018, 146, 280-293.	3.8	131
11	Lattice Distortion Enhanced Yield Strength in a Refractory High-Entropy Alloy. <i>Advanced Materials</i> , 2020, 32, e2004029.	11.1	121
12	High-throughput design of high-performance lightweight high-entropy alloys. <i>Nature Communications</i> , 2021, 12, 4329.	5.8	112
13	MoNbTaV Medium-Entropy Alloy. <i>Entropy</i> , 2016, 18, 189.	1.1	106
14	Temperature dependence of elastic and plastic deformation behavior of a refractory high-entropy alloy. <i>Science Advances</i> , 2020, 6, .	4.7	101
15	Machine-learning informed prediction of high-entropy solid solution formation: Beyond the Hume-Rothery rules. <i>Npj Computational Materials</i> , 2020, 6, .	3.5	99
16	Reassessment of Al-Ce and Al-Nd binary systems supported by critical experiments and first-principles energy calculations. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2005, 36, 3269-3279.	1.1	95
17	Superior High-Temperature Strength in a Supersaturated Refractory High-Entropy Alloy. <i>Advanced Materials</i> , 2021, 33, e2102401.	11.1	89
18	Lattice stability of aluminum-rare earth binary systems: A first-principles approach. <i>Physical Review B</i> , 2007, 75, .	1.1	59

#	ARTICLE	IF	CITATIONS
37	Thermodynamic modeling of the Pd-S system supported by first-principles calculations. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2010, 34, 324-331.	0.7	8
38	Computational Thermodynamic and Kinetic Modeling of High-Entropy Alloys and Amorphous Alloys. Jom, 2012, 64, 828-829.	0.9	7
39	First Principles Calculation of the Entropy of Liquid Aluminum. Entropy, 2019, 21, 131.	1.1	7
40	Partitioning of tramp elements Cu and Si in a Ni-based superalloy and their effect on creep properties. Materialia, 2020, 13, 100843.	1.3	7
41	Coherent precipitation in a high-temperature Cr-Ni-Al-Ti Alloy. Journal of Materials Science, 2014, 49, 805-810.	1.7	5
42	Machine Learning and Data Analytics for Design and Manufacturing of High-Entropy Materials Exhibiting Mechanical or Fatigue Properties of Interest. , 2021, , 115-238.		2
43	Ab initio free energies of liquid metal alloys: Application to the phase diagrams of Li-Na and K-Na. Physical Review Materials, 2022, 6, .	0.9	2
44	Long-Term Creep Behavior of a CoCrFeNi Medium-Entropy Alloy. Journal of Materials Engineering and Performance, 0, , .	1.2	1
45	Gas-Alloy Interactions at Elevated Temperatures. Jom, 2012, 64, 1425-1425.	0.9	0