A Prakash, Aruna Prakash

List of Publications by Year
in descending order

31 papers	853 citations	567281 15 h-index	501196 28 g-index
32 all docs	32 docs citations	32 times ranked	906 citing authors

#	Article	IF	Citations
1	Determination of thermal accommodation coefficients on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si9.svg"><mml:mrow><mml:mi>C</mml:mi><mml:mi>a</mml:mi><mml:mi>S</mml:mi><mml:mi>i</mml:mi><mml:msub>< and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si8.svg"><mml:mrow><mml:mi>S</mml:mi><mml:mi>i</mml:mi><mml:msub><mml:mi>O</mml:mi><mml:mn>2</mml:mn></ using molecular d. International Journal of Heat and Mass Transfer, 2022, 183, 122219.	4.8	2
2	Fatigue Life Optimized Layer Architecture of Ultrafineâ€Grained Alâ€"Ti Laminates Under Bending Stresses. Advanced Engineering Materials, 2022, 24, .	3.5	2
3	Grain segmentation in atomistic simulations using orientation-based iterative self-organizing data analysis. Materialia, 2022, 21, 101314.	2.7	9
4	OptiMic: A tool to generate optimized polycrystalline microstructures for materials simulations. SoftwareX, 2021, 15, 100708.	2.6	4
5	In-situ observation of the initiation of plasticity by nucleation of prismatic dislocation loops. Nature Communications, 2020, 11, 2367.	12.8	23
6	Assessment and optimization of the fast inertial relaxation engine (fire) for energy minimization in atomistic simulations and its implementation in lammps. Computational Materials Science, 2020, 175, 109584.	3.0	88
7	Origins of strengthening and failure in twinned Au nanowires: Insights from inâ˜situ experiments and atomistic simulations. Acta Materialia, 2020, 187, 166-175.	7.9	15
8	High Lightweight Potential of Ultrafineâ€Grained Aluminum/Steel Laminated Metal Composites Produced by Accumulative Roll Bonding. Advanced Engineering Materials, 2019, 21, 1800286.	3.5	21
9	On solution mapping and remeshing in crystal plasticity finite element simulations: application to equal channel angular pressing. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 075001.	2.0	4
10	Atomistic simulations of basal dislocations in Mg interacting with Mg17Al12 precipitates. Materialia, 2019, 7, 100355.	2.7	31
11	Chances and Challenges in Fusing Data Science with Materials Science. Praktische Metallographie/Practical Metallography, 2018, 55, 493-514.	0.3	8
12	Enhanced monotonic and cyclic mechanical properties of ultrafine-grained laminated metal composites with strong and stiff interlayers. International Journal of Fatigue, 2018, 116, 379-387.	5.7	8
13	Atomistic Simulations of Compression Tests on Î³-Precipitate Containing Ni3Al Nanocubes. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4158-4166.	2.2	12
14	Atomistic simulations of focused ion beam machining of strained silicon. Applied Surface Science, 2017, 416, 86-95.	6.1	24
15	Influence of grain boundary structure and topology on the plastic deformation of nanocrystalline aluminum as studied by atomistic simulations. International Journal of Plasticity, 2017, 97, 107-125.	8.8	36
16	Idealized vs. Realistic Microstructures: An Atomistic Simulation Case Study on Î³/Î³â€² Microstructures. Materials, 2017, 10, 88.	2.9	16
17	9. FE2AT â€" finite element informed atomistic simulations. , 2016, , 167-190.		0
18	Influence of intrinsic strain on irradiation induced damage: the role of threshold displacement and surface binding energies. Materials and Design, 2016, 111, 405-413.	7.0	12

#	Article	IF	Citations
19	Quantifying eigenstrain distributions induced by focused ion beam damage in silicon. Materials Letters, 2016, 185, 47-49.	2.6	36
20	Nano: A methodology for generating complex realistic configurations for atomistic simulations. MethodsX, 2016, 3, 219-230.	1.6	24
21	A multiscale simulation framework of the accumulative roll bonding process accounting for texture evolution. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 631, 104-119.	5.6	42
22	Atom probe informed simulations of dislocationâ€“precipitate interactions reveal the importance of local interface curvature. Acta Materialia, 2015, 92, 33-45.	7.9	79
23	8-inch wafer-scale HfO<inf>x</inf>-based RRAM for 1S-1R cross-point memory applications. , 2014, , .		0
24	A hierarchical multi-scale model for hexagonal materials taking into account texture evolution during forming simulation. Computational Materials Science, 2014, 82, 464-475.	3.0	13
25	FE2ATâ€”finite element informed atomistic simulations. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 055011.	2.0	16
26	Modeling the evolution of texture and grain shape in Mg alloy AZ31 using the crystal plasticity finite element method. Computational Materials Science, 2009, 45, 744-750.	3.0	66
27	Simulation of micromechanical behavior of polycrystals: finite elements versus fast Fourier transforms. Modelling and Simulation in Materials Science and Engineering, 2009, 17, 064010.	2.0	122
28	Twinning Models in Self-Consistent Texture Simulations of TWIP Steels. Steel Research International, 2008, 79, 645-652.	1.8	34
29	Experimental and Numerical Investigation of Texture Development during Hot Rolling of Magnesium Alloy AZ31. Materials Science Forum, 2007, 539-543, 3448-3453.	0.3	5
30	Organic Memory Device Fabricated Through Solution Processing. Proceedings of the IEEE, 2005, 93, 1287-1296.	21.3	98
31	Sintering of Alumina Nanoparticles: Comparison of Interatomic Potentials, Molecular Dynamics Simulations, and Data Analysis. Modelling and Simulation in Materials Science and Engineering, 0, , .	2.0	3