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List of Publications by Year
in descending order

Version: 2024-02-01

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	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
2	Organic Memory Device Fabricated Through Solution Processing. Proceedings of the IEEE, 2005, 93, 1287-1296.	21.3	98
3	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
4	Atom probe informed simulations of dislocationâ€“precipitate interactions reveal the importance of local interface curvature. Acta Materialia, 2015, 92, 33-45.	7.9	79
5	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
6	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
7	Quantifying eigenstrain distributions induced by focused ion beam damage in silicon. Materials Letters, 2016, 185, 47-49.	2.6	36
8	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
9	Twinning Models in Self-Consistent Texture Simulations of TWIP Steels. Steel Research International, 2008, 79, 645-652.	1.8	34
10	Atomistic simulations of basal dislocations in Mg interacting with Mg17Al12 precipitates. Materialia, 2019, 7, 100355.	2.7	31
11	Nano: A methodology for generating complex realistic configurations for atomistic simulations. MethodsX, 2016, 3, 219-230.	1.6	24
12	Atomistic simulations of focused ion beam machining of strained silicon. Applied Surface Science, 2017, 416, 86-95.	6.1	24
13	In-situ observation of the initiation of plasticity by nucleation of prismatic dislocation loops. Nature Communications, 2020, 11, 2367.	12.8	23
14	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
15	FE2ATâ€”finite element informed atomistic simulations. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 055011.	2.0	16
16	Idealized vs. Realistic Microstructures: An Atomistic Simulation Case Study on Î³/Î³â€² Microstructures. Materials, 2017, 10, 88.	2.9	16
17	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
18	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

#	Article	IF	Citations
19	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
20	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
21	Grain segmentation in atomistic simulations using orientation-based iterative self-organizing data analysis. Materialia, 2022, 21, 101314.	2.7	9
22	Chances and Challenges in Fusing Data Science with Materials Science. Praktische Metallographie/Practical Metallography, 2018, 55, 493-514.	0.3	8
23	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
24	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
25	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
26	OptiMic: A tool to generate optimized polycrystalline microstructures for materials simulations. SoftwareX, 2021, 15, 100708.	2.6	4
27	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
28	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><mml:mr 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
29	Fatigue Life Optimized Layer Architecture of Ultrafineâ€Grained Alâ€“Ti Laminates Under Bending Stresses. Advanced Engineering Materials, 2022, 24, .	3.5	2
30	8-inch wafer-scale HfO<inf>x</inf>-based RRAM for 1S-1R cross-point memory applications. , 2014, , .		0
31	9. FE2AT â€“ finite element informed atomistic simulations. , 2016, , 167-190.		0