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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

71 papers	1,297 citations	22 h-index	32 g-index
73 ext. papers	1,666 ext. citations	5 avg, IF	5.56 L-index

#	Paper	IF	Citations
71	Effects of lattice distortion and chemical short-range order on the mechanisms of deformation in medium entropy alloy CoCrNi. <i>Acta Materialia</i> , 2020 , 199, 352-369	8.4	74
70	Concurrent atomistic-continuum simulations of dislocation-void interactions in fcc crystals. <i>International Journal of Plasticity</i> , 2015 , 65, 33-42	7.6	73
69	Sequential slip transfer of mixed-character dislocations across a coherent twin boundary in FCC metals: a concurrent atomistic-continuum study. <i>Npj Computational Materials</i> , 2016 , 2,	10.9	72
68	Multiplicity of dislocation pathways in a refractory multiprincipal element alloy. <i>Science</i> , 2020 , 370, 95-101	31.3	65
67	A quasistatic implementation of the concurrent atomistic-continuum method for FCC crystals. <i>International Journal of Plasticity</i> , 2015 , 72, 91-126	7.6	44
66	Dislocation-mediated plasticity in silicon during nanometric cutting: A molecular dynamics simulation study. <i>Materials Science in Semiconductor Processing</i> , 2016 , 51, 60-70	4.3	39
65	Comparing EAM Potentials to Model Slip Transfer of Sequential Mixed Character Dislocations Across Two Symmetric Tilt Grain Boundaries in Ni. <i>Jom</i> , 2017 , 69, 814-821	2.1	37
64	Coarse-grained elastodynamics of fast moving dislocations. <i>Acta Materialia</i> , 2016 , 104, 143-155	8.4	36
63	Shear stress- and line length-dependent screw dislocation cross-slip in FCC Ni. <i>Acta Materialia</i> , 2017 , 122, 412-419	8.4	36
62	An analysis of key characteristics of the Frank-Read source process in FCC metals. <i>Journal of the Mechanics and Physics of Solids</i> , 2016 , 96, 460-476	5	35
61	Plastic deformation of Cu single crystals containing an elliptic cylindrical void. <i>Materials Letters</i> , 2017 , 193, 283-287	3.3	31
60	An analysis on nanovoid growth in body-centered cubic single crystalline vanadium. <i>Computational Materials Science</i> , 2011 , 50, 2411-2421	3.2	31
59	Phase-field-based calculations of the disregistry fields of static extended dislocations in FCC metals. <i>Philosophical Magazine</i> , 2019 , 99, 1400-1428	1.6	30
58	Mesh refinement schemes for the concurrent atomistic-continuum method. <i>International Journal of Solids and Structures</i> , 2016 , 90, 144-152	3.1	29
57	Edge dislocations bowing out from a row of collinear obstacles in Al. <i>Scripta Materialia</i> , 2016 , 123, 135-139	3.6	27
56	PyCAC: The concurrent atomistic-continuum simulation environment. <i>Journal of Materials Research</i> , 2018 , 33, 857-871	2.5	26
55	On the role of initial void geometry in plastic deformation of metallic thin films: A molecular dynamics study. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 678, 153-164	5.3	26

54	Nanoindentation/scratching at finite temperatures: Insights from atomistic-based modeling. <i>Progress in Materials Science</i> , 2019 , 100, 1-20	42.2	26
53	Local slip resistances in equal-molar MoNbTi multi-principal element alloy. <i>Acta Materialia</i> , 2021 , 202, 68-79	8.4	25
52	A comparison of different continuum approaches in modeling mixed-type dislocations in Al. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2019 , 27, 074004	2	24
51	Size-dependent plastic deformation of twinned nanopillars in body-centered cubic tungsten. <i>Journal of Applied Physics</i> , 2017 , 121, 175101	2.5	23
50	Atomistic calculations of the generalized stacking fault energies in two refractory multi-principal element alloys. <i>Intermetallics</i> , 2020 , 124, 106844	3.5	23
49	Sequential obstacle interactions with dislocations in a planar array. <i>Acta Materialia</i> , 2019 , 174, 160-172	8.4	22
48	Comparative modeling of the disregistry and Peierls stress for dissociated edge and screw dislocations in Al. <i>International Journal of Plasticity</i> , 2020 , 129, 102689	7.6	22
47	Addressing the discrepancy of finding the equilibrium melting point of silicon using molecular dynamics simulations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017 , 473, 20170084	2.4	21
46	Validation of the Concurrent Atomistic-Continuum Method on Screw Dislocation/Stacking Fault Interactions. <i>Crystals</i> , 2017 , 7, 120	2.3	20
45	Density functional theory calculations of generalized stacking fault energy surfaces for eight face-centered cubic transition metals. <i>Journal of Applied Physics</i> , 2019 , 126, 105112	2.5	19
44	Dislocation nucleation from symmetric tilt grain boundaries in body-centered cubic vanadium. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2018 , 382, 1185-1189	2.3	19
43	Frank-Read source operation in six body-centered cubic refractory metals. <i>Journal of the Mechanics and Physics of Solids</i> , 2020 , 141, 104017	5	18
42	Modeling dislocations with arbitrary character angle in face-centered cubic transition metals using the phase-field dislocation dynamics method with full anisotropic elasticity. <i>Mechanics of Materials</i> , 2019 , 139, 103200	3.3	18
41	A Review on Micro- and Nanoscratching/Tribology at High Temperatures: Instrumentation and Experimentation. <i>Journal of Materials Engineering and Performance</i> , 2018 , 27, 3844-3858	1.6	17
40	The effect of local chemical ordering on Frank-Read source activation in a refractory multi-principal element alloy. <i>International Journal of Plasticity</i> , 2020 , 134, 102850	7.6	17
39	Generalized stacking fault energies and Peierls stresses in refractory body-centered cubic metals from machine learning-based interatomic potentials. <i>Computational Materials Science</i> , 2021 , 192, 110364	2.2	16
38	Ab initio-informed phase-field modeling of dislocation core structures in equal-molar CoNiRu multi-principal element alloys. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2019 , 27, 084001	2	15
37	A spatial decomposition parallel algorithm for a concurrent atomistic-continuum simulator and its preliminary applications. <i>Computational Materials Science</i> , 2018 , 144, 1-10	3.2	15

36	Atomistic simulations of dynamics of an edge dislocation and its interaction with a void in copper: a comparative study. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2020 , 28, 045004	2	14
35	Temperature-dependent nanoindentation response of materials. <i>MRS Communications</i> , 2018 , 8, 15-28	2.7	14
34	Uniaxial deformation of nanotwinned nanotubes in body-centered cubic tungsten. <i>Current Applied Physics</i> , 2018 , 18, 114-121	2.6	14
33	Atomic collision cascades on void evolution in vanadium. <i>Radiation Effects and Defects in Solids</i> , 2012 , 167, 12-25	0.9	13
32	Alloy design for mechanical properties: Conquering the length scales. <i>MRS Bulletin</i> , 2019 , 44, 257-265	3.2	12
31	Deformation of periodic nanovoid structures in Mg single crystals. <i>Materials Research Express</i> , 2018 , 5, 016523	1.7	12
30	Nanovoid growth in BCC Fe: influences of initial void geometry. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2016 , 24, 085015	2	12
29	An atomistic study of the deformation behavior of tungsten nanowires. <i>Applied Physics A: Materials Science and Processing</i> , 2017 , 123, 1	2.6	12
28	Atomistic mechanism for vacancy-enhanced grain boundary migration. <i>Physical Review Materials</i> , 2020 , 4,	3.2	12
27	Deformation Mechanisms in Nanotwinned Tungsten Nanopillars: Effects of Coherent Twin Boundary Spacing. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018 , 12, 1700399	2.5	11
26	Modeling dislocations and heat conduction in crystalline materials: atomistic/continuum coupling approaches. <i>International Materials Reviews</i> , 2019 , 64, 407-438	16.1	11
25	MODELING PLASTIC DEFORMATION OF NANO/SUBMICRON-SIZED TUNGSTEN PILLARS UNDER COMPRESSION: A COARSE-GRAINED ATOMISTIC APPROACH. <i>International Journal for Multiscale Computational Engineering</i> , 2018 , 16, 367-376	2.4	7
24	Role of local chemical fluctuations in the shock dynamics of medium entropy alloy CoCrNi. <i>Acta Materialia</i> , 2021 , 221, 117380	8.4	7
23	Si/Ge (111) Semicoherent Interfaces: Responses to an In-Plane Shear and Interactions with Lattice Dislocations. <i>Physica Status Solidi (B): Basic Research</i> , 2020 , 257, 2000274	1.3	7
22	Concurrent atomistic-continuum simulations of uniaxial compression of gold nano/submicropillars. <i>Philosophical Magazine Letters</i> , 2018 , 98, 173-182	1	7
21	A molecular dynamics study of void interaction in copper. <i>IOP Conference Series: Materials Science and Engineering</i> , 2010 , 10, 012175	0.4	6
20	On the significance of model design in atomistic calculations of the Peierls stress in Nb. <i>Computational Materials Science</i> , 2021 , 188, 110150	3.2	6
19	Atomistic simulations of dipole tilt wall stability in thin films. <i>Thin Solid Films</i> , 2019 , 689, 137457	2.2	5

18	Atomistic simulations of the local slip resistances in four refractory multi-principal element alloys. <i>International Journal of Plasticity</i> , 2021 , 149, 103157	7.6	5
17	On calculations of basic structural parameters in multi-principal element alloys using small atomistic models. <i>Computational Materials Science</i> , 2022 , 202, 110942	3.2	5
16	Twinning effects in the single/nanocrystalline cubic silicon carbide subjected to nanoindentation loading. <i>Materialia</i> , 2018 , 3, 304-325	3.2	5
15	Tension-compression asymmetry in plasticity of nanotwinned 3C-SiC nanocrystals. <i>Journal of Applied Physics</i> , 2018 , 124, 095103	2.5	5
14	Shock-induced amorphization in medium entropy alloy CoCrNi. <i>Scripta Materialia</i> , 2022 , 209, 114379	5.6	4
13	Generalized Continua Concepts in Coarse-Graining Atomistic Simulations. <i>Advanced Structured Materials</i> , 2018 , 237-260	0.6	4
12	Atomistic simulations of tungsten nanotubes under uniform tensile loading. <i>Journal of Applied Physics</i> , 2019 , 126, 095105	2.5	3
11	Phase-field modeling of the interactions between an edge dislocation and an array of obstacles. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022 , 389, 114426	5.7	3
10	Lattice dislocation induced misfit dislocation evolution in semi-coherent {111} bimetal interfaces. <i>Journal of Materials Research</i> , 2021 , 36, 2763-2778	2.5	3
9	Effect of interface structure on dislocation glide behavior in nanolaminates. <i>Journal of Materials Research</i> , 2021 , 36, 2802-2815	2.5	2
8	Role of local chemical fluctuations in the melting of medium entropy alloy CoCrNi. <i>Applied Physics Letters</i> , 2021 , 119, 121904	3.4	2
7	Fabrication and Characterization of High-Quality Epitaxial Nanocolumnar Niobium Films with Abrupt Interfaces on YSZ(001). <i>Journal of Physical Chemistry C</i> , 2022 , 126, 2098-2107	3.8	1
6	Line-length-dependent dislocation glide in refractory multi-principal element alloys. <i>Applied Physics Letters</i> , 2022 , 120, 061901	3.4	1
5	Transitions in the morphology and critical stresses of gliding dislocations in multiprincipal element alloys. <i>Physical Review Materials</i> , 2022 , 6,	3.2	1
4	Intrinsic and extrinsic size effects in materials. <i>Journal of Materials Research</i> , 2019 , 34, 2147	2.5	0
3	Role of layer thickness and dislocation distribution in confined layer slip in nanolaminated Nb. <i>International Journal of Plasticity</i> , 2022 , 152, 103239	7.6	0
2	Energetically favorable dislocation/nanobubble bypass mechanism in irradiation conditions. <i>Acta Materialia</i> , 2022 , 230, 117849	8.4	0
1	Recent progress in the phase-field dislocation dynamics method. <i>Computational Materials Science</i> , 2022 , 210, 111419	3.2	0

