Ruifeng Zhang

List of Publications by Year
in descending order

164 papers	7,706 citations	38660 50 h-index	60497 81 g-index
164 all docs	164 docs citations	164 times ranked	7471 citing authors

#	Article	IF	Citations
1	Understanding the Anchoring Effect of Two-Dimensional Layered Materials for Lithiumâ€“Sulfur Batteries. Nano Letters, 2015, 15, 3780-3786.	4.5	779
2	Rational Design of Flexible Two-Dimensional MXenes with Multiple Functionalities. Chemical Reviews, 2019, 119, 11980-12031.	23.0	242
3	Highly Air-Stable Carbon-Based Î±-CsPbI₃ Perovskite Solar Cells with a Broadened Optical Spectrum. ACS Energy Letters, 2018, 3, 1824-1831.	8.8	235
4	High-throughput theoretical optimization of the hydrogen evolution reaction on MXenes by transition metal modification. Journal of Materials Chemistry A, 2018, 6, 4271-4278.	5.2	198
5	Theoretical Investigation of 2D Layered Materials as Protective Films for Lithium and Sodium Metal Anodes. Advanced Energy Materials, 2017, 7, 1602528.	10.2	196
6	Electrochemical CO2 reduction to ethylene by ultrathin CuO nanoplate arrays. Nature Communications, 2022, 13, 1877.	5.8	172
7	Synergistic Effect of Atomically Dispersed Niâ€“Zn Pair Sites for Enhanced CO₂ Electroreduction. Advanced Materials, 2021, 33, e2102212.	11.1	155
8	Synthesis, Crystal Structure, and Elastic Properties of Novel Tungsten Nitrides. Chemistry of Materials, 2012, 24, 3023-3028.	3.2	154
9	Stabilization and strengthening effects of functional groups in two-dimensional titanium carbide. Physical Review B, 2016, 94, .	1.1	142
10	Stability and Strength of Transition-Metal Tetraborides and Triborides. Physical Review Letters, 2012, 108, 255502.	2.9	141
11	Superhard nanocomposites: Origin of hardness enhancement, properties and applications. Surface and Coatings Technology, 2010, 204, 1898-1906.	2.2	140
12	Structureâ€“Propertyâ€“Functionality of Bimetal Interfaces. Jom, 2012, 64, 1192-1207.	0.9	140
13	Rational Design of Highly Stable and Active MXeneâ€Based Bifunctional ORR/OER Doubleâ€Atom Catalysts. Advanced Materials, 2021, 33, e2102595.	11.1	137
14	Dislocation nucleation mechanisms from fcc/bcc incoherent interfaces. Scripta Materialia, 2011, 65, 1022-1025.	2.6	125
15	Atomic-scale study of nucleation of dislocations from fccâ€“bcc interfaces. Acta Materialia, 2012, 60, 2855-2865.	3.8	117
16	Interface dislocation patterns and dislocation nucleation in face-centered-cubic and body-centered-cubic bicrystal interfaces. International Journal of Plasticity, 2014, 53, 40-55.	4.1	112
17	Miedema Calculator: A thermodynamic platform for predicting formation enthalpies of alloys within framework of Miedemaâ€™s Theory. Computer Physics Communications, 2016, 209, 58-69.	3.0	108
18	Mapping dislocation nucleation behavior from bimetal interfaces. Acta Materialia, 2013, 61, 7488-7499.	3.8	98

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19	Thermal stability of Cuâ€“Nb nanolamellar composites fabricated via accumulative roll bonding. Philosophical Magazine, 2013, 93, 718-735.	0.7	95
20	Faceted Kurdjumov-Sachs interface-induced slip continuity in the eutectic high-entropy alloy, AlCoCrFeNi2.1. Journal of Materials Science and Technology, 2021, 65, 216-227.	5.6	95
21	On the spinodal nature of the phase segregation and formation of stable nanostructure in the Tiâ€“Siâ€“N system. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 424, 128-137.	2.6	94
22	Metastable phases and spinodal decomposition in Ti1âˆ’xAlxN system studied by ab initio and thermodynamic modeling, a comparison with the TiNâ€“Si3N4 system. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 448, 111-119.	2.6	91
23	Mechanical and electronic properties of hard rhenium diboride of low elastic compressibility studied by first-principles calculation. Applied Physics Letters, 2007, 91, .	1.5	85
24	Rational design of graphitic-inorganic Bi-layer artificial SEI for stable lithium metal anode. Energy Storage Materials, 2019, 16, 426-433.	9.5	85
25	AELAS: Automatic ELAStic property derivations via high-throughput first-principles computation. Computer Physics Communications, 2017, 220, 403-416.	3.0	84
26	Anisotropic ideal strengths and chemical bonding of wurtzite BN in comparison to zincblende BN. Physical Review B, 2008, 77, .	1.1	83
27	Role of interface structure on the plastic response of Cu/Nb nanolaminates under shock compression: Non-equilibrium molecular dynamics simulations. Scripta Materialia, 2013, 68, 114-117.	2.6	81
28	Phase stabilities and thermal decomposition in the Zr1âˆ’Al N system studied by ab initio calculation and thermodynamic modeling. Acta Materialia, 2008, 56, 968-976.	3.8	77
29	Phase stabilities and spinodal decomposition in the Cr1âˆ’xAlxN system studied by ab initio LDA and thermodynamic modeling: Comparison with the Ti1âˆ’xAlxN and TiN/Si3N4 systems. Acta Materialia, 2007, 55, 4615-4624.	3.8	76
30	Friedel Oscillations are Limiting the Strength of Superhard Nanocomposites and Heterostructures. Physical Review Letters, 2009, 102, 015503.	2.9	76
31	Phase stabilities of self-organized nc-TiN/a-Si3N4 nanocomposites and of Ti1âˆ’xSixNy solid solutions studied by ab initio calculation and thermodynamic modeling. Thin Solid Films, 2008, 516, 2264-2275.	0.8	73
32	Predicting the formation enthalpies of binary intermetallic compounds. Chemical Physics Letters, 2007, 442, 511-514.	1.2	71
33	Ultrastrong Boron Frameworks in ZrB₁₂: A Highway for Electron Conducting. Advanced Materials, 2017, 29, 1604003.	11.1	71
34	Electronic structure, stability, and mechanism of the decohesion and shear of interfaces in superhard nanocomposites and heterostructures. Physical Review B, 2009, 79, .	1.1	69
35	Achieving high structure and voltage stability in cobalt-free Li-rich layered oxide cathodes via selective dual-cation doping. Energy Storage Materials, 2020, 32, 37-45.	9.5	69
36	Synergistic effect in ultrafine PtNiP nanowires for highly efficient electrochemical hydrogen evolution in alkaline electrolyte. Applied Catalysis B: Environmental, 2022, 301, 120754.	10.8	67

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37	First principles studies of ideal strength and bonding nature of AlN polymorphs in comparison to TiN. Applied Physics Letters, 2007, 91, .	1.5	66
38	Characterizing interface dislocations by atomically informed Frank-Bilby theory. Journal of Materials Research, 2013, 28, 1646-1657.	1.2	66
39	Structure and Property of Interfaces in ARB Cu/Nb Laminated Composites. Jom, 2012, 64, 1208-1217.	0.9	63
40	Proposed model for calculating the standard formation enthalpy of binary transition-metal systems. Applied Physics Letters, 2002, 81, 1219-1221.	1.5	61
41	Origin of the hardness enhancement in superhard nc-TiN/a-Si₃N₄and ultrahard nc-TiN/a-Si₃N₄/TiSi₂nanocomposites. Philosophical Magazine Letters, 2007, 87, 955-966.	0.5	60
42	The core structure of dislocations and their relationship to the material Î³-surface. Journal of Applied Physics, 2014, 115, .	1.1	57
43	Superhard materials with low elastic moduli: Three-dimensional covalent bonding as the origin of superhardness in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">B</mml:mi><mml:mrow><mml:mn>6</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>O. Physical Review B, 2011, 83, .	1.1	56
44	Mechanical strengths of silicon nitrides studied by ab initio calculations. Applied Physics Letters, 2007, 90, 191903.	1.5	54
45	Twinning in bcc metals under shock loading: a challenge to empirical potentials. Philosophical Magazine Letters, 2011, 91, 731-740.	0.5	54
46	Hardness, elastic, and electronic properties of chromium monoboride. Applied Physics Letters, 2015, 106, .	1.5	54
47	Layer size effect on the shock compression behavior of fccâ€“bcc nanolaminates. Acta Materialia, 2014, 79, 74-83.	3.8	53
48	Stacking stability and sliding mechanism in weakly bonded 2D transition metal carbides by van der Waals force. RSC Advances, 2017, 7, 55912-55919.	1.7	53
49	Thermodynamic stability and unusual strength of ultra-incompressible rhenium nitrides. Physical Review B, 2011, 83, .	1.1	52
50	Designing flexible 2D transition metal carbides with strain-controllable lithium storage. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E11082-E11091.	3.3	51
51	Shear-induced structural transformation and plasticity in ultraincompressibleReB2limit its hardness. Physical Review B, 2010, 82, .	1.1	50
52	Effect of dynamic evolution of misfit dislocation pattern on dislocation nucleation and shear sliding at semi-coherent bimetal interfaces. Acta Materialia, 2018, 143, 107-120.	3.8	48
53	Decoupled Redox Catalytic Hydrogen Production with a Robust Electrolyte-Borne Electron and Proton Carrier. Journal of the American Chemical Society, 2021, 143, 223-231.	6.6	48
54	Experimental invalidation of phase-transition-induced elastic softening in CrN. Physical Review B, 2012, 86, .	1.1	47

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55	Mechanical properties and hardness of boron and boron-rich solids. Journal of Superhard Materials, 2011, 33, 409-420.	0.5	45
56	Dependence of equilibrium stacking fault width in fcc metals on theÎ³-surface. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 025015.	0.8	45
57	Manipulating dislocation nucleation and shear resistance of bimetal interfaces by atomic steps. Acta Materialia, 2016, 113, 194-205.	3.8	44
58	Regulating oxygen covalent electron localization to enhance anionic redox reversibility of lithium-rich layered oxide cathodes. Energy Storage Materials, 2022, 46, 512-522.	9.5	44
59	Understanding why the thinnest<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SiN</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub> in transition-metal nitrides is stronger than the ideal bulk crystal. Physical Review B, 2010, 81, .	3.7	42
60	Single Atomâ€Modified Hybrid Transition Metal Carbides as Efficient Hydrogen Evolution Reaction Catalysts. Advanced Functional Materials, 2021, 31, 2104285.	7.8	42
61	Interface-dependent nucleation in nanostructured layered composites. APL Materials, 2013, 1, .	2.2	41
62	Stability of Tiâ€“Bâ€“N solid solutions and the formation of nc-TiN/a-BN nanocomposites studied by combined ab initio and thermodynamic calculations. Acta Materialia, 2008, 56, 4440-4449.	3.8	40
63	An informatics guided classification of miscible and immiscible binary alloy systems. Scientific Reports, 2017, 7, 9577.	1.6	38
64	Phase stabilities and decomposition mechanism in the Zrâ€“Siâ€“N system studied by combined ab initio DFT and thermodynamic calculation. Acta Materialia, 2011, 59, 297-307.	3.8	37
65	Heterogeneous interface-boosted zinc storage of H2V3O8 nanowire/Ti3C2Tx MXene composite toward high-rate and long cycle lifespan aqueous zinc-ion batteries. Energy Storage Materials, 2022, 50, 63-74.	9.5	37
66	First-principles investigation of strain effects on the stacking fault energies, dislocation core structure, and Peierls stress of magnesium and its alloys. Physical Review B, 2017, 95, .	1.1	36
67	Stabilization of Ï„-phase in carbon-doped MnAl magnetic alloys. Journal of Alloys and Compounds, 2018, 755, 257-264.	2.8	36
68	Stronger and more failure-resistant with three-dimensional serrated bimetal interfaces. Acta Materialia, 2019, 166, 231-245.	3.8	35
69	Study of spinodal decomposition and formation of nc-Al2O3/ZrO2 nanocomposites by combined ab initio density functional theory and thermodynamic modeling. Acta Materialia, 2011, 59, 3498-3509.	3.8	34
70	Surface Electrochemical Stability and Strainâ€Tunable Lithium Storage of Highly Flexible 2D Transition Metal Carbides. Advanced Functional Materials, 2018, 28, 1804867.	7.8	33
71	First-principles design of strong solids: Approaches and applications. Physics Reports, 2019, 826, 1-49.	10.3	31
72	Single-atom-Ni-decorated, nitrogen-doped carbon layers for efficient electrocatalytic CO2 reduction reaction. Electrochemistry Communications, 2020, 116, 106758.	2.3	31

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73	Anisotropic ideal strengths of superhard monoclinic and tetragonal carbon and their electronic origin. Physical Review B, 2011, 83, .	1.1	30
74	PNADIS: An automated Peierlsâ€“Nabarro analyzer for dislocation core structure and slip resistance. Computer Physics Communications, 2019, 240, 60-73.	3.0	29
75	Mechanistic Quantification of Thermodynamic Stability and Mechanical Strength for Two-Dimensional Transition-Metal Carbides. Journal of Physical Chemistry C, 2018, 122, 4710-4722.	1.5	28
76	Magnetic properties of Co and Co-Ag alloys in equilibrium/nonequilibrium structures studied byab initiocalculations. Physical Review B, 2003, 68, .	1.1	26
77	Mechanism of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>B</mml:mi><mml:mn>3</mml:mn></mml:mrow></mml:math>to<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>B</mml:mi><mml:mn>1</mml:mn></mml:mrow></mml:math>transformation in cubic AlN under uniaxial stress. Physical Review B, 2007, 76, .	1.1	26
78	Quadrotor aircraft control without velocity measurements. , 2009, , .		26
79	Insights into the Enhanced Structural and Thermal Stabilities of Nb-Substituted Lithium-Rich Layered Oxide Cathodes. ACS Applied Materials & Interfaces, 2021, 13, 45619-45629.	4.0	26
80	Deformation paths and atomistic mechanism of B4 â† B1 phase transformation in aluminium nitride. Acta Materialia, 2009, 57, 2259-2265.	3.8	25
81	Chemistry, physics and fracture mechanics in search for superhard materials, and the origin of superhardness in nc-TiN/a-Si3N4 and related nanocomposites. Journal of Physics and Chemistry of Solids, 2007, 68, 1161-1168.	1.9	24
82	Origin of different plastic resistance of transition metal nitrides and carbides: Stiffer yet softer. Scripta Materialia, 2013, 68, 913-916.	2.6	24
83	First-principles study on the electrical and thermal properties of the semiconducting Sc₃(CN)F₂ MXene. RSC Advances, 2018, 8, 22452-22459.	1.7	24
84	ADAIS: Automatic Derivation of Anisotropic Ideal Strength via high-throughput first-principles computations. Computer Physics Communications, 2019, 238, 244-253.	3.0	24
85	Crystalline-to-amorphous transition in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Ti</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub><mml:mi mathvariant="normal">Si</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mi mathvariant="normal">N</mml:mi></mml:mrow></mml:math>solid solution and the stability of fcc SiN studied by combined ab initio density functional theory and therm. Physical Review B, 2007, 76, .	1.1	23
86	On the anisotropic shear resistance of hard transition metal nitrides TMN (TM=Ti,â€,Zr,â€,Hf). Applied Physics Letters, 2009, 94, .	1.5	23
87	Design of ultrahard materials: Go nano!. Philosophical Magazine, 2010, 90, 4101-4115.	0.7	23
88	Statistically based assessment of formation enthalpy for intermetallic compounds. Chemical Physics Letters, 2014, 612, 177-181.	1.2	23
89	Mapping Chemical Selection Pathways for Designing Multicomponent Alloys: an informatics framework for materials design. Scientific Reports, 2015, 5, 17960.	1.6	23
90	AACSD: An atomistic analyzer for crystal structure and defects. Computer Physics Communications, 2018, 222, 229-239.	3.0	23

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91	Structure and energetics of nanotwins in cubic boron nitrides. Applied Physics Letters, 2016, 109, .	1.5	22
92	High-throughput screening for superhard carbon and boron nitride allotropes with superior stiffness and strength. Carbon, 2018, 137, 156-164.	5.4	22
93	Decomposition mechanism of Al1âˆ'xSixNy solid solution and possible mechanism of the formation of covalent nanocrystalline AlN/Si3N4 nanocomposites. Acta Materialia, 2013, 61, 4226-4236.	3.8	21
94	High Pressure Phase-Transformation Induced Texture Evolution and Strengthening in Zirconium Metal: Experiment and Modeling. Scientific Reports, 2015, 5, 12552.	1.6	21
95	Interface facilitated transformation of voids directly into stacking fault tetrahedra. Acta Materialia, 2020, 188, 623-634.	3.8	21
96	Cooperative dissociations of misfit dislocations at bimetal interfaces. APL Materials, 2016, 4, .	2.2	20
97	Giant heterogeneous magnetostriction induced by charge accumulation-mediated nanoinclusion formation in dual-phase nanostructured systems. Acta Materialia, 2021, 213, 116975.	3.8	20
98	Bond deformation paths and electronic instabilities of ultraincompressible transition metal diborides: Case study of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>OsB</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>IrB</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 90, .	1.1	19
99	Pinning effect of reactive elements on adhesion energy and adhesive strength of incoherent Al₂O₃/NiAl interface. Physical Chemistry Chemical Physics, 2016, 18, 22864-22873.	1.3	19
100	Comparative study of metastable phase formation in the immiscible Cuâ€“W system byab initiocalculation andn-body potential. Journal of Physics Condensed Matter, 2004, 16, 5251-5258.	0.7	18
101	Crystal Field Splitting is Limiting the Stability and Strength of Ultra-incompressible Orthorhombic Transition Metal Tetraborides. Scientific Reports, 2016, 6, 23088.	1.6	18
102	High-performance microwave absorption of hierarchical graphene-based and MWCNT-based full-carbon nanostructures. Applied Surface Science, 2019, 493, 541-550.	3.1	18
103	Synergetic effects of solute and strain in biocompatible Zn-based and Mg-based alloys. Acta Materialia, 2019, 181, 423-438.	3.8	18
104	Atomistic insight into the dislocation nucleation at crystalline/crystalline and crystalline/amorphous interfaces without full symmetry. Acta Materialia, 2019, 162, 255-267.	3.8	18
105	AADIS: An atomistic analyzer for dislocation character and distribution. Computer Physics Communications, 2020, 247, 106857.	3.0	18
106	Effects of solutes on dislocation nucleation and interface sliding of bimetal semi-coherent interface. International Journal of Plasticity, 2020, 131, 102725.	4.1	18
107	Effect of nanometer-sized grains on the superhardness of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>c</mml:mi><mml:msub><mml:mrow><mml:mtext>-BC</mml:mtext></mml:mrow><mml:mn> A first-principles study. Physical Review B, 2009, 80, .	1.1	17
108	Mechanical strength and electronic instabilities in ultra-incompressible platinum dinitrides. Physical Review B, 2015, 92, .	1.1	17

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109	Theoretical investigations on helium trapping in the Zr/Ti 2 AlC interface. Surface and Coatings Technology, 2017, 322, 19-24.	2.2	17
110	Modulating superexchange strength to achieve robust ferromagnetic couplings in two-dimensional semiconductors. Physical Review B, 2020, 101, .	1.1	17
111	New understanding of nano-scale interstitial dislocation loops in BCC iron. Journal of Physics Condensed Matter, 2017, 29, 455301.	0.7	16
112	Metastable Phase Formed in Immiscible Cuâ€“W Multilayers by Ion Mixing. Japanese Journal of Applied Physics, 2003, 42, 7009-7012.	0.8	15
113	Amorphous alloys synthesized by interface-assisted ion beam mixing in the Agâ€“W system with the largest positive heat of formation. Journal of Materials Research, 2003, 18, 1499-1501.	1.2	15
114	Thermodynamic criterion for the formation of Laves phases in binary transition-metal systems. Philosophical Magazine Letters, 2005, 85, 283-287.	0.5	14
115	Formation of Amorphous Alloys by Ion Beam Mixing and Its Multiscale Theoretical Modeling in the Equilibrium Immiscible Scâ^'W System. Journal of Physical Chemistry B, 2005, 109, 4391-4397.	1.2	13
116	Tuning lattice stability and mechanical strength of ultraincompressible tungsten carbides by varying the stacking sequence. Physical Review B, 2016, 93, .	1.1	13
117	Two-Dimensional Carbonitride MXenes as an Efficient Electrocatalyst for Hydrogen Evolution. Journal of Physical Chemistry C, 2021, 125, 4477-4488.	1.5	13
118	Influence of high stacking-fault energy on the dissociation mechanisms of misfit dislocations at semi-coherent interfaces. International Journal of Plasticity, 2020, 126, 102610.	4.1	12
119	Unprecedented plastic flow channel in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î³</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml:mathvariant="normal">B</mml:mi><mml:mn>28</mml:mn></mml:msub></mml:mrow></mml:math> through ultrasoft bonds: A challenge to superhardness. Physical Review Materials, 2018, 2, .	0.9	12
120	Designing ultrahard nanostructured diamond through internal defects and interface engineering at different length scales. Carbon, 2020, 170, 394-402.	5.4	11
121	Construction ofn-body potentials for hcp-bcc metal systems within the framework of embedded atom method. Physical Review B, 2005, 71, .	1.1	10
122	Domain-dependent electronic structure and optical absorption property in hybrid organicâ€“inorganic perovskite. Physical Chemistry Chemical Physics, 2016, 18, 27358-27365.	1.3	10
123	Mechanistic understanding of the size effect on shock facilitated dislocation nucleation at semicoherent interfaces. Scripta Materialia, 2020, 178, 457-462.	2.6	10
124	MAELAS: MAgneto-ELAStic properties calculation via computational high-throughput approach. Computer Physics Communications, 2021, 264, 107964.	3.0	10
125	Mechanistic insights into interface-facilitated dislocation nucleation and phase transformation at semicoherent bimetal interfaces. International Journal of Plasticity, 2021, 146, 103105.	4.1	10
126	A synergetic stabilization and strengthening strategy for two-dimensional ordered hybrid transition metal carbides. Physical Chemistry Chemical Physics, 2018, 20, 29684-29692.	1.3	9

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127	SPaMD studio: An integrated platform for atomistic modeling, simulation, analysis, and visualization. Computational Materials Science, 2022, 210, 111027.	1.4	9
128	Anomalous mechanical strengths and shear deformation paths of Al₂O₃ polymorphs with high ionicity. RSC Advances, 2016, 6, 12885-12892.	1.7	8
129	Phonon-mediated stabilization and softening of 2D transition metal carbides: case studies of Ti₂CO₂ and Mo₂CO₂. Physical Chemistry Chemical Physics, 2018, 20, 14608-14618.	1.3	8
130	Tunable magnetic order in transition metal doped, layered, and anisotropic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">B</mml:mi><mml:msub><mml:mi mathvariant="normal">i</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Se</mml:mi></mml:mrow></mml:math> : Competition between exchange interaction mechanisms. Physical Review B, 2019, 100, .	1.1	8
131	Uniaxial magnetocrystalline anisotropy of tetragonal Mn Ga100â^' (50â€"â‰â€"xâ€"â‰â€"75) alloys. Journal of Magnetism and Magnetic Materials, 2019, 489, 165308.	1.0	8
132	Shearing dominated by the coupling of the interfacial misfit and atomic bonding at the FCC (111) semi-coherent interfaces. Materials and Design, 2020, 186, 108294.	3.3	8
133	Suppressed phase transition of a Rb/K incorporated inorganic perovskite with a water-repelling surface. Nanoscale, 2020, 12, 6571-6581.	2.8	8
134	Designing ultrastrong 5d transition metal diborides with excellent stability for harsh service environments. Physical Chemistry Chemical Physics, 2019, 21, 16095-16107.	1.3	7
135	Ultrastrong Ï€-Bonded Interface as Ductile Plastic Flow Channel in Nanostructured Diamond. ACS Applied Materials & Interfaces, 2020, 12, 4135-4142.	4.0	7
136	Electrochemical Pourbaix diagrams of Mgâ€"Zn alloys from first-principles calculations and experimental thermodynamic data. Physical Chemistry Chemical Physics, 2021, 23, 19602-19610.	1.3	7
137	Effect of void morphology on void facilitated plasticity in irradiated Cu/Nb metallic nanolayered composites. Journal of Nuclear Materials, 2022, 558, 153380.	1.3	7
138	Atomistic Modeling of Metastable Phase Selection of a Highly Immiscible Agâ€"W System. Journal of the Physical Society of Japan, 2004, 73, 2023-2027.	0.7	6
139	Nonequilibrium molecular dynamics simulations of shock wave propagation in nanolayered Cu/Nb nanocomposites. AIP Conference Proceedings, 2012, , .	0.3	6
140	Magnetic origin of phase stability in cubic Î³-MoN. Applied Physics Letters, 2018, 113, 221901.	1.5	6
141	Plastic flow between nanometer-spaced planar defects in nanostructured diamond and boron nitride. Physical Review B, 2020, 101, .	1.1	6
142	Comment on â€œProposed model for calculating the standard formation enthalpy of binary transition-metal systemsâ€•[Appl. Phys. Lett. 81, 1219 (2002)]. Applied Physics Letters, 2005, 86, 216103.	1.5	5
143	An improved electrochemical model for strain dependent electrochemical polarization and corrosion kinetics. Materials and Design, 2021, 202, 109555.	3.3	5
144	Cooperative roles of stacking fault energies on dislocation nucleation at bimetal interface through tunable potentials. Computational Materials Science, 2021, 193, 110416.	1.4	5

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145	MAELAS 2.0: A new version of a computer program for the calculation of magneto-elastic properties. Computer Physics Communications, 2022, 271, 108197.	3.0	5
146	Designing Flexible Quantum Spin Hall Insulators through 2D Ordered Hybrid Transition-Metal Carbides. Journal of Physical Chemistry C, 2019, 123, 20664-20674.	1.5	4
147	Synergistic effect of solute and strain on the electrochemical degradation in representative Zn-based and Mg-based alloys. Corrosion Science, 2021, 188, 109539.	3.0	4
148	Proposed Calculation Method for Structural Formation Enthalpy including Magnetic Energy for Transition Metal Alloys. Journal of the Physical Society of Japan, 2004, 73, 1097-1100.	0.7	3
149	Dual-Phase Metallic Glass and its Two-Dimensional Fractal Morphology. Journal of the Physical Society of Japan, 2005, 74, 2937-2940.	0.7	3
150	Response to â€œComment on â€˜Proposed model for calculating the standard formation enthalpy of binary transition-metal systemsâ€™â€‰â€•[Appl. Phys. Lett. 86, 216103 (2005)]. Applied Physics Letters, 2005, 86, 216104.	1.5	3
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