Tao Fu

List of Publications by Year in Descending Order

79 papers	1,411 citations	23 h-index	34 g-index
82 ext. papers	1,677 ext. citations	5 avg, IF	4.85 L-index

#	Paper	IF	Citations
79	Formation and Anisotropic Mechanical Behavior of Stacking Fault Tetrahedron in Ni and CoCrFeNiMn High-Entropy Alloy. *Frontiers in Materials*, **2022**, 8,	4	4
78	Delay of inverse Hall-Petch relationship of nanocrystalline Cu by modifying grain boundaries with coherent twins. *Physical Review B*, **2022**, 105,	3.3	1
77	Twin boundary migration and reactions with stacking fault tetrahedron in Cu and CoCrCuFeNi high-entropy alloy. *Journal of Materials Research and Technology*, **2022**, 17, 282-292	5.5	2
76	Deformation characteristics of nanolayered dual-phase CrCoNi medium-entropy alloy nanowires. *Materials Today Communications*, **2022**, 31, 103273	2.5	
75	A novel high-entropy alloy with multi-scale precipitates and excellent mechanical properties fabricated by spark plasma sintering. *Advanced Powder Technology*, **2022**, 33, 103520	4.6	0
74	Dislocation reaction-based formation mechanism of stacking fault tetrahedra in FCC high-entropy alloy. *Materials Chemistry and Physics*, **2022**, 282, 125997	4.4	1
73	A novel high performance eutectic medium-entropy alloy with nanoprecipitates. *Vacuum*, **2022**, 200, 111017	3.7	0
72	L21-strengthened body-centered-cubic high-entropy alloy with excellent mechanical properties. *Intermetallics*, **2022**, 145, 107539	3.5	0
71	Heterogeneous structure induced excellent mechanical and wear properties in Co-free FeCrAlNi medium-entropy alloys. *Journal of Materials Research and Technology*, **2022**, 18, 4169-4180	5.5	0
70	Effects of Anisotropy and In-Plane Grain Boundary in Cu/Pd Multilayered Films with Cube-on-Cube and Twinned Interface. *Nanoscale Research Letters*, **2021**, 16, 69	5	7
69	Molecular Dynamics Investigation of the Influence of Voids on the Impact Mechanical Behavior of NiTi Shape-Memory Alloy. *Materials*, **2021**, 14,	3.5	3
68	Nano-indentation and nano-scratching of pure nickel and NiTi shape memory alloy thin films: an atomic-scale simulation. *Thin Solid Films*, **2021**, 736, 138906	2.2	3
67	Superior mechanical and thermal properties than diamond: Diamond/lonsdaleite biphasic structure. *Journal of Materials Science and Technology*, **2020**, 48, 114-122	9.1	4
66	Incipient plasticity and dislocation loop evolution in rock-salt vanadium nitride. *Ceramics International*, **2020**, 46, 11169-11178	5.1	5
65	Repeated Thermal Shock Behavior of ZrB-SiC-Graphite Composite under Pre-Stress in Air and Ar Atmospheres. *Materials*, **2020**, 13,	3.5	6
64	Tension-Compression asymmetry of single-crystalline and nanocrystalline NiTi shape memory alloy: An atomic scale study. *Mechanics of Materials*, **2020**, 145, 103402	3.3	16
63	Extension of micromechanics model and micro-macro description to shape memory effect of NiTi SMAs. *International Journal of Solids and Structures*, **2020**, 188-189, 169-180	3.1	2

62	A homogenization scheme for elastoplastic composites using concept of Mori-Tanaka method and average deformation power rate density. *International Journal of Plasticity*, **2020**, 128, 102652	7.6	8
61	A quick measuring method for yield temperatures of materials under constant prestress at ultra-high temperatures. *Review of Scientific Instruments*, **2020**, 91, 075110	1.7	
60	Anisotropic Phase Transformation in B2 Crystalline CuZr Alloy. *Nanoscale Research Letters*, **2019**, 14, 283	5	15
59	Comment on "Enhanced Strength Through Nanotwinning in the Thermoelectric Semiconductor InSb". *Physical Review Letters*, **2019**, 123, 119601	7.4	1
58	Effect of heating rate on the strength of ZrB2–SiC composite subjected to cyclic thermal shock. *Ceramics International*, **2019**, 45, 15400-15405	5.1	6
57	Strengthening and toughening by partial slip in nanotwinned diamond. *Carbon*, **2019**, 150, 1-7	10.4	14
56	Anisotropic and asymmetric deformation mechanisms of nanolaminated graphene/Cu composites. *Nano Materials Science*, **2019**, 1, 121-130	10.2	16
55	Detwinning Mechanism for Nanotwinned Cubic Boron Nitride with Unprecedented Strength: A First-Principles Study. *Nanomaterials*, **2019**, 9,	5.4	4
54	Toughening and maintaining strength of diamond with substitutional doping boron and nitrogen. *Journal of Alloys and Compounds*, **2019**, 805, 1090-1095	5.7	4
53	Effects of modulation periods on mechanical properties of V/VN nano-multilayers. *Ceramics International*, **2019**, 45, 10295-10303	5.1	8
52	Inapparent Strengthening Effect of Twin Interface in Cu/Pd Multilayered Films with a Large Lattice Mismatch. *Nanomaterials*, **2019**, 9,	5.4	7
51	Grain size dependence of tensile properties in nanocrystalline diamond. *Computational Materials Science*, **2019**, 157, 67-74	3.2	12
50	Structure and shear response of tilt grain boundary in titanium nitride. *Ceramics International*, **2019**, 45, 5531-5546	5.1	6
49	Notch effects on deformation of crystalline and amorphous AlN □A nanoscale study. *Ceramics International*, **2019**, 45, 907-917	5.1	5
48	Anisotropy effects in diamond under nanoindentation. *Carbon*, **2018**, 132, 606-615	10.4	34
47	Investigation of impurity induced twinning in MgO from first principles calculations. *Computational Materials Science*, **2018**, 150, 390-396	3.2	3
46	Modulation period dependent mechanical properties of Cu/Fe metallic multilayered films. *AIP Advances*, **2018**, 8, 045208	1.5	2
45	Molecular dynamics study of strengthening mechanism of nanolaminated graphene/Cu composites under compression. *Scientific Reports*, **2018**, 8, 3089	4.9	77

44	Generalized stacking fault energies and ideal strengths of MC systems (M = Ti, Zr, Hf) doped with Si/Al using first principles calculations. *Journal of Alloys and Compounds*, **2018**, 739, 431-438	5.7	12
43	Effects of strain rate and annealing temperature on tensile properties of nanocrystalline diamond. *Carbon*, **2018**, 136, 320-328	10.4	28
42	Investigation of mechanical behaviour of amorphous aluminium nitride. *Materialia*, **2018**, 2, 148-156	3.2	20
41	Strengthening mechanisms of graphene coated copper under nanoindentation. *Computational Materials Science*, **2018**, 144, 42-49	3.2	25
40	Molecular dynamic simulation on nano-indentation of NiTi SMA. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 712, 592-602	5.3	27
39	Molecular dynamics simulation of effects of interface imperfections and modulation periods on Cu/Ta multilayers. *Computational Materials Science*, **2018**, 143, 63-70	3.2	27
38	Shock-induced stacking fault pyramids in Ni/Al multilayers. *Applied Surface Science*, **2018**, 427, 219-225	6.7	20
37	Higher Strength and Ductility than Diamond: Nanotwinned Diamond/Cubic Boron Nitride Multilayer. *ACS Applied Materials & Interfaces*, **2018**, 10, 42804-42811	9.5	16
36	Flow strength limit of nanocrystalline tantalum predicted with molecular dynamics simulations. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2018**, 738, 1-9	5.3	6
35	Molecular dynamics simulation of AlN thin films under nanoindentation. *Ceramics International*, **2017**, 43, 4068-4075	5.1	36
34	Atomic structures and electronic properties of interfaces between aluminum and carbides/nitrides: A first-principles study. *Physica E: Low-Dimensional Systems and Nanostructures*, **2017**, 89, 15-20	3	17
33	Molecular dynamics simulation of BCC Ta with coherent twin boundaries under nanoindentation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2017**, 700, 609-616	5.3	43
32	Formation of prismatic loops in AlN and GaN under nanoindentation. *Acta Materialia*, **2017**, 138, 131-139	8.4	58
31	Strain rate dependence of tension and compression behavior in nano-polycrystalline vanadium nitride. *Ceramics International*, **2017**, 43, 11635-11641	5.1	22
30	Atomic structure, electronic properties and generalized stacking fault energy of diamond/c-BN multilayer. *RSC Advances*, **2017**, 7, 29599-29605	3.7	5
29	Molecular dynamics simulations of aggregation of copper nanoparticles with different heating rates. *Physica E: Low-Dimensional Systems and Nanostructures*, **2017**, 90, 137-142	3	36
28	Effect of tensile stress on thermal fatigue life of ZrB2-SiC-graphite composite. *Materials and Design*, **2017**, 126, 91-97	8.1	7
27	A micro-macro description for pseudoelasticity of NiTi SMAs subjected to nonproportional deformations. *International Journal of Plasticity*, **2017**, 90, 44-65	7.6	19

26	Molecular dynamics simulations for responses of nanotwinned diamond films under nanoindentation. *Ceramics International*, **2017**, 43, 16888-16894	5.1	30
25	Molecular dynamics simulation in single crystal 3C-SiC under nanoindentation: Formation of prismatic loops. *Ceramics International*, **2017**, 43, 16313-16318	5.1	26
24	Effects of twin boundaries in vanadium nitride films subjected to tensile/compressive deformations. *Applied Surface Science*, **2017**, 426, 262-270	6.7	18
23	In-plane anisotropy and twin boundary effects in vanadium nitride under nanoindentation. *Scientific Reports*, **2017**, 7, 4768	4.9	16
22	Deformation mechanisms and twin boundary effects in cadmium telluride under nanoindentation. *Ceramics International*, **2017**, 43, 14405-14412	5.1	2
21	Molecular dynamics simulation of nano-indentation on Ti-V multilayered thin films. *Physica E: Low-Dimensional Systems and Nanostructures*, **2017**, 87, 213-219	3	14
20	Molecular dynamics simulation of plasticity in VN(001) crystals under nanoindentation with a spherical indenter. *Applied Surface Science*, **2017**, 392, 942-949	6.7	52
19	First-principles investigation on slip systems and twinnability of TiC. *Computational Materials Science*, **2017**, 126, 103-107	3.2	12
18	Nanoindentation of ultra-hard cBN films: A molecular dynamics study. *Applied Surface Science*, **2017** , 392, 215-224	6.7	25
17	Investigation of Interaction between Dislocation Loop and Coherent Twin Boundary in BCC Ta Film during Nanoindentation. *Nanomaterials*, **2017**, 7,	5.4	4
16	Strengthening effects of twin interface in Cu/Ni multilayer thin films □A molecular dynamics study. *Materials and Design*, **2016**, 111, 1-8	8.1	62
15	Coalescence of Cu contacted nanoparticles with different heating rates: A molecular dynamics study. *International Journal of Modern Physics B*, **2016**, 30, 1650212	1.1	15
14	Molecular dynamics simulation of nanoindentation on Cu/Ni nanotwinned multilayer films using a spherical indenter. *Scientific Reports*, **2016**, 6, 35665	4.9	91
13	Molecular dynamics simulation of deformation twin in rocksalt vanadium nitride. *Journal of Alloys and Compounds*, **2016**, 675, 128-133	5.7	35
12	Molecular dynamics simulation of effects of twin interfaces on Cu/Ni multilayers. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 658, 1-7	5.3	48
11	MD simulation of effect of crystal orientations and substrate temperature on growth of Cu/Ni bilayer films. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	21
10	Molecular Dynamics Simulation of Nanoindentation of Cu/Au Thin Films at Different Temperatures. *Journal of Nanomaterials*, **2016**, 2016, 1-8	3.2	3
9	Molecular dynamics simulation of nano-indentation of (111) cubic boron nitride with optimized Tersoff potential. *Applied Surface Science*, **2016**, 382, 309-315	6.7	26

8	Repeated thermal shock behavior of ZrB2-SiC-graphite composite under prestress. *Ceramics International*, **2016**, 42, 18012-18018	5.1	6
7	Molecular dynamics simulation of TiN (001) thin films under indentation. *Ceramics International*, **2015**, 41, 14078-14086	5.1	42
6	Molecular dynamics simulation of VN thin films under indentation. *Applied Surface Science*, **2015**, 357, 643-650	6.7	58
5	Molecular dynamics simulation of the slip systems in VN. *RSC Advances*, **2015**, 5, 77831-77838	3.7	28
4	MD simulation of growth of Pd on Cu (1 1 1) and Cu on Pd (1 1 1) substrates. *Applied Surface Science* , **2015**, 356, 651-658	6.7	19
3	MD simulation of nanoindentation on (001) and (111) surfaces of Ag□Ni multilayers. *Physica E: Low-Dimensional Systems and Nanostructures*, **2015**, 74, 481-488	3	31
2	First-principles calculation and molecular dynamics simulation of fracture behavior of VN layers under uniaxial tension. *Physica E: Low-Dimensional Systems and Nanostructures*, **2015**, 69, 224-231	3	22
1	Molecular Dynamics Studies on Size Effects in Laminated Polycrystalline Graphene/Copper Composites: Implications for Mechanical Behavior. *ACS Applied Nano Materials*,	5.6	5