

# Tao Fu

## List of Publications by Citations

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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	Molecular dynamics simulation of nanoindentation on Cu/Ni nanotwinned multilayer films using a spherical indenter. <i>Scientific Reports</i> , <b>2016</b> , 6, 35665	4.9	91
78	Molecular dynamics study of strengthening mechanism of nanolaminated graphene/Cu composites under compression. <i>Scientific Reports</i> , <b>2018</b> , 8, 3089	4.9	77
77	Strengthening effects of twin interface in Cu/Ni multilayer thin films [A molecular dynamics study. <i>Materials and Design</i> , <b>2016</b> , 111, 1-8	8.1	62
76	Formation of prismatic loops in AlN and GaN under nanoindentation. <i>Acta Materialia</i> , <b>2017</b> , 138, 131-139.4	9.4	58
75	Molecular dynamics simulation of VN thin films under indentation. <i>Applied Surface Science</i> , <b>2015</b> , 357, 643-650	6.7	58
74	Molecular dynamics simulation of plasticity in VN(001) crystals under nanoindentation with a spherical indenter. <i>Applied Surface Science</i> , <b>2017</b> , 392, 942-949	6.7	52
73	Molecular dynamics simulation of effects of twin interfaces on Cu/Ni multilayers. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 658, 1-7	5.3	48
72	Molecular dynamics simulation of BCC Ta with coherent twin boundaries under nanoindentation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2017</b> , 700, 609-616	5.3	43
71	Molecular dynamics simulation of TiN (001) thin films under indentation. <i>Ceramics International</i> , <b>2015</b> , 41, 14078-14086	5.1	42
70	Molecular dynamics simulation of AlN thin films under nanoindentation. <i>Ceramics International</i> , <b>2017</b> , 43, 4068-4075	5.1	36
69	Molecular dynamics simulations of aggregation of copper nanoparticles with different heating rates. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2017</b> , 90, 137-142	3	36
68	Molecular dynamics simulation of deformation twin in rocksalt vanadium nitride. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 675, 128-133	5.7	35
67	Anisotropy effects in diamond under nanoindentation. <i>Carbon</i> , <b>2018</b> , 132, 606-615	10.4	34
66	MD simulation of nanoindentation on (001) and (111) surfaces of Ag/Ni multilayers. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2015</b> , 74, 481-488	3	31
65	Molecular dynamics simulations for responses of nanotwinned diamond films under nanoindentation. <i>Ceramics International</i> , <b>2017</b> , 43, 16888-16894	5.1	30
64	Molecular dynamics simulation of the slip systems in VN. <i>RSC Advances</i> , <b>2015</b> , 5, 77831-77838	3.7	28
63	Effects of strain rate and annealing temperature on tensile properties of nanocrystalline diamond. <i>Carbon</i> , <b>2018</b> , 136, 320-328	10.4	28

62	Molecular dynamic simulation on nano-indentation of NiTi SMA. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2018</b> , 712, 592-602	5.3	27
61	Molecular dynamics simulation of effects of interface imperfections and modulation periods on Cu/Ta multilayers. <i>Computational Materials Science</i> , <b>2018</b> , 143, 63-70	3.2	27
60	Molecular dynamics simulation in single crystal 3C-SiC under nanoindentation: Formation of prismatic loops. <i>Ceramics International</i> , <b>2017</b> , 43, 16313-16318	5.1	26
59	Molecular dynamics simulation of nano-indentation of (111) cubic boron nitride with optimized Tersoff potential. <i>Applied Surface Science</i> , <b>2016</b> , 382, 309-315	6.7	26
58	Nanoindentation of ultra-hard cBN films: A molecular dynamics study. <i>Applied Surface Science</i> , <b>2017</b> , 392, 215-224	6.7	25
57	Strengthening mechanisms of graphene coated copper under nanoindentation. <i>Computational Materials Science</i> , <b>2018</b> , 144, 42-49	3.2	25
56	Strain rate dependence of tension and compression behavior in nano-polycrystalline vanadium nitride. <i>Ceramics International</i> , <b>2017</b> , 43, 11635-11641	5.1	22
55	First-principles calculation and molecular dynamics simulation of fracture behavior of VN layers under uniaxial tension. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2015</b> , 69, 224-231	3	22
54	MD simulation of effect of crystal orientations and substrate temperature on growth of Cu/Ni bilayer films. <i>Applied Physics A: Materials Science and Processing</i> , <b>2016</b> , 122, 1	2.6	21
53	Investigation of mechanical behaviour of amorphous aluminium nitride. <i>Materialia</i> , <b>2018</b> , 2, 148-156	3.2	20
52	Shock-induced stacking fault pyramids in Ni/Al multilayers. <i>Applied Surface Science</i> , <b>2018</b> , 427, 219-225	6.7	20
51	A micro-macro description for pseudoelasticity of NiTi SMAs subjected to nonproportional deformations. <i>International Journal of Plasticity</i> , <b>2017</b> , 90, 44-65	7.6	19
50	MD simulation of growth of Pd on Cu (1 1 1) and Cu on Pd (1 1 1) substrates. <i>Applied Surface Science</i> , <b>2015</b> , 356, 651-658	6.7	19
49	Effects of twin boundaries in vanadium nitride films subjected to tensile/compressive deformations. <i>Applied Surface Science</i> , <b>2017</b> , 426, 262-270	6.7	18
48	Atomic structures and electronic properties of interfaces between aluminum and carbides/nitrides: A first-principles study. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2017</b> , 89, 15-20	3	17
47	Anisotropic and asymmetric deformation mechanisms of nanolaminated graphene/Cu composites. <i>Nano Materials Science</i> , <b>2019</b> , 1, 121-130	10.2	16
46	Tension-Compression asymmetry of single-crystalline and nanocrystalline NiTi shape memory alloy: An atomic scale study. <i>Mechanics of Materials</i> , <b>2020</b> , 145, 103402	3.3	16
45	In-plane anisotropy and twin boundary effects in vanadium nitride under nanoindentation. <i>Scientific Reports</i> , <b>2017</b> , 7, 4768	4.9	16

44	Higher Strength and Ductility than Diamond: Nanotwinned Diamond/Cubic Boron Nitride Multilayer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 42804-42811	9.5	16
43	Anisotropic Phase Transformation in B2 Crystalline CuZr Alloy. <i>Nanoscale Research Letters</i> , <b>2019</b> , 14, 283	5	15
42	Coalescence of Cu contacted nanoparticles with different heating rates: A molecular dynamics study. <i>International Journal of Modern Physics B</i> , <b>2016</b> , 30, 1650212	1.1	15
41	Strengthening and toughening by partial slip in nanotwinned diamond. <i>Carbon</i> , <b>2019</b> , 150, 1-7	10.4	14
40	Molecular dynamics simulation of nano-indentation on Ti-V multilayered thin films. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2017</b> , 87, 213-219	3	14
39	Generalized stacking fault energies and ideal strengths of MC systems (M = Ti, Zr, Hf) doped with Si/Al using first principles calculations. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 739, 431-438	5.7	12
38	First-principles investigation on slip systems and twinnability of TiC. <i>Computational Materials Science</i> , <b>2017</b> , 126, 103-107	3.2	12
37	Grain size dependence of tensile properties in nanocrystalline diamond. <i>Computational Materials Science</i> , <b>2019</b> , 157, 67-74	3.2	12
36	A homogenization scheme for elastoplastic composites using concept of Mori-Tanaka method and average deformation power rate density. <i>International Journal of Plasticity</i> , <b>2020</b> , 128, 102652	7.6	8
35	Effects of modulation periods on mechanical properties of V/VN nano-multilayers. <i>Ceramics International</i> , <b>2019</b> , 45, 10295-10303	5.1	8
34	Effect of tensile stress on thermal fatigue life of ZrB <sub>2</sub> -SiC-graphite composite. <i>Materials and Design</i> , <b>2017</b> , 126, 91-97	8.1	7
33	Effects of Anisotropy and In-Plane Grain Boundary in Cu/Pd Multilayered Films with Cube-on-Cube and Twinned Interface. <i>Nanoscale Research Letters</i> , <b>2021</b> , 16, 69	5	7
32	Inapparent Strengthening Effect of Twin Interface in Cu/Pd Multilayered Films with a Large Lattice Mismatch. <i>Nanomaterials</i> , <b>2019</b> , 9,	5.4	7
31	Effect of heating rate on the strength of ZrB <sub>2</sub> /SiC composite subjected to cyclic thermal shock. <i>Ceramics International</i> , <b>2019</b> , 45, 15400-15405	5.1	6
30	Repeated Thermal Shock Behavior of ZrB-SiC-Graphite Composite under Pre-Stress in Air and Ar Atmospheres. <i>Materials</i> , <b>2020</b> , 13,	3.5	6
29	Repeated thermal shock behavior of ZrB <sub>2</sub> -SiC-graphite composite under prestress. <i>Ceramics International</i> , <b>2016</b> , 42, 18012-18018	5.1	6
28	Structure and shear response of tilt grain boundary in titanium nitride. <i>Ceramics International</i> , <b>2019</b> , 45, 5531-5546	5.1	6
27	Flow strength limit of nanocrystalline tantalum predicted with molecular dynamics simulations. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2018</b> , 738, 1-9	5.3	6

26	Atomic structure, electronic properties and generalized stacking fault energy of diamond/c-BN multilayer. <i>RSC Advances</i> , <b>2017</b> , 7, 29599-29605	3.7	5
25	Incipient plasticity and dislocation loop evolution in rock-salt vanadium nitride. <i>Ceramics International</i> , <b>2020</b> , 46, 11169-11178	5.1	5
24	Molecular Dynamics Studies on Size Effects in Laminated Polycrystalline Graphene/Copper Composites: Implications for Mechanical Behavior. <i>ACS Applied Nano Materials</i> ,	5.6	5
23	Notch effects on deformation of crystalline and amorphous AlN [A nanoscale study. <i>Ceramics International</i> , <b>2019</b> , 45, 907-917	5.1	5
22	Superior mechanical and thermal properties than diamond: Diamond/lonsdaleite biphasic structure. <i>Journal of Materials Science and Technology</i> , <b>2020</b> , 48, 114-122	9.1	4
21	Detwinning Mechanism for Nanotwinned Cubic Boron Nitride with Unprecedented Strength: A First-Principles Study. <i>Nanomaterials</i> , <b>2019</b> , 9,	5.4	4
20	Toughening and maintaining strength of diamond with substitutional doping boron and nitrogen. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 805, 1090-1095	5.7	4
19	Investigation of Interaction between Dislocation Loop and Coherent Twin Boundary in BCC Ta Film during Nanoindentation. <i>Nanomaterials</i> , <b>2017</b> , 7,	5.4	4
18	Formation and Anisotropic Mechanical Behavior of Stacking Fault Tetrahedron in Ni and CoCrFeNiMn High-Entropy Alloy. <i>Frontiers in Materials</i> , <b>2022</b> , 8,	4	4
17	Investigation of impurity induced twinning in MgO from first principles calculations. <i>Computational Materials Science</i> , <b>2018</b> , 150, 390-396	3.2	3
16	Molecular Dynamics Simulation of Nanoindentation of Cu/Au Thin Films at Different Temperatures. <i>Journal of Nanomaterials</i> , <b>2016</b> , 2016, 1-8	3.2	3
15	Molecular Dynamics Investigation of the Influence of Voids on the Impact Mechanical Behavior of NiTi Shape-Memory Alloy. <i>Materials</i> , <b>2021</b> , 14,	3.5	3
14	Nano-indentation and nano-scratching of pure nickel and NiTi shape memory alloy thin films: an atomic-scale simulation. <i>Thin Solid Films</i> , <b>2021</b> , 736, 138906	2.2	3
13	Modulation period dependent mechanical properties of Cu/Fe metallic multilayered films. <i>AIP Advances</i> , <b>2018</b> , 8, 045208	1.5	2
12	Deformation mechanisms and twin boundary effects in cadmium telluride under nanoindentation. <i>Ceramics International</i> , <b>2017</b> , 43, 14405-14412	5.1	2
11	Twin boundary migration and reactions with stacking fault tetrahedron in Cu and CoCrCuFeNi high-entropy alloy. <i>Journal of Materials Research and Technology</i> , <b>2022</b> , 17, 282-292	5.5	2
10	Extension of micromechanics model and micro-macro description to shape memory effect of NiTi SMAs. <i>International Journal of Solids and Structures</i> , <b>2020</b> , 188-189, 169-180	3.1	2
9	Comment on "Enhanced Strength Through Nanotwinning in the Thermoelectric Semiconductor InSb". <i>Physical Review Letters</i> , <b>2019</b> , 123, 119601	7.4	1

8	Delay of inverse Hall-Petch relationship of nanocrystalline Cu by modifying grain boundaries with coherent twins. <i>Physical Review B</i> , <b>2022</b> , 105,	3.3	1
7	Dislocation reaction-based formation mechanism of stacking fault tetrahedra in FCC high-entropy alloy. <i>Materials Chemistry and Physics</i> , <b>2022</b> , 282, 125997	4.4	1
6	A novel high-entropy alloy with multi-scale precipitates and excellent mechanical properties fabricated by spark plasma sintering. <i>Advanced Powder Technology</i> , <b>2022</b> , 33, 103520	4.6	0
5	A novel high performance eutectic medium-entropy alloy with nanoprecipitates. <i>Vacuum</i> , <b>2022</b> , 200, 111017	3.7	0
4	L21-strengthened body-centered-cubic high-entropy alloy with excellent mechanical properties. <i>Intermetallics</i> , <b>2022</b> , 145, 107539	3.5	0
3	Heterogeneous structure induced excellent mechanical and wear properties in Co-free FeCrAlNi medium-entropy alloys. <i>Journal of Materials Research and Technology</i> , <b>2022</b> , 18, 4169-4180	5.5	0
2	Deformation characteristics of nanolayered dual-phase CrCoNi medium-entropy alloy nanowires. <i>Materials Today Communications</i> , <b>2022</b> , 31, 103273	2.5	
1	A quick measuring method for yield temperatures of materials under constant prestress at ultra-high temperatures. <i>Review of Scientific Instruments</i> , <b>2020</b> , 91, 075110	1.7	