Hai-Yang Song

List of Publications by Citations

102 papers	1,082 citations	19 h-index	28 g-index
103 ext. papers	1,258 ext. citations	2.5 avg, IF	4.86 L-index

#	Paper	IF	Citations
102	Bidirectional Quantum Controlled Teleportation via Five-Qubit Cluster State. *International Journal of Theoretical Physics*, **2013**, 52, 1740-1744	1.1	144
101	Molecular dynamics study of deformation behavior of crystalline Cu/amorphous Cu 50 Zr 50 nanolaminates. *Materials and Design*, **2017**, 127, 173-182	8.1	45
100	Effect of twin boundary spacing on deformation behavior of nanotwinned magnesium. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2012**, 376, 529-533	2.3	39
99	Influence of nickel coating on the interfacial bonding characteristics of carbon nanotube□luminum composites. *Computational Materials Science*, **2010**, 49, 899-903	3.2	39
98	Remote preparation of a two-particle state using a four-qubit cluster state. *Optics Communications*, **2011**, 284, 1472-1474	2	35
97	Atomic simulations of effect of grain size on deformation behavior of nano-polycrystal magnesium. *Journal of Applied Physics*, **2012**, 111, 044322	2.5	35
96	Non-Bell-pair quantum channel for teleporting an arbitrary two-qubit state. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2007**, 369, 377-379	2.3	31
95	Molecular dynamics study of tension-compression asymmetry of nanocrystal □Ti with stacking fault. *Materials and Design*, **2017**, 127, 204-214	8.1	29
94	Mechanical properties of nickel-coated single-walled carbon nanotubes and their embedded gold matrix composites. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2010**, 374, 1068-1072	2.3	28
93	Molecular dynamics study of effects of radius and defect on oscillatory behaviors of C60□anotube oscillators. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2009**, 373, 1058-1061	2.3	26
92	Atomic simulation of the formation and mechanical behavior of carbon nanoscrolls. *Journal of Applied Physics*, **2013**, 113, 164305	2.5	25
91	Atomic simulations of plastic deformation behavior of Cu50Zr50 metallic glass. *Journal of Non-Crystalline Solids*, **2017**, 471, 312-321	3.9	24
90	Tuning electronic and magnetic properties of GaN nanosheets by surface modifications and nanosheet thickness. *Physical Chemistry Chemical Physics*, **2015**, 17, 8692-8	3.6	23
89	Coupling effects of thickness and aspect ratio on deformation behavior of Cu50Zr50 metallic glass. *Computational Materials Science*, **2017**, 139, 106-114	3.2	23
88	Effect of stacking fault and temperature on deformation behaviors of nanocrystalline Mg. *Journal of Applied Physics*, **2012**, 112, 054322	2.5	23
87	Atomic simulations of deformation mechanisms of crystalline Mg/amorphous Mg□l nanocomposites. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2015**, 379, 2087-2091	2.3	22
86	Atomic simulations of the effect of twist grain boundaries on deformation behavior of nanocrystalline copper. *Computational Materials Science*, **2014**, 84, 40-44	3.2	22

85	Molecular Dynamics Study of Effects of Si-Doping Upon Structure and Mechanical Properties of Carbon Nanotube. *Communications in Theoretical Physics*, **2006**, 45, 741-744	2.4	22
84	Molecular dynamics study of mechanical properties of carbon nanotube-embedded gold composites. *Physica B: Condensed Matter*, **2008**, 403, 559-563	2.8	20
83	A maximally entangled seven-qubit state. *Journal of Physics A: Mathematical and Theoretical*, **2012**, 45, 255302	2	18
82	Effect of coherent twin boundary and stacking fault on deformation behaviors of copper nanowires. *Computational Materials Science*, **2015**, 104, 46-51	3.2	17
81	Deformation mode transitions in Cu 50 Zr 50 amorphous/Cu crystalline nanomultilayer: A molecular dynamics study. *Journal of Non-Crystalline Solids*, **2018**, 490, 13-21	3.9	17
80	Molecular dynamics study of effects of sp3 interwall bridging upon torsional behavior of double-walled carbon nanotube. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2009**, 373, 682-685	2.3	16
79	Dependence of deformation mechanisms on layer spacing in multilayered Ti/Al composite. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2017**, 684, 491-499	5.3	15
78	Mechanical Properties of Ni-Coated Single Graphene Sheet and Their Embedded Aluminum Matrix Composites. *Communications in Theoretical Physics*, **2010**, 54, 143-147	2.4	14
77	Torsional behaviour of carbon nanotubes with abnormal interlayer distances. *Journal Physics D: Applied Physics*, **2009**, 42, 055414	3	14
76	Molecular dynamics study of effects of sp3 interwall bridging and initial vacancy-related defects on mechanical properties of double-walled carbon nanotube. *Physica B: Condensed Matter*, **2008**, 403, 3798-3802	2.8	14
75	Atomic simulations of plastic deformation mechanism of MgAl/Mg nanoscale amorphous/crystalline multilayers. *Journal of Non-Crystalline Solids*, **2018**, 500, 121-128	3.9	14
74	Effect of amorphous phase on the plastic deformation mechanism of Mg: A molecular dynamics study. *Journal of Non-Crystalline Solids*, **2018**, 494, 1-8	3.9	13
73	Atomic simulation of mechanical behavior of Mg in a super-lattice of nanocrystalline Mg and amorphous Mg-Al alloy. *Journal of Applied Physics*, **2014**, 116, 214305	2.5	12
72	The effects of boron doping and boron grafts on the mechanical properties of single-walled carbon nanotubes. *Journal Physics D: Applied Physics*, **2009**, 42, 225402	3	11
71	Si-coated single-walled carbon nanotubes under axial loads: An atomistic simulation study. *Physica B: Condensed Matter*, **2007**, 393, 217-222	2.8	11
70	Molecular dynamics study of effects of intertube spacing on sliding behaviors of multi-walled carbon nanotube. *Computational Materials Science*, **2011**, 50, 971-974	3.2	10
69	Molecular dynamics study of effects of nickel coating on torsional behavior of single-walled carbon nanotube. *Physica B: Condensed Matter*, **2011**, 406, 992-995	2.8	10
68	Effects of twin and stacking faults on the deformation behaviors of Al nanowires under tension loading. *Chinese Physics B*, **2012**, 21, 106202	1.2	10

67	Theoretical investigation on spin-forbidden cooling transitions of gallium hydride. *Physical Chemistry Chemical Physics*, **2017**, 19, 24647-24655	3.6	9
66	Two schemes of remote preparation of a four-particle entangled W state via a six-qubit maximally entangled state. *Physica Scripta*, **2011**, 84, 015010	2.6	9
65	Superplastic dual-phase nanostructure Mg alloy: A molecular dynamics study. *Computational Materials Science*, **2019**, 160, 295-300	3.2	8
64	Influence of interface with mismatch dislocations on mechanical properties of Ti/Al nanolaminate. *Journal of Applied Physics*, **2019**, 125, 165307	2.5	8
63	Molecular dynamics simulation of effect of hydrogen atoms on crack propagation behavior of □Fe. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2016**, 380, 4049-4056	2.3	8
62	Effects of twist twin boundary and stacking fault on crack propagation of nanocrystal Al. *Computational Materials Science*, **2014**, 95, 484-490	3.2	8
61	Anisotropic plasticity of nanocrystalline Ti: A molecular dynamics simulation. *Chinese Physics B*, **2020**, 29, 046201	1.2	7
60	A Criterion to Identify Maximally Entangled Four-Qubit State. *Communications in Theoretical Physics* , **2011**, 56, 827-830	2.4	7
59	Atomic simulation of deformation behavior of dual-phase crystalline/amorphous Mg/Mg-Al nanolaminates. *Computational Materials Science*, **2019**, 165, 88-95	3.2	6
58	Atomistic study of crack growth behavior in crystalline Mg/amorphous Mg□Al nanocomposites. *Computational Materials Science*, **2016**, 111, 125-130	3.2	6
57	Atomic simulations of influence of twinning on crack propagation of Al. *Science China: Physics, Mechanics and Astronomy*, **2013**, 56, 1938-1944	3.6	6
56	TELEPORTATION AND CONTROLLED TELEPORTATION WITH MAXIMALLY FOUR-QUBIT ENTANGLEMENT QUANTUM STATES. *Modern Physics Letters B*, **2010**, 24, 2069-2076	1.6	6
55	THE RELATION BETWEEN LOCAL UNITARY TRANSFORMATION INVARIANT AND PERFECT QUANTUM TELEPORTATION. *International Journal of Quantum Information*, **2010**, 08, 1251-1256	0.8	6
54	Design strategy for high plasticity and strength in metallic glasses: A molecular dynamics simulation study. *Physica E: Low-Dimensional Systems and Nanostructures*, **2019**, 108, 27-33	3	6
53	Strengthening mechanism of Al matrix composites reinforced by nickel-coated graphene: Insights from molecular dynamics simulation. *Physica B: Condensed Matter*, **2021**, 601, 412620	2.8	6
52	Effect of crystal phase on shear bands initiation and propagation behavior in metallic glass matrix composites. *Computational Materials Science*, **2018**, 150, 42-46	3.2	5
51	Molecular dynamics study of effect of hydrogen atoms on mechanical properties of □Fe nanowires. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2017**, 381, 3222-3227	2.3	5
50	TWO FORMS OF THE THREE-QUBIT STATE FOR PERFECT TELEPORTATION. *Modern Physics Letters B*, **2008**, 22, 2523-2528	1.6	5

49	Electric field modulated half-metallicity of semichlorinated GaN nanosheets. *Solid State Communications*, **2016**, 245, 5-10	1.6	5
48	Effect of interface structure on deformation behavior of crystalline Cu/amorphous CuZr sandwich structures. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2019**, 383, 215-220	2.3	5
47	Effect of shape memory alloys on the mechanical properties of metallic glasses: A molecular dynamics study. *Computational Materials Science*, **2021**, 187, 110088	3.2	5
46	Atomic simulation of interaction mechanism between basal/prismatic interface and amorphous/crystalline interface of dual-phase magnesium alloys. *Journal of Non-Crystalline Solids*, **2019**, 521, 119550	3.9	4
45	Effects of tilt interface boundary on mechanical properties of Cu/Ni nanoscale metallic multilayer composites. *Chinese Physics B*, **2015**, 24, 096202	1.2	4
44	Simulation of interaction behavior between dislocation and graphene during nanoindentation of graphene/aluminum matrix nanocomposites. *Wuli Xuebao/Acta Physica Sinica*, **2021**, 0-0	0.6	4
43	Enhancing the plasticity of noncrystalline Cu Zr multilayer: Insights from molecular dynamics simulations. *Journal of Non-Crystalline Solids*, **2019**, 507, 11-18	3.9	3
42	Effect of stacking fault and amorphous boundary on plastic deformation mechanism of dual-phase nanostructure Mg alloys. *Computational Materials Science*, **2019**, 162, 199-205	3.2	3
41	Interaction mechanism between twin boundary and crystalline/amorphous interface in dual-phase Mg alloys. *Journal of Non-Crystalline Solids*, **2020**, 534, 119954	3.9	3
40	Balancing strength and plasticity of dual-phase amorphous/crystalline nanostructured Mg alloys. *Chinese Physics B*, **2020**, 29, 066201	1.2	3
39	Strain modulating half-metallicity of semifluorinated GaN nanosheets. *Chemical Physics Letters*, **2016**, 653, 42-46	2.5	3
38	Atomistic simulations of effect of hydrogen atoms on mechanical behaviour of an □Fe with symmetric tilt grain boundaries. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2018**, 382, 2464-2469	2.3	3
37	Effect of surface crack on nanoimprint process of Al thin film. *Physica B: Condensed Matter*, **2014**, 434, 194-199	2.8	3
36	MULTI-SCHEME FOR TELEPORTING AN UNKNOWN N-PARTICLE STATE. *Modern Physics Letters B*, **2009**, 23, 2463-2469	1.6	3
35	Simulation of Mechanical Properties of Single-Walled and Double-Walled Carbon Nanotubes by Molecular Dynamics. *Journal of Computational and Theoretical Nanoscience*, **2008**, 5, 1481-1484	0.3	3
34	Molecular dynamics simulation of effect of tilt angle on mechanical property of magnesium bicrystals. *Wuli Xuebao/Acta Physica Sinica*, **2014**, 63, 046201	0.6	3
33	The effects of stacking fault and temperature on deformation mechanism of nanocrystalline Mg. *Wuli Xuebao/Acta Physica Sinica*, **2012**, 61, 226201	0.6	3
32	Simulation of mechanical properties of carbon nanotubes with superlattice structure. *Current Applied Physics*, **2015**, 15, 1216-1221	2.6	2

31	Enhanced plasticity by introducing amorphous phase in nanopolycrystal Cu: A molecular dynamics study. *Materials Chemistry and Physics*, **2020**, 253, 123254	4.4	2
30	Atomic simulation of interaction mechanism between dislocation and amorphous phase in dual-phase crystalline/amorphous Mg/MgAl alloys. *Journal of Applied Physics*, **2020**, 127, 135105	2.5	2
29	The effect of defects on the fracture behavior of trilayer graphene. *Superlattices and Microstructures*, **2018**, 123, 172-182	2.8	2
28	Teleportation Capability of Six-Qubit Cluster State. *Communications in Theoretical Physics*, **2010**, 54, 1007-1009	2.4	2
27	Molecular dynamics simulation on mechanical properties of gold nanotubes. *Wuli Xuebao/Acta Physica Sinica*, **2013**, 62, 063103	0.6	2
26	Effects of layer thickness and strain rate on mechanical properties of copper-gold multilayer nanowires. *Wuli Xuebao/Acta Physica Sinica*, **2015**, 64, 016201	0.6	2
25	Influence of composition on the mechanical properties of metallic nanoglasses: Insights from molecular dynamics simulation. *Journal of Applied Physics*, **2020**, 128, 165102	2.5	2
24	Effect of amorphous lamella on the crack propagation behavior of crystalline Mg/amorphous MgAl nanocomposites. *Chinese Physics B*, **2016**, 25, 026802	1.2	2
23	Effects of external electric field on adsorption behavior of organic molecules on stanene: Highly sensitive sensor devices. *Solid State Communications*, **2021**, 338, 114459	1.6	2
22	CONNECTION OF SINGLE-WALLED CARBON NANOTUBES BY BANDAGING WITH A BIGGER RADIUS SINGLE-WALLED CARBON NANOTUBE. *Modern Physics Letters B*, **2009**, 23, 1005-1012	1.6	1
21	Influence of Intertube Additional Atoms on Sliding Behaviors of Double-Walled Carbon Nanotube. *Communications in Theoretical Physics*, **2012**, 58, 432-436	2.4	1
20	A Scheme of Controlled Quantum State Swapping. *Communications in Theoretical Physics*, **2012**, 58, 372-376	2.4	1
19	Comment on Stochastic local operations and classical communication invariant and the residual entanglement for n qubits *Physical Review A*, **2008**, 77,	2.6	1
18	Thermal expansion behaviors of epitaxial film for wurtzite GaN studied by using temperature-dependent Raman scattering. *Wuli Xuebao/Acta Physica Sinica*, **2016**, 65, 130702	0.6	1
17	Bismuth metal organic framework-derived Bi2Se3@C for high performance supercapacitors. *New Journal of Chemistry*, **2021**, 45, 21888-21895	3.6	1
16	Molecular dynamics simulation of effect of grain on mechanical properties of nano-polycrystal -Fe. *Wuli Xuebao/Acta Physica Sinica*, **2016**, 65, 236201	0.6	1
15	Effects of the organic molecule adsorption and substrate on electronic structure of germanene. *Wuli Xuebao/Acta Physica Sinica*, **2021**, 0-0	0.6	1
14	Tunable band gaps and high carrier mobilities in stanene by small organic molecule adsorption under external electric fields. *Physical Chemistry Chemical Physics*, **2021**, 23, 16023-16032	3.6	1

13	Atomic simulation of interaction mechanism between dislocation and graphene in graphene/aluminum composites. *Computational Materials Science*, **2021**, 197, 110604	3.2	1
12	Effect of graphene on the mechanical properties of metallic glasses: Insight from molecular dynamics simulation. *Materials Chemistry and Physics*, **2022**, 278, 125695	4.4	0
11	A strategy for improving mechanical properties of metallic glass by tailoring interface structure. *Journal of Non-Crystalline Solids*, **2021**, 553, 120464	3.9	0
10	Uncovering strengthening and softening mechanisms of nano-twinned CoCrFeCuNi high entropy alloys by molecular dynamics simulation. *Journal of Applied Physics*, **2022**, 131, 094304	2.5	0
9	Atomistic simulations of deformation mechanism of fcc/bcc dual-phase high-entropy alloy multilayers. *Journal of Applied Physics*, **2021**, 130, 244301	2.5	0
8	Atomic-scale insight into interaction mechanism between extended dislocation and amorphous phase in high entropy alloys. *Journal of Non-Crystalline Solids*, **2022**, 590, 121695	3.9	0
7	Simple Forms of Slocc Equivalent Four-Qubit State. *International Journal of Theoretical Physics*, **2015**, 54, 2236-2239	1.1	
6	Efficiency criterion for teleportation via channel matrix, measurement matrix and collapsed matrix. *Results in Physics*, **2016**, 6, 505-508	3.7	
5	Effect of twin boundary on nanoimprint process of bicrystal Al thin film studied by molecular dynamics simulation. *Chinese Physics B*, **2015**, 24, 026201	1.2	
4	Enhanced entanglement in a non-degenerate four-level atom with a parametric oscillator. *Journal of Modern Optics*, **2008**, 55, 2473-2483	1.1	
3	Effect of grain boundary and defect on mechanical properties of bicrystalline graphene. *Modern Physics Letters B*, **2021**, 35, 2150141	1.6	
2	Influence of Defects and Crystallographic Orientation on Mechanical Behavior of Nanocrystalline Aluminium. *Communications in Theoretical Physics*, **2016**, 66, 431-438	2.4	
1	Mechanical behavior of graphene magnesium matrix composites based on molecular dynamics simulation. *Wuli Xuebao/Acta Physica Sinica*, **2022**, 71, 086201	0.6	