Hai-Yang Song

List of Publications by Year
in descending order

103	1,443	304602 22	395590 33
papers	citations	h-index	g-index

103	103	103	814
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bidirectional Quantum Controlled Teleportation via Five-Qubit Cluster State. International Journal of Theoretical Physics, 2013, 52, 1740-1744.	0.5	200
2	Molecular dynamics study of deformation behavior of crystalline Cu/amorphous Cu 50 Zr 50 nanolaminates. Materials and Design, 2017, 127, 173-182.	3.3	62
3	Influence of nickel coating on the interfacial bonding characteristics of carbon nanotubeâ€“aluminum composites. Computational Materials Science, 2010, 49, 899-903.	1.4	45
4	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.	0.9	44
5	Atomic simulations of effect of grain size on deformation behavior of nano-polycrystal magnesium. Journal of Applied Physics, 2012, 111, .	1.1	40
6	Remote preparation of a two-particle state using a four-qubit cluster state. Optics Communications, 2011, 284, 1472-1474.	1.0	37
7	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.	0.9	36
8	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.	0.9	35
9	Atomic simulations of deformation mechanisms of crystalline Mg/amorphous Mgâ€“Al nanocomposites. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2087-2091.	0.9	33
10	Molecular dynamics study of tension-compression asymmetry of nanocrystal Î± -Ti with stacking fault. Materials and Design, 2017, 127, 204-214.	3.3	33
11	Molecular dynamics study of effects of radius and defect on oscillatory behaviors of C60â€“nanotube oscillators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 1058-1061.	0.9	28
12	Atomic simulations of plastic deformation behavior of Cu50Zr50 metallic glass. Journal of Non-Crystalline Solids, 2017, 471, 312-321.	1.5	28
13	Coupling effects of thickness and aspect ratio on deformation behavior of Cu50Zr50 metallic glass. Computational Materials Science, 2017, 139, 106-114.	1.4	28
14	Atomic simulation of the formation and mechanical behavior of carbon nanoscrolls. Journal of Applied Physics, 2013, 113, .	1.1	27
15	Molecular Dynamics Study of Effects of Si-Doping Upon Structure and Mechanical Properties of Carbon Nanotube. Communications in Theoretical Physics, 2006, 45, 741-744.	1.1	26
16	Effect of stacking fault and temperature on deformation behaviors of nanocrystalline Mg. Journal of Applied Physics, 2012, 112, 054322.	1.1	26
17	Tuning electronic and magnetic properties of GaN nanosheets by surface modifications and nanosheet thickness. Physical Chemistry Chemical Physics, 2015, 17, 8692-8698.	1.3	26
18	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.	2.6	25

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19	Atomic simulations of the effect of twist grain boundaries on deformation behavior of nanocrystalline copper. Computational Materials Science, 2014, 84, 40-44.	1.4	24
20	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.	1.5	24
21	Molecular dynamics study of mechanical properties of carbon nanotube-embedded gold composites. Physica B: Condensed Matter, 2008, 403, 559-563.	1.3	22
22	Effect of coherent twin boundary and stacking fault on deformation behaviors of copper nanowires. Computational Materials Science, 2015, 104, 46-51.	1.4	22
23	Strengthening mechanism of Al matrix composites reinforced by nickel-coated graphene: Insights from molecular dynamics simulation. Physica B: Condensed Matter, 2021, 601, 412620.	1.3	22
24	Effect of amorphous phase on the plastic deformation mechanism of Mg: A molecular dynamics study. Journal of Non-Crystalline Solids, 2018, 494, 1-8.	1.5	20
25	A maximally entangled seven-qubit state. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 255302.	0.7	19
26	Atomic simulations of plastic deformation mechanism of MgAl/Mg nanoscale amorphous/crystalline multilayers. Journal of Non-Crystalline Solids, 2018, 500, 121-128.	1.5	19
27	Mechanical Properties of Ni-Coated Single Graphene Sheet and Their Embedded Aluminum Matrix Composites. Communications in Theoretical Physics, 2010, 54, 143-147.	1.1	18
28	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.	0.9	17
29	Molecular dynamics simulation of effect of hydrogen atoms on crack propagation behavior of Î± -Fe. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 4049-4056.	0.9	17
30	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.	1.3	16
31	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, .	1.1	16
32	Torsional behaviour of carbon nanotubes with abnormal interlayer distances. Journal Physics D: Applied Physics, 2009, 42, 055414.	1.3	15
33	Molecular dynamics study of effects of nickel coating on torsional behavior of single-walled carbon nanotube. Physica B: Condensed Matter, 2011, 406, 992-995.	1.3	13
34	Theoretical investigation on spin-forbidden cooling transitions of gallium hydride. Physical Chemistry Chemical Physics, 2017, 19, 24647-24655.	1.3	12
35	Superplastic dual-phase nanostructure Mg alloy: A molecular dynamics study. Computational Materials Science, 2019, 160, 295-300.	1.4	12
36	Influence of interface with mismatch dislocations on mechanical properties of Ti/Al nanolaminate. Journal of Applied Physics, 2019, 125, .	1.1	12

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37	Si-coated single-walled carbon nanotubes under axial loads: An atomistic simulation study. Physica B: Condensed Matter, 2007, 393, 217-222.	1.3	11
38	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.	1.3	11
39	Molecular dynamics study of effects of intertube spacing on sliding behaviors of multi-walled carbon nanotube. Computational Materials Science, 2011, 50, 971-974.	1.4	11
40	Effects of twin and stacking faults on the deformation behaviors of Al nanowires under tension loading. Chinese Physics B, 2012, 21, 106202.	0.7	11
41	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.	1.5	11
42	Bismuth metal organic framework-derived Bi₂Se₃@C for high performance supercapacitors. New Journal of Chemistry, 2021, 45, 21888-21895.	1.4	11
43	Anisotropic plasticity of nanocrystalline Ti: A molecular dynamics simulation*. Chinese Physics B, 2020, 29, 046201.	0.7	10
44	Effect of shape memory alloys on the mechanical properties of metallic glasses: A molecular dynamics study. Computational Materials Science, 2021, 187, 110088.	1.4	10
45	Two schemes of remote preparation of a four-particle entangled W state via a six-qubit maximally entangled state. Physica Scripta, 2011, 84, 015010.	1.2	9
46	Effects of twist twin boundary and stacking fault on crack propagation of nanocrystal Al. Computational Materials Science, 2014, 95, 484-490.	1.4	9
47	Atomistic study of crack growth behavior in crystalline Mg/amorphous Mgâ€“Al nanocomposites. Computational Materials Science, 2016, 111, 125-130.	1.4	9
48	Effect of crystal phase on shear bands initiation and propagation behavior in metallic glass matrix composites. Computational Materials Science, 2018, 150, 42-46.	1.4	9
49	Atomic simulation of deformation behavior of dual-phase crystalline/amorphous Mg/Mg-Al nanolaminates. Computational Materials Science, 2019, 165, 88-95.	1.4	9
50	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.	1.3	9
51	Interaction mechanism between twin boundary and crystalline/amorphous interface in dual-phase Mg alloys. Journal of Non-Crystalline Solids, 2020, 534, 119954.	1.5	9
52	THE RELATION BETWEEN LOCAL UNITARY TRANSFORMATION INVARIANT AND PERFECT QUANTUM TELEPORTATION. International Journal of Quantum Information, 2010, 08, 1251-1256.	0.6	8
53	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.	0.9	8
54	Effects of external electric field on adsorption behavior of organic molecules on stanene: Highly sensitive sensor devices. Solid State Communications, 2021, 338, 114459.	0.9	8

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55	Atomic-scale insight into mechanical properties and deformation behavior of crystalline/amorphous dual-phase high entropy alloys. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 446, 128272.	0.9	8
56	A Criterion to Identify Maximally Entangled Four-Qubit State. Communications in Theoretical Physics, 2011, 56, 827-830.	1.1	7
57	Molecular dynamics study of effect of hydrogen atoms on mechanical properties of Î± -Fe nanowires. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 3222-3227.	0.9	7
58	The effect of defects on the fracture behavior of trilayer graphene. Superlattices and Microstructures, 2018, 123, 172-182.	1.4	7
59	A strategy for improving mechanical properties of metallic glass by tailoring interface structure. Journal of Non-Crystalline Solids, 2021, 553, 120464.	1.5	7
60	Atomic simulation of interaction mechanism between dislocation and graphene in graphene/aluminum composites. Computational Materials Science, 2021, 197, 110604.	1.4	7
61	TELEPORTATION AND CONTROLLED TELEPORTATION WITH MAXIMALLY FOUR-QUBIT ENTANGLEMENT QUANTUM STATES. Modern Physics Letters B, 2010, 24, 2069-2076.	1.0	6
62	Atomic simulations of influence of twinning on crack propagation of Al. Science China: Physics, Mechanics and Astronomy, 2013, 56, 1938-1944.	2.0	6
63	Electric field modulated half-metallicity of semichlorinated GaN nanosheets. Solid State Communications, 2016, 245, 5-10.	0.9	6
64	Effect of stacking fault and amorphous boundary on plastic deformation mechanism of dual-phase nanostructure Mg alloys. Computational Materials Science, 2019, 162, 199-205.	1.4	6
65	Atomic simulation of interaction mechanism between dislocation and amorphous phase in dual-phase crystalline/amorphous Mg/MgAl alloys. Journal of Applied Physics, 2020, 127, .	1.1	6
66	Uncovering strengthening and softening mechanisms of nano-twinned CoCrFeCuNi high entropy alloys by molecular dynamics simulation. Journal of Applied Physics, 2022, 131, .	1.1	6
67	TWO FORMS OF THE THREE-QUBIT STATE FOR PERFECT TELEPORTATION. Modern Physics Letters B, 2008, 22, 2523-2528.	1.0	5
68	Atomistic simulations of effect of hydrogen atoms on mechanical behaviour of an Î± -Fe with symmetric tilt grain boundaries. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 2464-2469.	0.9	5
69	Enhancing the plasticity of noncrystalline Cu Zr multilayer: Insights from molecular dynamics simulations. Journal of Non-Crystalline Solids, 2019, 507, 11-18.	1.5	5
70	Enhanced plasticity by introducing amorphous phase in nanopolycrystal Cu: A molecular dynamics study. Materials Chemistry and Physics, 2020, 253, 123254.	2.0	5
71	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.	1.3	5
72	Simulation of interaction behavior between dislocation and graphene during nanoindentation of graphene/aluminum matrix nanocomposites. Wuli Xuebao/Acta Physica Sinica, 2021, 70, 066201.	0.2	5

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73	The effects of stacking fault and temperature on deformation mechanism of nanocrystalline Mg. Wuli Xuebao/Acta Physica Sinica, 2012, 61, 226201.	0.2	5
74	Effects of tilt interface boundary on mechanical properties of Cu/Ni nanoscale metallic multilayer composites. Chinese Physics B, 2015, 24, 096202.	0.7	4
75	Strain modulating half-metallicity of semifluorinated GaN nanosheets. Chemical Physics Letters, 2016, 653, 42-46.	1.2	4
76	Influence of composition on the mechanical properties of metallic nanoglasses: Insights from molecular dynamics simulation. Journal of Applied Physics, 2020, 128, .	1.1	4
77	Atomic-scale insight into interaction mechanism between extended dislocation and amorphous phase in high entropy alloys. Journal of Non-Crystalline Solids, 2022, 590, 121695.	1.5	4
78	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.	0.4	3
79	MULTI-SCHEME FOR TELEPORTING AN UNKNOWN N-PARTICLE STATE. Modern Physics Letters B, 2009, 23, 2463-2469.	1.0	3
80	Effect of surface crack on nanoimprint process of Al thin film. Physica B: Condensed Matter, 2014, 434, 194-199.	1.3	3
81	Simulation of mechanical properties of carbon nanotubes with superlattice structure. Current Applied Physics, 2015, 15, 1216-1221.	1.1	3
82	Balancing strength and plasticity of dual-phase amorphous/crystalline nanostructured Mg alloys*. Chinese Physics B, 2020, 29, 066201.	0.7	3
83	Effects of the organic molecule adsorption and substrate on electronic structure of germanene. Wuli Xuebao/Acta Physica Sinica, 2021, .	0.2	3
84	Molecular dynamics simulation of effect of tilt angle on mechanical property of magnesium bicrystals. Wuli Xuebao/Acta Physica Sinica, 2014, 63, 046201.	0.2	3
85	Atomistic simulations of deformation mechanism of fcc/bcc dual-phase high-entropy alloy multilayers. Journal of Applied Physics, 2021, 130, 244301.	1.1	3
86	Teleportation Capability of Six-Qubit Cluster State. Communications in Theoretical Physics, 2010, 54, 1007-1009.	1.1	2
87	Effect of amorphous lamella on the crack propagation behavior of crystalline Mg/amorphous Mgâ€“Al nanocomposites. Chinese Physics B, 2016, 25, 026802.	0.7	2
88	Molecular dynamics simulation on mechanical properties of gold nanotubes. Wuli Xuebao/Acta Physica Sinica, 2013, 62, 063103.	0.2	2
89	Effects of layer thickness and strain rate on mechanical properties of copper-gold multilayer nanowires. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 016201.	0.2	2
90	Effect of graphene on the mechanical properties of metallic glasses: Insight from molecular dynamics simulation. Materials Chemistry and Physics, 2022, 278, 125695.	2.0	2

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91	Comment on â€œStochastic local operations and classical communication invariant and the residual entanglement fornqubitsâ€• Physical Review A, 2008, 77, .	1.0	1
92	CONNECTION OF SINGLE-WALLED CARBON NANOTUBES BY BANDAGING WITH A BIGGER RADIUS SINGLE-WALLED CARBON NANOTUBE. Modern Physics Letters B, 2009, 23, 1005-1012.	1.0	1
93	Influence of Intertube Additional Atoms on Sliding Behaviors of Double-Walled Carbon Nanotube. Communications in Theoretical Physics, 2012, 58, 432-436.	1.1	1
94	A Scheme of Controlled Quantum State Swapping. Communications in Theoretical Physics, 2012, 58, 372-376.	1.1	1
95	Simple Forms of Slocc Equivalent Four-Qubit Ï‡ State. International Journal of Theoretical Physics, 2015, 54, 2236-2239.	0.5	1
96	Thermal expansion behaviors of epitaxial film for wurtzite GaN studied by using temperature-dependent Raman scattering. Wuli Xuebao/Acta Physica Sinica, 2016, 65, 130702.	0.2	1
97	Molecular dynamics simulation of effect of grain on mechanical properties of nano-polycrystal -Fe. Wuli Xuebao/Acta Physica Sinica, 2016, 65, 236201.	0.2	1
98	Enhanced entanglement in a non-degenerate four-level atom with a parametric oscillator. Journal of Modern Optics, 2008, 55, 2473-2483.	0.6	0
99	Effect of twin boundary on nanoimprint process of bicrystal Al thin film studied by molecular dynamics simulation. Chinese Physics B, 2015, 24, 026201.	0.7	0
100	Influence of Defects and Crystallographic Orientation on Mechanical Behavior of Nanocrystalline Aluminium. Communications in Theoretical Physics, 2016, 66, 431-438.	1.1	0
101	Efficiency criterion for teleportation via channel matrix, measurement matrix and collapsed matrix. Results in Physics, 2016, 6, 505-508.	2.0	0
102	Effect of grain boundary and defect on mechanical properties of bicrystalline graphene. Modern Physics Letters B, 2021, 35, 2150141.	1.0	0
103	Mechanical behavior of graphene magnesium matrix composites based on molecular dynamics simulation. Wuli Xuebao/Acta Physica Sinica, 2022, 71, 086201.	0.2	0