Hai-Fei Zhan

List of Publications by Citations

97 papers	1,327 citations	22 h-index	32 g-index
107 ext. papers	1,661 ext. citations	5.4 avg, IF	5.1 L-index

#	Paper	IF	Citations
97	Effect of Covalent Functionalization on Thermal Transport across Graphene–Polymer Interfaces. *Journal of Physical Chemistry C*, **2015**, 119, 12731-12738	3.8	92
96	From brittle to ductile: a structure dependent ductility of diamond nanothread. *Nanoscale*, **2016**, 8, 11177-84	7.7	65
95	Thermal conductivity of a new carbon nanotube analog: The diamond nanothread. *Carbon*, **2016**, 98, 232-237	10.4	55
94	Thermal Transport in 3D Nanostructures. *Advanced Functional Materials*, **2020**, 30, 1903841	15.6	54
93	Diamond Nanothread as a New Reinforcement for Nanocomposites. *Advanced Functional Materials*, **2016**, 26, 5279-5283	15.6	49
92	The best features of diamond nanothread for nanofibre applications. *Nature Communications*, **2017**, 8, 14863	17.4	43
91	Graphene and Carbon Nanotube Hybrid Structure: A Review. *Procedia IUTAM*, **2017**, 21, 94-101		41
90	The morphology and temperature dependent tensile properties of diamond nanothreads. *Carbon*, **2016**, 107, 304-309	10.4	37
89	Graphene helicoid as novel nanospring. *Carbon*, **2017**, 120, 258-264	10.4	32
88	Structure-mediated thermal transport of monolayer graphene allotropes nanoribbons. *Carbon*, **2014**, 77, 416-423	10.4	31
87	Modeling heat transfer during friction stir welding using a meshless particle method. *International Journal of Heat and Mass Transfer*, **2017**, 104, 288-300	4.9	31
86	A fundamental numerical and theoretical study for the vibrational properties of nanowires. *Journal of Applied Physics*, **2012**, 111, 124303	2.5	31
85	Numerical exploration of plastic deformation mechanisms of copper nanowires with surface defects. *Computational Materials Science*, **2011**, 50, 3425-3430	3.2	30
84	Graphene ripples generated by grain boundaries in highly ordered pyrolytic graphite. *Carbon*, **2014**, 68, 330-336	10.4	28
83	Beat phenomena in metal nanowires, and their implications for resonance-based elastic property measurements. *Nanoscale*, **2012**, 4, 6779-85	7.7	28
82	Formation of carbon nanoscrolls from graphene nanoribbons: A molecular dynamics study. *Computational Materials Science*, **2015**, 96, 300-305	3.2	27
81	Theoretical and numerical investigation of bending properties of Cu nanowires. *Computational Materials Science*, **2012**, 55, 73-80	3.2	27

80	Mechanical Properties of Penta-Graphene Nanotubes. *Journal of Physical Chemistry C*, **2017**, 121, 9642-9647	3.8	24
79	Suppressed Thermal Conductivity of Bilayer Graphene with Vacancy-Initiated Linkages. *Journal of Physical Chemistry C*, **2015**, 119, 1748-1752	3.8	24
78	Thermal conductivity of configurable two-dimensional carbon nanotube architecture and strain modulation. *Applied Physics Letters*, **2014**, 105, 153105	3.4	24
77	First-principles investigation of mechanical, electronic and optical properties of H-, F- and Cl-diamane. *Applied Surface Science*, **2020**, 528, 147035	6.7	22
76	A multiscale evaluation of the surface integrity in boring trepanning association deep hole drilling. *International Journal of Machine Tools and Manufacture*, **2017**, 123, 48-56	9.4	22
75	Single layer diamond - A new ultrathin 2D carbon nanostructure for mechanical resonator. *Carbon*, **2020**, 161, 809-815	10.4	21
74	High density mechanical energy storage with carbon nanothread bundle. *Nature Communications*, **2020**, 11, 1905	17.4	21
73	Underlying burning resistant mechanisms for titanium alloy. *Materials and Design*, **2018**, 156, 588-595	8.1	20
72	Breakdown of Hooke's law at the nanoscale - 2D material-based nanosprings. *Nanoscale*, **2018**, 10, 18961-18968	7.7	20
71	Tensile properties of a boron/nitrogen-doped carbon nanotube-graphene hybrid structure. *Beilstein Journal of Nanotechnology*, **2014**, 5, 329-36	3	20
70	Analytical solution to bending and contact strength of spiral bevel gears in consideration of friction. *International Journal of Mechanical Sciences*, **2017**, 128-129, 475-485	5.5	19
69	Thermal conductivity of Si nanowires with faulted stacking layers. *Journal Physics D: Applied Physics*, **2014**, 47, 015303	3	19
68	Graphene Helicoid: Distinct Properties Promote Application of Graphene Related Materials in Thermal Management. *Journal of Physical Chemistry C*, **2018**, 122, 7605-7612	3.8	18
67	Failure mechanism of monolayer graphene under hypervelocity impact of spherical projectile. *Scientific Reports*, **2016**, 6, 33139	4.9	17
66	Mechanical bending properties of sodium titanate (Na2Ti3O7) nanowires. *RSC Advances*, **2014**, 4, 56970-56976	3.7	16
65	Modified beam theories for bending properties of nanowires considering surface/intrinsic effects and axial extension effect. *Journal of Applied Physics*, **2012**, 111, 084305	2.5	16
64	Low interfacial thermal resistance between crossed ultra-thin carbon nanothreads. *Carbon*, **2020**, 165, 216-224	10.4	14
63	Tailoring the Resonance of Bilayer Graphene Sheets by Interlayer sp3 Bonds. *Journal of Physical Chemistry C*, **2014**, 118, 732-739	3.8	13

62	Surface effects on the dual-mode vibration of <1 1 0> silver nanowires with different cross-sections. *Journal Physics D: Applied Physics*, **2012**, 45, 465304	3	13
61	Advanced Numerical Characterization of Mono-Crystalline Copper with Defects. *Advanced Science Letters*, **2011**, 4, 1293-1301	0.1	13
60	Two-dimensional graphene heterojunctions: The tunable mechanical properties. *Carbon*, **2015**, 95, 1061-1068	10.4	12
59	In situ mechanical resonance behaviour of pristine and defective zinc blende GaAs nanowires. *Nanoscale*, **2018**, 10, 2588-2595	7.7	12
58	Graphene with Patterned Fluorination: Morphology Modulation and Implications. *Journal of Physical Chemistry C*, **2015**, 119, 27562-27568	3.8	10
57	A new data-driven topology optimization framework for structural optimization. *Computers and Structures*, **2020**, 239, 106310	4.5	10
56	Thermal conduction of one-dimensional carbon nanomaterials and nanoarchitectures. *Chinese Physics B*, **2018**, 27, 038103	1.2	10
55	A novel super-elastic carbon nanofiber with cup-stacked carbon nanocones and a screw dislocation. *Carbon*, **2019**, 154, 98-107	10.4	10
54	Bending properties of Ag nanowires with pre-existing surface defects. *Computational Materials Science*, **2014**, 81, 45-51	3.2	10
53	Atomic-Scale Study on the Ultralarge Bending Behaviors of TiO-B/Anatase Dual-Phase Nanowires. *Nano Letters*, **2019**, 19, 7742-7749	11.5	9
52	Tailorable Burning Behavior of Ti14 Alloy by Controlling Semi-Solid Forging Temperature. *Materials*, **2016**, 9,	3.5	9
51	Role of Nitrogen on the Mechanical Properties of the Novel Carbon Nitride Nanothreads. *Journal of Physical Chemistry C*, **2019**, 123, 28977-28984	3.8	8
50	Numerical Exploration of the Defect's Effect on Mechanical Properties of Nanowires under Torsion. *Advanced Materials Research*, **2011**, 335-336, 498-501	0.5	8
49	Mechanical Properties of a Single-Layer Diamane under Tension and Bending. *Journal of Physical Chemistry C*, **2021**, 125, 915-922	3.8	8
48	Development of Mechanically Enhanced Polycaprolactone Composites by a Functionalized Titanate Nanofiller for Melt Electrowriting in 3D Printing. *ACS Applied Materials & Interfaces*, **2020**, 12, 47993-48006	9.5	8
47	Carbon nanotube-based super nanotubes: tunable thermal conductivity in three dimensions. *RSC Advances*, **2015**, 5, 48164-48168	3.7	7
46	TENSILE PROPERTIES OF GRAPHENE-NANOTUBE HYBRID STRUCTURES: A MOLECULAR DYNAMICS STUDY. *International Journal of Computational Materials Science and Engineering*, **2013**, 02, 1350020	0.3	7
45	Molecular Dynamics Simulation of Chiral Carbon Nanothread Bundles for Nanofiber Applications. *ACS Applied Nano Materials*, **2020**, 3, 10218-10225	5.6	7

44	Unexpected dynamic recrystallization behavior of Ti-7Cu alloy in semi-solid state. *Journal of Alloys and Compounds*, **2017**, 712, 468-476	5.7	6
43	MD INVESTIGATIONS FOR MECHANICAL PROPERTIES OF COPPER NANOWIRES WITH AND WITHOUT SURFACE DEFECTS. *International Journal of Computational Methods*, **2012**, 09, 1240003	1.1	6
42	Damage characteristics of aluminum nanorod under hypervelocity impact. *Computational Materials Science*, **2020**, 174, 109490	3.2	6
41	Nanojoint Formation between Ceramic Titanate Nanowires and Spot Melting of Metal Nanowires with Electron Beam. *ACS Applied Materials & Interfaces*, **2017**, 9, 9143-9151	9.5	5
40	Atomic-scale investigation on the ultra-large bending behaviours of layered sodium titanate nanowires. *Nanoscale*, **2019**, 11, 11847-11855	7.7	5
39	Tuning the resonance properties of 2D carbon nanotube networks towards a mechanical resonator. *Nanotechnology*, **2015**, 26, 315501	3.4	5
38	A general approach to tune the vibration properties of the mounting system in the high-speed and heavy-duty engine. *JVC/Journal of Vibration and Control*, **2016**, 22, 247-257	2	5
37	Resonance of graphene nanoribbons doped with nitrogen and boron: a molecular dynamics study. *Beilstein Journal of Nanotechnology*, **2014**, 5, 717-25	3	5
36	Graphynes: an alternative lightweight solution for shock protection. *Beilstein Journal of Nanotechnology*, **2019**, 10, 1588-1595	3	4
35	A New Particle Generation Method for Arbitrary 2D Geometries in SPH Modeling. *International Journal of Computational Methods*, **2017**, 14, 1750023	1.1	4
34	Tuneable Resonance Properties of Graphene by Nitrogen-Dopant. *Applied Mechanics and Materials*, **2014**, 553, 3-9	0.3	4
33	Atypical Defect Motions in Brittle Layered Sodium Titanate Nanowires. *Journal of Physical Chemistry Letters*, **2018**, 9, 6052-6059	6.4	4
32	Thermal Conductivity of Diamond Nanothread **2017**, 185-204		3
31	Numerical investigation of mechanical properties of nanowires: a review. *Interaction and Multiscale Mechanics*, **2012**, 5, 115-129		3
30	Effective Enhancement of a Carbon Nanothread on the Mechanical Properties of the Polyethylene Nanocomposite. *Journal of Physical Chemistry C*, **2021**, 125, 5781-5792	3.8	3
29	Damage and self-healing characteristics of monolayer graphene enhanced Cu under ballistic impact. *Mechanics of Materials*, **2021**, 155, 103736	3.3	3
28	Isothermal Diffusion Behavior and Surface Performance of Cu/Ni Coating on TC4 Alloy. *Materials*, **2019**, 12,	3.5	3
27	3D Printed Multi-Functional Scaffolds Based on Poly(ECaprolactone) and Hydroxyapatite Composites. *Nanomaterials*, **2021**, 11,	5.4	3

26	A general Neural Particle Method for hydrodynamics modeling. *Computer Methods in Applied Mechanics and Engineering*, **2022**, 393, 114740	5.7	3
25	How Gaseous Environment Influences a Carbon Nanotube-Based Mechanical Resonator. *Journal of Physical Chemistry C*, **2019**, 123, 25925-25933	3.8	2
24	Tensile Properties of Si Nanowires with Faulted Stacking Layers. *Science of Advanced Materials*, **2014**, 6, 1489-1492	2.3	2
23	Graphdiyne family-tunable solution to shock resistance. *Materials Research Express*, **2020**, 7, 115602	1.7	2
22	Morphological evolution of Ti2Cu in Ti-13Cu-Al alloy after cooling from semi-solid state. *Journal of Alloys and Compounds*, **2020**, 848, 156639	5.7	2
21	Multiscale exploit the role of copper on the burn resistant behavior of Ti-Cu alloy. *Journal of Alloys and Compounds*, **2021**, 863, 158639	5.7	2
20	Impacts from the stacking morphology on the tensile performance of double-walled carbon nanotube bundles. *Carbon*, **2021**, 178, 345-354	10.4	2
19	Atomistic Mechanisms of Ultralarge Bending Deformation of Single-Crystalline TiO2B Nanowires. *Journal of Physical Chemistry C*, **2020**, 124, 11174-11182	3.8	2
18	Carbon nanothreads enable remarkable enhancement in the thermal conductivity of polyethylene. *Nanoscale*, **2021**, 13, 6934-6943	7.7	2
17	A data-driven smoothed particle hydrodynamics method for fluids. *Engineering Analysis With Boundary Elements*, **2021**, 132, 12-32	2.6	2
16	General existence of flexural mode doublets in nanowires targeting vectorial sensing applications. *Physical Chemistry Chemical Physics*, **2019**, 21, 4136-4144	3.6	1
15	Effect of Fe-doping on bending elastic properties of single-crystalline rutile TiO2 nanowires. *Nanoscale Advances*, **2020**, 2, 2800-2807	5.1	1
14	A new type of high-order elements based on the mesh-free interpolations. *Engineering Analysis With Boundary Elements*, **2016**, 65, 63-71	2.6	1
13	Influence of pre-exsiting surface defects on the vibrational properties of Ag nanowires **2012**,		1
12	Mechanical Properties of Single-Layer Diamond Reinforced Poly(vinyl alcohol) Nanocomposites through Atomistic Simulation. *Macromolecular Materials and Engineering*, **2021**, 306, 2100292	3.9	1
11	Atomistic Insights on the Rheological Property of Polycaprolactone Composites with the Addition of Graphene. *Advanced Materials Technologies*,2100507	6.8	1
10	A bio-inspired B-Spline Offset Feature for structural topology optimization. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 386, 114081	5.7	1
9	Atomic Investigation on the Facet-Dependent Melting of Ceramic Nanostructures via In Situ Electron Irradiation. *Advanced Materials Interfaces*, **2020**, 7, 2000288	4.6	0

8	Exploration of the Defect Effect on the Mechanical Properties of Different Orientated Nanowires. *Advanced Materials Research*, **2011**, 328-330, 1239-1244	0.5	0
7	Vibrational characteristics of rotating soft cylinders. *Science China: Physics, Mechanics and Astronomy*, **2021**, 64, 1	3.6	0
6	Exceptional Deformability of Wurtzite Zinc Oxide Nanowires with Growth Axial Stacking Faults. *Nano Letters*, **2021**, 21, 4327-4334	11.5	0
5	One-step plasma electrolytic oxidation with Graphene oxide for Ultra-low porosity Corrosion-resistant TiO2 coatings. *Applied Surface Science*, **2022**, 594, 153477	6.7	0
4	Atomistic Simulations of the Permeability and Dynamic Transportation Characteristics of Diamond Nanochannels. *Nanomaterials*, **2022**, 12, 1785	5.4	0
3	Impact of the Piston Secondary Motion on its Slap Force. *Applied Mechanics and Materials*, **2014**, 553, 582-587	0.3	
2	Numerical study on the perforation of steel plates by multiple projectiles. *Engineering Computations*, **2018**, 35, 2629-2651	1.4	
1	Atomistic Insights on the Rheological Property of Polycaprolactone Composites with the Addition of Graphene (Adv. Mater. Technol. 4/2022). *Advanced Materials Technologies*, **2022**, 7, 2270015	6.8	