Hai-Fei Zhan

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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

| # | Paper | IF | Citations |
|----|--|------|-----------|
| 97 | A general Neural Particle Method for hydrodynamics modeling. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022 , 393, 114740 | 5.7 | 3 |
| 96 | Atomistic Insights on the Rheological Property of Polycaprolactone Composites with the Addition of Graphene (Adv. Mater. Technol. 4/2022). <i>Advanced Materials Technologies</i> , 2022 , 7, 2270015 | 6.8 | |
| 95 | One-step plasma electrolytic oxidation with Graphene oxide for Ultra-low porosity Corrosion-resistant TiO2 coatings. <i>Applied Surface Science</i> , 2022 , 594, 153477 | 6.7 | O |
| 94 | Atomistic Simulations of the Permeability and Dynamic Transportation Characteristics of Diamond Nanochannels. <i>Nanomaterials</i> , 2022 , 12, 1785 | 5.4 | О |
| 93 | Mechanical Properties of a Single-Layer Diamane under Tension and Bending. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 915-922 | 3.8 | 8 |
| 92 | Effective Enhancement of a Carbon Nanothread on the Mechanical Properties of the Polyethylene Nanocomposite. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 5781-5792 | 3.8 | 3 |
| 91 | Vibrational characteristics of rotating soft cylinders. <i>Science China: Physics, Mechanics and Astronomy</i> , 2021 , 64, 1 | 3.6 | O |
| 90 | Damage and self-healing characteristics of monolayer graphene enhanced Cu under ballistic impact. <i>Mechanics of Materials</i> , 2021 , 155, 103736 | 3.3 | 3 |
| 89 | Multiscale exploit the role of copper on the burn resistant behavior of Ti-Cu alloy. <i>Journal of Alloys and Compounds</i> , 2021 , 863, 158639 | 5.7 | 2 |
| 88 | Exceptional Deformability of Wurtzite Zinc Oxide Nanowires with Growth Axial Stacking Faults. <i>Nano Letters</i> , 2021 , 21, 4327-4334 | 11.5 | 0 |
| 87 | Impacts from the stacking morphology on the tensile performance of double-walled carbon nanotube bundles. <i>Carbon</i> , 2021 , 178, 345-354 | 10.4 | 2 |
| 86 | Mechanical Properties of Single-Layer Diamond Reinforced Poly(vinyl alcohol) Nanocomposites through Atomistic Simulation. <i>Macromolecular Materials and Engineering</i> , 2021 , 306, 2100292 | 3.9 | 1 |
| 85 | Carbon nanothreads enable remarkable enhancement in the thermal conductivity of polyethylene. <i>Nanoscale</i> , 2021 , 13, 6934-6943 | 7.7 | 2 |
| 84 | 3D Printed Multi-Functional Scaffolds Based on Poly(ECaprolactone) and Hydroxyapatite Composites. <i>Nanomaterials</i> , 2021 , 11, | 5.4 | 3 |
| 83 | A data-driven smoothed particle hydrodynamics method for fluids. <i>Engineering Analysis With Boundary Elements</i> , 2021 , 132, 12-32 | 2.6 | 2 |
| 82 | A bio-inspired B-Spline Offset Feature for structural topology optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021 , 386, 114081 | 5.7 | 1 |
| 81 | Atomic Investigation on the Facet-Dependent Melting of Ceramic Nanostructures via In Situ Electron Irradiation. <i>Advanced Materials Interfaces</i> , 2020 , 7, 2000288 | 4.6 | O |

(2019-2020)

| 80 | A new data-driven topology optimization framework for structural optimization. <i>Computers and Structures</i> , 2020 , 239, 106310 | 4.5 | 10 | |
|----|--|-----------------------|-----------------|---|
| 79 | Effect of Fe-doping on bending elastic properties of single-crystalline rutile TiO2 nanowires. <i>Nanoscale Advances</i> , 2020 , 2, 2800-2807 | 5.1 | 1 | |
| 78 | Low interfacial thermal resistance between crossed ultra-thin carbon nanothreads. <i>Carbon</i> , 2020 , 165, 216-224 | 10.4 | 14 | • |
| 77 | First-principles investigation of mechanical, electronic and optical properties of H-, F- and Cl-diamane. <i>Applied Surface Science</i> , 2020 , 528, 147035 | 6.7 | 22 | |
| 76 | Single layer diamond - A new ultrathin 2D carbon nanostructure for mechanical resonator. <i>Carbon</i> , 2020 , 161, 809-815 | 10.4 | 21 | • |
| 75 | High density mechanical energy storage with carbon nanothread bundle. <i>Nature Communications</i> , 2020 , 11, 1905 | 17.4 | 21 | |
| 74 | Graphdiyne family-tunable solution to shock resistance. <i>Materials Research Express</i> , 2020 , 7, 115602 | 1.7 | 2 | |
| 73 | Damage characteristics of aluminum nanorod under hypervelocity impact. <i>Computational Materials Science</i> , 2020 , 174, 109490 | 3.2 | 6 | |
| 72 | Development of Mechanically Enhanced Polycaprolactone Composites by a Functionalized Titanate Nanofiller for Melt Electrowriting in 3D Printing. <i>ACS Applied Materials & Development (Nature of Melt Electrowriting of Melt Electrow</i> | 93 ⁹ 45800 | o6 ⁸ | |
| 71 | Morphological evolution of Ti2Cu in Ti-13Cu-Al alloy after cooling from semi-solid state. <i>Journal of Alloys and Compounds</i> , 2020 , 848, 156639 | 5.7 | 2 | |
| 70 | Molecular Dynamics Simulation of Chiral Carbon Nanothread Bundles for Nanofiber Applications. <i>ACS Applied Nano Materials</i> , 2020 , 3, 10218-10225 | 5.6 | 7 | |
| 69 | Thermal Transport in 3D Nanostructures. Advanced Functional Materials, 2020, 30, 1903841 | 15.6 | 54 | |
| 68 | Atomistic Mechanisms of Ultralarge Bending Deformation of Single-Crystalline TiO2 B Nanowires. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 11174-11182 | 3.8 | 2 | |
| 67 | How Gaseous Environment Influences a Carbon Nanotube-Based Mechanical Resonator. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 25925-25933 | 3.8 | 2 | |
| 66 | General existence of flexural mode doublets in nanowires targeting vectorial sensing applications. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 4136-4144 | 3.6 | 1 | |
| 65 | Atomic-scale investigation on the ultra-large bending behaviours of layered sodium titanate nanowires. <i>Nanoscale</i> , 2019 , 11, 11847-11855 | 7.7 | 5 | |
| 64 | Graphynes: an alternative lightweight solution for shock protection. <i>Beilstein Journal of Nanotechnology</i> , 2019 , 10, 1588-1595 | 3 | 4 | |
| 63 | A novel super-elastic carbon nanofiber with cup-stacked carbon nanocones and a screw dislocation. <i>Carbon</i> , 2019 , 154, 98-107 | 10.4 | 10 | |

| 62 | Atomic-Scale Study on the Ultralarge Bending Behaviors of TiO-B/Anatase Dual-Phase Nanowires. <i>Nano Letters</i> , 2019 , 19, 7742-7749 | 11.5 | 9 |
|----|---|----------------------|-------------|
| 61 | Role of Nitrogen on the Mechanical Properties of the Novel Carbon Nitride Nanothreads. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 28977-28984 | 3.8 | 8 |
| 60 | Isothermal Diffusion Behavior and Surface Performance of Cu/Ni Coating on TC4 Alloy. <i>Materials</i> , 2019 , 12, | 3.5 | 3 |
| 59 | Thermal conduction of one-dimensional carbon nanomaterials and nanoarchitectures. <i>Chinese Physics B</i> , 2018 , 27, 038103 | 1.2 | 10 |
| 58 | In situ mechanical resonance behaviour of pristine and defective zinc blende GaAs nanowires. <i>Nanoscale</i> , 2018 , 10, 2588-2595 | 7.7 | 12 |
| 57 | Graphene Helicoid: Distinct Properties Promote Application of Graphene Related Materials in Thermal Management. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 7605-7612 | 3.8 | 18 |
| 56 | Underlying burning resistant mechanisms for titanium alloy. <i>Materials and Design</i> , 2018 , 156, 588-595 | 8.1 | 20 |
| 55 | Breakdown of Hooke's law at the nanoscale - 2D material-based nanosprings. <i>Nanoscale</i> , 2018 , 10, 1890 | 61 7.1 89 | 68 0 |
| 54 | Atypical Defect Motions in Brittle Layered Sodium Titanate Nanowires. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 6052-6059 | 6.4 | 4 |
| 53 | Numerical study on the perforation of steel plates by multiple projectiles. <i>Engineering Computations</i> , 2018 , 35, 2629-2651 | 1.4 | |
| 52 | Nanojoint Formation between Ceramic Titanate Nanowires and Spot Melting of Metal Nanowires with Electron Beam. <i>ACS Applied Materials & Samp; Interfaces</i> , 2017 , 9, 9143-9151 | 9.5 | 5 |
| 51 | Unexpected dynamic recrystallization behavior of Ti-7Cu alloy in semi-solid state. <i>Journal of Alloys and Compounds</i> , 2017 , 712, 468-476 | 5.7 | 6 |
| 50 | Graphene helicoid as novel nanospring. <i>Carbon</i> , 2017 , 120, 258-264 | 10.4 | 32 |
| 49 | Mechanical Properties of Penta-Graphene Nanotubes. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 9642- | 96,\$7 | 24 |
| 48 | Analytical solution to bending and contact strength of spiral bevel gears in consideration of friction. <i>International Journal of Mechanical Sciences</i> , 2017 , 128-129, 475-485 | 5.5 | 19 |
| 47 | The best features of diamond nanothread for nanofibre applications. <i>Nature Communications</i> , 2017 , 8, 14863 | 17.4 | 43 |
| 46 | Thermal Conductivity of Diamond Nanothread 2017 , 185-204 | | 3 |
| 45 | A multiscale evaluation of the surface integrity in boring trepanning association deep hole drilling. <i>International Journal of Machine Tools and Manufacture</i> , 2017 , 123, 48-56 | 9.4 | 22 |

| 44 | Graphene and Carbon Nanotube Hybrid Structure: A Review. <i>Procedia IUTAM</i> , 2017 , 21, 94-101 | | 41 |
|----|---|----------------------------------|----|
| 43 | A New Particle Generation Method for Arbitrary 2D Geometries in SPH Modeling. <i>International Journal of Computational Methods</i> , 2017 , 14, 1750023 | 1.1 | 4 |
| 42 | Modeling heat transfer during friction stir welding using a meshless particle method. <i>International Journal of Heat and Mass Transfer</i> , 2017 , 104, 288-300 | 4.9 | 31 |
| 41 | A general approach to tune the vibration properties of the mounting system in the high-speed and heavy-duty engine. <i>JVC/Journal of Vibration and Control</i> , 2016 , 22, 247-257 | 2 | 5 |
| 40 | The morphology and temperature dependent tensile properties of diamond nanothreads. <i>Carbon</i> , 2016 , 107, 304-309 | 10.4 | 37 |
| 39 | A new type of high-order elements based on the mesh-free interpolations. <i>Engineering Analysis With Boundary Elements</i> , 2016 , 65, 63-71 | 2.6 | 1 |
| 38 | Thermal conductivity of a new carbon nanotube analog: The diamond nanothread. <i>Carbon</i> , 2016 , 98, 232-237 | 10.4 | 55 |
| 37 | Tailorable Burning Behavior of Ti14 Alloy by Controlling Semi-Solid Forging Temperature. <i>Materials</i> , 2016 , 9, | 3.5 | 9 |
| 36 | Diamond Nanothread as a New Reinforcement for Nanocomposites. <i>Advanced Functional Materials</i> , 2016 , 26, 5279-5283 | 15.6 | 49 |
| 35 | Failure mechanism of monolayer graphene under hypervelocity impact of spherical projectile. <i>Scientific Reports</i> , 2016 , 6, 33139 | 4.9 | 17 |
| 34 | From brittle to ductile: a structure dependent ductility of diamond nanothread. <i>Nanoscale</i> , 2016 , 8, 111 | 7 7 . 7 84 | 65 |
| 33 | Tuning the resonance properties of 2D carbon nanotube networks towards a mechanical resonator. <i>Nanotechnology</i> , 2015 , 26, 315501 | 3.4 | 5 |
| 32 | Two-dimensional graphene heterojunctions: The tunable mechanical properties. <i>Carbon</i> , 2015 , 95, 1061 | -1048 | 12 |
| 31 | Graphene with Patterned Fluorination: Morphology Modulation and Implications. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 27562-27568 | 3.8 | 10 |
| 30 | Formation of carbon nanoscrolls from graphene nanoribbons: A molecular dynamics study. <i>Computational Materials Science</i> , 2015 , 96, 300-305 | 3.2 | 27 |
| 29 | Carbon nanotube-based super nanotubes: tunable thermal conductivity in three dimensions. <i>RSC Advances</i> , 2015 , 5, 48164-48168 | 3.7 | 7 |
| 28 | Effect of Covalent Functionalization on Thermal Transport across Graphene B olymer Interfaces. Journal of Physical Chemistry C, 2015 , 119, 12731-12738 | 3.8 | 92 |
| 27 | Suppressed Thermal Conductivity of Bilayer Graphene with Vacancy-Initiated Linkages. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 1748-1752 | 3.8 | 24 |

Mechanical bending properties of sodium titanate (Na2Ti3O7) nanowires. RSC Advances, 2014, 4, 56970-3697616

| | 5 | 3.7 | |
|----|--|------|----|
| 25 | Tailoring the Resonance of Bilayer Graphene Sheets by Interlayer sp3 Bonds. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 732-739 | 3.8 | 13 |
| 24 | Graphene ripples generated by grain boundaries in highly ordered pyrolytic graphite. <i>Carbon</i> , 2014 , 68, 330-336 | 10.4 | 28 |
| 23 | Bending properties of Ag nanowires with pre-existing surface defects. <i>Computational Materials Science</i> , 2014 , 81, 45-51 | 3.2 | 10 |
| 22 | Structure-mediated thermal transport of monolayer graphene allotropes nanoribbons. <i>Carbon</i> , 2014 , 77, 416-423 | 10.4 | 31 |
| 21 | Tensile properties of a boron/nitrogen-doped carbon nanotube-graphene hybrid structure. <i>Beilstein Journal of Nanotechnology</i> , 2014 , 5, 329-36 | 3 | 20 |
| 20 | Resonance of graphene nanoribbons doped with nitrogen and boron: a molecular dynamics study. <i>Beilstein Journal of Nanotechnology</i> , 2014 , 5, 717-25 | 3 | 5 |
| 19 | Tuneable Resonance Properties of Graphene by Nitrogen-Dopant. <i>Applied Mechanics and Materials</i> , 2014 , 553, 3-9 | 0.3 | 4 |
| 18 | Thermal conductivity of Si nanowires with faulted stacking layers. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 015303 | 3 | 19 |
| 17 | Thermal conductivity of configurable two-dimensional carbon nanotube architecture and strain modulation. <i>Applied Physics Letters</i> , 2014 , 105, 153105 | 3.4 | 24 |
| 16 | Impact of the Piston Secondary Motion on its Slap Force. <i>Applied Mechanics and Materials</i> , 2014 , 553, 582-587 | 0.3 | |
| 15 | Tensile Properties of Si Nanowires with Faulted Stacking Layers. <i>Science of Advanced Materials</i> , 2014 , 6, 1489-1492 | 2.3 | 2 |
| 14 | 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 |
| 13 | Beat phenomena in metal nanowires, and their implications for resonance-based elastic property measurements. <i>Nanoscale</i> , 2012 , 4, 6779-85 | 7.7 | 28 |
| 12 | Theoretical and numerical investigation of bending properties of Cu nanowires. <i>Computational Materials Science</i> , 2012 , 55, 73-80 | 3.2 | 27 |
| 11 | Surface effects on the dual-mode vibration of <1 1 0> silver nanowires with different cross-sections. <i>Journal Physics D: Applied Physics</i> , 2012 , 45, 465304 | 3 | 13 |
| 10 | Influence of pre-exsiting surface defects on the vibrational properties of Ag nanowires 2012, | | 1 |
| 9 | A fundamental numerical and theoretical study for the vibrational properties of nanowires. <i>Journal of Applied Physics</i> , 2012 , 111, 124303 | 2.5 | 31 |
| | | | |

LIST OF PUBLICATIONS

| 8 | Modified beam theories for bending properties of nanowires considering surface/intrinsic effects and axial extension effect. <i>Journal of Applied Physics</i> , 2012 , 111, 084305 | 2.5 | 16 | |
|---|--|-----|----|--|
| 7 | MD INVESTIGATIONS FOR MECHANICAL PROPERTIES OF COPPER NANOWIRES WITH AND WITHOUT SURFACE DEFECTS. <i>International Journal of Computational Methods</i> , 2012 , 09, 1240003 | 1.1 | 6 | |
| 6 | Numerical investigation of mechanical properties of nanowires: a review. <i>Interaction and Multiscale Mechanics</i> , 2012 , 5, 115-129 | | 3 | |
| 5 | Numerical exploration of plastic deformation mechanisms of copper nanowires with surface defects. <i>Computational Materials Science</i> , 2011 , 50, 3425-3430 | 3.2 | 30 | |
| 4 | Numerical Exploration of the Defect® Effect on Mechanical Properties of Nanowires under Torsion. <i>Advanced Materials Research</i> , 2011 , 335-336, 498-501 | 0.5 | 8 | |
| 3 | Exploration of the Defect® Effect on the Mechanical Properties of Different Orientated Nanowires. <i>Advanced Materials Research</i> , 2011 , 328-330, 1239-1244 | 0.5 | О | |
| 2 | Advanced Numerical Characterization of Mono-Crystalline Copper with Defects. <i>Advanced Science Letters</i> , 2011 , 4, 1293-1301 | 0.1 | 13 | |
| 1 | Atomistic Insights on the Rheological Property of Polycaprolactone Composites with the Addition of Graphene. <i>Advanced Materials Technologies</i> ,2100507 | 6.8 | 1 | |