Yin-Bo Zhu

List of Publications by Year in Descending Order

76 papers	2,117 citations	24 h-index	45 g-index
78 ext. papers	2,975 ext. citations	8.3 avg, IF	5.33 L-index

#	Paper	IF	Citations
76	Stress analysis of double-walled pipes undergone mechanical drawing process. *International Journal of Advanced Manufacturing Technology*, **2022**, 119, 2525	3.2	
75	A universal mechanical framework for noncovalent interface in laminated nanocomposites. *Journal of the Mechanics and Physics of Solids*, **2022**, 158, 104560	5	4
74	Pushing detectability and sensitivity for subtle force to new limits with shrinkable nanochannel structured aerogel.. *Nature Communications*, **2022**, 13, 1119	17.4	12
73	Biomimetic discontinuous Bouligand structural design enables high-performance nanocomposites. *Matter*, **2022**,	12.7	3
72	Artificial Nacre with High Toughness Amplification Factor: Residual Stress-Engineering Sparks Enhanced Extrinsic Toughening Mechanisms.. *Advanced Materials*, **2021**, e2108267	24	3
71	Double-Layer Nacre-Inspired Polyimide-Mica Nanocomposite Films with Excellent Mechanical Stability for LEO Environmental Conditions. *Advanced Materials*, **2021**, e2105299	24	3
70	Multiscale mechanics of noncovalent interface in graphene oxide layered nanocomposites. *Theoretical and Applied Mechanics Letters*, **2021**, 100304	1.8	0
69	A Highly Compressible and Stretchable Carbon Spring for Smart Vibration and Magnetism Sensors (Adv. Mater. 39/2021). *Advanced Materials*, **2021**, 33, 2170308	24	
68	Strengthening and Toughening Hierarchical Nanocellulose Humidity-Mediated Interface. *ACS Nano*, **2021**, 15, 1310-1320	16.7	28
67	Hyperbolic-Like Structure with Negative Poisson\'s Ratio: Deformation Mechanism and Structural Design. *Physica Status Solidi (B): Basic Research*, **2021**, 258, 2100011	1.3	1
66	Anomalously low friction of confined monolayer water with a quadrilateral structure. *Journal of Chemical Physics*, **2021**, 154, 224508	3.9	2
65	Multi-parameter structural optimization to reconcile mechanical conflicts in nacre-like composites. *Composite Structures*, **2021**, 259, 113225	5.3	4
64	Ultrafast water evaporation through graphene membranes with subnanometer pores for desalination. *Journal of Membrane Science*, **2021**, 621, 118934	9.6	15
63	Biomimetic polydimethylsiloxane (PDMS)/carbon fiber lamellar adhesive composite in thermal vacuum environment. *International Journal of Adhesion and Adhesives*, **2021**, 105, 102778	3.4	0
62	Transport of Shale Gas in Microporous/Nanoporous Media: Molecular to Pore-Scale Simulations. *Energy & Fuels*, **2021**, 35, 911-943	4.1	29
61	Porous Characteristics of Three-Dimensional Disordered Graphene Networks. *Crystals*, **2021**, 11, 127	2.3	3
60	Formation and topological structure of three-dimensional disordered graphene networks. *Physical Chemistry Chemical Physics*, **2021**, 23, 10290-10302	3.6	6

59	Bio-Inspired Lotus-Fiber-like Spiral Hydrogel Bacterial Cellulose Fibers. *Nano Letters*, **2021**, 21, 952-958	11.5	31
58	Theoretical analysis of high strength and anti-buckling of three-dimensional carbon honeycombs under shear loading. *Composites Part B: Engineering*, **2021**, 219, 108967	10	1
57	A Highly Compressible and Stretchable Carbon Spring for Smart Vibration and Magnetism Sensors. *Advanced Materials*, **2021**, 33, e2102724	24	12
56	The Device Using a Polydimethylsiloxane Membrane and the Phase Transition of Water. *Coatings*, **2021**, 11, 1102	2.9	
55	Micromechanical Landscape of Three-Dimensional Disordered Graphene Networks. *Nano Letters*, **2021**, 21, 8401-8408	11.5	5
54	Intrinsic kink deformation in nanocellulose. *Carbohydrate Polymers*, **2021**, 273, 118578	10.3	2
53	Multiscale investigations into the fracture toughness of SiC/graphene composites: Atomistic simulations and crack-bridging model. *Ceramics International*, **2020**, 46, 29101-29110	5.1	6
52	Lightweight, tough, and sustainable cellulose nanofiber-derived bulk structural materials with low thermal expansion coefficient. *Science Advances*, **2020**, 6, eaaz1114	14.3	88
51	Unidirectional and Selective Proton Transport in Artificial Heterostructured Nanochannels with Nano-to-Subnano Confined Water Clusters. *Advanced Materials*, **2020**, 32, e2001777	24	32
50	Unravelling the bindings between organic molecule and reduced graphene oxide in aqueous environment. *Carbon*, **2020**, 167, 345-350	10.4	1
49	Two-Phase Transport Characteristic of Shale Gas and Water through Hydrophilic and Hydrophobic Nanopores. *Energy & Fuels*, **2020**, 34, 4407-4420	4.1	26
48	Origin of Batch Hydrothermal Fluid Behavior and Its Influence on Nanomaterial Synthesis. *Matter*, **2020**, 2, 1270-1282	12.7	16
47	AB-Stacked and AA-Stacked Bilayer Ices in Graphene Nanocapillaries. *Springer Theses*, **2020**, 67-87	0.1	
46	Monolayer Square-Like Ice Between Two Graphene Sheets. *Springer Theses*, **2020**, 35-47	0.1	
45	Trilayer Ice in Graphene Nanocapillaries. *Springer Theses*, **2020**, 89-99	0.1	
44	Superheating Behavior of Monolayer Ice in Graphene Nanocapillaries. *Springer Theses*, **2020**, 49-65	0.1	
43	Micromechanical properties of pyrolytic carbon with interlayer crosslink. *Carbon*, **2020**, 159, 549-560	10.4	8
42	Edge effect on interlayer shear in multilayer two-dimensional material assemblies. *International Journal of Solids and Structures*, **2020**, 204-205, 128-137	3.1	4

41	Preparation of Twisted Bilayer Graphene via the Wetting Transfer Method. *ACS Applied Materials & Interfaces*, **2020**, 12, 40958-40967	9.5	11
40	Bioinspired hierarchical helical nanocomposite macrofibers based on bacterial cellulose nanofibers. *National Science Review*, **2020**, 7, 73-83	10.8	31
39	Optimization design on simultaneously strengthening and toughening graphene-based nacre-like materials through noncovalent interaction. *Journal of the Mechanics and Physics of Solids*, **2019**, 133, 103706	5	22
38	Multiscale simulations of shale gas transport in micro/nano-porous shale matrix considering pore structure influence. *Journal of Natural Gas Science and Engineering*, **2019**, 64, 28-40	4.6	64
37	Hard Carbon Aerogels: Superelastic Hard Carbon Nanofiber Aerogels (Adv. Mater. 23/2019). *Advanced Materials*, **2019**, 31, 1970168	24	2
36	Modulation of Molecular Spatial Distribution and Chemisorption with Perforated Nanosheets for Ethanol Electro-oxidation. *Advanced Materials*, **2019**, 31, e1900528	24	57
35	Peculiarities in breakup and transport process of shock-induced ejecta with surrounding gas. *Journal of Applied Physics*, **2019**, 125, 185901	2.5	10
34	Superstrong Noncovalent Interface between Melamine and Graphene Oxide. *ACS Applied Materials & Interfaces*, **2019**, 11, 17068-17078	9.5	12
33	Dehydration impeding ionic conductance through two-dimensional angstrom-scale slits. *Nanoscale*, **2019**, 11, 8449-8457	7.7	21
32	Superelastic Hard Carbon Nanofiber Aerogels. *Advanced Materials*, **2019**, 31, e1900651	24	88
31	Molecular insights into the initial formation of pyrolytic carbon upon carbon fiber surface. *Carbon*, **2019**, 148, 307-316	10.4	18
30	Multiscale modeling and theoretical prediction for the thermal conductivity of porous plain-woven carbonized silica/phenolic composites. *Composite Structures*, **2019**, 215, 278-288	5.3	26
29	Superior Biomimetic Nacreous Bulk Nanocomposites by a Multiscale Soft-Rigid Dual-Network Interfacial Design Strategy. *Matter*, **2019**, 1, 412-427	12.7	38
28	Fast reaction of aluminum nanoparticles promoted by oxide shell. *Journal of Applied Physics*, **2019**, 126, 144305	2.5	6
27	Defect production and segregation induced by collision cascades in U-10Zr alloy. *Journal of Nuclear Materials*, **2019**, 526, 151769	3.3	3
26	Unsupported shock wave induced dynamic fragmentation of matrix in lead with surface grooves. *Computational Materials Science*, **2019**, 156, 404-410	3.2	10
25	Charge Asymmetry Effect in Ion Transport through Angstrom-Scale Channels. *Journal of Physical Chemistry C*, **2019**, 123, 1462-1469	3.8	15
24	Water Confined in Nanocapillaries: Two-Dimensional Bilayer Squarelike Ice and Associated Solid□iquid□olid Transition. *Journal of Physical Chemistry C*, **2018**, 122, 6704-6712	3.8	21

23	Lattice Boltzmann method simulations about shale gas flow in contracting nano-channels. *International Journal of Heat and Mass Transfer*, **2018**, 122, 1210-1221	4.9	32
22	Molecular dynamics simulations of ejecta production from sinusoidal tin surfaces under supported and unsupported shocks. *AIP Advances*, **2018**, 8, 045002	1.5	9
21	Self-folding mechanics of graphene tearing and peeling from a substrate. *Frontiers of Physics*, **2018**, 13, 1	3.7	11
20	Pressure-dependent transport characteristic of methane gas in slit nanopores. *International Journal of Heat and Mass Transfer*, **2018**, 123, 657-667	4.9	52
19	Biomimetic twisted plywood structural materials. *National Science Review*, **2018**, 5, 703-714	10.8	44
18	Bioinspired polymeric woods. *Science Advances*, **2018**, 4, eaat7223	14.3	135
17	Structure and transport of confined liquid in nanochannels. *Scientia Sinica: Physica, Mechanica Et Astronomica*, **2018**, 48, 094609	1.5	2
16	Mechanical properties of copper octet-truss nanolattices. *Journal of the Mechanics and Physics of Solids*, **2017**, 101, 133-149	5	34
15	Superheating of monolayer ice in graphene nanocapillaries. *Journal of Chemical Physics*, **2017**, 146, 134703	3.9	12
14	Mechanical Properties of Penta-Graphene Nanotubes. *Journal of Physical Chemistry C*, **2017**, 121, 9642-9647	3.8	24
13	Multiscale transport mechanism of shale gas in micro/nano-pores. *International Journal of Heat and Mass Transfer*, **2017**, 111, 1172-1180	4.9	77
12	Effect of grain boundaries on mechanical transverse wave propagations in graphene. *Journal of Applied Physics*, **2017**, 121, 215105	2.5	3
11	Joule-heated graphene-wrapped sponge enables fast clean-up of viscous crude-oil spill. *Nature Nanotechnology*, **2017**, 12, 434-440	28.7	431
10	Super-elasticity and deformation mechanism of three-dimensional pillared graphene network structures. *Carbon*, **2017**, 118, 588-596	10.4	25
9	Helium bubbles aggravated defects production in self-irradiated copper. *Journal of Nuclear Materials*, **2017**, 496, 265-273	3.3	9
8	Elastic-plastic properties of graphene engineered by oxygen functional groups. *Journal Physics D: Applied Physics*, **2017**, 50, 385305	3	3
7	Structural and dynamic characteristics in monolayer square ice. *Journal of Chemical Physics*, **2017**, 147, 044706	3.9	9
6	AB-stacked square-like bilayer ice in graphene nanocapillaries. *Physical Chemistry Chemical Physics*, **2016**, 18, 22039-46	3.6	16

5	Super-elastic and fatigue resistant carbon material with lamellar multi-arch microstructure. *Nature Communications*, **2016**, 7, 12920	17.4	245
4	Shape-Controlled Deterministic Assembly of Nanowires. *Nano Letters*, **2016**, 16, 2644-50	11.5	46
3	Buckling failure of square ice-nanotube arrays constrained in graphene nanocapillaries. *Journal of Chemical Physics*, **2016**, 145, 054704	3.9	9
2	Formation of Trilayer Ices in Graphene Nanocapillaries under High Lateral Pressure. *Journal of Physical Chemistry C*, **2016**, 120, 8109-8115	3.8	19
1	Compression Limit of Two-Dimensional Water Constrained in Graphene Nanocapillaries. *ACS Nano*, **2015**, 9, 12197-204	16.7	68