Jin Zhang

List of Publications by Year
in descending order

101 papers	5,634 citations	71102 41 h-index	82547 72 g-index
102 all docs	102 docs citations	102 times ranked	6488 citing authors

#	Article	IF	Citations
1	Nanostructure Control in 3D Printed Materials. Advanced Materials, 2022, 34, e2107643.	21.0	40
2	Electrospun liquid metal/PVDF-HFP nanofiber membranes with exceptional triboelectric performance. Nano Energy, 2022, 92, 106713.	16.0	49
3	An Investigation towards Coupling Molecular Dynamics with Computational Fluid Dynamics for Modelling Polymer Pyrolysis. Molecules, 2022, 27, 292.	3.8	12
4	Soft Liquid Metal Infused Conductive Sponges. Advanced Materials Technologies, 2022, 7, .	5.8	24
5	Pyrolysis and combustion characterisation of HDPE/APP composites via molecular dynamics and CFD simulations. Journal of Analytical and Applied Pyrolysis, 2022, 163, 105499.	5.5	9
6	Induction heating for the removal of liquid metal-based implant mimics: A proof-of-concept. Applied Materials Today, 2022, 27, 101459.	4.3	7
7	Enhancing output performance of PVDF-HFP fiber-based nanogenerator by hybridizing silver nanowires and perovskite oxide nanocrystals. Nano Energy, 2022, 98, 107343.	16.0	35
8	Nano- to macro-scale control of 3D printed materials via polymerization induced microphase separation. Nature Communications, 2022, 13, .	12.8	42
9	Designing Nanostructured 3D Printed Materials by Controlling Macromolecular Architecture. Angewandte Chemie - International Edition, 2022, 61, .	13.8	25
10	Surface Functionalization of Electrodes and Synthesis of Dual-Phase Solid Electrolytes for Structural Supercapacitors. ACS Applied Materials & Interfaces, 2022, 14, 30857-30871.	8.0	12
11	Characterisation of pyrolysis kinetics and detailed gas species formations of engineering polymers via reactive molecular dynamics (ReaxFF). Journal of Analytical and Applied Pyrolysis, 2021, 153, 104931.	5.5	26
12	Carbonization of low thermal stability polymers at the interface of liquid metals. Carbon, 2021, 171, 938-945.	10.3	5
13	Strain stiffening and positive piezoconductive effect of liquid metal/elastomer soft composites. Composites Science and Technology, 2021, 201, 108497.	7.8	22
14	Hierarchically structured electrodes for moldable supercapacitors by synergistically hybridizing vertical graphene nanosheets and MnO2. Carbon, 2021, 172, 272-282.	10.3	59
15	Coloured powder from coloured textile waste for fabric printing application. Cellulose, 2021, 28, 1179-1189.	4.9	15
16	Polyphenolâ€Induced Adhesive Liquid Metal Inks for Substrateâ€Independent Direct Pen Writing. Advanced Functional Materials, 2021, 31, 2007336.	14.9	84
17	Synergies of vertical graphene and manganese dioxide in enhancing the energy density of carbon fibre-based structural supercapacitors. Composites Science and Technology, 2021, 201, 108568.	7.8	62
18	PET-RAFT facilitated 3D printable resins with multifunctional RAFT agents. Materials Chemistry Frontiers, 2021, 5, 2271-2282.	5.9	32

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19	Recent developments of hybrid piezoâ€“triboelectric nanogenerators for flexible sensors and energy harvesters. Nanoscale Advances, 2021, 3, 5465-5486.	4.6	47
20	Tuning the Mechanical Properties of Silkworm Silk Fibres by Thermally Induced Modification of Crystalline Nanostructure. Fibers and Polymers, 2021, 22, 373-381.	2.1	4
21	Experimental and numerical perspective on the fire performance of MXene/Chitosan/Phytic acid coated flexible polyurethane foam. Scientific Reports, 2021, 11, 4684.	3.3	24
22	Creating ionic pathways in solid-state polymer electrolyte by using PVA-coated carbon nanofibers. Composites Science and Technology, 2021, 207, 108710.	7.8	16
23	N-doped reduced graphene oxide (rGO) wrapped carbon microfibers as binder-free electrodes for flexible fibre supercapacitors and sodium-ion batteries. Journal of Energy Storage, 2021, 37, 102453.	8.1	22
24	Carbon fibre electrodes for ultra long cycle life pseudocapacitors by engineering the nano-structure of vertical graphene and manganese dioxides. Carbon, 2021, 177, 260-270.	10.3	19
25	Transparent, stretchable and high-performance triboelectric nanogenerator based on dehydration-free ionically conductive solid polymer electrode. Nano Energy, 2021, 88, 106289.	16.0	28
26	High-performance hierarchical MnO2/CNT electrode for multifunctional supercapacitors. Carbon, 2021, 184, 504-513.	10.3	54
27	Post-transition metal/polymer composites for the separation and sensing of alkali metal ions. Journal of Materials Chemistry A, 2021, 9, 19854-19864.	10.3	12
28	A Review on Lithium-Ion Battery Separators towards Enhanced Safety Performances and Modelling Approaches. Molecules, 2021, 26, 478.	3.8	49
29	Controlling mechanical properties of 3D printed polymer composites through photoinduced reversible additionâ€“fragmentation chain transfer (RAFT) polymerization. Polymer Chemistry, 2021, 13, 44-57.	3.9	27
30	Prestrained twistless flax yarn as reinforcement for polymerâ€matrix composites. Polymer Composites, 2020, 41, 930-938.	4.6	5
31	The key structural features governing the free radicals and catalytic activity of graphite/graphene oxide. Physical Chemistry Chemical Physics, 2020, 22, 3112-3121.	2.8	30
32	Bifunctional graphene oxide nanosheets for interfacially robust polymer actuators with instant solvent-induced self-folding. Polymer, 2020, 186, 122037.	3.8	4
33	Enhancing the triboelectricity of stretchable electrospun piezoelectric polyvinylidene fluoride/boron nitride nanosheets composite nanofibers. Composites Communications, 2020, 22, 100535.	6.3	22
34	Palladium nanoparticle colored cotton fabric as a highly efficient catalyst for colorimetric sensing of H2O2. Cellulose, 2020, 27, 7791-7803.	4.9	9
35	Current status of carbon fibre and carbon fibre composites recycling. Composites Part B: Engineering, 2020, 193, 108053.	12.0	374
36	Magnetic and Conductive Liquid Metal Gels. ACS Applied Materials & Interfaces, 2020, 12, 20119-20128.	8.0	73

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37	Enhanced through-thickness thermal conductivity of epoxy with cellulose-supported boron nitride nanosheets. Polymer, 2019, 179, 121653.	3.8	12
38	Mechanically stretchable piezoelectric polyvinylidene fluoride (PVDF)/Boron nitride nanosheets (BNNSs) polymer nanocomposites. Composites Part B: Engineering, 2019, 175, 107157.	12.0	43
39	Kinetic investigation into pH-dependent color of anthocyanin and its sensing performance. Dyes and Pigments, 2019, 170, 107643.	3.7	68
40	Environmentally Friendly Flexible Strain Sensor from Waste Cotton Fabrics and Natural Rubber Latex. Polymers, 2019, 11, 404.	4.5	41
41	Effect of natural fibre reinforcement on the sound and vibration damping properties of bio-composites compression moulded by nonwoven mats. Composites Communications, 2019, 13, 12-17.	6.3	58
42	Improving the gas barrier, mechanical and thermal properties of poly(vinyl alcohol) with molybdenum disulfide nanosheets. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 406-414.	2.1	14
43	Preparation and characterization of nanocomposite films based on gum arabic, maltodextrin and polyethylene glycol reinforced with turmeric nanofiber isolated from turmeric spent. Materials Science and Engineering C, 2019, 97, 723-729.	7.3	31
44	Nanophase morphology and crystallization in poly(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 467 Td (fluoride)/polydimethylsiloxa 2019, 68, 418-427.	3.1	4
45	Structural Comparison of Various Silkworm Silks: An Insight into the Structureâ€"Property Relationship. Biomacromolecules, 2018, 19, 906-917.	5.4	116
46	Fracture and fatigue behaviour of epoxy nanocomposites containing 1-D and 2-D nanoscale carbon fillers. Engineering Fracture Mechanics, 2018, 203, 102-114.	4.3	37
47	Photocatalysis and self-cleaning from g-C3N4 coated cotton fabrics under sunlight irradiation. Chemical Physics Letters, 2018, 699, 146-154.	2.6	33
48	Optimizing twisted yarn structure for natural fiber-reinforced polymeric composites. Journal of Composite Materials, 2018, 52, 373-381.	2.4	19
49	Epoxy nanocomposites simultaneously strengthened and toughened by hybridization with graphene oxide and block ionomer. Composites Science and Technology, 2018, 168, 363-370.	7.8	95
50	Functionalization of Silk with In-Situ Synthesized Platinum Nanoparticles. Materials, 2018, 11, 1929.	2.9	21
51	Photoinduced synthesis of gold nanoparticleâ€"bacterial cellulose nanocomposite and its application for in-situ detection of trace concentration of dyes in textile and paper. Cellulose, 2018, 25, 3941-3953.	4.9	16
52	High temperature thermally conductive nanocomposite textile by â€œgreenâ€•electrospinning. Nanoscale, 2018, 10, 16868-16872.	5.6	81
53	Enhancing the thermal and mechanical properties of polyvinyl alcohol (PVA) with boron nitride nanosheets and cellulose nanocrystals. Polymer, 2018, 148, 101-108.	3.8	43
54	Novel Electrically Conductive Porous PDMS/Carbon Nanofiber Composites for Deformable Strain Sensors and Conductors. ACS Applied Materials & Interfaces, 2017, 9, 14207-14215.	8.0	239

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55	Natural and highly protective composite structures â€“ Wild silkworm cocoons. Composites Communications, 2017, 4, 1-4.	6.3	21
56	Comparative Study of Strainâ€Dependent Structural Changes of Silkworm Silks: Insight into the Structural Origin of Strainâ€Stiffening. Small, 2017, 13, 1702266.	10.0	53
57	Aligning carbon nanofibres in glass-fibre/epoxy composites to improve interlaminar toughness and crack-detection capability. Composites Science and Technology, 2017, 152, 46-56.	7.8	54
58	Synergistic influence from the hybridization of boron nitride and graphene oxide nanosheets on the thermal conductivity and mechanical properties of polymer nanocomposites. Composites Science and Technology, 2017, 151, 252-257.	7.8	37
59	Using Carbon Nanofibre Sensors for In-situ Detection and Monitoring of Disbonds in Bonded Composite Joints. Procedia Engineering, 2017, 188, 362-368.	1.2	7
60	Interactions between fibroin and sericin proteins from Antheraea pernyi and Bombyx mori silk fibers. Journal of Colloid and Interface Science, 2016, 478, 316-323.	9.4	33
61	Directional moisture transfer through a wild silkworm cocoon wall. Biointerphases, 2016, 11, 021008.	1.6	1
62	A novel route for tethering graphene with iron oxide and its magnetic field alignment in polymer nanocomposites. Polymer, 2016, 97, 273-284.	3.8	42
63	Covalent/crystallite cross-linked co-network hydrogels: An efficient and simple strategy for mechanically strong and tough hydrogels. Chemical Engineering Journal, 2016, 301, 92-102.	12.7	34
64	Strain Sensors with Adjustable Sensitivity by Tailoring the Microstructure of Graphene Aerogel/PDMS Nanocomposites. ACS Applied Materials & Interfaces, 2016, 8, 24853-24861.	8.0	195
65	Structureâ€“property relationships of elementary bamboo fibers. Cellulose, 2016, 23, 3521-3534.	4.9	12
66	Multifunctional properties of epoxy nanocomposites reinforced by aligned nanoscale carbon. Materials and Design, 2016, 94, 554-564.	7.0	80
67	Carbon science in 2016: Status, challenges and perspectives. Carbon, 2016, 98, 708-732.	10.3	261
68	The effect of fibrous structural difference on thermal insulation properties of biological composites: Silkworm cocoons. Textile Reseach Journal, 2016, 86, 1935-1946.	2.2	7
69	Epoxy nanocomposites containing magnetite-carbon nanofibers aligned using a weak magnetic field. Polymer, 2015, 68, 25-34.	3.8	89
70	Dualâ€Layer Superamphiphobic/Superhydrophobicâ€Oleophilic Nanofibrous Membranes with Unidirectional Oilâ€Transport Ability and Strengthened Oilâ€“Water Separation Performance. Advanced Materials Interfaces, 2015, 2, 1400506.	3.7	143
71	Surface energy of silk fibroin and mechanical properties of silk cocoon composites. RSC Advances, 2015, 5, 1640-1647.	3.6	25
72	Aligning multilayer graphene flakes with an external electric field to improve multifunctional properties of epoxy nanocomposites. Carbon, 2015, 94, 607-618.	10.3	288

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73	Improving the toughness and electrical conductivity of epoxy nanocomposites by using aligned carbon nanofibres. Composites Science and Technology, 2015, 117, 146-158.	7.8	135
74	Interfacial heat transfer through a natural protective fibrous architecture: a wild silkworm cocoon wall. Textile Reseach Journal, 2015, 85, 1035-1044.	2.2	6
75	Microstructure and mechanical properties of silk from different components of the Antheraea pernyi cocoon. Materials & Design, 2015, 65, 766-771.	5.1	23
76	Effects of mechanical deformation on electric performance of rechargeable batteries embedded in load carrying composite structures. Plastics, Rubber and Composites, 2014, 43, 98-104.	2.0	22
77	Cocoon of the silkworm <i>Antheraea pernyi</i> as an example of a thermally insulating biological interface. Biointerphases, 2014, 9, 031013.	1.6	12
78	Magnetic and mechanical properties of polyvinyl alcohol (PVA) nanocomposites with hybrid nanofillers â€“ Graphene oxide tethered with magnetic Fe3O4 nanoparticles. Chemical Engineering Journal, 2014, 237, 462-468.	12.7	68
79	Mechanical properties and structure of silkworm cocoons: A comparative study of Bombyx mori, Antheraea assamensis, Antheraea pernyi and Antheraea mylitta silkworm cocoons. Materials Science and Engineering C, 2013, 33, 3206-3213.	7.3	68
80	Thermally mendable epoxy resin strengthened with carbon nanofibres. Composites Part A: Applied Science and Manufacturing, 2013, 55, 45-52.	7.6	5
81	Photoprotection by Silk Cocoons. Biomacromolecules, 2013, 14, 3660-3667.	5.4	68
82	Silkworm cocoon as natural material and structure for thermal insulation. Materials & Design, 2013, 49, 842-849.	5.1	85
83	Improving the bending strength and energy absorption of corrugated sandwich composite structure. Materials & Design, 2013, 52, 767-773.	5.1	85
84	Healing of carbon fibreâ€“epoxy composite T-joints using mendable polymer fibre stitching. Composites Part B: Engineering, 2013, 45, 1499-1507.	12.0	50
85	Interlayer self-healing and toughening of carbon fibre/epoxy composites using copolymer films. Composites Part A: Applied Science and Manufacturing, 2012, 43, 512-518.	7.6	97
86	Toughening and self-healing of epoxy matrix laminates using mendable polymer stitching. Composites Science and Technology, 2012, 72, 1396-1401.	7.8	66
87	The effect of carbon nanofibres on self-healing epoxy/poly(Îµ-caprolactone) blends. Composites Science and Technology, 2012, 72, 1952-1959.	7.8	25
88	Phase morphology of nanofibre interlayers: Critical factor for toughening carbon/epoxy composites. Composites Science and Technology, 2012, 72, 256-262.	7.8	120
89	Hybrid composite laminates reinforced with glass/carbon woven fabrics for lightweight load bearing structures. Materials & Design, 2012, 36, 75-80.	5.1	360
90	Preparation, structure and supercapacitance of bonded carbon nanofiber electrode materials. Carbon, 2011, 49, 2380-2388.	10.3	202

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91	Synergistic effects of PEK-C/VGCNF composite nanofibres on a trifunctional epoxy resin. Composites Science and Technology, 2011, 71, 1060-1067.	7.8	34
92	Electrospun nanofibre toughened carbon/epoxy composites: Effects of polyetherketone cardo (PEK-C) nanofibre diameter and interlayer thickness. Composites Science and Technology, 2010, 70, 1660-1666.	7.8	151
93	Thermal and mechanical properties of a dendritic hydroxylâ€functional hyperbranched polymer and tetrafunctional epoxy resin blends. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 417-424.	2.1	51
94	Interphase study of thermoplastic modified epoxy matrix composites: Phase behaviour around a single fibre influenced by heating rate and surface treatment. Composites Part A: Applied Science and Manufacturing, 2010, 41, 787-794.	7.6	28
95	Inspection of Drop-weight Impact Damage in Woven CFRP Laminates Fabricated by Different Processes. Journal of Composite Materials, 2009, 43, 1939-1946.	2.4	10
96	Structural and material properties of a rapidly cured thermoplasticâ€toughened epoxy system. Journal of Applied Polymer Science, 2009, 113, 485-491.	2.6	9
97	Study on thermoplastic-modified multifunctional epoxies: Influence of heating rate on cure behaviour and phase separation. Composites Science and Technology, 2009, 69, 1172-1179.	7.8	49
98	Consistent model predictions for isothermal cure kinetics investigation of high performance epoxy prepregs. Journal of Applied Polymer Science, 2008, 107, 2231-2237.	2.6	10
99	Manufacturing Influence on the Delamination Fracture Behavior of the T800H/3900-2 Carbon Fiber Reinforced Polymer Composites. Materials and Manufacturing Processes, 2007, 22, 768-772.	4.7	37
100	An experimental study of low velocity impact response in 2/2 twill weave composite laminates manufactured by a novel fabrication process. Journal of Materials Science, 2007, 42, 232-238.	3.7	3
101	Characterization and Analysis of Delamination Fracture and Nanocreep Properties in Carbon Epoxy Composites Manufactured by Different Processes. Journal of Composite Materials, 2006, 40, 1287-1299.	2.4	23