Hao-Bin Zhang

List of Publications by Year
in descending order

76 papers	13,417 citations	38742 50 h-index	71685 76 g-index
76 all docs	76 docs citations	76 times ranked	10197 citing authors

#	Article	IF	Citations
1	Hydrophobic, Flexible, and Lightweight MXene Foams for Highâ€Performance Electromagneticâ€Interference Shielding. Advanced Materials, 2017, 29, 1702367.	21.0	1,364
2	Tough Grapheneâ˜'Polymer Microcellular Foams for Electromagnetic Interference Shielding. ACS Applied Materials & Interfaces, 2011, 3, 918-924.	8.0	979
3	Electrically conductive polyethylene terephthalate/graphene nanocomposites prepared by melt compounding. Polymer, 2010, 51, 1191-1196.	3.8	717
4	Highly Electrically Conductive Three-Dimensional Ti₃C₂T_{<i>x</i>} MXene/Reduced Graphene Oxide Hybrid Aerogels with Excellent Electromagnetic Interference Shielding Performances. ACS Nano, 2018, 12, 11193-11202.	14.6	671
5	Highly Conductive Transition Metal Carbide/Carbonitride(MXene)@polystyrene Nanocomposites Fabricated by Electrostatic Assembly for Highly Efficient Electromagnetic Interference Shielding. Advanced Functional Materials, 2017, 27, 1702807.	14.9	620
6	Multifunctional and Waterâ€Resistant MXeneâ€Decorated Polyester Textiles with Outstanding Electromagnetic Interference Shielding and Joule Heating Performances. Advanced Functional Materials, 2019, 29, 1806819.	14.9	584
7	Highâ€Performance Epoxy Nanocomposites Reinforced with Threeâ€Dimensional Carbon Nanotube Sponge for Electromagnetic Interference Shielding. Advanced Functional Materials, 2016, 26, 447-455.	14.9	579
8	Multifunctional Magnetic Ti₃C₂T_{<i>x</i>} MXene/Graphene Aerogel with Superior Electromagnetic Wave Absorption Performance. ACS Nano, 2021, 15, 6622-6632.	14.6	503
9	Flexible and Multifunctional Silk Textiles with Biomimetic Leafâ€Like MXene/Silver Nanowire Nanostructures for Electromagnetic Interference Shielding, Humidity Monitoring, and Selfâ€Derived Hydrophobicity. Advanced Functional Materials, 2019, 29, 1905197.	14.9	490
10	Multifunctional, Superelastic, and Lightweight MXene/Polyimide Aerogels. Small, 2018, 14, e1802479.	10.0	418
11	Simultaneous surface functionalization and reduction of graphene oxide with octadecylamine for electrically conductive polystyrene composites. Carbon, 2011, 49, 4724-4730.	10.3	365
12	The effect of surface chemistry of graphene on rheological and electrical properties of polymethylmethacrylate composites. Carbon, 2012, 50, 5117-5125.	10.3	294
13	Enhanced electromagnetic interference shielding efficiency of polystyrene/graphene composites with magnetic Fe3O4 nanoparticles. Carbon, 2015, 82, 67-76.	10.3	292
14	Compressible, durable and conductive polydimethylsiloxane-coated MXene foams for high-performance electromagnetic interference shielding. Chemical Engineering Journal, 2020, 381, 122622.	12.7	289
15	Flexible, Transparent, and Conductive Ti₃C₂T_{<i>x</i>} MXeneâ€"Silver Nanowire Films with Smart Acoustic Sensitivity for High-Performance Electromagnetic Interference Shielding. ACS Nano, 2020, 14, 16643-16653.	14.6	270
16	Highly sensitive, reliable and flexible piezoresistive pressure sensors featuring polyurethane sponge coated with MXene sheets. Journal of Colloid and Interface Science, 2019, 542, 54-62.	9.4	248
17	Three dimensional graphene aerogels and their electrically conductive composites. Carbon, 2014, 77, 592-599.	10.3	220
18	Growth of silver nanocrystals on graphene by simultaneous reduction of graphene oxide and silver ions with a rapid and efficient one-step approach. Chemical Communications, 2011, 47, 3084.	4.1	208

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19	Flexible, stretchable and electrically conductive MXene/natural rubber nanocomposite films for efficient electromagnetic interference shielding. Composites Science and Technology, 2019, 182, 107754.	7.8	197
20	Functionalization and Reduction of Graphene Oxide with <i>p</i>-Phenylene Diamine for Electrically Conductive and Thermally Stable Polystyrene Composites. ACS Applied Materials & Interfaces, 2012, 4, 1948-1953.	8.0	195
21	Vacuum-assisted synthesis of graphene from thermal exfoliation and reduction of graphite oxide. Journal of Materials Chemistry, 2011, 21, 5392.	6.7	192
22	Kirigami-Inspired Highly Stretchable, Conductive, and Hierarchical Ti₃C₂T_{<i>x</i>} MXene Films for Efficient Electromagnetic Interference Shielding and Pressure Sensing. ACS Nano, 2021, 15, 7668-7681.	14.6	187
23	Selfâ€Assembly of MXeneâ€Surfactants at Liquidâ€“Liquid Interfaces: From Structured Liquids to 3D Aerogels. Angewandte Chemie - International Edition, 2019, 58, 18171-18176.	13.8	166
24	Superelastic, Ultralight, and Conductive Ti₃C₂T<i>_x</i> MXene/Acidified Carbon Nanotube Anisotropic Aerogels for Electromagnetic Interference Shielding. ACS Applied Materials & Interfaces, 2021, 13, 20539-20547.	8.0	135
25	Highly sensitive, robust and anisotropic MXene aerogels for efficient broadband microwave absorption. Composites Part B: Engineering, 2020, 200, 108263.	12.0	134
26	In situ thermal reduction of graphene oxide for high electrical conductivity and low percolation threshold in polyamide 6 nanocomposites. Composites Science and Technology, 2012, 72, 284-289.	7.8	130
27	Controllable synthesis of hollow microspheres with Fe@Carbon dual-shells for broad bandwidth microwave absorption. Carbon, 2019, 147, 172-181.	10.3	130
28	Superelastic and multifunctional graphene-based aerogels by interfacial reinforcement with graphitized carbon at high temperatures. Carbon, 2018, 132, 95-103.	10.3	128
29	Ultrastrong and Highly Conductive MXeneâ€Based Films for Highâ€Performance Electromagnetic Interference Shielding. Advanced Electronic Materials, 2020, 6, 1901094.	5.1	120
30	Enhanced thermal conductivity and satisfactory flame retardancy of epoxy/alumina composites by combination with graphene nanoplatelets and magnesium hydroxide. Composites Part B: Engineering, 2016, 98, 134-140.	12.0	117
31	Decoration of defect-free graphene nanoplatelets with alumina for thermally conductive and electrically insulating epoxy composites. Composites Science and Technology, 2016, 137, 16-23.	7.8	110
32	Magnetic and electrically conductive epoxy/graphene/carbonyl iron nanocomposites for efficient electromagnetic interference shielding. Composites Science and Technology, 2015, 118, 178-185.	7.8	107
33	Phenolic resin-enhanced three-dimensional graphene aerogels and their epoxy nanocomposites with high mechanical and electromagnetic interference shielding performances. Composites Science and Technology, 2017, 152, 254-262.	7.8	106
34	Improved Electrical Conductivity of Polyamide 12/Graphene Nanocomposites with Maleated Polyethylene-Octene Rubber Prepared by Melt Compounding. ACS Applied Materials & Interfaces, 2012, 4, 4740-4745.	8.0	102
35	Direct Ink Writing of Highly Conductive MXene Frames for Tunable Electromagnetic Interference Shielding and Electromagnetic Wave-Induced Thermochromism. Nano-Micro Letters, 2021, 13, 148.	27.0	96
36	In situ chemical reduction and functionalization of graphene oxide for electrically conductive phenol formaldehyde composites. Carbon, 2014, 68, 653-661.	10.3	95

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37	Synergistic effect of boron nitride flakes and tetrapod-shaped ZnO whiskers on the thermal conductivity of electrically insulating phenol formaldehyde composites. Composites Part A: Applied Science and Manufacturing, 2013, 53, 137-144.	7.6	94
38	Thermally conductive and electrically insulating epoxy nanocomposites with silica-coated graphene. RSC Advances, 2014, 4, 15297-15303.	3.6	93
39	Smart MXene-Based Janus films with multi-responsive actuation capability and high electromagnetic interference shielding performances. Carbon, 2021, 175, 594-602.	10.3	90
40	Lightweight Fe@C hollow microspheres with tunable cavity for broadband microwave absorption. Composites Part B: Engineering, 2019, 177, 107346.	12.0	89
41	Nanolayered Cobalt@Carbon Hybrids Derived from Metalâ€“Organic Frameworks for Microwave Absorption. ACS Applied Nano Materials, 2019, 2, 2325-2335.	5.0	89
42	Electrically conductive aluminum ion-reinforced MXene films for efficient electromagnetic interference shielding. Journal of Materials Chemistry C, 2020, 8, 1673-1678.	5.5	83
43	Highly Efficient High-Pressure Homogenization Approach for Scalable Production of High-Quality Graphene Sheets and Sandwich-Structured Î±-Fe₂O₃/Graphene Hybrids for High-Performance Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 11025-11034.	8.0	75
44	Electrically conductive rubbery epoxy/diamine-functionalized graphene nanocomposites with improved mechanical properties. Composites Part B: Engineering, 2014, 67, 564-570.	12.0	74
45	Super-Tough and Environmentally Stable Aramid. Nanofiber@MXene Coaxial Fibers with Outstanding Electromagnetic Interference Shielding Efficiency. Nano-Micro Letters, 2022, 14, 111.	27.0	70
46	Electrically conductive polycarbonate/carbon nanotube composites toughened with micron-scale voids. Carbon, 2015, 82, 195-204.	10.3	60
47	Magnetic, electrically conductive and lightweight graphene/iron pentacarbonyl porous films enhanced with chitosan for highly efficient broadband electromagnetic interference shielding. Composites Science and Technology, 2017, 151, 71-78.	7.8	58
48	Functional Polyaniline/MXene/Cotton Fabrics with Acid/Alkali-Responsive and Tunable Electromagnetic Interference Shielding Performances. ACS Applied Materials & Interfaces, 2022, 14, 12703-12712.	8.0	58
49	A facile method to prepare stable noncovalent functionalized graphene solution by using thionine. Materials Research Bulletin, 2011, 46, 583-587.	5.2	57
50	Strong and conductive reduced graphene oxide-MXene porous films for efficient electromagnetic interference shielding. Nano Research, 2022, 15, 4916-4924.	10.4	53
51	Simultaneous enhancements in electrical conductivity and toughness of selectively foamed polycarbonate/polystyrene/carbon nanotube microcellular foams. Composites Part B: Engineering, 2018, 143, 161-167.	12.0	52
52	3D printing of resilient, lightweight and conductive MXene/reduced graphene oxide architectures for broadband electromagnetic interference shielding. Journal of Materials Chemistry A, 2022, 10, 11375-11385.	10.3	50
53	Electrically Conductive Ti₃C₂T_{<i>x</i>} MXene/Polypropylene Nanocomposites with an Ultralow Percolation Threshold for Efficient Electromagnetic Interference Shielding. Industrial & Engineering Chemistry Research, 2021, 60, 4342-4350.	3.7	49
54	Graphene-coated ZnO tetrapod whiskers for thermally and electrically conductive epoxy composites. Composites Part A: Applied Science and Manufacturing, 2017, 94, 104-112.	7.6	47

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55	Janus MXene nanosheets for macroscopic assemblies. Materials Chemistry Frontiers, 2020, 4, 910-917.	5.9	47
56	Structural evolution of functionalized graphene sheets during solvothermal reduction. Carbon, 2013, 56, 132-138.	10.3	45
57	Tough and electrically conductive Ti3C2T MXeneâ€“based coreâ€“shell fibers for highâ€“performance electromagnetic interference shielding and heating application. Chemical Engineering Journal, 2022, 430, 133074.	12.7	43
58	One-Pot Sintering Strategy for Efficient Fabrication of High-Performance and Multifunctional Graphene Foams. ACS Applied Materials & Interfaces, 2017, 9, 13323-13330.	8.0	40
59	FeCl₃intercalated few-layer graphene for high lithium-ion storage performance. Journal of Materials Chemistry A, 2015, 3, 15498-15504.	10.3	38
60	Photothermal healable, stretchable, and conductive MXene composite films for efficient electromagnetic interference shielding. Carbon, 2022, 198, 179-187.	10.3	38
61	Supercritical carbon dioxide fluid assisted synthesis of hierarchical AlOOH@reduced graphene oxide hybrids for efficient removal of fluoride ions. Chemical Engineering Journal, 2016, 292, 174-182.	12.7	36
62	Tough, Strong, and Conductive Graphene Fibers by Optimizing Surface Chemistry of Graphene Oxide Precursor. Advanced Functional Materials, 2022, 32, .	14.9	35
63	The Effect of Surface Chemistry of Graphene on Cellular Structures and Electrical Properties of Polycarbonate Nanocomposite Foams. Industrial & Engineering Chemistry Research, 2014, 53, 4697-4703.	3.7	34
64	Thermally conductive phenol formaldehyde composites filled with carbon fillers. Materials Letters, 2014, 118, 212-216.	2.6	33
65	Simultaneous Improvement in Both Electrical Conductivity and Toughness of Polyamide 6 Nanocomposites Filled with Elastomer and Carbon Black Particles. Industrial & Engineering Chemistry Research, 2014, 53, 2270-2276.	3.7	33
66	Multifunctional Ti₃C₂T_{<i>x</i>} MXene/Low-Density Polyethylene Soft Robots with Programmable Configuration for Amphibious Motions. ACS Applied Materials & Interfaces, 2021, 13, 45833-45842.	8.0	29
67	Transparent, conductive and flexible MXene grid/silver nanowire hierarchical films for high-performance electromagnetic interference shielding. Journal of Materials Chemistry A, 2022, 10, 14364-14373.	10.3	28
68	Realizing Spontaneously Regular Stacking of Pristine Graphene Oxide by a Chemical-Structure-Engineering Strategy for Mechanically Strong Macroscopic Films. ACS Nano, 2022, 16, 8869-8880.	14.6	25
69	Improved rheological and electrical properties of graphene/polystyrene nanocomposites modified with styrene maleic anhydride copolymer. Composites Science and Technology, 2014, 102, 176-182.	7.8	24
70	Simultaneous functionalization and reduction of graphene oxide with polyetheramine and its electrically conductive epoxy nanocomposites. Chinese Journal of Polymer Science (English Edition), 2014, 32, 975-985.	3.8	24
71	Electrically Conductive and Flame Retardant Graphene/Brominated Polystyrene/Maleic Anhydride Grafted High Density Polyethylene Nanocomposites with Satisfactory Mechanical Properties. Chinese Journal of Polymer Science (English Edition), 2019, 37, 509-517.	3.8	18
72	Selfâ€Assembly of MXeneâ€Surfactants at Liquidâ€“Liquid Interfaces: From Structured Liquids to 3D Aerogels. Angewandte Chemie, 2019, 131, 18339-18344.	2.0	14

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73	Poly(ethylene terephthalate)/attapulgite nanocomposites: Preparation, structure, and properties. Journal of Applied Polymer Science, 2008, 110, 140-146.	2.6	13
74	In situ reduction of iron oxide with graphene for convenient synthesis of various graphene hybrids. Carbon, 2016, 107, 138-145.	10.3	13
75	Preparation and Characterization of Water-soluble Graphene and Highly Conducting Films. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2011, 26, 707-710.	1.3	5
76	A Facile Approach to the Synthesis of Graphene Nanosheets Under Ultra-Low Exfoliation Temperature. Journal of Nanoscience and Nanotechnology, 2011, 11, 10868-10870.	0.9	3