Zhen Xu

List of Publications by Year
in descending order

96 papers	13,136 citations	50170 46 h-index	42291 92 g-index
98 all docs	98 docs citations	98 times ranked	13695 citing authors

#	Article	IF	Citations
1	Multifunctional, Ultraâ€Flyweight, Synergistically Assembled Carbon Aerogels. Advanced Materials, 2013, 25, 2554-2560.	11.1	1,701
2	Ultrathin Graphene Nanofiltration Membrane for Water Purification. Advanced Functional Materials, 2013, 23, 3693-3700.	7.8	1,361
3	Graphene chiral liquid crystals and macroscopic assembled fibres. Nature Communications, 2011, 2, 571.	5.8	936
4	Ultrastrong Fibers Assembled from Giant Graphene Oxide Sheets. Advanced Materials, 2013, 25, 188-193.	11.1	613
5	Strong, Conductive, Lightweight, Neat Graphene Aerogel Fibers with Aligned Pores. ACS Nano, 2012, 6, 7103-7113.	7.3	599
6	Aqueous Liquid Crystals of Graphene Oxide. ACS Nano, 2011, 5, 2908-2915.	7.3	567
7	Ultrahigh Thermal Conductive yet Superflexible Graphene Films. Advanced Materials, 2017, 29, 1700589.	11.1	416
8	An iron-based green approach to 1-h production of single-layer graphene oxide. Nature Communications, 2015, 6, 5716.	5.8	377
9	MXene/graphene hybrid fibers for high performance flexible supercapacitors. Journal of Materials Chemistry A, 2017, 5, 22113-22119.	5.2	347
10	Ultrafast all-climate aluminum-graphene battery with quarter-million cycle life. Science Advances, 2017, 3, eaao7233.	4.7	316
11	Graphene fiber: a new trend in carbon fibers. Materials Today, 2015, 18, 480-492.	8.3	307
12	Graphene in Macroscopic Order: Liquid Crystals and Wet-Spun Fibers. Accounts of Chemical Research, 2014, 47, 1267-1276.	7.6	295
13	Direct 3D Printing of Ultralight Graphene Oxide Aerogel Microlattices. Advanced Functional Materials, 2018, 28, 1707024.	7.8	284
14	A Defectâ€Free Principle for Advanced Graphene Cathode of Aluminumâ€Ion Battery. Advanced Materials, 2017, 29, 1605958.	11.1	280
15	Ultrastiff and Strong Graphene Fibers via Fullâ€Scale Synergetic Defect Engineering. Advanced Materials, 2016, 28, 6449-6456.	11.1	279
16	Highly Electrically Conductive Agâ€Doped Graphene Fibers as Stretchable Conductors. Advanced Materials, 2013, 25, 3249-3253.	11.1	257
17	A Review on Graphene Fibers: Expectations, Advances, and Prospects. Advanced Materials, 2020, 32, e1902664.	11.1	206
18	Highly stretchable carbon aerogels. Nature Communications, 2018, 9, 881.	5.8	202

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19	Multifunctional non-woven fabrics of interfused graphene fibres. Nature Communications, 2016, 7, 13684.	5.8	193
20	Wet-Spun Continuous Graphene Films. Chemistry of Materials, 2014, 26, 6786-6795.	3.2	186
21	Synergistic effect of graphene and carbon nanotube for high-performance electromagnetic interference shielding films. Carbon, 2018, 133, 316-322.	5.4	167
22	Flexible high performance wet-spun graphene fiber supercapacitors. RSC Advances, 2013, 3, 23957.	1.7	152
23	Superb Electrically Conductive Graphene Fibers via Doping Strategy. Advanced Materials, 2016, 28, 7941-7947.	11.1	140
24	Hydroplastic foaming of graphene aerogels and artificially intelligent tactile sensors. Science Advances, 2020, 6, .	4.7	129
25	Highly Stretchable Graphene Fibers with Ultrafast Electrothermal Response for Lowâ€Voltage Wearable Heaters. Advanced Electronic Materials, 2017, 3, 1600425.	2.6	128
26	Low-cost AlCl3/Et3NHCl electrolyte for high-performance aluminum-ion battery. Energy Storage Materials, 2019, 17, 38-45.	9.5	124
27	Graphene and Other 2D Colloids: Liquid Crystals and Macroscopic Fibers. Advanced Materials, 2017, 29, 1606794.	11.1	121
28	Lyotropic Liquid Crystal of Polyacrylonitrile-Grafted Graphene Oxide and Its Assembled Continuous Strong Nacre-Mimetic Fibers. Macromolecules, 2013, 46, 6931-6941.	2.2	119
29	Wet-Spinning of Continuous Montmorillonite-Graphene Fibers for Fire-Resistant Lightweight Conductors. ACS Nano, 2015, 9, 5214-5222.	7.3	115
30	Hydrothermally Activated Graphene Fiber Fabrics for Textile Electrodes of Supercapacitors. ACS Nano, 2017, 11, 11056-11065.	7.3	110
31	Hierarchical Porous SWCNT Stringed Carbon Polyhedrons and PSS Threaded MOF Bilayer Membrane for Efficient Solar Vapor Generation. Small, 2019, 15, e1900354.	5.2	89
32	Continuous crystalline graphene papers with gigapascal strength by intercalation modulated plasticization. Nature Communications, 2020, 11, 2645.	5.8	87
33	Threeâ€dimensional printing of grapheneâ€based materials for energy storage and conversion. SusMat, 2021, 1, 304-323.	7.8	78
34	Millisecond Response of Shape Memory Polymer Nanocomposite Aerogel Powered by Stretchable Graphene Framework. ACS Nano, 2019, 13, 5549-5558.	7.3	77
35	Chemically doped macroscopic graphene fibers with significantly enhanced thermoelectric properties. Nano Research, 2018, 11, 741-750.	5.8	70
36	Highly Crystalline Graphene Fibers with Superior Strength and Conductivities by Plasticization Spinning. Advanced Functional Materials, 2020, 30, 2006584.	7.8	70

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37	Surface acoustic wave humidity sensors based on uniform and thickness controllable graphene oxide thin films formed by surface tension. Microsystems and Nanoengineering, 2019, 5, 36.	3.4	68
38	Dry spinning approach to continuous graphene fibers with high toughness. Nanoscale, 2017, 9, 12335-12342.	2.8	66
39	Tri-high designed graphene electrodes for long cycle-life supercapacitors with high mass loading. Energy Storage Materials, 2019, 17, 349-357.	9.5	58
40	Mass production of graphene nanoscrolls and their application in high rate performance supercapacitors. Nanoscale, 2016, 8, 1413-1420.	2.8	57
41	Large-area potassium-doped highly conductive graphene films for electromagnetic interference shielding. Nanoscale, 2017, 9, 18613-18618.	2.8	57
42	Reversible fusion and fission of graphene oxideâ€“based fibers. Science, 2021, 372, 614-617.	6.0	56
43	Ultrathick and highly thermally conductive graphene films by self-fusion. Carbon, 2020, 167, 249-255.	5.4	55
44	Effect of flake size on the mechanical properties of graphene aerogels prepared by freeze casting. RSC Advances, 2017, 7, 33600-33605.	1.7	53
45	Solution processible hyperbranched inverse-vulcanized polymers as new cathode materials in Liâ€“S batteries. Polymer Chemistry, 2015, 6, 973-982.	1.9	52
46	Sheet Collapsing Approach for Rubber-like Graphene Papers. ACS Nano, 2017, 11, 8092-8102.	7.3	50
47	Superconducting Continuous Graphene Fibers via Calcium Intercalation. ACS Nano, 2017, 11, 4301-4306.	7.3	47
48	Piezoresistive effect of superelastic graphene aerogel spheres. Carbon, 2020, 158, 418-425.	5.4	47
49	Key progresses of MOE key laboratory of macromolecular synthesis and functionalization in 2020. Chinese Chemical Letters, 2022, 33, 1650-1658.	4.8	47
50	Experimental Guidance to Graphene Macroscopic Wet-Spun Fibers, Continuous Papers, and Ultralightweight Aerogels. Chemistry of Materials, 2017, 29, 319-330.	3.2	43
51	Handedness-controlled and solvent-driven actuators with twisted fibers. Materials Horizons, 2019, 6, 1207-1214.	6.4	40
52	2Dâ€Topologyâ€Seeded Graphitization for Highly Thermally Conductive Carbon Fibers. Advanced Materials, 2022, 34, e2201867.	11.1	40
53	Ion Diffusion-Directed Assembly Approach to Ultrafast Coating of Graphene Oxide Thick Multilayers. ACS Nano, 2017, 11, 9663-9670.	7.3	38
54	Environmentally stable macroscopic graphene films with specific electrical conductivity exceeding metals. Carbon, 2020, 156, 205-211.	5.4	33

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55	The Origin of the Sheet Size Predicament in Graphene Macroscopic Papers. ACS Nano, 2021, 15, 4824-4832.	7.3	33
56	Selfâ€Adaptive Allâ€Inâ€One Delivery Chip for Rapid Skin Nerves Regeneration by Endogenous Mesenchymal Stem Cells. Advanced Functional Materials, 2020, 30, 2001751.	7.8	32
57	Bidirectional mid-infrared communications between two identical macroscopic graphene fibres. Nature Communications, 2020, 11, 6368.	5.8	32
58	Artificial Bicontinuous Laminate Synergistically Reinforces and Toughens Dilute Graphene Composites. ACS Nano, 2018, 12, 11236-11243.	7.3	31
59	Electrospinning of Neat Graphene Nanofibers. Advanced Fiber Materials, 2022, 4, 268-279.	7.9	31
60	Multifunctional Macroassembled Graphene Nanofilms with High Crystallinity. Advanced Materials, 2021, 33, e2104195.	11.1	30
61	Redissolution of Flower-Shaped Graphene Oxide Powder with High Density. ACS Applied Materials & Interfaces, 2016, 8, 8000-8007.	4.0	29
62	Artificial colloidal liquid metacrystals by shearing microlithography. Nature Communications, 2019, 10, 4111.	5.8	29
63	Conformational Phase Map of Two-Dimensional Macromolecular Graphene Oxide in Solution. Matter, 2020, 3, 230-245.	5.0	29
64	A Review on Graphene Oxide Two-dimensional Macromolecules: from Single Molecules to Macro-assembly. Chinese Journal of Polymer Science (English Edition), 2021, 39, 267-308.	2.0	29
65	A graphene-coated silk-spandex fabric strain sensor for human movement monitoring and recognition. Nanotechnology, 2021, 32, 215501.	1.3	29
66	Interlayer crosslinking to conquer the stress relaxation of graphene laminated materials. Materials Horizons, 2018, 5, 1112-1119.	6.4	28
67	Highly Efficient Cellular Acoustic Absorber of Graphene Ultrathin Drums. Advanced Materials, 2022, 34, e2103740.	11.1	25
68	Ultralight graphene micro-popcorns for multifunctional composite applications. Carbon, 2018, 139, 545-555.	5.4	24
69	Macroscopic assembled graphene nanofilms based room temperature ultrafast midâ€infrared photodetectors. InformaÅnÃ-MateriÃ¡ly, 2022, 4, .	8.5	24
70	High-Speed Blow Spinning of Neat Graphene Fibrous Materials. Nano Letters, 2021, 21, 5116-5125.	4.5	20
71	Conformation Engineering of Two-Dimensional Macromolecules: A Case Study with Graphene Oxide. Accounts of Materials Research, 2020, 1, 175-187.	5.9	19
72	Digital Programming Graphene Oxide Liquid Crystalline Hybrid Hydrogel by Shearing Microlithography. ACS Nano, 2020, 14, 2336-2344.	7.3	19

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73	Highly electrically conductive graphene papers via catalytic graphitization. Nano Research, 2022, 15, 4902-4908.	5.8	18
74	Nonsphere Drop Impact Assembly of Graphene Oxide Liquid Crystals. ACS Nano, 2019, 13, 8382-8391.	7.3	17
75	Hydroplastic Micromolding of 2D Sheets. Advanced Materials, 2021, 33, e2008116.	11.1	17
76	Anisotropic Thermal Transport in Spray-Coated Single-Phase Two-Dimensional Materials: Synthetic Clay Versus Graphene Oxide. ACS Applied Materials & Interfaces, 2020, 12, 18785-18791.	4.0	15
77	Perspective: Graphene aerogel goes to superelasticity and ultraflyweight. APL Materials, 2013, 1, .	2.2	14
78	Heavy Water Enables High-Voltage Aqueous Electrochemistry via the Deuterium Isotope Effect. Journal of Physical Chemistry Letters, 2020, 11, 303-310.	2.1	14
79	Conformational Scaling Relations of Two-Dimensional Macromolecular Graphene Oxide in Solution. Macromolecules, 2020, 53, 10421-10430.	2.2	14
80	Stress relaxation behaviors of graphene fibers. Carbon, 2021, 182, 384-392.	5.4	13
81	Sensitivity Distribution of CCERT Sensor Under Different Excitation Patterns. IEEE Access, 2017, 5, 14830-14836.	2.6	12
82	Dynamic dispersion stability of graphene oxide with metal ions. Chinese Chemical Letters, 2020, 31, 1625-1629.	4.8	12
83	A polyimide-pyrolyzed carbon waste approach for the scalable and controlled electrochemical preparation of size-tunable graphene. Nanoscale, 2020, 12, 11971-11978.	2.8	12
84	Aerogels: Multifunctional, Ultraâ€Flyweight, Synergistically Assembled Carbon Aerogels (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	11.1	10
85	Wet-spinning assembly of nitrogen-doped graphene film for stable graphene-polyaniline supercapacitor electrodes with high mass loading. Science China Materials, 2020, 63, 1889-1897.	3.5	9
86	Image Reconstruction Performance of a 12-Electrode CCERT Sensor Under Five Different Excitation Patterns. IEEE Access, 2018, 6, 65783-65795.	2.6	8
87	Void fraction measurement of gasâ€“liquid two-phase flow with a 12-electrode contactless resistivity array sensor under different excitation patterns. Measurement Science and Technology, 2020, 31, 115103.	1.4	8
88	An Image Reconstruction Algorithm for a 12-Electrode Capacitively Coupled Electrical Resistance Tomography System Under 2-Electrode Excitation Strategy. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	2.4	8
89	Precise Thermoplastic Processing of Graphene Oxide Layered Solid by Polymer Intercalation. Nano-Micro Letters, 2022, 14, 12.	14.4	8
90	Highly oxidized graphene with enhanced fluorescence and its direct fluorescence visualization. Science China Chemistry, 2014, 57, 605-614.	4.2	7

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91	Robust adhesion between various surfaces enabled by lamellar stacking of graphene oxide nanosheets. Carbon, 2021, 171, 417-425.	5.4	7
92	An improved sensitivity AlN microcantilever humidity sensor using interdigital transducers actuated very high resonant mode and graphene oxide sensing layer. , 2018, , .		5
93	Graphene: Ultrastrong Fibers Assembled from Giant Graphene Oxide Sheets (Adv. Mater. 2/2013). Advanced Materials, 2013, 25, 187-187.	11.1	4
94	Highly Sensitive AlN Surface Acoustic Wave Humidity Sensor Based on Uniform Graphene Oxide Thin Film Formed by Surface Tension. , 2018, , .		3
95	Research on CCERT under two different excitation patterns. , 2017, , .		1
96	Broadband and Fast Response Thermophone Using Graphene Nanofilm. , 2019, , .		1