

Zhen Xu

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.

94
papers

10,118
citations

39
h-index

98
g-index

98
ext. papers

11,650
ext. citations

13.9
avg, IF

6.88
L-index

#	Paper	IF	Citations
94	Highly Efficient Cellular Acoustic Absorber of Graphene Ultrathin Drums.. <i>Advanced Materials</i> , 2022 , e2101740	24.7	3
93	Two-dimensional Topology-Seeded Graphitization for Highly Thermally Conductive Carbon Fibers.. <i>Advanced Materials</i> , 2022 , e2201867	24	3
92	Precise Thermoplastic Processing of Graphene Oxide Layered Solid by Polymer Intercalation. <i>Nano-Micro Letters</i> , 2021 , 14, 12	19.5	4
91	Key progresses of MOE Key Laboratory of Macromolecular Synthesis and Functionalization in 2020. <i>Chinese Chemical Letters</i> , 2021 ,	8.1	12
90	Multifunctional Macroassembled Graphene Nanofilms with High Crystallinity. <i>Advanced Materials</i> , 2021 , 33, e2104195	24	6
89	A graphene-coated silk-spandex fabric strain sensor for human movement monitoring and recognition. <i>Nanotechnology</i> , 2021 ,	3.4	10
88	The Origin of the Sheet Size Predicament in Graphene Macroscopic Papers. <i>ACS Nano</i> , 2021 , 15, 4824-4830	10.7	11
87	Reversible fusion and fission of graphene oxide-based fibers. <i>Science</i> , 2021 , 372, 614-617	33.3	17
86	Hydroplastic Micromolding of 2D Sheets. <i>Advanced Materials</i> , 2021 , 33, e2008116	24	7
85	High-Speed Blow Spinning of Neat Graphene Fibrous Materials. <i>Nano Letters</i> , 2021 , 21, 5116-5125	11.5	8
84	Robust adhesion between various surfaces enabled by lamellar stacking of graphene oxide nanosheets. <i>Carbon</i> , 2021 , 171, 417-425	10.4	3
83	A Review on Graphene Oxide Two-dimensional Macromolecules: from Single Molecules to Macro-assembly. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2021 , 39, 267-308	3.5	16
82	Stress relaxation behaviors of graphene fibers. <i>Carbon</i> , 2021 , 182, 384-392	10.4	4
81	Three-dimensional printing of graphene-based materials for energy storage and conversion. <i>SusMat</i> , 2021 , 1, 304-323		16
80	An Image Reconstruction Algorithm for a 12-Electrode Capacitively Coupled Electrical Resistance Tomography System Under 2-Electrode Excitation Strategy. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021 , 70, 1-11	5.2	4
79	Bidirectional mid-infrared communications between two identical macroscopic graphene fibres. <i>Nature Communications</i> , 2020 , 11, 6368	17.4	9
78	A polyimide-pyrolyzed carbon waste approach for the scalable and controlled electrochemical preparation of size-tunable graphene. <i>Nanoscale</i> , 2020 , 12, 11971-11978	7.7	6

77	Continuous crystalline graphene papers with gigapascal strength by intercalation modulated plasticization. <i>Nature Communications</i> , 2020 , 11, 2645	17.4	39
76	Void fraction measurement of gas-liquid two-phase flow with a 12-electrode contactless resistivity array sensor under different excitation patterns. <i>Measurement Science and Technology</i> , 2020 , 31, 115103 ²		6
75	Anisotropic Thermal Transport in Spray-Coated Single-Phase Two-Dimensional Materials: Synthetic Clay Versus Graphene Oxide. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 18785-18791	9.5	10
74	Digital Programming Graphene Oxide Liquid Crystalline Hybrid Hydrogel by Shearing Microlithography. <i>ACS Nano</i> , 2020 , 14, 2336-2344	16.7	7
73	Ultrathick and highly thermally conductive graphene films by self-fusion. <i>Carbon</i> , 2020 , 167, 249-255	10.4	22
72	Piezoresistive effect of superelastic graphene aerogel spheres. <i>Carbon</i> , 2020 , 158, 418-425	10.4	25
71	Heavy Water Enables High-Voltage Aqueous Electrochemistry via the Deuterium Isotope Effect. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 303-310	6.4	9
70	Conformational Scaling Relations of Two-Dimensional Macromolecular Graphene Oxide in Solution. <i>Macromolecules</i> , 2020 , 53, 10421-10430	5.5	8
69	Conformation Engineering of Two-Dimensional Macromolecules: A Case Study with Graphene Oxide. <i>Accounts of Materials Research</i> , 2020 , 1, 175-187	7.5	6
68	Hydroplastic foaming of graphene aerogels and artificially intelligent tactile sensors. <i>Science Advances</i> , 2020 , 6,	14.3	46
67	Self-Adaptive All-In-One Delivery Chip for Rapid Skin Nerves Regeneration by Endogenous Mesenchymal Stem Cells. <i>Advanced Functional Materials</i> , 2020 , 30, 2001751	15.6	18
66	Conformational Phase Map of Two-Dimensional Macromolecular Graphene Oxide in Solution. <i>Matter</i> , 2020 , 3, 230-245	12.7	16
65	Highly Crystalline Graphene Fibers with Superior Strength and Conductivities by Plasticization Spinning. <i>Advanced Functional Materials</i> , 2020 , 30, 2006584	15.6	31
64	Wet-spinning assembly of nitrogen-doped graphene film for stable graphene-polyaniline supercapacitor electrodes with high mass loading. <i>Science China Materials</i> , 2020 , 63, 1889-1897	7.1	4
63	Environmentally stable macroscopic graphene films with specific electrical conductivity exceeding metals. <i>Carbon</i> , 2020 , 156, 205-211	10.4	21
62	Dynamic dispersion stability of graphene oxide with metal ions. <i>Chinese Chemical Letters</i> , 2020 , 31, 162581629		4
61	A Review on Graphene Fibers: Expectations, Advances, and Prospects. <i>Advanced Materials</i> , 2020 , 32, e1902664	24	126
60	Artificial colloidal liquid metacrystals by shearing microlithography. <i>Nature Communications</i> , 2019 , 10, 4111	17.4	17

59	Millisecond Response of Shape Memory Polymer Nanocomposite Aerogel Powered by Stretchable Graphene Framework. <i>ACS Nano</i> , 2019 , 13, 5549-5558	16.7	39
58	Handedness-controlled and solvent-driven actuators with twisted fibers. <i>Materials Horizons</i> , 2019 , 6, 1207-1214	14.4	24
57	Hierarchical Porous SWCNT Stringed Carbon Polyhedrons and PSS Threaded MOF Bilayer Membrane for Efficient Solar Vapor Generation. <i>Small</i> , 2019 , 15, e1900354	11	53
56	Tri-high designed graphene electrodes for long cycle-life supercapacitors with high mass loading. <i>Energy Storage Materials</i> , 2019 , 17, 349-357	19.4	42
55	Low-cost AlCl ₃ /Et ₃ NHCl electrolyte for high-performance aluminum-ion battery. <i>Energy Storage Materials</i> , 2019 , 17, 38-45	19.4	84
54	Nonsphere Drop Impact Assembly of Graphene Oxide Liquid Crystals. <i>ACS Nano</i> , 2019 , 13, 8382-8391	16.7	10
53	Surface acoustic wave humidity sensors based on uniform and thickness controllable graphene oxide thin films formed by surface tension. <i>Microsystems and Nanoengineering</i> , 2019 , 5, 36	7.7	37
52	Direct 3D Printing of Ultralight Graphene Oxide Aerogel Microlattices. <i>Advanced Functional Materials</i> , 2018 , 28, 1707024	15.6	198
51	Highly stretchable carbon aerogels. <i>Nature Communications</i> , 2018 , 9, 881	17.4	136
50	An improved sensitivity AlN microcantilever humidity sensor using interdigital transducers actuated very high resonant mode and graphene oxide sensing layer 2018 ,		4
49	Synergistic effect of graphene and carbon nanotube for high-performance electromagnetic interference shielding films. <i>Carbon</i> , 2018 , 133, 316-322	10.4	120
48	Chemically doped macroscopic graphene fibers with significantly enhanced thermoelectric properties. <i>Nano Research</i> , 2018 , 11, 741-750	10	59
47	Ultralight graphene micro-popcorns for multifunctional composite applications. <i>Carbon</i> , 2018 , 139, 545-554	10.4	20
46	Interlayer crosslinking to conquer the stress relaxation of graphene laminated materials. <i>Materials Horizons</i> , 2018 , 5, 1112-1119	14.4	17
45	Highly Sensitive AlN Surface Acoustic Wave Humidity Sensor Based on Uniform Graphene Oxide Thin Film Formed by Surface Tension 2018 ,		3
44	Image Reconstruction Performance of a 12-Electrode CCERT Sensor Under Five Different Excitation Patterns. <i>IEEE Access</i> , 2018 , 6, 65783-65795	3.5	4
43	Artificial Bicontinuous Laminate Synergistically Reinforces and Toughens Dilute Graphene Composites. <i>ACS Nano</i> , 2018 , 12, 11236-11243	16.7	19
42	A Defect-Free Principle for Advanced Graphene Cathode of Aluminum-Ion Battery. <i>Advanced Materials</i> , 2017 , 29, 1605958	24	228

41	Graphene and Other 2D Colloids: Liquid Crystals and Macroscopic Fibers. <i>Advanced Materials</i> , 2017 , 29, 1606794	24	101
40	Ultrahigh Thermal Conductive yet Superflexible Graphene Films. <i>Advanced Materials</i> , 2017 , 29, 1700589	24	289
39	Superconducting Continuous Graphene Fibers via Calcium Intercalation. <i>ACS Nano</i> , 2017 , 11, 4301-4306	16.7	35
38	Highly Stretchable Graphene Fibers with Ultrafast Electrothermal Response for Low-Voltage Wearable Heaters. <i>Advanced Electronic Materials</i> , 2017 , 3, 1600425	6.4	94
37	Sensitivity Distribution of CCERT Sensor Under Different Excitation Patterns. <i>IEEE Access</i> , 2017 , 5, 14830-14836	3.5	10
36	MXene/graphene hybrid fibers for high performance flexible supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 22113-22119	13	212
35	Hydrothermally Activated Graphene Fiber Fabrics for Textile Electrodes of Supercapacitors. <i>ACS Nano</i> , 2017 , 11, 11056-11065	16.7	87
34	Ion Diffusion-Directed Assembly Approach to Ultrafast Coating of Graphene Oxide Thick Multilayers. <i>ACS Nano</i> , 2017 , 11, 9663-9670	16.7	23
33	Effect of flake size on the mechanical properties of graphene aerogels prepared by freeze casting. <i>RSC Advances</i> , 2017 , 7, 33600-33605	3.7	36
32	Sheet Collapsing Approach for Rubber-like Graphene Papers. <i>ACS Nano</i> , 2017 , 11, 8092-8102	16.7	36
31	Dry spinning approach to continuous graphene fibers with high toughness. <i>Nanoscale</i> , 2017 , 9, 12335-12342	7.4	47
30	Ultrafast all-climate aluminum-graphene battery with quarter-million cycle life. <i>Science Advances</i> , 2017 , 3, eaao7233	14.3	230
29	Large-area potassium-doped highly conductive graphene films for electromagnetic interference shielding. <i>Nanoscale</i> , 2017 , 9, 18613-18618	7.7	41
28	Experimental Guidance to Graphene Macroscopic Wet-Spun Fibers, Continuous Papers, and Ultralightweight Aerogels. <i>Chemistry of Materials</i> , 2017 , 29, 319-330	9.6	36
27	Superb Electrically Conductive Graphene Fibers via Doping Strategy. <i>Advanced Materials</i> , 2016 , 28, 7941-7947	14.7	116
26	Redissolution of Flower-Shaped Graphene Oxide Powder with High Density. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 8000-7	9.5	26
25	Mass production of graphene nanoscrolls and their application in high rate performance supercapacitors. <i>Nanoscale</i> , 2016 , 8, 1413-20	7.7	47
24	Ultrastiff and Strong Graphene Fibers via Full-Scale Synergetic Defect Engineering. <i>Advanced Materials</i> , 2016 , 28, 6449-56	24	217

23	Multifunctional non-woven fabrics of interfused graphene fibres. <i>Nature Communications</i> , 2016 , 7, 13684-13691	7.4	156
22	An iron-based green approach to 1-h production of single-layer graphene oxide. <i>Nature Communications</i> , 2015 , 6, 5716	17.4	302
21	Graphene fiber: a new trend in carbon fibers. <i>Materials Today</i> , 2015 , 18, 480-492	21.8	257
20	Wet-spinning of continuous montmorillonite-graphene fibers for fire-resistant lightweight conductors. <i>ACS Nano</i> , 2015 , 9, 5214-22	16.7	100
19	Solution processible hyperbranched inverse-vulcanized polymers as new cathode materials in LiB batteries. <i>Polymer Chemistry</i> , 2015 , 6, 973-982	4.9	45
18	Wet-Spun Continuous Graphene Films. <i>Chemistry of Materials</i> , 2014 , 26, 6786-6795	9.6	149
17	Highly oxidized graphene with enhanced fluorescence and its direct fluorescence visualization. <i>Science China Chemistry</i> , 2014 , 57, 605-614	7.9	7
16	Graphene in macroscopic order: liquid crystals and wet-spun fibers. <i>Accounts of Chemical Research</i> , 2014 , 47, 1267-76	24.3	264
15	Ultrathin Graphene Nanofiltration Membrane for Water Purification. <i>Advanced Functional Materials</i> , 2013 , 23, 3693-3700	15.6	1120
14	Aerogels: Multifunctional, Ultra-Flyweight, Synergistically Assembled Carbon Aerogels (Adv. Mater. 18/2013). <i>Advanced Materials</i> , 2013 , 25, 2632-2632	24	9
13	Lyotropic Liquid Crystal of Polyacrylonitrile-Grafted Graphene Oxide and Its Assembled Continuous Strong Nacre-Mimetic Fibers. <i>Macromolecules</i> , 2013 , 46, 6931-6941	5.5	101
12	Ultrastrong fibers assembled from giant graphene oxide sheets. <i>Advanced Materials</i> , 2013 , 25, 188-93	24	542
11	Multifunctional, ultra-flyweight, synergistically assembled carbon aerogels. <i>Advanced Materials</i> , 2013 , 25, 2554-60	24	1494
10	Graphene: Ultrastrong Fibers Assembled from Giant Graphene Oxide Sheets (Adv. Mater. 2/2013). <i>Advanced Materials</i> , 2013 , 25, 187-187	24	4
9	Highly electrically conductive Ag-doped graphene fibers as stretchable conductors. <i>Advanced Materials</i> , 2013 , 25, 3249-53	24	235
8	Flexible high performance wet-spun graphene fiber supercapacitors. <i>RSC Advances</i> , 2013 , 3, 23957	3.7	137
7	Perspective: Graphene aerogel goes to superelasticity and ultraflyweight. <i>APL Materials</i> , 2013 , 1, 030901	15.7	13
6	Strong, conductive, lightweight, neat graphene aerogel fibers with aligned pores. <i>ACS Nano</i> , 2012 , 6, 7103-13	16.7	520

- 5 Graphene chiral liquid crystals and macroscopic assembled fibres. *Nature Communications*, **2011**, 2, 571 17.4 833
- 4 Aqueous liquid crystals of graphene oxide. *ACS Nano*, **2011**, 5, 2908-15 16.7 482
- 3 The Functionalization of Graphene and Its Assembled Macrostructures19-44
- 2 The Functionalization of Carbon Nanotubes and Nano-Onions1-18 1
- 1 Highly electrically conductive graphene papers via catalytic graphitization. *Nano Research*,1 10 2