

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.

110
papers

11,804
citations

45
h-index

108
g-index

115
ext. papers

13,359
ext. citations

11.3
avg, IF

7
L-index

#	Paper	IF	Citations
110	Highly Efficient Cellular Acoustic Absorber of Graphene Ultrathin Drums.. <i>Advanced Materials</i> , 2022 , e2110740	10.7	3
109	Physics and chemistry-based constitutive modeling of photo-oxidative aging in semi-crystalline polymers. <i>International Journal of Solids and Structures</i> , 2022 , 239-240, 111427	3.1	0
108	Can the Voigt Model be Directly Used for Determining the Modulus of Graphene in Laminate Thin Films?. <i>ACS Applied Polymer Materials</i> , 2022 , 4, 394-402	4.3	0
107	Solvent-Resistant Self-Crosslinked Poly(ether imide). <i>Macromolecules</i> , 2021 , 54, 3405-3412	5.5	5
106	Reversible fusion and fission of graphene oxide-based fibers. <i>Science</i> , 2021 , 372, 614-617	33.3	17
105	Recent development of polyimides: Synthesis, processing, and application in gas separation. <i>Journal of Polymer Science</i> , 2021 , 59, 943-962	2.4	5
104	Poly(ether imide)s with tailored end groups. <i>Journal of Polymer Science</i> , 2021 , 59, 2365	2.4	0
103	Mesoporous polyetherimide thin films via hydrolysis of polylactide-b-polyetherimide-b-polylactide. <i>Polymer Chemistry</i> , 2021 , 12, 3939-3946	4.9	
102	Continuous crystalline graphene papers with gigapascal strength by intercalation modulated plasticization. <i>Nature Communications</i> , 2020 , 11, 2645	17.4	39
101	Capacitive Organic Dye Removal by Block Copolymer Based Porous Carbon Fibers. <i>Advanced Materials Interfaces</i> , 2020 , 7, 2000507	4.6	4
100	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
99	Specific Sensing Mechanism Investigation of Surface Acoustic Wave Humidity Sensors Coated With Uniform Graphene Oxide Membrane. <i>Journal of Microelectromechanical Systems</i> , 2020 , 29, 348-356	2.5	7
98	Thermally Stable and Mechanically Strong Mesoporous Films of Poly(ether imide)-Based Triblock Copolymers. <i>ACS Applied Polymer Materials</i> , 2020 , 2, 1398-1405	4.3	10
97	Digital Programming Graphene Oxide Liquid Crystalline Hybrid Hydrogel by Shearing Microlithography. <i>ACS Nano</i> , 2020 , 14, 2336-2344	16.7	7
96	Piezoresistive effect of superelastic graphene aerogel spheres. <i>Carbon</i> , 2020 , 158, 418-425	10.4	25
95	Liquid crystalline 3D printing for superstrong graphene microlattices with high density. <i>Carbon</i> , 2020 , 159, 166-174	10.4	14
94	Facile Preparation of Halogen-Free Poly(ether imide) Containing Phosphonium and Sulfonate Groups. <i>ACS Applied Polymer Materials</i> , 2020 , 2, 66-73	4.3	4

93	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
92	Twist-spinning assembly of robust ultralight graphene fibers with hierarchical structure and multi-functions. <i>Carbon</i> , 2020 , 158, 157-162	10.4	7
91	Hydroplastic foaming of graphene aerogels and artificially intelligent tactile sensors. <i>Science Advances</i> , 2020 , 6,	14.3	46
90	Conformational Phase Map of Two-Dimensional Macromolecular Graphene Oxide in Solution. <i>Matter</i> , 2020 , 3, 230-245	12.7	16
89	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
88	Environmentally stable macroscopic graphene films with specific electrical conductivity exceeding metals. <i>Carbon</i> , 2020 , 156, 205-211	10.4	21
87	Graphene and graphene oxide-reinforced 3D and 4D printable composites 2020 , 259-296		2
86	Dynamic dispersion stability of graphene oxide with metal ions. <i>Chinese Chemical Letters</i> , 2020 , 31, 162581629		4
85	A Review on Graphene Fibers: Expectations, Advances, and Prospects. <i>Advanced Materials</i> , 2020 , 32, e1902664	24	126
84	Impact of metal cations on the thermal, mechanical, and rheological properties of telechelic sulfonated polyetherimides. <i>Polymer Chemistry</i> , 2020 , 11, 393-400	4.9	8
83	Rapid roll-to-roll production of graphene films using intensive Joule heating. <i>Carbon</i> , 2019 , 155, 462-468	10.4	44
82	Artificial colloidal liquid metacrystals by shearing microlithography. <i>Nature Communications</i> , 2019 , 10, 4111	17.4	17
81	Tailorable graphene-based superconducting films via self-assembly and in-situ doping. <i>Carbon</i> , 2019 , 152, 527-531	10.4	2
80	Millisecond Response of Shape Memory Polymer Nanocomposite Aerogel Powered by Stretchable Graphene Framework. <i>ACS Nano</i> , 2019 , 13, 5549-5558	16.7	39
79	Commercial expanded graphite as high-performance cathode for low-cost aluminum-ion battery. <i>Carbon</i> , 2019 , 148, 134-140	10.4	43
78	Handedness-controlled and solvent-driven actuators with twisted fibers. <i>Materials Horizons</i> , 2019 , 6, 1207-1214	14.4	24
77	A SAW hydrogen sensor based on decoration of graphene oxide by palladium nanoparticles on AlN/Si layered structure. <i>Journal of Micromechanics and Microengineering</i> , 2019 , 29, 045007	2	8
76	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

75	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
74	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
73	Nonsphere Drop Impact Assembly of Graphene Oxide Liquid Crystals. <i>ACS Nano</i> , 2019 , 13, 8382-8391	16.7	10
72	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
71	Composition Design of Block Copolymers for Porous Carbon Fibers. <i>Chemistry of Materials</i> , 2019 , 31, 8898-8907	9.6	19
70	Humidity sensors based on AlN microcantilevers excited at high-order resonant modes and sensing layers of uniform graphene oxide. <i>Sensors and Actuators B: Chemical</i> , 2019 , 283, 198-206	8.5	23
69	Direct 3D Printing of Ultralight Graphene Oxide Aerogel Microlattices. <i>Advanced Functional Materials</i> , 2018 , 28, 1707024	15.6	198
68	Shape-controlled of ten-nanometer-thick graphite and worm-like graphite by lithographic exfoliation. <i>Carbon</i> , 2018 , 135, 248-252	10.4	7
67	Highly stretchable carbon aerogels. <i>Nature Communications</i> , 2018 , 9, 881	17.4	136
66	An improved sensitivity AlN microcantilever humidity sensor using interdigital transducers actuated very high resonant mode and graphene oxide sensing layer 2018 ,		4
65	The Effect of CNTs on Performance Improvement of rGO Supported Fe-Nx/C Electrocatalysts for the Oxygen Reduction Reaction. <i>Journal of the Electrochemical Society</i> , 2018 , 165, F401-F407	3.9	6
64	Synergistic effect of graphene and carbon nanotube for high-performance electromagnetic interference shielding films. <i>Carbon</i> , 2018 , 133, 316-322	10.4	120
63	Graphene fiber based supercapacitors: Strategies and perspective toward high performances. <i>Journal of Energy Chemistry</i> , 2018 , 27, 6-11	12	28
62	Chemically doped macroscopic graphene fibers with significantly enhanced thermoelectric properties. <i>Nano Research</i> , 2018 , 11, 741-750	10	59
61	A high performance humidity sensor based on surface acoustic wave and graphene oxide on AlN/Si layered structure. <i>Sensors and Actuators B: Chemical</i> , 2018 , 255, 2454-2461	8.5	83
60	A humidity sensor based on AlN Lamb wave resonator coated with graphene oxide of different concentrations. <i>Journal of Micromechanics and Microengineering</i> , 2018 , 28, 105016	2	6
59	Ultralight graphene micro-popcorns for multifunctional composite applications. <i>Carbon</i> , 2018 , 139, 545-555	10.4	20
58	Interlayer crosslinking to conquer the stress relaxation of graphene laminated materials. <i>Materials Horizons</i> , 2018 , 5, 1112-1119	14.4	17

57	Highly Sensitive AlN Surface Acoustic Wave Humidity Sensor Based on Uniform Graphene Oxide Thin Film Formed by Surface Tension 2018 ,		3
56	Artificial Bicontinuous Laminate Synergistically Reinforces and Toughens Dilute Graphene Composites. <i>ACS Nano</i> , 2018 , 12, 11236-11243	16.7	19
55	A Defect-Free Principle for Advanced Graphene Cathode of Aluminum-Ion Battery. <i>Advanced Materials</i> , 2017 , 29, 1605958	24	228
54	Designing an Efficient Multimode Environmental Sensor Based on Graphene/Bilicon Heterojunction. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600262	6.8	38
53	Graphene and Other 2D Colloids: Liquid Crystals and Macroscopic Fibers. <i>Advanced Materials</i> , 2017 , 29, 1606794	24	101
52	Ultrahigh Thermal Conductive yet Superflexible Graphene Films. <i>Advanced Materials</i> , 2017 , 29, 1700589	24	289
51	A Broadband Fluorographene Photodetector. <i>Advanced Materials</i> , 2017 , 29, 1700463	24	72
50	Superconducting Continuous Graphene Fibers via Calcium Intercalation. <i>ACS Nano</i> , 2017 , 11, 4301-4306	16.7	35
49	Highly Stretchable Graphene Fibers with Ultrafast Electrothermal Response for Low-Voltage Wearable Heaters. <i>Advanced Electronic Materials</i> , 2017 , 3, 1600425	6.4	94
48	MXene/graphene hybrid fibers for high performance flexible supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 22113-22119	13	212
47	Hydrothermally Activated Graphene Fiber Fabrics for Textile Electrodes of Supercapacitors. <i>ACS Nano</i> , 2017 , 11, 11056-11065	16.7	87
46	Ion Diffusion-Directed Assembly Approach to Ultrafast Coating of Graphene Oxide Thick Multilayers. <i>ACS Nano</i> , 2017 , 11, 9663-9670	16.7	23
45	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
44	Wrinkle-stabilized metal-graphene hybrid fibers with zero temperature coefficient of resistance. <i>Nanoscale</i> , 2017 , 9, 12178-12188	7.7	13
43	Sheet Collapsing Approach for Rubber-like Graphene Papers. <i>ACS Nano</i> , 2017 , 11, 8092-8102	16.7	36
42	Dry spinning approach to continuous graphene fibers with high toughness. <i>Nanoscale</i> , 2017 , 9, 12335-12342	7.7	47
41	Ultrafast all-climate aluminum-graphene battery with quarter-million cycle life. <i>Science Advances</i> , 2017 , 3, eaao7233	14.3	230
40	Large-area potassium-doped highly conductive graphene films for electromagnetic interference shielding. <i>Nanoscale</i> , 2017 , 9, 18613-18618	7.7	41

39	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
38	Superb Electrically Conductive Graphene Fibers via Doping Strategy. <i>Advanced Materials</i> , 2016 , 28, 7941-7947	7.4	116
37	Polysiloxanes with Quaternary Ammonium and Polyether Groups for Silyl-Terminated Polypropylene Oxide Waterborne Emulsions. <i>Journal of Surfactants and Detergents</i> , 2016 , 19, 739-745	1.9	5
36	Biomedical segmented polyurethanes based on polyethylene glycol, poly(ϵ -caprolactone-co-D,L-lactide), and diurethane diisocyanates with uniform hard segment: Synthesis and properties. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2016 , 65, 947-956	3	14
35	Redissolution of Flower-Shaped Graphene Oxide Powder with High Density. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 8000-7	9.5	26
34	Mass production of graphene nanoscrolls and their application in high rate performance supercapacitors. <i>Nanoscale</i> , 2016 , 8, 1413-20	7.7	47
33	Ultrastiff and Strong Graphene Fibers via Full-Scale Synergetic Defect Engineering. <i>Advanced Materials</i> , 2016 , 28, 6449-56	24	217
32	Multifunctional non-woven fabrics of interfused graphene fibres. <i>Nature Communications</i> , 2016 , 7, 13684	7.4	156
31	An iron-based green approach to 1-h production of single-layer graphene oxide. <i>Nature Communications</i> , 2015 , 6, 5716	17.4	302
30	High sensitivity flexible Lamb-wave humidity sensors with a graphene oxide sensing layer. <i>Nanoscale</i> , 2015 , 7, 7430-6	7.7	80
29	Graphene fiber: a new trend in carbon fibers. <i>Materials Today</i> , 2015 , 18, 480-492	21.8	257
28	Wet-spinning of continuous montmorillonite-graphene fibers for fire-resistant lightweight conductors. <i>ACS Nano</i> , 2015 , 9, 5214-22	16.7	100
27	Solution processible hyperbranched inverse-vulcanized polymers as new cathode materials in LiS batteries. <i>Polymer Chemistry</i> , 2015 , 6, 973-982	4.9	45
26	Fast response and high sensitivity ZnO/glass surface acoustic wave humidity sensors using graphene oxide sensing layer. <i>Scientific Reports</i> , 2014 , 4, 7206	4.9	115
25	Highly Efficient Synthesis of Neat Graphene Nanoscrolls from Graphene Oxide by Well-Controlled Lyophilization. <i>Chemistry of Materials</i> , 2014 , 26, 6811-6818	9.6	86
24	Wet-Spun Continuous Graphene Films. <i>Chemistry of Materials</i> , 2014 , 26, 6786-6795	9.6	149
23	Polyelectrolyte-stabilized graphene oxide liquid crystals against salt, pH, and serum. <i>Langmuir</i> , 2014 , 30, 3715-22	4	30
22	Graphene oxide liquid crystals as a versatile and tunable alignment medium for the measurement of residual dipolar couplings in organic solvents. <i>Journal of the American Chemical Society</i> , 2014 , 136, 11280-3	16.4	45

21	Highly oxidized graphene with enhanced fluorescence and its direct fluorescence visualization. <i>Science China Chemistry</i> , 2014 , 57, 605-614	7.9	7
20	Bismuth oxide nanotubes-graphene fiber-based flexible supercapacitors. <i>Nanoscale</i> , 2014 , 6, 8595-600	7.7	105
19	Graphene in macroscopic order: liquid crystals and wet-spun fibers. <i>Accounts of Chemical Research</i> , 2014 , 47, 1267-76	24.3	264
18	Ultrathin Graphene Nanofiltration Membrane for Water Purification. <i>Advanced Functional Materials</i> , 2013 , 23, 3693-3700	15.6	1120
17	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
16	Liquid crystal self-templating approach to ultrastrong and tough biomimic composites. <i>Scientific Reports</i> , 2013 , 3, 2374	4.9	80
15	Ultrastrong fibers assembled from giant graphene oxide sheets. <i>Advanced Materials</i> , 2013 , 25, 188-93	24	542
14	Multifunctional, ultra-flyweight, synergistically assembled carbon aerogels. <i>Advanced Materials</i> , 2013 , 25, 2554-60	24	1494
13	Highly electrically conductive Ag-doped graphene fibers as stretchable conductors. <i>Advanced Materials</i> , 2013 , 25, 3249-53	24	235
12	Macroscopic assembled, ultrastrong and H ₂ SO ₄ -resistant fibres of polymer-grafted graphene oxide. <i>Scientific Reports</i> , 2013 , 3, 3164	4.9	72
11	Flexible high performance wet-spun graphene fiber supercapacitors. <i>RSC Advances</i> , 2013 , 3, 23957	3.7	137
10	Perspective: Graphene aerogel goes to superelasticity and ultraflyweight. <i>APL Materials</i> , 2013 , 1, 03090	5.7	13
9	Multifunctional, supramolecular, continuous artificial nacre fibres. <i>Scientific Reports</i> , 2012 , 2, 767	4.9	96
8	Strong, conductive, lightweight, neat graphene aerogel fibers with aligned pores. <i>ACS Nano</i> , 2012 , 6, 7103-13	16.7	520
7	General Avenue to Individually Dispersed Graphene Oxide-Based Two-Dimensional Molecular Brushes by Free Radical Polymerization. <i>Macromolecules</i> , 2011 , 44, 444-452	5.5	180
6	Graphene chiral liquid crystals and macroscopic assembled fibres. <i>Nature Communications</i> , 2011 , 2, 571	17.4	833
5	Aqueous liquid crystals of graphene oxide. <i>ACS Nano</i> , 2011 , 5, 2908-15	16.7	482
4	In situ Polymerization Approach to Graphene-Reinforced Nylon-6 Composites. <i>Macromolecules</i> , 2010 , 43, 6716-6723	5.5	569

- 3 Enhanced Mechanical Properties of Natural Rubber by Block Copolymer-Based Porous Carbon Fibers. *ACS Applied Polymer Materials*, 4:3 1
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- 1 The Functionalization of Carbon Nanotubes and Nano-Onions 1-18 1