Zheng Yan

List of Publications by Year
in descending order

75 papers	12,421 citations	46918 47 h-index	74018 75 g-index
80 all docs	80 docs citations	80 times ranked	17654 citing authors

#	Article	IF	Citations
1	Growth of graphene from solid carbon sources. Nature, 2010, 468, 549-552.	13.7	1,234
2	Assembly of micro/nanomaterials into complex, three-dimensional architectures by compressive buckling. Science, 2015, 347, 154-159.	6.0	745
3	Coal as an abundant source of graphene quantum dots. Nature Communications, 2013, 4, 2943.	5.8	686
4	3-Dimensional Graphene Carbon Nanotube Carpet-Based Microsupercapacitors with High Electrochemical Performance. Nano Letters, 2013, 13, 72-78.	4.5	672
5	Toward the Synthesis of Wafer-Scale Single-Crystal Graphene on Copper Foils. ACS Nano, 2012, 6, 9110-9117.	7.3	537
6	Printing, folding and assembly methods for forming 3D mesostructures in advanced materials. Nature Reviews Materials, 2017, 2, .	23.3	463
7	A seamless three-dimensional carbon nanotube graphene hybrid material. Nature Communications, 2012, 3, 1225.	5.8	456
8	A mechanically driven form of Kirigami as a route to 3D mesostructures in micro/nanomembranes. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11757-11764.	3.3	429
9	Graphene Nanoribbon and Nanostructured SnO₂Composite Anodes for Lithium Ion Batteries. ACS Nano, 2013, 7, 6001-6006.	7.3	421
10	Three-dimensional piezoelectric polymer microsystems for vibrational energy harvesting, robotic interfaces and biomedical implants. Nature Electronics, 2019, 2, 26-35.	13.1	322
11	Morphable 3D mesostructures and microelectronic devices by multistable buckling mechanics. Nature Materials, 2018, 17, 268-276.	13.3	297
12	Rational Design of Hybrid Graphene Films for High-Performance Transparent Electrodes. ACS Nano, 2011, 5, 6472-6479.	7.3	290
13	Growth of Bilayer Graphene on Insulating Substrates. ACS Nano, 2011, 5, 8187-8192.	7.3	269
14	Gasâ€Permeable, Multifunctional Onâ€Skin Electronics Based on Laserâ€Induced Porous Graphene and Sugarâ€Templated Elastomer Sponges. Advanced Materials, 2018, 30, e1804327.	11.1	269
15	Direct Growth of Bilayer Graphene on SiO₂ Substrates by Carbon Diffusion through Nickel. ACS Nano, 2011, 5, 8241-8247.	7.3	260
16	Terahertz and Infrared Spectroscopy of Gated Large-Area Graphene. Nano Letters, 2012, 12, 3711-3715.	4.5	235
17	Controlled Mechanical Buckling for Origamiâ€Inspired Construction of 3D Microstructures in Advanced Materials. Advanced Functional Materials, 2016, 26, 2629-2639.	7.8	231
18	High thermal conductivity of suspended few-layer hexagonal boron nitride sheets. Nano Research, 2014, 7, 1232-1240.	5.8	211

#	Article	IF	Citations
19	Three-Dimensional Metalâ€"Grapheneâ€"Nanotube Multifunctional Hybrid Materials. ACS Nano, 2013, 7, 58-64.	7.3	202
20	Chemical Vapor Deposition of Graphene Single Crystals. Accounts of Chemical Research, 2014, 47, 1327-1337.	7.6	201
21	Mechanical assembly of complex, 3D mesostructures from releasable multilayers of advanced materials. Science Advances, 2016, 2, e1601014.	4.7	200
22	Two-dimensional materials in functional three-dimensional architectures with applications in photodetection and imaging. Nature Communications, 2018, 9, 1417.	5.8	189
23	Rebar Graphene. ACS Nano, 2014, 8, 5061-5068.	7.3	178
24	Large Flake Graphene Oxide Fibers with Unconventional 100% Knot Efficiency and Highly Aligned Small Flake Graphene Oxide Fibers. Advanced Materials, 2013, 25, 4592-4597.	11.1	171
25	Large-Area Bernal-Stacked Bi-, Tri-, and Tetralayer Graphene. ACS Nano, 2012, 6, 9790-9796.	7.3	163
26	Highly transparent nonvolatile resistive memory devices from silicon oxide and graphene. Nature Communications, 2012, 3, 1101.	5.8	162
27	Iron Oxide Nanoparticle and Graphene Nanoribbon Composite as an Anode Material for Highâ€Performance Liâ€Ion Batteries. Advanced Functional Materials, 2014, 24, 2044-2048.	7.8	156
28	Towards hybrid superlattices in graphene. Nature Communications, 2011, 2, 559.	5.8	145
29	Inorganic semiconducting materials for flexible and stretchable electronics. Npj Flexible Electronics, 2017, 1, .	5.1	144
30	Multiscale porous elastomer substrates for multifunctional on-skin electronics with passive-cooling capabilities. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 205-213.	3.3	131
31	Three-dimensional mesostructures as high-temperature growth templates, electronic cellular scaffolds, and self-propelled microrobots. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E9455-E9464.	3.3	129
32	Functionalized Low Defect Graphene Nanoribbons and Polyurethane Composite Film for Improved Gas Barrier and Mechanical Performances. ACS Nano, 2013, 7, 10380-10386.	7.3	124
33	Thickness-dependent patterning of MoS2 sheets with well-oriented triangular pits by heating in air. Nano Research, 2013, 6, 703-711.	5.8	118
34	Pencilâ€"paper on-skin electronics. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18292-18301.	3.3	118
35	Laserâ€Induced Graphene for Electrothermally Controlled, Mechanically Guided, 3D Assembly and Humanâ€"Soft Actuators Interaction. Advanced Materials, 2020, 32, e1908475.	11.1	118
36	Laser reprogramming magnetic anisotropy in soft composites for reconfigurable 3D shaping. Nature Communications, 2020, 11, 6325.	5.8	113

#	Article	IF	Citations
37	Experimental and Theoretical Studies of Serpentine Interconnects on Ultrathin Elastomers for Stretchable Electronics. Advanced Functional Materials, 2017, 27, 1702589.	7.8	111
38	Controlled Modulation of Electronic Properties of Graphene by Self-Assembled Monolayers on SiO₂Substrates. ACS Nano, 2011, 5, 1535-1540.	7.3	100
39	Carbon Nanotube and Graphene Nanoribbon-Coated Conductive Kevlar Fibers. ACS Applied Materials & Interfaces, 2012, 4, 131-136.	4.0	86
40	Large Hexagonal Biâ€•and Trilayer Graphene Single Crystals with Varied Interlayer Rotations. Angewandte Chemie - International Edition, 2014, 53, 1565-1569.	7.2	82
41	Mesoporous silicas functionalized with a high density of carboxylate groups as efficient absorbents for the removal of basic dyestuffs. Journal of Materials Chemistry, 2006, 16, 2347.	6.7	80
42	Pyridine-functionalized mesoporous silica as an efficient adsorbent for the removal of acid dyestuffs. Journal of Materials Chemistry, 2006, 16, 1717.	6.7	77
43	Guided Formation of 3D Helical Mesostructures by Mechanical Buckling: Analytical Modeling and Experimental Validation. Advanced Functional Materials, 2016, 26, 2909-2918.	7.8	70
44	Deterministic assembly of 3D mesostructures in advanced materials via compressive buckling: A short review of recent progress. Extreme Mechanics Letters, 2017, 11, 96-104.	2.0	68
45	Laser-induced graphene for bioelectronics and soft actuators. Nano Research, 2021, 14, 3033-3050.	5.8	62
46	Three-Dimensional Objects Consisting of Hierarchically Assembled Nanofibers with Controlled Alignments for Regenerative Medicine. Nano Letters, 2019, 19, 2059-2065.	4.5	56
47	Engineered Elastomer Substrates for Guided Assembly of Complex 3D Mesostructures by Spatially Nonuniform Compressive Buckling. Advanced Functional Materials, 2017, 27, 1604281.	7.8	50
48	Outdoorâ€Useable, Wireless/Batteryâ€Free Patchâ€Type Tissue Oximeter with Radiative Cooling. Advanced Science, 2021, 8, 2004885.	5.6	50
49	Mechanically Assembled, Three-Dimensional Hierarchical Structures of Cellular Graphene with Programmed Geometries and Outstanding Electromechanical Properties. ACS Nano, 2018, 12, 12456-12463.	7.3	48
50	Paper-based wearable electronics. IScience, 2021, 24, 102736.	1.9	48
51	Circular polarization dependent cyclotron resonance in large-area graphene in ultrahigh magnetic fields. Physical Review B, 2012, 85, .	1.1	46
52	3D Tunable, Multiscale, and Multistable Vibrational Microâ€Platforms Assembled by Compressive Buckling. Advanced Functional Materials, 2017, 27, 1605914.	7.8	43
53	Chemical Makeup and Hydrophilic Behavior of Graphene Oxide Nanoribbons after Low-Temperature Fluorination. ACS Nano, 2015, 9, 7009-7018.	7.3	41
54	A Breathable, Reusable, and Zero-Power Smart Face Mask for Wireless Cough and Mask-Wearing Monitoring. ACS Nano, 2022, 16, 5874-5884.	7.3	40

#	Article	IF	Citations
55	Graphene on Metal Grids as the Transparent Conductive Material for Dye Sensitized Solar Cell. Journal of Physical Chemistry C, 2014, 118, 25863-25868.	1.5	38
56	Semiconductor Nanomembrane Materials for High-Performance Soft Electronic Devices. Journal of the American Chemical Society, 2018, 140, 9001-9019.	6.6	34
57	Bioinspired elastomer composites with programmed mechanical and electrical anisotropies. Nature Communications, 2022, 13, 524.	5.8	34
58	Controlled Ambipolarâ€toâ€Unipolar Conversion in Graphene Fieldâ€Effect Transistors Through Surface Coating with Poly(ethylene imine)/Poly(ethylene glycol) Films. Small, 2012, 8, 59-62.	5.2	33
59	Mechanicallyâ€Guided Deterministic Assembly of 3D Mesostructures Assisted by Residual Stresses. Small, 2017, 13, 1700151.	5.2	32
60	Hexagonal Graphene Onion Rings. Journal of the American Chemical Society, 2013, 135, 10755-10762.	6.6	31
61	Rebar Graphene from Functionalized Boron Nitride Nanotubes. ACS Nano, 2015, 9, 532-538.	7.3	29
62	Fabrication and Deformation of 3D Multilayered Kirigami Microstructures. Small, 2018, 14, e1703852.	5.2	28
63	Crystalline and micellar properties of amphiphilic biodegradable chitooligosaccharide-graft-poly(Îµ-caprolactone) copolymers. Carbohydrate Polymers, 2006, 64, 466-472.	5.1	26
64	4D Printing Elastic Composites for Strain-Tailored Multistable Shape Morphing. ACS Applied Materials & Interfaces, 2021, 13, 12719-12725.	4.0	25
65	Reversible Self-Assembly of 3D Architectures Actuated by Responsive Polymers. ACS Applied Materials & Interfaces, 2017, 9, 41505-41511.	4.0	23
66	Effect of anchor and functional groups in functionalized graphene devices. Nano Research, 2013, 6, 138-148.	5.8	22
67	Adsorption of atrazine by laser induced graphitic material: An efficient, scalable and green alternative for pollution abatement. Journal of Environmental Chemical Engineering, 2020, 8, 104407.	3.3	20
68	Laser-scribed conductive, photoactive transition metal oxide on soft elastomers for Janus on-skin electronics and soft actuators. Science Advances, 2022, 8, .	4.7	20
69	Deterministic Integration of Biological and Soft Materials onto 3D Microscale Cellular Frameworks. Advanced Biology, 2017, 1, 1700068.	3.0	18
70	An analytic model of two-level compressive buckling with applications in the assembly of free-standing 3D mesostructures. Soft Matter, 2018, 14, 8828-8837.	1.2	10
71	Advances in Modeling Alzheimer's Disease In Vitro. Advanced NanoBiomed Research, 2021, 1, 2100097.	1.7	10
72	3D Assembly: Controlled Mechanical Buckling for Origamiâ€Inspired Construction of 3D Microstructures in Advanced Materials (Adv. Funct. Mater. 16/2016). Advanced Functional Materials, 2016, 26, 2586-2586.	7.8	1

#	Article	IF	Citations
73	Soft stretchable conductive nanocomposites for biointegrated electronics. , 2023, , 306-321.		1
74	Terahertz and infrared conductivity of large-area graphene. , 2011, , .		0
75	Cyclotron resonance in graphene at ultrahigh magnetic fields. , 2011, , .		0