Zheng Yan

List of Publications by Year in Descending Order

72 papers	10,019 citations	44 h-index	80 g-index
80 ext. papers	11,174 ext. citations	15.4 avg, IF	5.99 L-index

#	Paper	IF	Citations
72	Bioinspired elastomer composites with programmed mechanical and electrical anisotropies.. *Nature Communications*, **2022**, 13, 524	17.4	5
71	Outdoor-Useable, Wireless/Battery-Free Patch-Type Tissue Oximeter with Radiative Cooling. *Advanced Science*, **2021**, 8, 2004885	13.6	21
70	Laser-induced graphene for bioelectronics and soft actuators. *Nano Research*, **2021**, 14, 1-18	10	12
69	Paper-based wearable electronics. *IScience*, **2021**, 24, 102736	6.1	11
68	4D Printing Elastic Composites for Strain-Tailored Multistable Shape Morphing. *ACS Applied Materials & Interfaces*, **2021**, 13, 12719-12725	9.5	9
67	Laser reprogramming magnetic anisotropy in soft composites for reconfigurable 3D shaping. *Nature Communications*, **2020**, 11, 6325	17.4	41
66	Laser-Induced Graphene for Electrothermally Controlled, Mechanically Guided, 3D Assembly and Human-Soft Actuators Interaction. *Advanced Materials*, **2020**, 32, e1908475	24	57
65	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	11.5	60
64	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	6.8	9
63	Pencil-paper on-skin electronics. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 18292-18301	11.5	52
62	Three-Dimensional Objects Consisting of Hierarchically Assembled Nanofibers with Controlled Alignments for Regenerative Medicine. *Nano Letters*, **2019**, 19, 2059-2065	11.5	36
61	Three-dimensional piezoelectric polymer microsystems for vibrational energy harvesting, robotic interfaces and biomedical implants. *Nature Electronics*, **2019**, 2, 26-35	28.4	209
60	Two-dimensional materials in functional three-dimensional architectures with applications in photodetection and imaging. *Nature Communications*, **2018**, 9, 1417	17.4	136
59	Morphable 3D mesostructures and microelectronic devices by multistable buckling mechanics. *Nature Materials*, **2018**, 17, 268-276	27	216
58	Fabrication and Deformation of 3D Multilayered Kirigami Microstructures. *Small*, **2018**, 14, e1703852	11	21
57	An analytic model of two-level compressive buckling with applications in the assembly of free-standing 3D mesostructures. *Soft Matter*, **2018**, 14, 8828-8837	3.6	6
56	Mechanically Assembled, Three-Dimensional Hierarchical Structures of Cellular Graphene with Programmed Geometries and Outstanding Electromechanical Properties. *ACS Nano*, **2018**, 12, 12456-12463	16.7	37

55	Gas-Permeable, Multifunctional On-Skin Electronics Based on Laser-Induced Porous Graphene and Sugar-Templated Elastomer Sponges. *Advanced Materials*, **2018**, 30, e1804327	24	177
54	Semiconductor Nanomembrane Materials for High-Performance Soft Electronic Devices. *Journal of the American Chemical Society*, **2018**, 140, 9001-9019	16.4	22
53	Three-Dimensional Multiscale, Multistable, and Geometrically Diverse Microstructures with Tunable Vibrational Dynamics Assembled by Compressive Buckling. *Advanced Functional Materials*, **2017**, 27, 1605914	15.6	39
52	Mechanically-Guided Deterministic Assembly of 3D Mesostructures Assisted by Residual Stresses. *Small*, **2017**, 13, 1700151	11	25
51	Printing, folding and assembly methods for forming 3D mesostructures in advanced materials. *Nature Reviews Materials*, **2017**, 2,	73.3	372
50	Deterministic assembly of 3D mesostructures in advanced materials via compressive buckling: A short review of recent progress. *Extreme Mechanics Letters*, **2017**, 11, 96-104	3.9	56
49	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	11.5	104
48	Inorganic semiconducting materials for flexible and stretchable electronics. *Npj Flexible Electronics*, **2017**, 1,	10.7	107
47	Experimental and Theoretical Studies of Serpentine Interconnects on Ultrathin Elastomers for Stretchable Electronics. *Advanced Functional Materials*, **2017**, 27, 1702589	15.6	85
46	Deterministic Integration of Biological and Soft Materials onto 3D Microscale Cellular Frameworks. *Advanced Biology*, **2017**, 1, 1700068	3.5	12
45	Reversible Self-Assembly of 3D Architectures Actuated by Responsive Polymers. *ACS Applied Materials & Interfaces*, **2017**, 9, 41505-41511	9.5	23
44	Engineered elastomer substrates for guided assembly of complex 3D mesostructures by spatially nonuniform compressive buckling. *Advanced Functional Materials*, **2017**, 27, 1604281	15.6	41
43	Synthesis, Assembly, and Applications of Semiconductor Nanomembranes **2016**, 1-36		1
42	Mechanical assembly of complex, 3D mesostructures from releasable multilayers of advanced materials. *Science Advances*, **2016**, 2, e1601014	14.3	152
41	3D Assembly: Controlled Mechanical Buckling for Origami-Inspired Construction of 3D Microstructures in Advanced Materials (Adv. Funct. Mater. 16/2016). *Advanced Functional Materials*, **2016**, 26, 2586-2586	15.6	
40	Guided Formation of 3D Helical Mesostructures by Mechanical Buckling: Analytical Modeling and Experimental Validation. *Advanced Functional Materials*, **2016**, 26, 2909-2918	15.6	57
39	Controlled mechanical buckling for origami-inspired construction of 3D microstructures in advanced materials. *Advanced Functional Materials*, **2016**, 26, 2629-2639	15.6	188
38	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, 11757-64	11.5	344

37	Rebar graphene from functionalized boron nitride nanotubes. *ACS Nano*, **2015**, 9, 532-8	16.7	22
36	Chemical Makeup and Hydrophilic Behavior of Graphene Oxide Nanoribbons after Low-Temperature Fluorination. *ACS Nano*, **2015**, 9, 7009-18	16.7	34
35	Materials science. Assembly of micro/nanomaterials into complex, three-dimensional architectures by compressive buckling. *Science*, **2015**, 347, 154-9	33.3	587
34	Rebar graphene. *ACS Nano*, **2014**, 8, 5061-8	16.7	155
33	Iron Oxide Nanoparticle and Graphene Nanoribbon Composite as an Anode Material for High-Performance Li-Ion Batteries. *Advanced Functional Materials*, **2014**, 24, 2044-2048	15.6	142
32	Chemical vapor deposition of graphene single crystals. *Accounts of Chemical Research*, **2014**, 47, 1327-37	24.3	170
31	Graphene on Metal Grids as the Transparent Conductive Material for Dye Sensitized Solar Cell. *Journal of Physical Chemistry C*, **2014**, 118, 25863-25868	3.8	32
30	Large Hexagonal Bi- and Trilayer Graphene Single Crystals with Varied Interlayer Rotations. *Angewandte Chemie*, **2014**, 126, 1591-1595	3.6	24
29	High thermal conductivity of suspended few-layer hexagonal boron nitride sheets. *Nano Research*, **2014**, 7, 1232-1240	10	157
28	Large hexagonal bi- and trilayer graphene single crystals with varied interlayer rotations. *Angewandte Chemie - International Edition*, **2014**, 53, 1565-9	16.4	63
27	Effect of anchor and functional groups in functionalized graphene devices. *Nano Research*, **2013**, 6, 138-148	10	19
26	Large flake graphene oxide fibers with unconventional 100% knot efficiency and highly aligned small flake graphene oxide fibers. *Advanced Materials*, **2013**, 25, 4592-7	24	158
25	Thickness-dependent patterning of MoS2 sheets with well-oriented triangular pits by heating in air. *Nano Research*, **2013**, 6, 703-711	10	92
24	Functionalized low defect graphene nanoribbons and polyurethane composite film for improved gas barrier and mechanical performances. *ACS Nano*, **2013**, 7, 10380-6	16.7	109
23	Coal as an abundant source of graphene quantum dots. *Nature Communications*, **2013**, 4, 2943	17.4	556
22	Three-dimensional metal-graphene-nanotube multifunctional hybrid materials. *ACS Nano*, **2013**, 7, 58-64	16.7	185
21	3-Dimensional graphene carbon nanotube carpet-based microsupercapacitors with high electrochemical performance. *Nano Letters*, **2013**, 13, 72-8	11.5	588
20	Hexagonal graphene onion rings. *Journal of the American Chemical Society*, **2013**, 135, 10755-62	16.4	28

19	Graphene nanoribbon and nanostructured SnO2 composite anodes for lithium ion batteries. *ACS Nano*, **2013**, 7, 6001-6	16.7	384
18	A seamless three-dimensional carbon nanotube graphene hybrid material. *Nature Communications*, **2012**, 3, 1225	17.4	390
17	Carbon nanotube and graphene nanoribbon-coated conductive Kevlar fibers. *ACS Applied Materials & Interfaces*, **2012**, 4, 131-6	9.5	72
16	Large-area Bernal-stacked bi-, tri-, and tetralayer graphene. *ACS Nano*, **2012**, 6, 9790-6	16.7	147
15	Toward the synthesis of wafer-scale single-crystal graphene on copper foils. *ACS Nano*, **2012**, 6, 9110-7	16.7	488
14	Circular polarization dependent cyclotron resonance in large-area graphene in ultrahigh magnetic fields. *Physical Review B*, **2012**, 85,	3.3	44
13	Highly transparent nonvolatile resistive memory devices from silicon oxide and graphene. *Nature Communications*, **2012**, 3, 1101	17.4	146
12	Terahertz and infrared spectroscopy of gated large-area graphene. *Nano Letters*, **2012**, 12, 3711-5	11.5	203
11	Controlled ambipolar-to-unipolar conversion in graphene field-effect transistors through surface coating with poly(ethylene imine)/poly(ethylene glycol) films. *Small*, **2012**, 8, 59-62	11	31
10	Growth of bilayer graphene on insulating substrates. *ACS Nano*, **2011**, 5, 8187-92	16.7	243
9	Rational design of hybrid graphene films for high-performance transparent electrodes. *ACS Nano*, **2011**, 5, 6472-9	16.7	265
8	Direct growth of bilayer graphene on SiO□substrates by carbon diffusion through nickel. *ACS Nano*, **2011**, 5, 8241-7	16.7	231
7	Towards hybrid superlattices in graphene. *Nature Communications*, **2011**, 2, 559	17.4	130
6	Controlled modulation of electronic properties of graphene by self-assembled monolayers on SiO2 substrates. *ACS Nano*, **2011**, 5, 1535-40	16.7	92
5	Growth of graphene from solid carbon sources. *Nature*, **2010**, 468, 549-52	50.4	1106
4	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		73
3	Pyridine-functionalized mesoporous silica as an efficient adsorbent for the removal of acid dyestuffs. *Journal of Materials Chemistry*, **2006**, 16, 1717		72
2	Crystalline and micellar properties of amphiphilic biodegradable chitooligosaccharide-graft-poly(□caprolactone) copolymers. *Carbohydrate Polymers*, **2006**, 64, 466-472	10.3	25

1 Advances in Modeling Alzheimer's Disease In Vitro. *Advanced NanoBiomed Research*,2100097 0