Zhengzong Sun

List of Publications by Year
in descending order

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79 papers	19,754 citations	53751 45 h-index	66879 78 g-index
81 all docs	81 docs citations	81 times ranked	27530 citing authors

#	Article	IF	Citations
1	Improved Synthesis of Graphene Oxide. ACS Nano, 2010, 4, 4806-4814.	7.3	10,035
2	Growth of graphene from solid carbon sources. Nature, 2010, 468, 549-552.	13.7	1,234
3	Reduction of Graphene Oxide via Bacterial Respiration. ACS Nano, 2010, 4, 4852-4856.	7.3	539
4	Lower-Defect Graphene Oxide Nanoribbons from Multiwalled Carbon Nanotubes. ACS Nano, 2010, 4, 2059-2069.	7.3	539
5	Toward the Synthesis of Wafer-Scale Single-Crystal Graphene on Copper Foils. ACS Nano, 2012, 6, 9110-9117.	7.3	537
6	High-Yield Organic Dispersions of Unfunctionalized Graphene. Nano Letters, 2009, 9, 3460-3462.	4.5	481
7	A seamless three-dimensional carbon nanotube graphene hybrid material. Nature Communications, 2012, 3, 1225.	5.8	456
8	Growth of Graphene from Food, Insects, and Waste. ACS Nano, 2011, 5, 7601-7607.	7.3	454
9	3D Printable Graphene Composite. Scientific Reports, 2015, 5, 11181.	1.6	337
10	Resistive Switches and Memories from Silicon Oxide. Nano Letters, 2010, 10, 4105-4110.	4.5	293
11	Rational Design of Hybrid Graphene Films for High-Performance Transparent Electrodes. ACS Nano, 2011, 5, 6472-6479.	7.3	290
12	Two-dimensional non-volatile programmable pâ€“n junctions. Nature Nanotechnology, 2017, 12, 901-906.	15.6	278
13	Growth of Bilayer Graphene on Insulating Substrates. ACS Nano, 2011, 5, 8187-8192.	7.3	269
14	Direct Growth of Bilayer Graphene on SiO₂ Substrates by Carbon Diffusion through Nickel. ACS Nano, 2011, 5, 8241-8247.	7.3	260
15	Graphene Chemistry: Synthesis and Manipulation. Journal of Physical Chemistry Letters, 2011, 2, 2425-2432.	2.1	237
16	Terahertz and Infrared Spectroscopy of Gated Large-Area Graphene. Nano Letters, 2012, 12, 3711-3715.	4.5	235
17	Layer-by-Layer Removal of Graphene for Device Patterning. Science, 2011, 331, 1168-1172.	6.0	221
18	Highly Conductive Graphene Nanoribbons by Longitudinal Splitting of Carbon Nanotubes Using Potassium Vapor. ACS Nano, 2011, 5, 968-974.	7.3	204

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19	Large-Area Bernal-Stacked Bi-, Tri-, and Tetralayer Graphene. ACS Nano, 2012, 6, 9790-9796.	7.3	163
20	Towards hybrid superlattices in graphene. Nature Communications, 2011, 2, 559.	5.8	145
21	Soluble graphene through edge-selective functionalization. Nano Research, 2010, 3, 117-125.	5.8	128
22	Controlled Modulation of Electronic Properties of Graphene by Self-Assembled Monolayers on SiO₂Substrates. ACS Nano, 2011, 5, 1535-1540.	7.3	100
23	Epitaxial Growth and Integration of Insulating Metalâ€“Organic Frameworks in Electrochemistry. Journal of the American Chemical Society, 2019, 141, 11322-11327.	6.6	98
24	Transforming Carbon Nanotube Devices into Nanoribbon Devices. Journal of the American Chemical Society, 2009, 131, 13460-13463.	6.6	90
25	Highâ€Performance Waferâ€Scale MoS₂ Transistors toward Practical Application. Small, 2018, 14, e1803465.	5.2	88
26	Controlled Doping of Waferâ€Scale PtSe₂ Films for Device Application. Advanced Functional Materials, 2019, 29, 1805614.	7.8	87
27	Three dimensional solid-state supercapacitors from aligned single-walled carbon nanotube array templates. Carbon, 2011, 49, 4890-4897.	5.4	84
28	Largely Tunable Band Structures of Few-Layer InSe by Uniaxial Strain. ACS Applied Materials & Interfaces, 2018, 10, 3994-4000.	4.0	84
29	Single Faceted Two-Dimensional Mo₂C Electrocatalyst for Highly Efficient Nitrogen Fixation. ACS Catalysis, 2020, 10, 7864-7870.	5.5	80
30	Biocompatibility of pristine graphene for neuronal interface. Journal of Neurosurgery: Pediatrics, 2013, 11, 575-583.	0.8	79
31	Chemical and Bandgap Engineering in Monolayer Hexagonal Boron Nitride. Scientific Reports, 2017, 7, 45584.	1.6	73
32	Closed-Edged Graphene Nanoribbons from Large-Diameter Collapsed Nanotubes. ACS Nano, 2012, 6, 6023-6032.	7.3	65
33	Revisiting the Role of Active Sites for Hydrogen Evolution Reaction through Precise Defect Adjusting. Advanced Functional Materials, 2019, 29, 1901290.	7.8	61
34	CO₂ Reduction on Copperâ€™s Twin Boundary. ACS Catalysis, 2020, 10, 2026-2032.	5.5	60
35	Metalâ€“Organic Framework for Transparent Electronics. Advanced Science, 2020, 7, 1903003.	5.6	59
36	Nanoparticulate carbon black in cigarette smoke induces DNA cleavage and Th17-mediated emphysema. ELife, 2015, 4, e09623.	2.8	59

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37	Quantitative Analysis of Structure and Bandgap Changes in Graphene Oxide Nanoribbons during Thermal Annealing. Journal of the American Chemical Society, 2012, 134, 11774-11780.	6.6	55
38	Single-Atom Electroplating on Two Dimensional Materials. Chemistry of Materials, 2019, 31, 429-435.	3.2	55
39	Largeâ€area high quality PtSe₂ thin film with versatile polarity. InformaÄnÃ-MateriÃ¡ly, 2019, 1, 260-267.	8.5	54
40	Thalia dealbata Inspired Anisotropic Cellular Biomass Derived Carbonaceous Aerogel. ACS Sustainable Chemistry and Engineering, 2018, 6, 17152-17159.	3.2	51
41	Synthesis of functional polypyrrole/prussian blue and polypyrrole/Ag composite microtubes by using a reactive template. Nanotechnology, 2007, 18, 195603.	1.3	49
42	Solution-Phase Synthesis of Heteroatom-Substituted Carbon Scaffolds for Hydrogen Storage. Journal of the American Chemical Society, 2010, 132, 15246-15251.	6.6	47
43	Pristine Graphene Electrode in Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2017, 9, 4643-4648.	4.0	47
44	An in-memory computing architecture based on two-dimensional semiconductors for multiply-accumulate operations. Nature Communications, 2021, 12, 3347.	5.8	46
45	Morphology-controlled synthesis of Î±-FeOOH and its derivatives. Nanotechnology, 2007, 18, 455607.	1.3	45
46	In situ Synthesis of Polymer-Modified Mesoporous Carbon CMK-3 Composites for CO₂ Sequestration. ACS Applied Materials & Interfaces, 2011, 3, 4782-4786.	4.0	45
47	Radical addition of perfluorinated alkyl iodides to multi-layered graphene and single-walled carbon nanotubes. Nano Research, 2010, 3, 138-145.	5.8	44
48	Wafer-scale functional circuits based on two dimensional semiconductors with fabrication optimized by machine learning. Nature Communications, 2021, 12, 5953.	5.8	42
49	Supergrowth of Nitrogen-Doped Single-Walled Carbon Nanotube Arrays: Active Species, Dopant Characterization, and Doped/Undoped Heterojunctions. ACS Nano, 2011, 5, 6925-6934.	7.3	37
50	Wafer-scale transferred multilayer MoS₂ for high performance field effect transistors. Nanotechnology, 2019, 30, 174002.	1.3	37
51	Vibrational Imaging and Quantification of Two-Dimensional Hexagonal Boron Nitride with Stimulated Raman Scattering. ACS Nano, 2019, 13, 14033-14040.	7.3	35
52	Direct electrosynthesis of 52% concentrated CO on silverâ€™s twin boundary. Nature Communications, 2021, 12, 2139.	5.8	34
53	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
54	A novel inorganicâ€“organic polymer electrolyte with a high conductivity: insertion of poly(ethylene) oxide into LiV3O8in one step. Journal of Materials Chemistry, 2005, 15, 1369-1374.	6.7	30

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55	Drastic enhancement of the Raman intensity in few-layer InSe by uniaxial strain. Physical Review B, 2019, 99, .	1.1	28
56	FIBâ€Patterned Nanoâ€Supercapacitors: Minimized Size with Ultrahigh Performances. Advanced Materials, 2020, 32, e1908072.	11.1	25
57	High Throughput Preparation of Large Area Transparent Electrodes Using Non-Functionalized Graphene Nanoribbons. Chemistry of Materials, 2011, 23, 935-939.	3.2	22
58	Effect of anchor and functional groups in functionalized graphene devices. Nano Research, 2013, 6, 138-148.	5.8	22
59	Graphenization of Diamond. Chemistry of Materials, 2022, 34, 3941-3947.	3.2	22
60	Optimizing Nonlinear Optical Visibility of Two-Dimensional Materials. ACS Applied Materials & Interfaces, 2017, 9, 34448-34455.	4.0	20
61	Passâ€Transistor Logic Circuits Based on Waferâ€Scale 2D Semiconductors. Advanced Materials, 2022, 34, .	11.1	20
62	Towards the standardization of graphene growth through carbon depletion, refilling and nucleation. Carbon, 2017, 119, 350-354.	5.4	19
63	Billiard Catalysis at Ti3C2 MXene/MAX Heterostructure for Efficient Nitrogen Fixation. Applied Catalysis B: Environmental, 2022, 317, 121755.	10.8	17
64	Cation-Exchange Approach to Tuning the Flexibility of a Metalâ€“Organic Framework for Gated Adsorption. Inorganic Chemistry, 2017, 56, 5069-5075.	1.9	16
65	Layer-by-Layer AB-Stacked Bilayer Graphene Growth Through an Asymmetric Oxygen Gateway. Chemistry of Materials, 2019, 31, 6105-6109.	3.2	16
66	Ranking the relative CO2 electrochemical reduction activity in carbon materials. Carbon, 2019, 154, 108-114.	5.4	14
67	Enhanced lubricity of CVD diamond films by in-situ synthetization of top-layered graphene sheets. Carbon, 2021, 184, 680-688.	5.4	12
68	CO2 reduction with coin catalyst. Nano Research, 2022, 15, 3859-3865.	5.8	9
69	Microscopic Mechanisms Behind the High Friction and Failure Initiation of Graphene Wrinkles. Langmuir, 2021, 37, 6776-6782.	1.6	8
70	Dichroic Photoelasticity in Black Phosphorus Revealed by Ultrafast Coherent Phonon Dynamics. Journal of Physical Chemistry Letters, 2021, 12, 5871-5878.	2.1	8
71	Reversing the Polarity of MoS₂ with PTFE. ACS Applied Materials & Interfaces, 2021, 13, 46117-46124.	4.0	6
72	Precise CO₂ Reduction for Bilayer Graphene. ACS Central Science, 2022, 8, 394-401.	5.3	6

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73	Precise lateral control of graphene via living zigzag edges. Carbon, 2020, 167, 718-723.	5.4	4
74	Realization of controllable graphene pâ€“n junctions through gate dielectric engineering. RSC Advances, 2015, 5, 80496-80500.	1.7	3
75	Phase, Conductivity, and Surface Coordination Environment in Two-Dimensional Electrochemistry. ACS Applied Materials & Interfaces, 2019, 11, 25108-25114.	4.0	3
76	The mechanisms of friction enhancements on graphene surfaces with folds: The reinforcement of atomic pinning or attraction. Tribology International, 2022, 165, 107297.	3.0	3
77	Strain-Induced Nonlinear Frictional Behavior of Graphene Nanowall Films. ACS Applied Materials & Interfaces, 2021, 13, 51608-51617.	4.0	2
78	Terahertz and infrared conductivity of large-area graphene. , 2011, , .		0
79	Cyclotron resonance in graphene at ultrahigh magnetic fields. , 2011, , .		0