

Guangyuan Wesley Zheng

List of Publications by Year in descending order

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64
papers

27,797
citations

28274

55
h-index

110387

64
g-index

65
all docs

65
docs citations

65
times ranked

22310
citing authors

#	ARTICLE	IF	CITATIONS
1	Sulphur@TiO ₂ yolk-shell nanoarchitecture with internal void space for long-cycle lithium-sulphur batteries. Nature Communications, 2013, 4, 1331.	12.8	1,884
2	Nanostructured sulfur cathodes. Chemical Society Reviews, 2013, 42, 3018.	38.1	1,778
3	Interconnected hollow carbon nanospheres for stable lithium metal anodes. Nature Nanotechnology, 2014, 9, 618-623.	31.5	1,535
4	A phosphorene-graphene hybrid material as a high-capacity anode for sodium-ion batteries. Nature Nanotechnology, 2015, 10, 980-985.	31.5	1,287
5	The synergetic effect of lithium polysulfide and lithium nitrate to prevent lithium dendrite growth. Nature Communications, 2015, 6, 7436.	12.8	1,250
6	Hollow Carbon Nanofiber-Encapsulated Sulfur Cathodes for High Specific Capacity Rechargeable Lithium Batteries. Nano Letters, 2011, 11, 4462-4467.	9.1	1,194
7	Balancing surface adsorption and diffusion of lithium-polysulfides on nonconductive oxides for lithium-sulfur battery design. Nature Communications, 2016, 7, 11203.	12.8	1,136
8	Nanoscale Nucleation and Growth of Electrodeposited Lithium Metal. Nano Letters, 2017, 17, 1132-1139.	9.1	1,081
9	Electrochemical tuning of vertically aligned MoS ₂ nanofilms and its application in improving hydrogen evolution reaction. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19701-19706.	7.1	894
10	Electrocatalysis of polysulfide conversion by sulfur-deficient MoS ₂ nanoflakes for lithium-sulfur batteries. Energy and Environmental Science, 2017, 10, 1476-1486.	30.8	805
11	Formation of Stable Phosphorus-Carbon Bond for Enhanced Performance in Black Phosphorus Nanoparticle-Graphite Composite Battery Anodes. Nano Letters, 2014, 14, 4573-4580.	9.1	764
12	Transparent air filter for high-efficiency PM2.5 capture. Nature Communications, 2015, 6, 6205.	12.8	690
13	Amphiphilic Surface Modification of Hollow Carbon Nanofibers for Improved Cycle Life of Lithium Sulfur Batteries. Nano Letters, 2013, 13, 1265-1270.	9.1	668
14	Engineering Empty Space between Si Nanoparticles for Lithium-Ion Battery Anodes. Nano Letters, 2012, 12, 904-909.	9.1	658
15	Ultrathin Two-Dimensional Atomic Crystals as Stable Interfacial Layer for Improvement of Lithium Metal Anode. Nano Letters, 2014, 14, 6016-6022.	9.1	656
16	MoSe ₂ and WSe ₂ Nanofilms with Vertically Aligned Molecular Layers on Curved and Rough Surfaces. Nano Letters, 2013, 13, 3426-3433.	9.1	653
17	Strong Sulfur Binding with Conducting Magn@li-Phase Ti ₃ C ₂ MXene Nanomaterials for Improving Lithium-Sulfur Batteries. Nano Letters, 2014, 14, 5288-5294.	9.1	643
18	High-Capacity Micrometer-Sized Li ₂ S Particles as Cathode Materials for Advanced Rechargeable Lithium-Ion Batteries. Journal of the American Chemical Society, 2012, 134, 15387-15394.	13.7	624

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19	Understanding the Role of Different Conductive Polymers in Improving the Nanostructured Sulfur Cathode Performance. <i>Nano Letters</i> , 2013, 13, 5534-5540.	9.1	601
20	Polymer Nanofiber-Guided Uniform Lithium Deposition for Battery Electrodes. <i>Nano Letters</i> , 2015, 15, 2910-2916.	9.1	495
21	Improved lithium-sulfur batteries with a conductive coating on the separator to prevent the accumulation of inactive S-related species at the cathode-separator interface. <i>Energy and Environmental Science</i> , 2014, 7, 3381-3390.	30.8	476
22	Transparent and conductive paper from nanocellulose fibers. <i>Energy and Environmental Science</i> , 2013, 6, 513-518.	30.8	431
23	Stable cycling of lithium sulfide cathodes through strong affinity with a bifunctional binder. <i>Chemical Science</i> , 2013, 4, 3673.	7.4	412
24	Electrochemical tuning of layered lithium transition metal oxides for improvement of oxygen evolution reaction. <i>Nature Communications</i> , 2014, 5, 4345.	12.8	411
25	Rechargeable Li-O ₂ batteries with a covalently coupled MnCo ₂ O ₄ -graphene hybrid as an oxygen cathode catalyst. <i>Energy and Environmental Science</i> , 2012, 5, 7931.	30.8	393
26	Improving lithium-sulphur batteries through spatial control of sulphur species deposition on a hybrid electrode surface. <i>Nature Communications</i> , 2014, 5, 3943.	12.8	369
27	High-performance hollow sulfur nanostructured battery cathode through a scalable, room temperature, one-step, bottom-up approach. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 7148-7153.	7.1	359
28	A membrane-free lithium/polysulfide semi-liquid battery for large-scale energy storage. <i>Energy and Environmental Science</i> , 2013, 6, 1552.	30.8	359
29	Electrochemical energy storage devices for wearable technology: a rationale for materials selection and cell design. <i>Chemical Society Reviews</i> , 2018, 47, 5919-5945.	38.1	314
30	Sulfur Cathodes with Hydrogen Reduced Titanium Dioxide Inverse Opal Structure. <i>ACS Nano</i> , 2014, 8, 5249-5256.	14.6	297
31	Paper supercapacitors by a solvent-free drawing method. <i>Energy and Environmental Science</i> , 2011, 4, 3368.	30.8	290
32	High-Performance Lithium Metal Negative Electrode with a Soft and Flowable Polymer Coating. <i>ACS Energy Letters</i> , 2016, 1, 1247-1255.	17.4	281
33	Facile synthesis of Li ₂ S-polypyrrole composite structures for high-performance Li ₂ S cathodes. <i>Energy and Environmental Science</i> , 2014, 7, 672.	30.8	277
34	High Electrochemical Selectivity of Edge versus Terrace Sites in Two-Dimensional Layered MoS ₂ . <i>Nano Letters</i> , 2014, 14, 7138-7144.	9.1	269
35	Graphite-Encapsulated Li-Metal Hybrid Anodes for High-Capacity Li Batteries. <i>Chem</i> , 2016, 1, 287-297.	11.7	247
36	Mechanical rolling formation of interpenetrated lithium metal/lithium tin alloy foil for ultrahigh-rate battery anode. <i>Nature Communications</i> , 2020, 11, 829.	12.8	246

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37	A Cathode-Integrated Sulfur-Deficient Co ₉ S ₈ Catalytic Interlayer for the Reutilization of Lost Polysulfides in Lithium Sulfur Batteries. ACS Nano, 2019, 13, 7073-7082.	14.6	226
38	Crab Shells as Sustainable Templates from Nature for Nanostructured Battery Electrodes. Nano Letters, 2013, 13, 3385-3390.	9.1	208
39	Charging-free electrochemical system for harvesting low-grade thermal energy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17011-17016.	7.1	206
40	Nanostructured paper for flexible energy and electronic devices. MRS Bulletin, 2013, 38, 320-325.	3.5	199
41	A Stretchable Graphitic Carbon/Si Anode Enabled by Conformal Coating of a Self-Healing Elastic Polymer. Advanced Materials, 2016, 28, 2455-2461.	21.0	197
42	Robust Pinhole-free Li ₃ N Solid Electrolyte Grown from Molten Lithium. ACS Central Science, 2018, 4, 97-104.	11.3	197
43	Elucidating the Catalytic Activity of Oxygen Deficiency in the Polysulfide Conversion Reactions of Lithium Sulfur Batteries. Advanced Energy Materials, 2018, 8, 1801868.	19.5	164
44	Lithium Silicide Surface Enrichment: A Solution to Lithium Metal Battery. Advanced Materials, 2018, 30, e1801745.	21.0	163
45	Core-Shell Nanoparticle Coating as an Interfacial Layer for Dendrite-Free Lithium Metal Anodes. ACS Central Science, 2017, 3, 135-140.	11.3	162
46	Silicon-conductive nanopaper for Li-ion batteries. Nano Energy, 2013, 2, 138-145.	16.0	155
47	Durable rechargeable zinc-air batteries with neutral electrolyte and manganese oxide catalyst. Journal of Power Sources, 2016, 332, 330-336.	7.8	129
48	In Situ Observation and Electrochemical Study of Encapsulated Sulfur Nanoparticles by MoS ₂ Flakes. Journal of the American Chemical Society, 2017, 139, 10133-10141.	13.7	126
49	A Sulfur Cathode with Pomegranate-Like Cluster Structure. Advanced Energy Materials, 2015, 5, 1500211.	19.5	122
50	Simultaneous Cobalt and Phosphorous Doping of MoS ₂ for Improved Catalytic Performance on Polysulfide Conversion in Lithium Sulfur Batteries. Advanced Energy Materials, 2019, 9, 1902096.	19.5	118
51	In Situ Chemical Synthesis of Lithium Fluoride/Metal Nanocomposite for High Capacity Prelithiation of Cathodes. Nano Letters, 2016, 16, 1497-1501.	9.1	112
52	High-capacity Li ₂ S/graphene oxide composite cathodes with stable cycling performance. Chemical Science, 2014, 5, 1396.	7.4	109
53	Phase Transformations in TiS ₂ during K Intercalation. ACS Energy Letters, 2017, 2, 1835-1840.	17.4	104
54	In Situ Observation of Divergent Phase Transformations in Individual Sulfide Nanocrystals. Nano Letters, 2015, 15, 1264-1271.	9.1	102

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55	In-operando optical imaging of temporal and spatial distribution of polysulfides in lithium-sulfur batteries. <i>Nano Energy</i> , 2015, 11, 579-586.	16.0	84
56	Stabilizing a Lithium Metal Battery by an In Situ Li_2S -modified Interfacial Layer via Amorphous-Sulfide Composite Solid Electrolyte. <i>Nano Letters</i> , 2020, 20, 8273-8281.	9.1	47
57	Thermal Conductive 2D Boron Nitride for High-Performance All-Solid-State Lithium-Sulfur Batteries. <i>Advanced Science</i> , 2020, 7, 2001303.	11.2	46
58	Lateral and Vertical Two-Dimensional Layered Topological Insulator Heterostructures. <i>ACS Nano</i> , 2015, 9, 10916-10921.	14.6	30
59	Cathode-Supported-Electrolyte Configuration for High-Performance All-Solid-State Lithium-Sulfur Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 11540-11547.	5.1	15
60	Large-Scale Color-Changing Thin Film Energy Storage Device with High Optical Contrast and Energy Storage Capacity. <i>ACS Applied Energy Materials</i> , 2018, 1, 1658-1663.	5.1	14
61	Mixed Ionically/Electronically Conductive Double-Phase Interface Enhanced Solid-State Charge Transfer for a High-Performance All-Solid-State Li_2S Battery. <i>Nano Letters</i> , 2022, 22, 433-440.	9.1	12
62	Synergistic Effect of Salinized Quinone for Entrapment of Polysulfides for High-Performance Li_2S Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 23867-23873.	8.0	11
63	Batteries: Just a spoonful of LiPF_6 . <i>Nature Energy</i> , 2017, 2, .	39.5	7
64	Phase engineering of Mo-V oxides molecular sieves for zinc-ion batteries. <i>Science China Materials</i> , 2022, 65, 939-946.	6.3	4