Zhen-Hua Sun

List of Publications by Year in Descending Order

104 papers	7,741 citations	42 h-index	87 g-index
115 ext. papers	9,219 ext. citations	12.2 avg, IF	6.4 L-index

#	Paper	IF	Citations
104	Sulfur–Carbon Composite Cathodes. *Modern Aspects of Electrochemistry*, **2022**, 19-82		0
103	Conductive Fe2N/N-rGO composite boosts electrochemical redox reactions in wide temperature accommodating lithium-sulfur batteries. *Chemical Engineering Journal*, **2022**, 427, 131622	14.7	5
102	Conjugated diketone-linked polyimide cathode material for organic lithium-ion batteries. *Chemical Engineering Journal*, **2022**, 444, 136598	14.7	1
101	Ni2P electrocatalysts decorated hollow carbon spheres as bi-functional mediator against shuttle effect and Li dendrite for Li-S batteries. *Nano Energy*, **2021**, 90, 106584	17.1	11
100	Tunable Interaction between Metal-Organic Frameworks and Electroactive Components in Lithium–Sulfur Batteries: Status and Perspectives. *Advanced Energy Materials*, **2021**, 11, 2100387	21.8	26
99	An in-situ solidification strategy to block polysulfides in Lithium-Sulfur batteries. *Energy Storage Materials*, **2021**, 37, 224-232	19.4	22
98	Ion-Dipole Chemistry Drives Rapid Evolution of Li Ions Solvation Sheath in Low-Temperature Li Batteries. *Advanced Energy Materials*, **2021**, 11, 2100935	21.8	38
97	Single-atom catalysts for metal-sulfur batteries: Current progress and future perspectives. *Journal of Energy Chemistry*, **2021**, 54, 452-466	12	28
96	Nanoscale metal–organic framework composites for phototherapy and synergistic therapy of cancer. *Materials Chemistry Frontiers*, **2021**, 5, 1632-1654	7.8	13
95	Insights into the deposition chemistry of Li ions in nonaqueous electrolyte for stable Li anodes. *Chemical Society Reviews*, **2021**, 50, 3178-3210	58.5	43
94	Coupling anodic/cathodic energy storage through in situ heterostructure regulation of ordered microporous carbon for sodium-ion hybrid capacitors. *Journal of Materials Chemistry A*, **2021**, 9, 3360-3368	12	5
93	Double Ionic-Electronic Transfer Interface Layers for All-Solid-State Lithium Batteries. *Angewandte Chemie - International Edition*, **2021**, 60, 18448-18453	16.4	8
92	Lithium Metal Batteries: Ion-Dipole Chemistry Drives Rapid Evolution of Li Ions Solvation Sheath in Low-Temperature Li Batteries (Adv. Energy Mater. 28/2021). *Advanced Energy Materials*, **2021**, 11, 2170112	21.8	1
91	Reliable liquid electrolytes for lithium metal batteries. *Energy Storage Materials*, **2020**, 30, 113-129	19.4	44
90	Fast lithium ion transport in solid polymer electrolytes from polysulfide-bridged copolymers. *Nano Energy*, **2020**, 75, 104976	17.1	11
89	Structure-related electrochemical performance of organosulfur compounds for lithium–sulfur batteries. *Energy and Environmental Science*, **2020**, 13, 1076-1095	35.4	69
88	Efficient polysulfide blocker from conductive niobium nitride@graphene for Li-S batteries. *Journal of Energy Chemistry*, **2020**, 45, 135-141	12	36

87	Electrospun carbon nanofibers with MnS sulfiphilic sites as efficient polysulfide barriers for high-performance wide-temperature-range Li–S batteries. *Journal of Materials Chemistry A*, **2020**, 8, 1212-1220	13	35
86	Reducing the shuttle effect with the interactions of polar TiN and non-polar graphene for lithium–sulfur batteries. *CrystEngComm*, **2020**, 22, 1555-1559	3.3	3
85	Homogeneous and Fast Ion Conduction of PEO-Based Solid-State Electrolyte at Low Temperature. *Advanced Functional Materials*, **2020**, 30, 2007172	15.6	71
84	An alkali metal–selenium battery with a wide temperature range and low self-discharge. *Journal of Materials Chemistry A*, **2019**, 7, 21774-21782	13	24
83	Micro-Macroscopic Coupled Electrode Architecture for High-Energy-Density Lithium–Sulfur Batteries. *ACS Applied Energy Materials*, **2019**, 2, 7393-7402	6.1	6
82	A salt-derived solid electrolyte interphase by electroreduction of water-in-salt electrolyte for uniform lithium deposition. *Journal of Power Sources*, **2019**, 439, 227073	8.9	11
81	Highly cross-linked carbon sponge enables room-temperature long-life semi-liquid Na/polysulfide battery. *Materials Today Energy*, **2019**, 14, 100342	7	6
80	Die wiederaufladbare Aluminiumbatterie: Möglichkeiten und Herausforderungen. *Angewandte Chemie*, **2019**, 131, 12104-12124	3.6	15
79	The Rechargeable Aluminum Battery: Opportunities and Challenges. *Angewandte Chemie - International Edition*, **2019**, 58, 11978-11996	16.4	168
78	Key Aspects of Lithium Metal Anodes for Lithium Metal Batteries. *Small*, **2019**, 15, e1900687	11	134
77	Necklace-like MoC sulfiphilic sites embedded in interconnected carbon networks for Li–S batteries with high sulfur loading. *Journal of Materials Chemistry A*, **2019**, 7, 11298-11304	13	39
76	Electrochemical process of sulfur in carbon materials from electrode thickness to interlayer. *Journal of Energy Chemistry*, **2019**, 31, 119-124	12	34
75	The Regulating Role of Carbon Nanotubes and Graphene in Lithium-Ion and Lithium-Sulfur Batteries. *Advanced Materials*, **2019**, 31, e1800863	24	234
74	Oriented outperforms disorder: Thickness-independent mass transport for lithium-sulfur batteries. *Carbon*, **2019**, 154, 90-97	10.4	10
73	Factors of Kinetics Processes in Lithium–Sulfur Reactions. *Energy Technology*, **2019**, 7, 1900574	3.5	9
72	Lithium Batteries: The Regulating Role of Carbon Nanotubes and Graphene in Lithium-Ion and Lithium–Sulfur Batteries (Adv. Mater. 9/2019). *Advanced Materials*, **2019**, 31, 1970066	24	6
71	A highly reversible Co3S4 microsphere cathode material for aluminum-ion batteries. *Nano Energy*, **2019**, 56, 100-108	17.1	120
70	From interlayer to lightweight capping layer: Rational design of mesoporous TiO2 threaded with CNTs for advanced Li–S batteries. *Carbon*, **2019**, 143, 523-530	10.4	50

69	Metal–Organic Frameworks (MOFs)-Derived Nitrogen-Doped Porous Carbon Anchored on Graphene with Multifunctional Effects for Lithium–Sulfur Batteries. *Advanced Functional Materials*, **2018**, 28, 1707592	15.6	198
68	A 3D Multifunctional Architecture for Lithium–Sulfur Batteries with High Areal Capacity. *Small Methods*, **2018**, 2, 1800067	12.8	28
67	Heteroatoms dual-doped hierarchical porous carbon-selenium composite for durable Li–Se and Na–Se batteries. *Nano Energy*, **2018**, 49, 137-146	17.1	103
66	Engineering Gold Nanorod-Copper Sulfide Heterostructures with Enhanced Photothermal Conversion Efficiency and Photostability. *Small*, **2018**, 14, e1703077	11	68
65	An Aluminum–Sulfur Battery with a Fast Kinetic Response. *Angewandte Chemie*, **2018**, 130, 1916-1920	3.6	29
64	An Aluminum-Sulfur Battery with a Fast Kinetic Response. *Angewandte Chemie - International Edition*, **2018**, 57, 1898-1902	16.4	111
63	A gradient bi-functional graphene-based modified electrode for vanadium redox flow batteries. *Energy Storage Materials*, **2018**, 13, 66-71	19.4	47
62	A Rechargeable Quasi-symmetrical MoS2 Battery. *Joule*, **2018**, 2, 1278-1286	27.8	17
61	Self-supporting porous CoS2/rGO sulfur host prepared by bottom-up assembly for lithium-sulfur batteries. *Journal of Alloys and Compounds*, **2018**, 749, 586-593	5.7	48
60	Improving the photocatalytic activity of graphitic carbon nitride by thermal treatment in a high-pressure hydrogen atmosphere. *Progress in Natural Science: Materials International*, **2018**, 28, 183-188	3.6	17
59	Easy fabrication of flexible and multilayer nanocarbon-based cathodes with a high unreal sulfur loading by electrostatic spraying for lithium-sulfur batteries. *Carbon*, **2018**, 138, 18-25	10.4	18
58	Development of Graphene-based Materials for Lithium-Sulfur Batteries. *Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica*, **2018**, 34, 377-390	3.8	19
57	Polysulfide immobilization and conversion on a conductive polar MoC@MoOx material for lithium-sulfur batteries. *Energy Storage Materials*, **2018**, 10, 56-61	19.4	132
56	Lithium-Sulfur Batteries: Metal–Organic Frameworks (MOFs)-Derived Nitrogen-Doped Porous Carbon Anchored on Graphene with Multifunctional Effects for Lithium–Sulfur Batteries (Adv. Funct. Mater. 38/2018). *Advanced Functional Materials*, **2018**, 28, 1870274	15.6	35
55	Hybrid Solid Polymer Electrolytes with Two-Dimensional Inorganic Nanofillers. *Chemistry - A European Journal*, **2018**, 24, 18180-18203	4.8	19
54	Mesoporous TiN microspheres as an efficient polysulfide barrier for lithium–sulfur batteries. *Journal of Materials Chemistry A*, **2018**, 6, 14359-14366	13	66
53	Conductive porous vanadium nitride/graphene composite as chemical anchor of polysulfides for lithium-sulfur batteries. *Nature Communications*, **2017**, 8, 14627	17.4	757
52	One-Pot Synthesis of Noble Metal/Zinc Oxide Composites with Controllable Morphology and High Catalytic Performance. *ACS Applied Materials & Interfaces*, **2017**, 9, 16417-16425	9.5	43

51	More Reliable Lithium-Sulfur Batteries: Status, Solutions and Prospects. *Advanced Materials*, **2017**, 29, 1606823	24	1054
50	A Sulfur-Rich Copolymer@CNT Hybrid Cathode with Dual-Confinement of Polysulfides for High-Performance Lithium-Sulfur Batteries. *Advanced Materials*, **2017**, 29, 1603835	24	167
49	Ultrahigh energy density and stable supercapacitor with 2D NiCoAl Layered double hydroxide. *Electrochimica Acta*, **2017**, 253, 324-332	6.7	46
48	A high tenacity electrode by assembly of a soft sorbent and a hard skeleton for lithium–sulfur batteries. *Journal of Materials Chemistry A*, **2017**, 5, 22459-22464	13	9
47	3D Graphene-Foam-Reduced-Graphene-Oxide Hybrid Nested Hierarchical Networks for High-Performance Li-S Batteries. *Advanced Materials*, **2016**, 28, 1603-9	24	430
46	Carbon materials for Li–S batteries: Functional evolution and performance improvement. *Energy Storage Materials*, **2016**, 2, 76-106	19.4	406
45	Aerosol-spray diverse mesoporous metal oxides from metal nitrates. *Scientific Reports*, **2015**, 5, 9923	4.9	39
44	Covalently functionalized carbon nanotube supported Pd nanoparticles for catalytic reduction of 4-nitrophenol. *Nanoscale*, **2014**, 6, 6609-16	7.7	130
43	Noncovalent functionalization of multi-walled carbon nanotubes as metal-free catalysts for the reduction of nitrobenzene. *Catalysis Science and Technology*, **2014**, 4, 1730-1733	5.5	18
42	Fabrication of porous Sn–C composites with high initial coulomb efficiency and good cyclic performance for lithium ion batteries. *Journal of Materials Chemistry A*, **2013**, 1, 9462	13	59
41	Precursor-directed synthesis of quasi-spherical barium ferrite particles with good dispersion and magnetic properties. *CrystEngComm*, **2013**, 15, 808-815	3.3	27
40	Porous V2O5-SnO2/CNTs composites as high performance cathode materials for lithium-ion batteries. *Journal of Energy Chemistry*, **2013**, 22, 347-355	12	22
39	A Novel Ion-exchange Method for the Synthesis of Nano-SnO/micro-C Hybrid Structure as High Capacity Anode Material in Lithium Ion Batteries. *Journal of Materials Science and Technology*, **2013**, 29, 609-612	9.1	10
38	Immobilizing Carbon Nanotubes on SiC Foam as a Monolith Catalyst for Oxidative Dehydrogenation Reactions. *ChemCatChem*, **2013**, 5, 1713-1717	5.2	22
37	Surfactant-free hydrothermal synthesis of sub-10 nm Fe2O3-polymer porous composites with high catalytic activity for reduction of nitroarenes. *Chemical Communications*, **2013**, 49, 10088-90	5.8	40
36	The growth and enhanced catalytic performance of Au@Pd core-shell nanodendrites. *Nanoscale*, **2013**, 5, 139-42	7.7	69
35	Magnetically recyclable nanocatalysts (MRNCs): a versatile integration of high catalytic activity and facile recovery. *Nanoscale*, **2012**, 4, 6244-55	7.7	133
34	Formation of different gold nanocrystal core-resin shell structures through the control of the core assembly and shell polymerization. *Langmuir*, **2012**, 28, 9082-92	4	10

33	Porous polymer supported palladium catalyst for cross coupling reactions with high activity and recyclability. *Science China Chemistry*, **2012**, 55, 2095-2103	7.9	21
32	One-pot synthesis of (Au nanorod)-(metal sulfide) core-shell nanostructures with enhanced gas-sensing property. *Small*, **2012**, 8, 1167-72, 1124	11	59
31	Sphärische Partikel aus mehrwandigen Kohlenstoff-Nanoröhren: Bildungsmechanismus und katalytische Leistung. *Angewandte Chemie*, **2012**, 124, 7699-7704	3.6	3
30	Spherical structures composed of multiwalled carbon nanotubes: formation mechanism and catalytic performance. *Angewandte Chemie - International Edition*, **2012**, 51, 7581-5	16.4	44
29	Plasmonic gold-superparamagnetic hematite heterostructures. *Langmuir*, **2011**, 27, 5071-5	4	36
28	In Situ one-step electrochemical preparation of graphene oxide nanosheet-modified electrodes for biosensors. *ChemSusChem*, **2011**, 4, 1587-91	8.3	63
27	Transverse oxidation of gold nanorods assisted by selective end capping of silver oxide. *Journal of Materials Chemistry*, **2011**, 21, 11537		23
26	Hydrothermal transformation from Au core-sulfide shell to Au nanoparticle-decorated sulfide hybrid nanostructures. *Nanoscale*, **2010**, 2, 1650-2	7.7	21
25	Effects of dyes, gold nanocrystals, pH, and metal ions on plasmonic and molecular resonance coupling. *Journal of the American Chemical Society*, **2010**, 132, 4806-14	16.4	85
24	Understanding the photothermal conversion efficiency of gold nanocrystals. *Small*, **2010**, 6, 2272-80	11	395
23	A General Approach to the Synthesis of Gold–Metal Sulfide Core–Shell and Heterostructures. *Angewandte Chemie*, **2009**, 121, 2925-2929	3.6	13
22	A general approach to the synthesis of gold-metal sulfide core-shell and heterostructures. *Angewandte Chemie - International Edition*, **2009**, 48, 2881-5	16.4	180
21	Plasmon coupling in clusters composed of two-dimensionally ordered gold nanocubes. *Small*, **2009**, 5, 2111-9	11	110
20	Curvature-directed assembly of gold nanocubes, nanobranches, and nanospheres. *Langmuir*, **2009**, 25, 1692-8	4	74
19	Direct encoding of silica submicrospheres with cadmium telluride nanocrystals. *Journal of Materials Chemistry*, **2009**, 19, 7002		20
18	Incorporation of Gold Nanorods and Their Enhancement of Fluorescence in Mesostructured Silica Thin Films. *Journal of Physical Chemistry C*, **2008**, 112, 18895-18903	3.8	51
17	pH-Controlled reversible assembly and disassembly of gold nanorods. *Small*, **2008**, 4, 1287-92	11	239
16	Multifunctional Mesostructured Silica Microspheres from an Ultrasonic Aerosol Spray. *Advanced Functional Materials*, **2008**, 18, 2956-2962	15.6	49

15	Fluorescent Mesostructured Polythiophene–Silica Composite Particles Synthesized by in Situ Polymerization of Structure-Directing Monomers. *Chemistry of Materials*, **2007**, 19, 6222-6229	9.6	23
14	Synthesis and Catalytic Activity of Cu-Incorporated MCM-41 with Spheres-within-a-Sphere Hollow Structure. *Chinese Journal of Chemistry*, **2006**, 24, 1653-1656	4.9	3
13	Magnetically Motive Porous Sphere Composite and Its Excellent Properties for the Removal of Pollutants in Water by Adsorption and Desorption Cycles. *Advanced Materials*, **2006**, 18, 1968-1971	24	143
12	Super-hydrophobic ordered mesoporous carbon monolith. *Carbon*, **2006**, 44, 1336-1339	10.4	37
11	A Stable Hexagonal Mesoporous Aluminophosphate Assembled from Preformed Aluminophosphate Precursors. *Chemistry Letters*, **2005**, 34, 516-517	1.7	6
10	High-temperature synthesis of stable ordered mesoporous silica materials using mesoporous carbon as a hard template. *Microporous and Mesoporous Materials*, **2005**, 86, 81-88	5.3	20
9	Formation of better catalytically active titanium species in Ti-MCM-41 by vapor-phase silylation. *Journal of Catalysis*, **2005**, 235, 423-427	7.3	42
8	Ordered mesoporous titanosilicates with better catalytically active titanium sites assembled from preformed titanosilicate precursors with zeolite building units in alkaline media. *Microporous and Mesoporous Materials*, **2004**, 72, 193-201	5.3	34
7	Hydrothermal synthesis and intercalation behavior of a layered titanium phosphate Ti2(H2PO4)(HPO4)(PO4)2 □0.5C6N2H16, with an extended □-phase intercalated into organic amine. *Polyhedron*, **2004**, 23, 3033-3042	2.7	12
6	Catalytic oxidation of olefins and alcohols by molecular oxygen under air pressure over Cu2(OH)PO4 and Cu4O(PO4)2 catalysts. *Journal of Catalysis*, **2003**, 218, 460-464	7.3	71
5	Catalytic hydroxylation of 2,3,6-trimethylphenol with hydrogen peroxide over copper hydroxyphosphate (Cu2(OH)PO4). *Applied Catalysis A: General*, **2002**, 236, 17-22	5.1	30
4	Catalytic Epoxidation of Styrene by Molecular Oxygen over a Novel Catalyst of Copper Hydroxyphosphate Cu2(OH)PO4. *Catalysis Letters*, **2001**, 76, 105-109	2.8	21
3	An ultrathin and highly efficient interlayer for Lithium-Sulfur batteries with high sulfur loading and lean electrolyte. *Journal of Materials Chemistry A*,	13	2
2	Role of Catalytic Materials on Conversion of Sulfur Species for Room Temperature Sodium–Sulfur Battery. *Energy and Environmental Materials*,	13	2
1	An Interlayer Containing Dissociated LiNO 3 with Fast Release Speed for Stable Lithium Metal Batteries with 400□Wh kg □1 Energy Density. *Small*,2202349	11	2