

# Shaozhuan Huang

## List of Publications by Year in descending order

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86  
papers

4,563  
citations

81900

39  
h-index

110387

64  
g-index

87  
all docs

87  
docs citations

87  
times ranked

4636  
citing authors

#	ARTICLE	IF	CITATIONS
1	Regulating the polysulfide redox conversion by iron phosphide nanocrystals for high-rate and ultrastable lithium-sulfur battery. <i>Nano Energy</i> , 2018, 51, 340-348.	16.0	277
2	Recent Advances in Heterostructure Engineering for Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2003689.	19.5	269
3	Enabling Superior Sodium Capture for Efficient Water Desalination by a Tubular Polyaniline Decorated with Prussian Blue Nanocrystals. <i>Advanced Materials</i> , 2020, 32, e1907404.	21.0	168
4	Unconventional Mn Vacancies in Mn-Fe Prussian Blue Analogs: Suppressing Jahn-Teller Distortion for Ultrastable Sodium Storage. <i>CheM</i> , 2020, 6, 1804-1818.	11.7	148
5	Tunable Pseudocapacitance in 3D TiO <sub>2</sub> Nanomembranes Enabling Superior Lithium Storage Performance. <i>ACS Nano</i> , 2017, 11, 821-830.	14.6	124
6	2D carbide nanomeshes and their assembling into 3D microflowers for efficient water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 243, 678-685.	20.2	116
7	3D carbon foam-supported WS <sub>2</sub> nanosheets for cable-shaped flexible sodium ion batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 10813-10824.	10.3	112
8	3D hierarchical defect-rich NiMo <sub>3</sub> S <sub>4</sub> nanosheet arrays grown on carbon textiles for high-performance sodium-ion batteries and hydrogen evolution reaction. <i>Nano Energy</i> , 2018, 49, 460-470.	16.0	107
9	Efficient Sodium-Ion Intercalation into the Freestanding Prussian Blue/Graphene Aerogel Anode in a Hybrid Capacitive Deionization System. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 5989-5998.	8.0	106
10	3D self-branched zinc-cobalt Oxide@N-doped carbon hollow nanowall arrays for high-performance asymmetric supercapacitors and oxygen electrocatalysis. <i>Energy Storage Materials</i> , 2019, 23, 653-663.	18.0	104
11	Bifunctional porous iron phosphide/carbon nanostructure enabled high-performance sodium-ion battery and hydrogen evolution reaction. <i>Energy Storage Materials</i> , 2018, 15, 98-107.	18.0	102
12	Defect-Selectivity and Order-Disorder-Engineering in Carbon for Durable and Fast Potassium Storage. <i>Advanced Materials</i> , 2022, 34, e2108621.	21.0	96
13	Amorphous manganese dioxide with the enhanced pseudocapacitive performance for aqueous rechargeable zinc-ion battery. <i>Chemical Engineering Journal</i> , 2020, 396, 125221.	12.7	94
14	Mechanism Investigation of High-Performance Li-Polysulfide Batteries Enabled by Tungsten Disulfide Nanopetals. <i>ACS Nano</i> , 2018, 12, 9504-9512.	14.6	89
15	Efficient Sodium Storage in Rolled-Up Amorphous Si Nanomembranes. <i>Advanced Materials</i> , 2018, 30, e1706637.	21.0	87
16	Construction of complex NiS multi-shelled hollow structures with enhanced sodium storage. <i>Energy Storage Materials</i> , 2019, 23, 17-24.	18.0	83
17	Surface modification of Na <sub>2</sub> Ti <sub>3</sub> O <sub>7</sub> nanofibre arrays using N-doped graphene quantum dots as advanced anodes for sodium-ion batteries with ultra-stable and high-rate capability. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12751-12762.	10.3	83
18	Enhanced sodium storage kinetics by volume regulation and surface engineering via rationally designed hierarchical porous FeP@C/rGO. <i>Nanoscale</i> , 2020, 12, 4341-4351.	5.6	80

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19	3D Printed Compressible Quasi-Solid-State Nickel-Iron Battery. ACS Nano, 2020, 14, 9675-9686.	14.6	80
20	Bifunctional NiCo <sub>2</sub> S <sub>4</sub> catalysts supported on a carbon textile interlayer for ultra-stable Li-S battery. Journal of Materials Chemistry A, 2019, 7, 7604-7613.	10.3	78
21	Boosting Sodium Storage of Fe <sub>1-x</sub> S/MoS <sub>2</sub> Composite via Heterointerface Engineering. Nano-Micro Letters, 2019, 11, 80.	27.0	77
22	Promoting Highly Reversible Sodium Storage of Iron Sulfide Hollow Polyhedrons via Cobalt Incorporation and Graphene Wrapping. Advanced Energy Materials, 2019, 9, 1901584.	19.5	71
23	Guest-species-incorporation in manganese/vanadium-based oxides: Towards high performance aqueous zinc-ion batteries. Nano Energy, 2021, 85, 105969.	16.0	71
24	Boosting Zn-Ion Storage Performance of Bronze-Type VO <sub>2</sub> via Ni-Mediated Electronic Structure Engineering. ACS Applied Materials & Interfaces, 2020, 12, 36110-36118.	8.0	70
25	Hierarchy Design in Metal Oxides as Anodes for Advanced Lithium-Ion Batteries. Small Methods, 2018, 2, 1800171.	8.6	69
26	Designing Advanced Aqueous Zinc-Ion Batteries: Principles, Strategies, and Perspectives. Energy and Environmental Materials, 2022, 5, 823-851.	12.8	69
27	Promoting polysulfide conversion by catalytic ternary Fe <sub>3</sub> O <sub>4</sub> /carbon/graphene composites with ordered microchannels for ultrahigh-rate lithium-sulfur batteries. Journal of Materials Chemistry A, 2019, 7, 25078-25087.	10.3	68
28	Direct-ink writing 3D printed energy storage devices: From material selectivity, design and optimization strategies to diverse applications. Materials Today, 2022, 54, 110-152.	14.2	66
29	Design Multifunctional Catalytic Interface: Toward Regulation of Polysulfide and Li <sub>2</sub> S Redox Conversion in Li-S Batteries. Small, 2019, 15, e1906132.	10.0	62
30	Tunable Pseudocapacitive Behavior in Metal-Organic Framework-Derived TiO <sub>2</sub> @Porous Carbon Enabling High-Performance Membrane Capacitive Deionization. ACS Applied Energy Materials, 2019, 2, 1812-1822.	5.1	60
31	Controllable Synthesis of Two-Dimensional Molybdenum Disulfide (MoS <sub>2</sub> ) for Energy-Storage Applications. ChemSusChem, 2020, 13, 1379-1391.	6.8	60
32	Rechargeable Aqueous Zinc-Ion Batteries in MgSO <sub>4</sub> /ZnSO <sub>4</sub> Hybrid Electrolytes. Nano-Micro Letters, 2020, 12, 60.	27.0	60
33	Self-templated synthesis of microporous CoO nanoparticles with highly enhanced performance for both photocatalysis and lithium-ion batteries. Journal of Materials Chemistry A, 2013, 1, 1394-1400.	10.3	58
34	Porosity Engineering of MXene Membrane towards Polysulfide Inhibition and Fast Lithium Ion Transportation for Lithium-Sulfur Batteries. Small, 2021, 17, e2007442.	10.0	57
35	NaTi <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> -Ag electrodes based desalination battery and energy recovery. FlatChem, 2018, 8, 9-16.	5.6	56
36	3D Ag/NiO-Fe <sub>2</sub> O <sub>3</sub> /Ag nanomembranes as carbon-free cathode materials for Li-O <sub>2</sub> batteries. Energy Storage Materials, 2019, 16, 155-162.	18.0	49

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37	Constructing stress-release layer on Fe <sub>7</sub> Se <sub>8</sub> -based composite for highly stable sodium-storage. Nano Energy, 2020, 69, 104389.	16.0	49
38	Super Kinetically Pseudocapacitive MnCo <sub>2</sub> S <sub>4</sub> Nanourchins toward High-Rate and Highly Stable Sodium-Ion Storage. Advanced Functional Materials, 2020, 30, 1909702.	14.9	47
39	Rhenium disulfide nanosheets/carbon composite as novel anodes for high-rate and long lifespan sodium-ion batteries. Nano Energy, 2019, 61, 626-636.	16.0	46
40	Elucidating the reaction kinetics of lithium-sulfur batteries by <i>in operando</i> XRD based on an open-hollow S@MnO <sub>2</sub> cathode. Journal of Materials Chemistry A, 2019, 7, 6651-6658.	10.3	41
41	Regulating the breathing of mesoporous Fe <sub>0.95</sub> S <sub>1.05</sub> nanorods for fast and durable sodium storage. Energy Storage Materials, 2020, 32, 151-158.	18.0	40
42	Defect-Engineered 3D hierarchical NiMo <sub>3</sub> S <sub>4</sub> nanoflowers as bifunctional electrocatalyst for overall water splitting. Journal of Colloid and Interface Science, 2022, 607, 1876-1887.	9.4	40
43	Tailoring NiO Nanostructured Arrays by Sulfate Anions for Sodium-Ion Batteries. Small, 2018, 14, e1800898.	10.0	39
44	3D-printed functional electrodes towards Zn-Air batteries. Materials Today Energy, 2020, 16, 100407.	4.7	39
45	Rationally engineered amorphous TiO <sub>x</sub> /Si/TiO <sub>x</sub> nanomembrane as an anode material for high energy lithium ion battery. Energy Storage Materials, 2018, 12, 23-29.	18.0	38
46	A Selective Reduction Approach to Construct Robust Cu <sub>1.8</sub> S Truss Structures for High-Performance Sodium Storage. Matter, 2020, 2, 428-439.	10.0	35
47	An Exfoliation-Evaporation Strategy To Regulate N Coordination Number of Co Single-Atom Catalysts for High-Performance Lithium-Sulfur Batteries. , 2022, 4, 1-10.		35
48	Stepwise Intercalation-Conversion-Intercalation Sodiation Mechanism in CuInS <sub>2</sub> Prompting Sodium Storage Performance. ACS Energy Letters, 2020, 5, 3725-3732.	17.4	33
49	Morphological and Electronic Dual Regulation of Cobalt-Nickel Bimetal Phosphide Heterostructures Inducing High Water-Splitting Performance. Journal of Physical Chemistry Letters, 2020, 11, 3911-3919.	4.6	33
50	Crystallization-Induced Morphological Tuning Toward Denim-like Graphene Nanosheets in a KCl-Copolymer Solution. ACS Nano, 2018, 12, 4019-4024.	14.6	32
51	The efficient faradaic Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> @C electrode exceeds the membrane capacitive desalination performance. Journal of Materials Chemistry A, 2019, 7, 8912-8921.	10.3	30
52	Boosting chem-insertion and phys-adsorption in S/N co-doped porous carbon nanospheres for high-performance symmetric Li-ion capacitors. Journal of Materials Chemistry A, 2020, 8, 11529-11537.	10.3	30
53	Reinforcing Germanium Electrode with Polymer Matrix Decoration for Long Cycle Life Rechargeable Lithium Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 38556-38566.	8.0	29
54	In situ-grown compressed NiCo <sub>2</sub> S <sub>4</sub> barrier layer for efficient and durable polysulfide entrapment. NPC Asia Materials, 2019, 11, .	7.9	27

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55	Rational construction of hierarchical porous FeP nanorod arrays encapsulated in polypyrrole for efficient and durable hydrogen evolution reaction. <i>Chemical Engineering Journal</i> , 2022, 433, 133643.	12.7	25
56	Boosted electrochemical ammonia synthesis by high-percentage metallic transition metal dichalcogenide quantum dots. <i>Nanoscale</i> , 2020, 12, 10964-10971.	5.6	24
57	Topotactic Epitaxy Self-Assembly of Potassium Manganese Hexacyanoferrate Superstructures for Highly Reversible Sodium-Ion Batteries. <i>ACS Nano</i> , 2022, 16, 453-461.	14.6	24
58	Cubic Spinel $XIn_2S_4$ (X = Fe, Co, Mn): A New Type of Anode Material for Superfast and Ultrastable $Na^+$ Ion Storage. <i>Advanced Energy Materials</i> , 2021, 11, 2102137.	19.5	23
59	Tungsten disulfide-reduced GO/CNT aerogel: a tuned interlayer spacing anode for efficient water desalination. <i>Journal of Materials Chemistry A</i> , 2021, 9, 10758-10768.	10.3	22
60	Regulating Na deposition by constructing a Au sodiophilic interphase on CNT modified carbon cloth for flexible sodium metal anode. <i>Journal of Colloid and Interface Science</i> , 2022, 611, 317-326.	9.4	22
61	High-Concentration Niobium-Substituted $WS_2$ Basal Domains with Reconfigured Electronic Band Structure for Hydrogen Evolution Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 34862-34868.	8.0	21
62	Explicating the Sodium Storage Kinetics and Redox Mechanism of Highly Pseudocapacitive Binary Transition Metal Sulfide via Operando Techniques and Ab Initio Evaluation. <i>Small Methods</i> , 2019, 3, 1900112.	8.6	21
63	Artificial electrode interfaces enable stable operation of freestanding anodes for high-performance flexible lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 14097-14107.	10.3	21
64	PVD customized 2D porous amorphous silicon nanoflakes percolated with carbon nanotubes for high areal capacity lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 4836-4843.	10.3	21
65	Recent advances in carbon-shell-based nanostructures for advanced Li/Na metal batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 6070-6088.	10.3	21
66	Undercooling-directed NaCl crystallization: an approach towards nanocavity-linked graphene networks for fast lithium and sodium storage. <i>Nanoscale</i> , 2020, 12, 7622-7630.	5.6	19
67	Conformal coating of lithium-zinc alloy on 3D conducting scaffold for high areal capacity dendrite-free lithium metal batteries. <i>Carbon</i> , 2021, 181, 99-106.	10.3	19
68	Emerging Carbonyl Polymers as Sustainable Electrode Materials for Lithium-Free Metal-Ion Batteries. <i>Energy and Environmental Materials</i> , 2022, 5, 1037-1059.	12.8	18
69	Effects of precursor pre-treatment on the vapor deposition of $WS_2$ monolayers. <i>Nanoscale Advances</i> , 2019, 1, 953-960.	4.6	17
70	Three-dimensional hierarchical $NiCo_2S_4@MoS_2$ heterostructure arrays for high performance sodium ion battery. <i>FlatChem</i> , 2018, 10, 14-21.	5.6	15
71	Polysulfide Regulation by Hypervalent Iodine Compounds for Durable and Sustainable Lithium-Sulfur Battery. <i>Small</i> , 2022, 18, e2106716.	10.0	14
72	External Strain Enabled Post-Modification of Nanomembrane-Based Optical Microtube Cavities. <i>ACS Photonics</i> , 2018, 5, 2060-2067.	6.6	13

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73	Interface engineering by atomically thin layer tungsten disulfide catalyst for high performance Li <sup>+</sup> S battery. <i>Materials Today Energy</i> , 2020, 16, 100380.	4.7	13
74	An energy efficient bi-functional electrode for continuous cation-selective capacitive deionization. <i>Nanoscale</i> , 2020, 12, 22917-22927.	5.6	12
75	Alkoxide hydrolysis in-situ constructing robust trimanganese tetraoxide/graphene composite for high-performance lithium storage. <i>Journal of Colloid and Interface Science</i> , 2021, 594, 531-539.	9.4	11
76	Decoding of Oxygen Network Distortion in a Layered High-Rate Anode by <i>In Situ</i> Investigation of a Single Microelectrode. <i>ACS Nano</i> , 2020, 14, 11753-11764.	14.6	10
77	A membrane-less desalination battery with ultrahigh energy efficiency. <i>Journal of Materials Chemistry A</i> , 2021, 9, 7216-7226.	10.3	10
78	Superior initial coulombic efficiency through graphene quantum dot decorated on MoS <sub>2</sub> . <i>FlatChem</i> , 2018, 9, 8-14.	5.6	9
79	Two-dimensional SnS <sub>2</sub> nanosheets on Prussian blue template for high performance sodium ion batteries. <i>Frontiers of Chemical Science and Engineering</i> , 2019, 13, 493-500.	4.4	8
80	Tuning Lithiophilicity and Stability of 3D Conductive Scaffold via Covalent Ag-S Bond for High-Performance Lithium Metal Anode. <i>Energy and Environmental Materials</i> , 2023, 6, .	12.8	8
81	Gas leaching as a path to build hierarchical core-shell porous alumina nanostructures with extraordinary pollutant treatment capacity. <i>RSC Advances</i> , 2013, 3, 1699-1702.	3.6	7
82	Polypyrrole coated niobium disulfide nanowires as high performance electrocatalysts for hydrogen evolution reaction. <i>Nanotechnology</i> , 2019, 30, 405601.	2.6	7
83	Direct antimony recovery from wastewater as anode materials for sodium-ion batteries. <i>Materials Today Energy</i> , 2020, 16, 100403.	4.7	7
84	Defect-Selectivity and Order-Disorder-Engineering in Carbon for Durable and Fast Potassium Storage (Adv. Mater. 7/2022). <i>Advanced Materials</i> , 2022, 34, .	21.0	6
85	Thermal-Assisted Vertical Electron Injections in Few-Layer Pyramidal-Structured MoS <sub>2</sub> Crystals. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1292-1299.	4.6	5
86	Reversible Sodium Storage: Promoting Highly Reversible Sodium Storage of Iron Sulfide Hollow Polyhedrons via Cobalt Incorporation and Graphene Wrapping (Adv. Energy Mater. 33/2019). <i>Advanced Energy Materials</i> , 2019, 9, 1970127.	19.5	1