Changkun Zhang

List of Publications by Year
in descending order

68 papers	4,588 citations	76326 40 h-index	98798 67 g-index
68 all docs	68 docs citations	68 times ranked	4969 citing authors

#	Article	IF	Citations
1	Opportunities and challenges of organic flow battery for electrochemical energy storage technology. Journal of Energy Chemistry, 2022, 67, 621-639.	12.9	39
2	Porous polybenzimidazole membranes with positive charges enable an excellent anti-fouling ability for vanadium-methylene blue flow battery. Journal of Energy Chemistry, 2022, 68, 247-254.	12.9	7
3	Machine learning for flow batteries: opportunities and challenges. Chemical Science, 2022, 13, 4740-4752.	7.4	15
4	Insights into the Redox Chemistry of Organosulfides Towards Stable Molecule Design in Nonaqueous Energy Storage Systems. Angewandte Chemie, 2021, 133, 4368-4374.	2.0	5
5	Insights into the Redox Chemistry of Organosulfides Towards Stable Molecule Design in Nonaqueous Energy Storage Systems. Angewandte Chemie - International Edition, 2021, 60, 4322-4328.	13.8	18
6	Polyeutectic-based stable and effective electrolytes for high-performance energy storage systems. Energy and Environmental Science, 2021, 14, 931-939.	30.8	21
7	General Design Methodology for Organic Eutectic Electrolytes toward Highâ€Energyâ€Density Redox Flow Batteries. Advanced Materials, 2021, 33, e2008560.	21.0	25
8	Anode for Zinc-Based Batteries: Challenges, Strategies, and Prospects. ACS Energy Letters, 2021, 6, 2765-2785.	17.4	159
9	Perspective on organic flow batteries for large-scale energy storage. Current Opinion in Electrochemistry, 2021, 30, 100836.	4.8	10
10	Multicore Ferrocene Derivative as a Highly Soluble Cathode Material for Nonaqueous Redox Flow Batteries. ACS Applied Energy Materials, 2021, 4, 855-861.	5.1	11
11	Eutectic Electrolytes as a Promising Platform for Next-Generation Electrochemical Energy Storage. Accounts of Chemical Research, 2020, 53, 1648-1659.	15.6	143
12	Reversible redox chemistry in azobenzene-based organic molecules for high-capacity and long-life nonaqueous redox flow batteries. Nature Communications, 2020, 11, 3843.	12.8	76
13	Molecular Engineering of Azobenzeneâ€Based Anolytes Towards Highâ€Capacity Aqueous Redox Flow Batteries. Angewandte Chemie - International Edition, 2020, 59, 22163-22170.	13.8	65
14	Molecular Engineering of Azobenzeneâ€Based Anolytes Towards Highâ€Capacity Aqueous Redox Flow Batteries. Angewandte Chemie, 2020, 132, 22347-22354.	2.0	19
15	â€œFishnet-likeâ€•ion-selective nanochannels in advanced membranes for flow batteries. Journal of Materials Chemistry A, 2019, 7, 21112-21119.	10.3	50
16	Pathways to Widespread Applications: Development of Redox Flow Batteries Based on New Chemistries. CheM, 2019, 5, 1964-1987.	11.7	105
17	Redox Flow Batteries: Phenothiazineâ€Based Organic Catholyte for Highâ€Capacity and Longâ€Life Aqueous Redox Flow Batteries (Adv. Mater. 24/2019). Advanced Materials, 2019, 31, 1970175.	21.0	3
18	Phenothiazineâ€Based Organic Catholyte for Highâ€Capacity and Longâ€Life Aqueous Redox Flow Batteries. Advanced Materials, 2019, 31, e1901052.	21.0	138

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19	Biredox Eutectic Electrolytes Derived from Organic Redoxâ€Active Molecules: Highâ€Energy Storage Systems. Angewandte Chemie - International Edition, 2019, 58, 7045-7050.	13.8	82
20	Biredox Eutectic Electrolytes Derived from Organic Redoxâ€Active Molecules: Highâ€Energy Storage Systems. Angewandte Chemie, 2019, 131, 7119-7124.	2.0	19
21	A Dualâ€Ion Organic Symmetric Battery Constructed from Phenazineâ€Based Artificial Bipolar Molecules. Angewandte Chemie - International Edition, 2019, 58, 9902-9906.	13.8	123
22	Enabling Graphene-Oxide-Based Membranes for Large-Scale Energy Storage by Controlling Hydrophilic Microstructures. CheM, 2018, 4, 1035-1046.	11.7	65
23	Molecular engineering of organic electroactive materials for redox flow batteries. Chemical Society Reviews, 2018, 47, 69-103.	38.1	442
24	Gradientâ€Distributed Metalâ€“Organic Frameworkâ€“Based Porous Membranes for Nonaqueous Redox Flow Batteries. Advanced Energy Materials, 2018, 8, 1802533.	19.5	70
25	Highly Concentrated Phthalimide-Based Anolytes for Organic Redox Flow Batteries with Enhanced Reversibility. CheM, 2018, 4, 2814-2825.	11.7	105
26	Insights into Hydrotropic Solubilization for Hybrid Ion Redox Flow Batteries. ACS Energy Letters, 2018, 3, 2641-2648.	17.4	54
27	A Selfâ€Healing Roomâ€Temperature Liquidâ€Metal Anode for Alkaliâ€Ion Batteries. Advanced Functional Materials, 2018, 28, 1804649.	14.9	147
28	Eutectic Electrolytes for High-Energy-Density Redox Flow Batteries. ACS Energy Letters, 2018, 3, 2875-2883.	17.4	95
29	Solar-Powered Redox Cells: Efficient Solar Energy Harvesting and Storage through a Robust Photocatalyst Driving Reversible Redox Reactions (Adv. Mater. 31/2018). Advanced Materials, 2018, 30, 1870229.	21.0	1
30	Zn-based eutectic mixture as anolyte for hybrid redox flow batteries. Scientific Reports, 2018, 8, 5740.	3.3	46
31	Efficient Solar Energy Harvesting and Storage through a Robust Photocatalyst Driving Reversible Redox Reactions. Advanced Materials, 2018, 30, e1802294.	21.0	43
32	Progress and prospects of next-generation redox flow batteries. Energy Storage Materials, 2018, 15, 324-350.	18.0	239
33	Enhanced Electrochemical Properties of Li₃VO₄ with Controlled Oxygen Vacancies as Liâ€Ion Battery Anode. Chemistry - A European Journal, 2017, 23, 5368-5374.	3.3	44
34	Enhanced storage of sodium ions in Prussian blue cathode material through nickel doping. Journal of Materials Chemistry A, 2017, 5, 9604-9610.	10.3	95
35	A Sustainable Redoxâ€Flow Battery with an Aluminumâ€Based, Deepâ€Eutecticâ€Solvent Anolyte. Angewandte Chemie - International Edition, 2017, 56, 7454-7459.	13.8	121
36	A Sustainable Redoxâ€Flow Battery with an Aluminumâ€Based, Deepâ€Eutecticâ€Solvent Anolyte. Angewandte Chemie, 2017, 129, 7562-7567.	2.0	27

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37	A Low-Cost and High-Energy Hybrid Iron-Aluminum Liquid Battery Achieved by Deep Eutectic Solvents. Joule, 2017, 1, 623-633.	24.0	116
38	Exploiting Highâ€Performance Anode through Tuning the Character of Chemical Bonds for Liâ€Ion Batteries and Capacitors. Advanced Energy Materials, 2017, 7, 1601127.	19.5	149
39	Enhanced Electrochemical Properties of Sn-doped V2O5 as a Cathode Material for Lithium Ion Batteries. Electrochimica Acta, 2016, 222, 1831-1838.	5.2	51
40	A new anode material for high performance lithium-ion batteries: V₂(PO₄)O/C. Journal of Materials Chemistry A, 2016, 4, 9789-9796.	10.3	18
41	Impacts of Surface Energy on Lithium Ion Intercalation Properties of V₂O₅. ACS Applied Materials & Interfaces, 2016, 8, 19542-19549.	8.0	42
42	Effects of Preinserted Na Ions on Li-Ion Electrochemical Intercalation Properties of V₂O₅. ACS Applied Materials & Interfaces, 2016, 8, 24629-24637.	8.0	41
43	High power high safety battery with electrospun Li3V2(PO4)3 cathode and Li4Ti5O12 anode with 95% energy efficiency. Energy Storage Materials, 2016, 5, 93-102.	18.0	46
44	Effects of high surface energy on lithium-ion intercalation properties of Ni-doped Li3VO4. NPG Asia Materials, 2016, 8, e287-e287.	7.9	39
45	Amorphous VPO4/C with the enhanced performances as an anode for lithium ion batteries. Journal of Materiomics, 2016, 2, 350-357.	5.7	16
46	MnO nanoparticles with cationic vacancies and discrepant crystallinity dispersed into porous carbon for Li-ion capacitors. Journal of Materials Chemistry A, 2016, 4, 3362-3370.	10.3	85
47	Hollowâ€“Cuboid Li₃VO₄/C as High-Performance Anodes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 680-688.	8.0	82
48	Self-doped V 4+ â€“V 2 O 5 nanoflake for 2 Li-ion intercalation with enhanced rate and cycling performance. Nano Energy, 2016, 22, 1-10.	16.0	143
49	Mesocrystal MnO cubes as anode for Li-ion capacitors. Nano Energy, 2016, 22, 290-300.	16.0	189
50	Highly Efficient Storage of Pulse Energy Produced by Triboelectric Nanogenerator in Li₃V₂(PO₄)₃/C Cathode Li-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 862-870.	8.0	40
51	Interface Reduction Synthesis of H₂V₃O₈ Nanobeltsâ€“Graphene for High-Rate Li-Ion Batteries. Journal of Physical Chemistry C, 2015, 119, 11391-11399.	3.1	31
52	Fast and Reversible Li Ion Insertion in Carbonâ€Encapsulated Li₃VO₄ as Anode for Lithiumâ€Ion Battery. Advanced Functional Materials, 2015, 25, 3497-3504.	14.9	173
53	Highly effective oxygen reduction activity and durability of antimony-doped tin oxide modified PtPd/C electrocatalysts. RSC Advances, 2015, 5, 69479-69486.	3.6	5
54	Coherent Mn3O4-carbon nanocomposites with enhanced energy-storage capacitance. Nano Research, 2015, 8, 3372-3383.	10.4	49

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55	An Oriented Ultrathin Catalyst Layer Derived from High Conductive TiO2 Nanotube for Polymer Electrolyte Membrane Fuel Cell. Electrochimica Acta, 2015, 153, 361-369.	5.2	25
56	Vertically aligned carbon-coated titanium dioxide nanorod arrays on carbon paper with low platinum for proton exchange membrane fuel cells. Journal of Power Sources, 2015, 276, 80-88.	7.8	46
57	A novel ultra-thin catalyst layer based on wheat ear-like catalysts for polymer electrolyte membrane fuel cells. RSC Advances, 2014, 4, 58591-58595.	3.6	9
58	Ethylene glycol adjusted nanorod hematite film for active photoelectrochemical water splitting. Physical Chemistry Chemical Physics, 2014, 16, 4284.	2.8	37
59	Fine microstructure of high performance electrode in alkaline anion exchange membrane fuel cells. Journal of Power Sources, 2014, 267, 39-47.	7.8	53
60	Preparation and characterization of Ti0.7Sn0.3O2 as catalyst support for oxygen reduction reaction. Journal of Energy Chemistry, 2014, 23, 331-337.	12.9	16
61	Cobalt Phosphate Group Modified Hematite Nanorod Array as Photoanode for Efficient Solar Water Splitting. Electrochimica Acta, 2014, 136, 363-369.	5.2	52
62	Simple synthesis of Pt/TiO 2 nanotube arrays with high activity and stability. Journal of Electroanalytical Chemistry, 2013, 701, 14-19.	3.8	18
63	Electrodeposition of Ni oxide on TiO2 nanotube arrays for enhancing visible light photoelectrochemical water splitting. Journal of Electroanalytical Chemistry, 2013, 688, 228-231.	3.8	14
64	Effect of water and annealing temperature of anodized TiO2 nanotubes on hydrogen production in photoelectrochemical cell. Electrochimica Acta, 2013, 107, 313-319.	5.2	53
65	Supported Noble Metals on Hydrogenâ€Treated TiO₂ Nanotube Arrays as Highly Ordered Electrodes for Fuel Cells. ChemSusChem, 2013, 6, 659-666.	6.8	94
66	Enhancement of photoelectrochemical response by Au modified in TiO2 nanorods. International Journal of Hydrogen Energy, 2013, 38, 13023-13030.	7.1	46
67	Highly stable ternary tinâ€“palladiumâ€“platinum catalysts supported on hydrogenated TiO2 nanotube arrays for fuel cells. Nanoscale, 2013, 5, 6834.	5.6	45
68	Preparation of Pt catalysts decorated TiO2 nanotube arrays by redox replacement of Ni precursors for proton exchange membrane fuel cells. Electrochimica Acta, 2012, 80, 1-6.	5.2	38