Dong Zheng

List of Publications by Year
in descending order

57 papers	1,952 citations	257429 24 h-index	254170 43 g-index
57 all docs	57 docs citations	57 times ranked	2672 citing authors

#	Article	IF	Citations
1	A room-temperature liquid metal-based self-healing anode for lithium-ion batteries with an ultra-long cycle life. Energy and Environmental Science, 2017, 10, 1854-1861.	30.8	219
2	Reduction mechanism of sulfur in lithiumâ€“sulfur battery: From elemental sulfur to polysulfide. Journal of Power Sources, 2016, 301, 312-316.	7.8	102
3	Chemical Prelithiation of Negative Electrodes in Ambient Air for Advanced Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 8699-8703.	8.0	100
4	Quantitative Photoelectrochemical Detection of Biological Affinity Reaction:â€‰ Biotinâ^'Avidin Interaction. Analytical Chemistry, 2004, 76, 499-501.	6.5	99
5	Fast and Controllable Prelithiation of Hard Carbon Anodes for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 11589-11599.	8.0	88
6	The Progress of Liâ€“S Batteriesâ€”Understanding of the Sulfur Redox Mechanism: Dissolved Polysulfide Ions in the Electrolytes. Advanced Materials Technologies, 2018, 3, 1700233.	5.8	85
7	High rate oxygen reduction in non-aqueous electrolytes with the addition of perfluorinated additives. Energy and Environmental Science, 2011, 4, 3697.	30.8	82
8	Electrochemical Impedance and its Applications in Energyâ€Storage Systems. Small Methods, 2018, 2, 1700342.	8.6	79
9	An asymmetric supercapacitor with highly dispersed nano-Bi2O3 and active carbon electrodes. Journal of Power Sources, 2014, 269, 129-135.	7.8	73
10	Investigation of the Liâ€“S Battery Mechanism by Real-Time Monitoring of the Changes of Sulfur and Polysulfide Species during the Discharge and Charge. ACS Applied Materials & Interfaces, 2017, 9, 4326-4332.	8.0	70
11	Dual carbon-protected metal sulfides and their application to sodium-ion battery anodes. Journal of Materials Chemistry A, 2018, 6, 13294-13301.	10.3	63
12	Quantitative Chromatographic Determination of Dissolved Elemental Sulfur in the Non-Aqueous Electrolyte for Lithium-Sulfur Batteries. Journal of the Electrochemical Society, 2015, 162, A203-A206.	2.9	55
13	Controlled Prelithiation of SnO₂/C Nanocomposite Anodes for Building Full Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 19423-19430.	8.0	55
14	Quantitative and Qualitative Determination of Polysulfide Species in the Electrolyte of a Lithiumâ€“Sulfur Battery using HPLC ESI/MS with Oneâ€Step Derivatization. Advanced Energy Materials, 2015, 5, 1401888.	19.5	43
15	Exploring polycyclic aromatic hydrocarbons as an anolyte for nonaqueous redox flow batteries. Journal of Materials Chemistry A, 2018, 6, 13286-13293.	10.3	42
16	Sensitive chemically amplified electrochemical detection of ruthenium tris-(2,2â€²-bipyridine) on tin-doped indium oxide electrode. Analytica Chimica Acta, 2004, 508, 225-231.	5.4	41
17	A kinetically stable anode interface for Li₃YCl₆-based all-solid-state lithium batteries. Journal of Materials Chemistry A, 2021, 9, 15012-15018.	10.3	39
18	Cathodic chemistry of high performance Zr coated alkaline materials. Chemical Communications, 2006, , 4341.	4.1	37

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19	Reaction between Lithium Anode and Polysulfide Ions in a Lithiumâ€“Sulfur Battery. ChemSusChem, 2016, 9, 2348-2350.	6.8	37
20	Partial graphitization of activated carbon by surface acidification. Carbon, 2014, 79, 500-517.	10.3	32
21	Enhancement of Electrochemical Hydrogen Insertion in N-Doped Highly Ordered Mesoporous Carbon. Journal of Physical Chemistry C, 2014, 118, 2370-2374.	3.1	30
22	Electrochemical oxidation of solid Li2O2 in non-aqueous electrolyte using peroxide complexing additives for lithiumâ€“air batteries. Electrochemistry Communications, 2013, 28, 17-19.	4.7	27
23	Electrode Architecture Design to Promote Chargeâ€Transport Kinetics in Highâ€Loading and Highâ€Energy Lithiumâ€Based Batteries. Small Methods, 2021, 5, e2100518.	8.6	27
24	Spectroscopic Compositional Analysis of Electrolyte during Initial SEI Layer Formation. Journal of Physical Chemistry C, 2014, 118, 17383-17394.	3.1	25
25	A redox-active organic salt for safer Na-ion batteries. Nano Energy, 2020, 72, 104705.	16.0	25
26	Reexamination of the mechanisms of oxidative transformation of the insect cuticular sclerotizing precursor, 1,2-dehydro-N-acetyldopamine. Insect Biochemistry and Molecular Biology, 2010, 40, 650-659.	2.7	23
27	Hydrogen Ion Supercapacitor: A New Hybrid Configuration of Highly Dispersed MnO₂ in Porous Carbon Coupled with Nitrogen-Doped Highly Ordered Mesoporous Carbon with Enhanced H-Insertion. ACS Applied Materials & Interfaces, 2014, 6, 22687-22694.	8.0	21
28	Kinetic investigation of catalytic disproportionation of superoxide ions in the non-aqueous electrolyte used in Liâ€“air batteries. Journal of Power Sources, 2015, 274, 1005-1008.	7.8	21
29	Lithium ion supercapacitor composed by Si-based anode and hierarchal porous carbon cathode with super long cycle life. Applied Surface Science, 2019, 463, 879-888.	6.1	21
30	Catalytic Disproportionation of the Superoxide Intermediate from Electrochemical O₂ Reduction in Nonaqueous Electrolytes. Chemistry - A European Journal, 2013, 19, 8679-8683.	3.3	20
31	Stability of the Solid Electrolyte Interface on the Li Electrode in Liâ€“S Batteries. ACS Applied Materials & Interfaces, 2016, 8, 10360-10366.	8.0	20
32	Electrochemical Hydrogen Storage in Facile Synthesized Co@N-Doped Carbon Nanoparticle Composites. ACS Applied Materials & Interfaces, 2017, 9, 41332-41338.	8.0	19
33	Preferential Solvation of Lithium Cations and Impacts on Oxygen Reduction in Lithiumâ€“Air Batteries. ACS Applied Materials & Interfaces, 2015, 7, 19923-19929.	8.0	18
34	Application of ac impedance as diagnostic tool â€“ Low temperature electrolyte for a Li-ion battery. Electrochimica Acta, 2019, 322, 134755.	5.2	17
35	Nafion/PTFE Composite Membranes for a High Temperature PEM Fuel Cell Application. Industrial & Engineering Chemistry Research, 2021, 60, 11086-11094.	3.7	17
36	Systematic and rapid screening for the redox shuttle inhibitors in lithium-sulfur batteries. Electrochimica Acta, 2018, 282, 687-693.	5.2	15

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37	Practically Accessible Allâ€Solidâ€State Batteries Enabled by Organosulfide Cathodes and Sulfide Electrolytes. Advanced Functional Materials, 2022, 32, .	14.9	15
38	In situ electrochemical-mass spectroscopic investigation of solid electrolyte interphase formation on the surface of a carbon electrode. Electrochimica Acta, 2013, 112, 735-746.	5.2	14
39	Improve Electrochemical Hydrogen Insertion on the Carbon Materials Loaded with Pt nano-particles through H spillover. Electrochimica Acta, 2015, 174, 400-405.	5.2	13
40	Engineering aspects of the hybrid supercapacitor with H-insertion electrode. Journal of Power Sources, 2013, 230, 66-69.	7.8	12
41	Chromatographic Separation of Polysulfide Species in Non-Aqueous Electrolytes â€“ Revisited. Journal of the Electrochemical Society, 2014, 161, A1164-A1166.	2.9	11
42	A redox-active organic cation for safer metallic lithium-based batteries. Energy Storage Materials, 2020, 32, 185-190.	18.0	10
43	Highâ€Rate Oxygen Reduction in Mixed Nonaqueous Electrolyte Containing Acetonitrile. Chemistry - an Asian Journal, 2011, 6, 3306-3311.	3.3	9
44	Novel post-translational oligomerization of peptidyl dehydrodopa model compound, 1,2-dehydro-N-acetyldopa methyl ester. Bioorganic Chemistry, 2016, 66, 33-40.	4.1	9
45	Fabrication of nitrogen doped carbon encapsulated ZnO particle and its application in a lithium ion conversion supercapacitor. Journal of Materials Research, 2017, 32, 334-342.	2.6	9
46	A redox-active organic cation for safer high energy density Li-ion batteries. Journal of Materials Chemistry A, 2020, 8, 17156-17162.	10.3	9
47	A molecular dynamics study of the binding effectiveness between undoped conjugated polymer binders and tetra-sulfides in lithiumâ€“sulfur batteries. Composites Part B: Engineering, 2021, 206, 108531.	12.0	9
48	Impedance investigation of the high temperature performance of the solid-electrolyte-interface of a wide temperature electrolyte. Journal of Colloid and Interface Science, 2022, 608, 3079-3086.	9.4	9
49	Ammoniaâ€Treated Ordered Mesoporous Carbons with Hierarchical Porosity and Nitrogenâ€Doping for Lithiumâ€Sulfur Batteries. ChemistrySelect, 2017, 2, 7160-7168.	1.5	8
50	Electrochemical Hydrogen Storage in a Highly Ordered Mesoporous Carbon. Frontiers in Energy Research, 2014, 2, .	2.3	7
51	A simple and economical strategy for obtaining calibration plots for relative quantification of positional isomers of YYX/YXY triglycerides using highâ€performance liquid chromatography/tandem mass spectrometry. Rapid Communications in Mass Spectrometry, 2017, 31, 1690-1698.	1.5	7
52	Adaption of kinetics to solid electrolyte interphase layer formation and application to electrolyte-soluble reaction products. Journal of Power Sources, 2015, 299, 451-459.	7.8	5
53	Impact of the complexing cation on the sensitivity of collisionâ€induced dissociation spectra to fatty acid position for a set of YXY/YYXâ€type triglycerides. Rapid Communications in Mass Spectrometry, 2018, 32, 1591-1598.	1.5	5
54	On the mechanism of formation of arterenone in insect cuticular hydrolyzates. Insect Biochemistry and Molecular Biology, 2013, 43, 209-218.	2.7	3

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55	Examining the Chemical Stability of Battery Components with Polysulfide Species by High-Performance Liquid Chromatography and X-ray Photoelectron Spectroscopy. Industrial & Engineering Chemistry Research, 2022, 61, 3055-3062.	3.7	1
56	Investigation of the electrocatalytic oxygen reduction and evolution reactions in lithiumâ€“oxygen batteries. Journal of Power Sources, 2015, 288, 9-12.	7.8	0
57	Reliable HPLC-MS method for the quantitative and qualitative analyses of dissolved polysulfide ions during the operation of Li-S batteries. , 2022, , 159-199.		0