

Dong Zheng

List of Publications by Year in descending order

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57
papers

1,952
citations

257450

24
h-index

254184

43
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57
all docs

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

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

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|----|--|------|-----------|
| 37 | Practically Accessible All-Solid-State Batteries Enabled by Organosulfide Cathodes and Sulfide Electrolytes. <i>Advanced Functional Materials</i> , 2022, 32, . | 14.9 | 15 |
| 38 | In situ electrochemical-mass spectroscopic investigation of solid electrolyte interphase formation on the surface of a carbon electrode. <i>Electrochimica Acta</i> , 2013, 112, 735-746. | 5.2 | 14 |
| 39 | Improve Electrochemical Hydrogen Insertion on the Carbon Materials Loaded with Pt nano-particles through H spillover. <i>Electrochimica Acta</i> , 2015, 174, 400-405. | 5.2 | 13 |
| 40 | Engineering aspects of the hybrid supercapacitor with H-insertion electrode. <i>Journal of Power Sources</i> , 2013, 230, 66-69. | 7.8 | 12 |
| 41 | Chromatographic Separation of Polysulfide Species in Non-Aqueous Electrolytes – Revisited. <i>Journal of the Electrochemical Society</i> , 2014, 161, A1164-A1166. | 2.9 | 11 |
| 42 | A redox-active organic cation for safer metallic lithium-based batteries. <i>Energy Storage Materials</i> , 2020, 32, 185-190. | 18.0 | 10 |
| 43 | High-Rate Oxygen Reduction in Mixed Nonaqueous Electrolyte Containing Acetonitrile. <i>Chemistry - an Asian Journal</i> , 2011, 6, 3306-3311. | 3.3 | 9 |
| 44 | Novel post-translational oligomerization of peptidyl dehydrodopa model compound, 1,2-dehydro-N-acetyldopa methyl ester. <i>Bioorganic Chemistry</i> , 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. <i>Journal of Materials Research</i> , 2017, 32, 334-342. | 2.6 | 9 |
| 46 | A redox-active organic cation for safer high energy density Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 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 lithium-sulfur batteries. <i>Composites Part B: Engineering</i> , 2021, 206, 108531. | 12.0 | 9 |
| 48 | Impedance investigation of the high temperature performance of the solid-electrolyte-interface of a wide temperature electrolyte. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 3079-3086. | 9.4 | 9 |
| 49 | Ammonia-Treated Ordered Mesoporous Carbons with Hierarchical Porosity and Nitrogen-Doping for Lithium-Sulfur Batteries. <i>ChemistrySelect</i> , 2017, 2, 7160-7168. | 1.5 | 8 |
| 50 | Electrochemical Hydrogen Storage in a Highly Ordered Mesoporous Carbon. <i>Frontiers in Energy Research</i> , 2014, 2, . | 2.3 | 7 |
| 51 | A simple and economical strategy for obtaining calibration plots for relative quantification of positional isomers of YX/XY triglycerides using high-performance liquid chromatography/tandem mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2017, 31, 1690-1698. | 1.5 | 7 |
| 52 | Adaption of kinetics to solid electrolyte interphase layer formation and application to electrolyte-soluble reaction products. <i>Journal of Power Sources</i> , 2015, 299, 451-459. | 7.8 | 5 |
| 53 | Impact of the complexing cation on the sensitivity of collision-induced dissociation spectra to fatty acid position for a set of YXY/YYX-type triglycerides. <i>Rapid Communications in Mass Spectrometry</i> , 2018, 32, 1591-1598. | 1.5 | 5 |
| 54 | On the mechanism of formation of arterenone in insect cuticular hydrolyzates. <i>Insect Biochemistry and Molecular Biology</i> , 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. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 3055-3062. | 3.7 | 1 |
| 56 | Investigation of the electrocatalytic oxygen reduction and evolution reactions in lithium-oxygen batteries. <i>Journal of Power Sources</i> , 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 |