Zhirong Zhao-Karger

List of Publications by Year
in descending order

57 papers	3,881 citations	159585 30 h-index	144013 57 g-index
59 all docs	59 docs citations	59 times ranked	2981 citing authors

#	Article	IF	Citations
1	Development of Magnesium Borate Electrolytes: Explaining the Success of Mg[B(hfip)4]2 Salt. Energy Storage Materials, 2022, 45, 1133-1143.	18.0	39
2	Operando UV/vis Spectroscopy Providing Insights into the Sulfur and Polysulfide Dissolution in Magnesiumâ€“Sulfur Batteries. ACS Energy Letters, 2022, 7, 1-9.	17.4	29
3	Dual Role of Mo₆S₈ in Polysulfide Conversion and Shuttle for Mgâ€“S Batteries. Advanced Science, 2022, 9, e2104605.	11.2	33
4	Investigation of the Anodeâ€Electrolyte Interface in a Magnesium Fullâ€Cell with Fluorinated Alkoxyborateâ€Based Electrolyte. Batteries and Supercaps, 2022, 5, .	4.7	8
5	Designing Gel Polymer Electrolyte with Synergetic Properties for Rechargeable Magnesium Batteries. Energy Storage Materials, 2022, 48, 155-163.	18.0	21
6	Calcium-tin alloys as anodes for rechargeable non-aqueous calcium-ion batteries at room temperature. Nature Communications, 2022, 13, .	12.8	32
7	Performance Study of MXene/Carbon Nanotube Composites for Current Collectorâ€•and Binderâ€Free Mgâ€“S Batteries. ChemSusChem, 2021, 14, 1864-1873.	6.8	20
8	The metamorphosis of rechargeable magnesium batteries. Joule, 2021, 5, 581-617.	24.0	129
9	A Selfâ€Conditioned Metalloporphyrin as a Highly Stable Cathode for Fast Rechargeable Magnesium Batteries. ChemSusChem, 2021, 14, 1840-1846.	6.8	17
10	Environmental assessment of a new generation battery: The magnesium-sulfur system. Journal of Energy Storage, 2021, 35, 102053.	8.1	7
11	Polyoxometalate Modified Separator for Performance Enhancement of Magnesiumâ€“Sulfur Batteries. Advanced Functional Materials, 2021, 31, 2100868.	14.9	31
12	Degradation Effects in Metalâ€“Sulfur Batteries. ACS Applied Energy Materials, 2021, 4, 2365-2376.	5.1	12
13	Establishing a Stable Anodeâ€“Electrolyte Interface in Mg Batteries by Electrolyte Additive. ACS Applied Materials & Interfaces, 2021, 13, 33123-33132.	8.0	34
14	Surface Engineering of a Mg Electrode via a New Additive to Reduce Overpotential. ACS Applied Materials & Interfaces, 2021, 13, 37044-37051.	8.0	25
15	Modeling of Electronâ€Transfer Kinetics in Magnesium Electrolytes: Influence of the Solvent on the Battery Performance. ChemSusChem, 2021, 14, 4820-4835.	6.8	15
16	Combining Quinoneâ€Based Cathode with an Efficient Borate Electrolyte for Highâ€Performance Magnesium Batteries. Batteries and Supercaps, 2021, 4, 1850-1857.	4.7	26
17	Mitigating self-discharge and improving the performance of Mgâ€“S battery in Mg[B(hfip)₄]₂ electrolyte with a protective interlayer. Journal of Materials Chemistry A, 2021, 9, 25150-25159.	10.3	11
18	Halogenidâ€basierte Materialien und Chemie fÃ¼r wiederaufladbare Batterien. Angewandte Chemie, 2020, 132, 5954-6004.	2.0	14

#	Article	IF	Citations
19	Halideâ€Based Materials and Chemistry for Rechargeable Batteries. Angewandte Chemie - International Edition, 2020, 59, 5902-5949.	13.8	142
20	Calciumâ€"Sulfur Batteries: Rechargeable Calciumâ€"Sulfur Batteries Enabled by an Efficient Borateâ€Based Electrolyte (Small 39/2020). Small, 2020, 16, 2070216.	10.0	5
21	Investigation on the formation of Mg metal anode/electrolyte interfaces in Mg/S batteries with electrolyte additives. Journal of Materials Chemistry A, 2020, 8, 22998-23010.	10.3	46
22	Insights into Self-Discharge of Lithiumâ€" and Magnesiumâ€"Sulfur Batteries. ACS Applied Energy Materials, 2020, 3, 8457-8474.	5.1	26
23	Rechargeable Calciumâ€"Sulfur Batteries Enabled by an Efficient Borateâ€Based Electrolyte. Small, 2020, 16, e2001806.	10.0	24
24	Modeling of Ion Agglomeration in Magnesium Electrolytes and its Impacts on Battery Performance. ChemSusChem, 2020, 13, 3599-3604.	6.8	15
25	Copper Porphyrin as a Stable Cathode for Highâ€Performance Rechargeable Potassium Organic Batteries. ChemSusChem, 2020, 13, 2286-2294.	6.8	54
26	Multiâ€Electron Reactions Enabled by Anionâ€Based Redox Chemistry for Highâ€Energy Multivalent Rechargeable Batteries. Angewandte Chemie - International Edition, 2020, 59, 11483-11490.	13.8	91
27	Multiâ€Electron Reactions Enabled by Anionâ€Based Redox Chemistry for Highâ€Energy Multivalent Rechargeable Batteries. Angewandte Chemie, 2020, 132, 11580-11587.	2.0	15
28	Investigation of Magnesiumâ€"Sulfur Batteries using Electrochemical Impedance Spectroscopy. Electrochimica Acta, 2020, 338, 135787.	5.2	48
29	Understanding Structure Changes during Cycling of MoS2-based Mg Batteries. Microscopy and Microanalysis, 2019, 25, 2042-2043.	0.4	0
30	Towards stable and efficient electrolytes for room-temperature rechargeable calcium batteries. Energy and Environmental Science, 2019, 12, 3496-3501.	30.8	184
31	A Lithiumâ€Free Energyâ€Storage Device Based on an Alkyneâ€Substitutedâ€Porphyrin Complex. ChemSusChem, 2019, 12, 3737-3741.	6.8	24
32	A quasielastic and inelastic neutron scattering study of the alkaline and alkaline-earth borohydrides LiBH₄ and Mg(BH₄)₂ and the mixture LiBH₄ + Mg(BH₄)₂. Physical Chemistry Chemical Physics, 2019, 21, 718-728.	2.8	15
33	MgSc₂Se₄â€"A Magnesium Solid Ionic Conductor for Allâ€Solidâ€State Mg Batteries?. ChemSusChem, 2019, 12, 2286-2293.	6.8	49
34	New Organic Electrode Materials for Ultrafast Electrochemical Energy Storage. Advanced Materials, 2019, 31, e1806599.	21.0	64
35	Insights into the electrochemical processes of rechargeable magnesiumâ€"sulfur batteries with a new cathode design. Journal of Materials Chemistry A, 2019, 7, 25490-25502.	10.3	53
36	Fast kinetics of multivalent intercalation chemistry enabled by solvated magnesium-ions into self-established metallic layered materials. Nature Communications, 2018, 9, 5115.	12.8	114

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37	Toward Highly Reversible Magnesiumâ€“Sulfur Batteries with Efficient and Practical Mg[B(hfip)₄]₂ Electrolyte. ACS Energy Letters, 2018, 3, 2005-2013.	17.4	234
38	Beyond Intercalation Chemistry for Rechargeable Mg Batteries: A Short Review and Perspective. Frontiers in Chemistry, 2018, 6, 656.	3.6	83
39	Interlayerâ€Expanded Vanadium Oxychloride as an Electrode Material for Magnesiumâ€Based Batteries. ChemElectroChem, 2017, 4, 738-745.	3.4	22
40	A Porphyrin Complex as a Selfâ€Conditioned Electrode Material for Highâ€Performance Energy Storage. Angewandte Chemie, 2017, 129, 10477-10482.	2.0	31
41	A Porphyrin Complex as a Selfâ€Conditioned Electrode Material for Highâ€Performance Energy Storage. Angewandte Chemie - International Edition, 2017, 56, 10341-10346.	13.8	94
42	A new class of non-corrosive, highly efficient electrolytes for rechargeable magnesium batteries. Journal of Materials Chemistry A, 2017, 5, 10815-10820.	10.3	319
43	Lithium-Magnesium Hybrid Battery with Vanadium Oxychloride as Electrode Material. ChemistrySelect, 2017, 2, 7558-7564.	1.5	6
44	VOCl as a Cathode for Rechargeable Chloride Ion Batteries. Angewandte Chemie, 2016, 128, 4357-4362.	2.0	26
45	Selenium and selenium-sulfur cathode materials for high-energy rechargeable magnesium batteries. Journal of Power Sources, 2016, 323, 213-219.	7.8	75
46	VOCl as a Cathode for Rechargeable Chloride Ion Batteries. Angewandte Chemie - International Edition, 2016, 55, 4285-4290.	13.8	81
47	Performance study of magnesiumâ€“sulfur battery using a graphene based sulfur composite cathode electrode and a non-nucleophilic Mg electrolyte. Nanoscale, 2016, 8, 3296-3306.	5.6	247
48	Performance Improvement of Magnesium Sulfur Batteries with Modified Nonâ€Nucleophilic Electrolytes. Advanced Energy Materials, 2015, 5, 1401155.	19.5	308
49	Vanadium Oxychloride/Magnesium Electrode Systems for Chloride Ion Batteries. ACS Applied Materials & Interfaces, 2014, 6, 22430-22435.	8.0	64
50	Novel transmetalation reaction for electrolyte synthesis for rechargeable magnesium batteries. RSC Advances, 2014, 4, 26924-26927.	3.6	55
51	Magnesium Anode for Chloride Ion Batteries. ACS Applied Materials & Interfaces, 2014, 6, 10997-11000.	8.0	69
52	Bisamide based non-nucleophilic electrolytes for rechargeable magnesium batteries. RSC Advances, 2013, 3, 16330.	3.6	164
53	Metal Oxychlorides as Cathode Materials for Chloride Ion Batteries. Angewandte Chemie - International Edition, 2013, 52, 13621-13624.	13.8	145
54	Influence of Nanoconfinement on Reaction Pathways of Complex Metal Hydrides. Energy Procedia, 2012, 29, 731-737.	1.8	11

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55	LiBH₄âˆ’Mg(BH₄)₂: A Physical Mixture of Metal Borohydrides as Hydrogen Storage Material. Journal of Physical Chemistry C, 2011, 115, 6095-6101.	3.1	82
56	Altered thermodynamic and kinetic properties of MgH2 infiltrated in microporous scaffold. Chemical Communications, 2010, 46, 8353.	4.1	183
57	The kinetic properties of Mg(BH₄)₂infiltrated in activated carbon. Nanotechnology, 2009, 20, 204029.	2.6	90